GPFL

HIGH CONSERVATION VALUE MANAGEMENT PLAN SUMMARY

Date reviewed/approved	Version	Main changes
December 2024	1.0	Document development and issue
March 2025	1.1	Update to property values

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1 Introduction

GPFL operates its plantation estate within the South West of Victoria, Australia. Plantations are established on previously cleared agricultural land and stands of native vegetation are protected from operations.

This document addresses the values of the estate and describes how GPFL has assessed its estate for High Conservation Values (HCV's), along with findings and mitigation strategies.

2 Definitions and Acronyms

Item	Definition
Areas that contain significant concentrations of rare and threatened species*	May include specific areas where there are a significant number of multiple species, or where there is a proportionately large population of an individual species. Concentrations of species are often linked to one stage of a species' life history and associated with activities such as breeding, staging, feeding or over-wintering.
Areas with significant seasonal concentrations of species	Areas important to the lifecycle or migration paths of migratory and communal breeding species.
Basic human needs	Local people use the area to obtain resources on which they are critically dependent. Potential fundamental basic needs include, but are not limited to: unique sources of water for drinking and other daily uses; food, medicine, fuel, building and craft resources; the production of food crops and subsistence cash crops; protection* of "agricultural" plots against adverse microclimate, and traditional farming practices.
Critical situations*	An ecosystem service* is considered to be 'critical'* where a disruption of that service is likely to cause, or poses a threat of, severe negative impacts on the welfare, health or survival of local communities, on the environment, on High Conservation Values*, or on the functioning of significant infrastructure* (roads, dams, buildings, etc.). The notion of criticality here refers to the importance and risk for natural resources and environmental and socioeconomic values.
Cultural significance	means aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects. Places may have a range of values for different individuals or groups.
Fundamental	Loss of the resources from this area would have a significant impact in the supply of the resource and decrease local community well-being.
Intact Forest Landscape	A territory within today's global extent of forest cover which contains forest and non-forest ecosystems* minimally influenced by human economic activity, with an area of at least 500 km (50,000 ha) and a minimal width of 10 km (measured as the diameter of a circle that is entirely inscribed within the boundaries of the territory) (Source: Intact Forests / Global Forest Watch. Glossary definition as provided on Intact Forest website. 2006-2014).
Intact Forest Landscape Core Areas	The portion of an Intact Forest landscape* that contains the most important ecological and cultural values.
Mature Forest	Mature Forests are forests that contain overstorey trees typically greater than 100 years old and beginning to develop structural features typically found in older forests, including large spreading crowns, tree hollows and stages of senescence.
Mature forest in degraded landscapes	A forest area containing mature forest where mature forest is rare in the surrounding landscape and/or is reduced in extent such that it is inadequate in maintaining landscape or ecological functions. Thresholds for determining rareness and degradation shall be based on assessments by government agencies, peer reviewed literature, or assessments by recognised experts, and be considered at the landscape* level.
Old-growth forest	Ecologically mature forest where the effects of disturbances are now negligible.
Precautionary approach	An approach requiring that when the available information indicates that management activities pose a threat of severe or irreversible damage to the environment or a threat to human welfare, The Organisation will take explicit and effective measures to prevent the damage and avoid the risks to welfare, even when the scientific information is incomplete or inconclusive, and when the vulnerability and sensitivity of environmental values are uncertain. (Source: Based on Principle 15 of Rio Declaration on Environment and Development, 1992, and Wingspread Statement on the Precautionary Principle of the Wingspread Conference, 23–25 January 1998)
Refugia	an area identified in formally recognised reports or peer-reviewed journals as performing a significant function in maintaining species during, for example, periods of climate variability and extremes; human-induced causes such as disease; or population fluctuations from natural or human-induced causes.
Regionally Significant	The forest is significant in the region due to its size, condition, and/or importance to biodiversity conservation. Factors to consider include: □ Rarity of forests of this size and quality within the region □ Less affected by anthropogenic factors than similar areas in the region.
Significant concentrations	Concentrations of species that are considered significant at a global, regional or national scale.

3 HCV Assessment Process

3.1 Scope of Assessment

The scope of this HCV Assessment is for potential HCV's present on freehold properties owned and managed by GPFL for *Eucalyptus globulus* plantations in south-west Victoria. These properties have been under management for at least two rotations. Some of these properties have remnant vegetation and associated values which are the subject of this assessment.

3.2 Assessment History

A HCV Assessment was originally conducted in 2011. FSC Certification was obtained in 2012 and terminated in 2014. Given the estate has changed somewhat in that time, the standards have changed and it has been more than 10 years, another complete HCV Assessment was commenced in 2024.

3.3 Standards Used to Support Assessment Process

The Australian High Conservation Value (HCV) Evaluation Framework V2-0, August 2021 and the FSC National Forest Stewardship Standard of Australia FSC-STD-AUS-01-2018, Annex G were used to inform the assessment process for this HCV Management Plan. Also consulted was the FSC National Risk Assessment for Australia FSC-NRA-AU V2-0, specifically Appendix A for its HCV Sources of Information and Appendix B for Intact Forest Landscape Areas. Also used to guide the assessment were:

- High Conservation Value Guidance for Forest Managers (FSC-GUI-30-009 V1-0 EN)

3.4 Objectives of Assessment

The objectives of this assessment were:

- To identify High Conservation Values (HCV) that occur within or are adjacent to the GPFL Estate in accordance with the FSC® National Forest Stewardship Standard of Australia.
- To include areas of HCV into the GPFL GIS.
- To establish management and monitoring strategies for identified HCV.

3.5 Legislative Requirements

The GPFL Estate occurs solely in Victoria. Legislative requirements exist at the Commonwealth level and the State level. The primary Commonwealth Legislation that applies to HCV's are:

- Aboriginal and Torres Straight Islander Heritage Protection Act 1984
- Australian Heritage Council Act 1994
- Environment Protection and Biodiversity Conservation Act 1999

The primary State Legislation that applies to HCV's are:

- Aboriginal Heritage Act 2006
- Environment Protection Act 2017
- Heritage Act 2017
- Planning and Environment Act 1987
- Wildlife Act 1975
- Catchment and Land Protection Act 1994
- Flora and Fauna Guarantee Act 1988
- Heritage Rivers Act 1992
- Water Act 1989
- Code of Practice for Timber Production 2014

The legislative requirements are taken into account when assessing the presence of and protection HCV's.

3.6 Stakeholders

Stakeholder consultation is a critical part of the identification and management of HCV's. GPFL acknowledges the importance of and involvement of stakeholders. Such stakeholders can include local community groups and representatives, neighbours, industry groups, contractors, customers, Aboriginal groups, all levels of government, environmental non-government organisations (ENGOs) and forest users.

3.7 Publicly Available Information

The ***HCV Management Plan Summary*** is publicly available on the GPFL Website.

3.8 Methodology

3.8.1 Planning Approach

The planning approach used for the assessment of HCV's was:

1. Consult the 'best information available' as recommended by Annex G to identify relevant datasets that provide information on the likely presence of rare, threatened and endangered species and their habitats (e.g. nesting and feeding areas) and prepare lists and maps of potential HCV accordingly. Cross check this with the Directory of Information Sources (referred to in the evaluation framework).

2. Consult experts and other knowledgeable stakeholders to identify HCV's (e.g. sites with higher potential for presence of rare, threatened and endangered species).
3. Undertake field assessments at each property to identify known and previously unidentified potential habitat, communities, breeding places or foraging/feeding places for rare, threatened and endangered species.
4. Areas containing or likely to contain such species are identified and marked on maps.
5. Identify management required to maintain and/or enhance identified HCV's, including exclusion areas and/or management prescriptions. Recommendations to enhance and manage habitats with the potential to support significant species to be included in the HCV Management Plan for each property.
6. Develop a program for periodic monitoring and adaptive management as required and record details in the ***Monitoring Register***.
7. Consult stakeholders on assessment, management and monitoring.
8. Finalise assessment and implement management and monitoring plan.

3.8.2 Bioregional Assessment Scale

The scale for assessment and identification of values is dependent on the value being assessed. Generally, this will be at the Interim Biogeographic Regionalisation for Australia (IBRA) scale, while recognising that some landscape values will cross IBRA regions. Where appropriate, including on the basis of scale, intensity and risk, finer resolution of analysis may be required and has been used in this assessment, for example HCV 4 and HCV 6.

3.8.3 Best Available Information (BAI)

State-based BAI sources were utilised to assess the potential for HCV's. A combination of BAI sources identified in FSC-NRA-AU V2-0 and information sources known and available to the HCV Assessor were used to undertake the initial assessment of BAI. A summary of the BAI sources is provided below.

BAI Source	HCV 1	HCV 2	HCV 3	HCV 4	HCV 5	HCV 6
Recovery plans and related documents	✓					
Mapping	✓					✓
Databases	✓					✓
Peer reviewed journal articles	✓					
Reports by government bodies and credible institutions, organisations and experts	✓					✓
Expert research and advice	✓					
Expert and knowledgeable stakeholder data	✓					✓
Field surveys	✓					✓
Mapping and other data on forest cover, age, succession, structure, species composition, habitat connectivity, anthropogenic disturbance, roadless areas, wilderness, intact forests, and other relevant information on forest condition		✓				
Peer reviewed journals, government or expert reports and data identifying significant landscape-level forests, for example World Heritage Reports, values threat analysis; scientific reports of landscape scale impacts, comparative study of historical and current aerial photographs		✓				
For Intact Forest Landscapes, mapping and data from Global Forest Watch and World Resource Institute		✓				
Mapping and other data on ecosystem protection and conservation status at IBRA scales; old-growth forest; forest cover and disturbance; forest maturity; and anthropogenic disturbance at the landscape scale			✓			
Mapping and other data on flood risk; soil erodibility and erosion risk; fire risk and behaviour in the landscape; and water catchment location and water quality				✓		
Mapping, reports, expert and stakeholder consultation and other data on unique and primary sources of water for daily uses and the location of areas that provide traditional food and medicines					✓	
Consultation with identified Traditional Owners and other relevant Indigenous interests						✓
Appendix A of the Australian National Risk Assessment	✓					

3.8.4 Minimum area threshold for HCV Areas

For some HCV values, a minimum area threshold for identifying what constitutes an HCV Area is required. This applies particularly to HCV values relating to specific vegetation types or habitat requirements. In the identification of HCV Areas, the minimum size threshold is the smallest area in which the viability and integrity of that particular value can be maintained, based on the best available scientific information, including recognised government and expert definitions and research. This has been identified at a polygon level within the spatial datasets.

3.8.5 Adjacency

All HCV assessments included an assessment of the immediate vicinity of each property for likely HCV's immediately adjacent that could potentially be impacted by GPFL management activities. The adjacency distance assessed varied depending on the value, mobility and potential for it to also occur on the GPFL estate. Below is a summary of how the adjacency was considered.

Value	Adjacency Potential	Adjacency Assessment Buffer
Threatened Flora	Low mobility but low accuracy (at times)	50m
Threatened Vegetation Community	Low mobility but low accuracy (at times)	50m
Oldgrowth values	Low mobility, high habitat potential	50m
Public Land/Reserves	Low mobility	20m
Threatened Fauna	High mobility	1000m
Water	High mobility via water flow	50m
Aboriginal heritage	Low mobility but unknown extent	100m
Historic heritage	Low mobility but low accuracy (at times)	100m
Social values (i.e. recreation)	Low mobility but high risk of people	100m

3.8.6 Scale, Intensity and Risk

FSC recognises that the scale and intensity of forest harvesting influence the level of risk posed by that forest harvesting. This HCV Framework designates supply areas as fitting into one of two classes for scale, intensity and risk: Low SIR and Standard SIR.

For Standard SIR supply areas, each HCV Designation identified in the Framework applies. For Low SIR, only specific Designations are required to be assessed. The 'assessment pathways' for assessing each Designation are also simplified for Low SIR.

To qualify as low SIR, the Management Unit is smaller than 1000ha, or the Management Unit annual harvest is less than 5000 m/per annum.

GPFL do NOT qualify for Low SIR, so the Assessment and Management Plan has been prepared to meet Standard SIR.

3.9 Desktop Assessment

Each property within the Management Unit had a desktop assessment undertaken. This assessment is undertaken to record all values within and immediately adjacent to the property, whether HCV or not. This will enable an assessment of the values to see if values in combination or in their own right could constitute a HCV.

The desktop assessment involved database searches of State and Commonwealth information sources. Imagery (current and historical) was also analysed via google earth. Due to the small size of the estate, a conservative approach was taken when analysing each property, flagging any environmental or cultural values, regardless of whether or not they are eventually determined to be HCV or not. Then an assessment of the information was used to determine whether there is a likelihood of HCV's being present, which were then verified with field assessments.

3.10 Precautionary Approach

A fundamental principle of conservation management is the Precautionary Approach. This was used throughout the course of assessment, and the lack of obvious signs of certain values was taken to mean they are not present. Remnant areas of native forest that were in good condition (i.e. largely absent of weeds, healthy and largely absent of human interference) were in most cases classed as having potential for High Conservation Values.

The precautionary approach can be described as a strategy to manage a range of potential risks conservatively where underlying scientific understanding and knowledge is limited. The principle acknowledges that there is a social, economic and environmental responsibility to avoid or diminish harm.

GPFL will take the Precautionary Approach where required to ensure severe or irreversible damage is not incurred.

3.11 Sources of Information

Because the “mapping” and “database” components of the BAI sources comprise such an important part of the assessment process, the data sources for the mapping and database components and how they will relate to HCV categories have been provided below.

BAI Source	HCV 1	HCV 2	HCV 3	HCV 4	HCV 5	HCV 6
NatureKit	✓	✓	✓			
Mapshare Victoria				✓	✓	✓
GeoVic				✓		
Victorian Soil Type Mapping				✓		
ACHRIS						✓
Victorian Heritage Register						✓
Protected Matters Search	✓	✓	✓			
National Estate Values of South West Victoria	✓	✓	✓			
Atlas of Living Australia	✓		✓			
Species Profile and Threats Database	✓		✓			
Threat Abatement Plans	✓		✓			
IUCN Red List of Threatened Species	✓		✓			
Birdlife International Data Zone	✓					
Intact Forest Landscapes Map		✓				
Australian Soil Resource Information System Website				✓		
Declared Special Water Supply Catchment Areas				✓		
Designated Water Supply Catchments				✓		
Threatened Species Action Statements	✓		✓			
Google Earth	✓	✓	✓			
On-site field surveys/inspections	✓	✓	✓	✓	✓	✓

3.12 Data Gaps

There are a number of significant data gaps that exist regarding the values of south east Victorian freehold lands. These include:

- No national estate values assessments conducted on freehold properties as part of the Regional Forest Agreement process.
- Lack of systematic or long-term flora or fauna surveys across the region.
- Few detailed floristic surveys have been conducted across the region.
- No quantitative data on the impacts of threatening processes.
- There are little long-term studies on the effect of plantations on the landscape over successive rotations.
- Little to no mapping of Aboriginal sites/values across freehold land.
- Lack of detailed Phytophthora mapping.
- Ecological Vegetation Class mapping undertaken by the Government has had no ground truthing on freehold lands and has a large number of inaccuracies as a result.

4 Threat Assessment

GPFL has undertaken a threat assessment to HCV’s. An assessment was carried out to identify specific threats to the maintenance and/or enhancement of HCV’s, including an assessment of the likelihood of occurrence and the severity of consequences. Threats considered those from management activities and other causes. As a consequence, GPFL identified numerous potential and/or actual threats. The table below identifies the impacts and potential controls for threats.

Threat	Impact	Control
Pest plants and animals	Damage to native and/or threatened flora and/or threatened or non-threatened vegetation communities; Damage to and/or removal of native and/or threatened species habitat; Alteration to the structural integrity of vegetation communities; Damage or death to native and/or threatened fauna; Damage to soil and water values; Damage and/or destruction of biodiversity in aquatic ecosystems	Property monitoring, wash down protocols, eradication and control programs
Plant diseases/ pathogens	Damage or death to native and/or threatened flora and/or threatened or non-threatened vegetation communities; Damage to and/or removal of native and/or threatened species habitat; Alteration to the structural integrity of vegetation communities	Property monitoring, wash down protocols

Threat	Impact	Control
Unplanned fire	Damage or death to native and/or threatened flora and/or threatened or non-threatened vegetation communities; Damage to and/or removal of native and/or threatened species habitat; Alteration to the structural integrity/elements of vegetation communities; Damage or death to native and/or threatened fauna; Damage to soil and water values; Damage and/or destruction of biodiversity in aquatic ecosystems; Impacts to Aboriginal and non-Aboriginal heritage values	Fire preparedness and prevention works, quick fire response and suppression
Population/habitat fragmentation; Habitat loss and degradation	Damage or death to native and/or threatened flora and/or threatened or non-threatened vegetation communities; Alteration/removal of structural integrity/elements of vegetation communities; Damage to and/or removal of native and/or threatened species habitat; Damage or death to native and/or threatened fauna; Damage to soil and water values; Damage and/or destruction of biodiversity in aquatic ecosystems; Impacts to Aboriginal and non-Aboriginal heritage values	Property monitoring, working with regulators to prosecute offenders, operations managed and monitored to ensure protection of breeding habitat And that further fragmentation does not occur within the scope and control of GPFL management control
Illegal removal of forest products	Damage or death to native and/or threatened flora and/or threatened or non-threatened vegetation communities; Damage to and/or removal of native and/or threatened species habitat; Alteration to the structural integrity/elements of vegetation communities; Damage or death to native and/or threatened fauna; Damage to soil and water values; Damage and/or destruction of biodiversity in aquatic ecosystems; Impacts to Aboriginal and non-Aboriginal heritage values	Property monitoring, working with regulators to prosecute offenders
Damage to values by illegal vehicles	Damage or death to native and/or threatened flora and/or threatened or non-threatened vegetation communities; Damage to and/or removal of native and/or threatened species habitat; Damage to soil and water values; Damage and/or destruction of biodiversity in aquatic ecosystems, Impacts to Aboriginal and non-Aboriginal heritage values	Property monitoring, working with regulators to prosecute offenders
Flood, storms, drought	Damage or death to native and/or threatened flora and/or threatened or non-threatened vegetation communities; Damage to and/or removal of native and/or threatened species habitat; Alteration to the structural integrity/elements of vegetation communities; Damage or death to native and/or threatened fauna; Damage to soil and water values; Damage and/or destruction of biodiversity in aquatic ecosystems; Impacts to Aboriginal and non-Aboriginal heritage values	Adequately constructed crossings, adequately managed road network with appropriate drainage
Forest operations (roading, harvesting, spraying, etc)	Damage or death to native and/or threatened flora and/or threatened or non-threatened vegetation communities; Damage to and/or removal of native and/or threatened species habitat; Alteration to the structural integrity/elements of vegetation communities; Damage or death to native and/or threatened fauna; Damage to soil and water values; Damage and/or destruction of biodiversity in aquatic ecosystems; Impacts to Aboriginal and non-Aboriginal heritage values	GPFL operations managed and monitored to ensure that none of GPFL's operations negatively impact on biodiversity, HCV's and native vegetation.
Soil compaction, erosion, landslides/ mass movement events; Water pollution/ contamination; Water course sedimentation and turbidity; Altered hydrology function	Damage or death to native and/or threatened flora and/or threatened or non-threatened vegetation communities; Damage to and/or removal of native and/or threatened species habitat; Alteration to the structural integrity/elements of vegetation communities; Damage or death to native and/or threatened fauna; Damage to soil and water values; Damage and/or destruction of biodiversity in aquatic ecosystems; Impacts to Aboriginal and non-Aboriginal heritage values	GPFL will construct and maintain infrastructure (including hydrological feature crossings) in a manner that minimises adverse biodiversity and environmental impacts. Specifically it will consider biodiversity/HCV values, migration patterns of key species and aquatic and riparian zone habitats.
Soil and water values degradation and contamination	Damage or death to native and/or threatened flora and/or threatened or non-threatened vegetation communities; Damage to and/or removal of native and/or threatened species habitat; Alteration to the structural integrity/elements of vegetation communities; Damage or death to native and/or threatened fauna; Damage to soil and water values; Damage and/or destruction of biodiversity in aquatic ecosystems	Implementation of legislative controls on operations and property monitoring.
Water quantity impacts	Damage or death to native and/or threatened flora and/or threatened or non-threatened vegetation communities; Damage to and/or removal of native and/or threatened species habitat; Damage or death to native and/or threatened fauna; Damage to soil and water values; Damage and/or destruction of biodiversity in aquatic ecosystems	Property monitoring, working with regulators to prosecute offenders

Threat	Impact	Control
Damage to geomorphological features	Damage to and/or removal of native and/or threatened species habitat; Damage or death to native and/or threatened fauna; Damage to soil and water values; Impacts to Aboriginal and non-Aboriginal heritage values; Damage and/or destruction of biodiversity in aquatic ecosystems	Property monitoring, working with regulators to prosecute offenders
Illegal removal/ destruction of wildlife	Damage to and/or removal of native and/or threatened species habitat; Damage or death to native and/or threatened fauna	Property monitoring, working with regulators to prosecute offenders
Rubbish dumping	Damage or death to native and/or threatened flora and/or threatened or non-threatened vegetation communities; Damage to and/or removal of native and/or threatened species habitat; Alteration to the structural integrity/elements of vegetation communities; Damage or death to native and/or threatened fauna; Damage to soil and water values; Damage and/or destruction of biodiversity in aquatic ecosystems	Property monitoring, working with regulators to prosecute offenders
Trespassing	Damage or death to native and/or threatened flora and/or threatened or non-threatened vegetation communities; Damage to and/or removal of native and/or threatened species habitat; Alteration to the structural integrity/elements of vegetation communities; Damage or death to native and/or threatened fauna; Damage to soil and water values; Damage and/or destruction of biodiversity in aquatic ecosystems; Impacts to Aboriginal and non-Aboriginal heritage values	Property monitoring, working with regulators to prosecute offenders
Destruction/ degradation of cultural heritage values	Impacts to Aboriginal and non-Aboriginal heritage values	Property monitoring. Report instances where this is having a serious detrimental effect to regulatory authorities, working with regulators to prosecute offenders

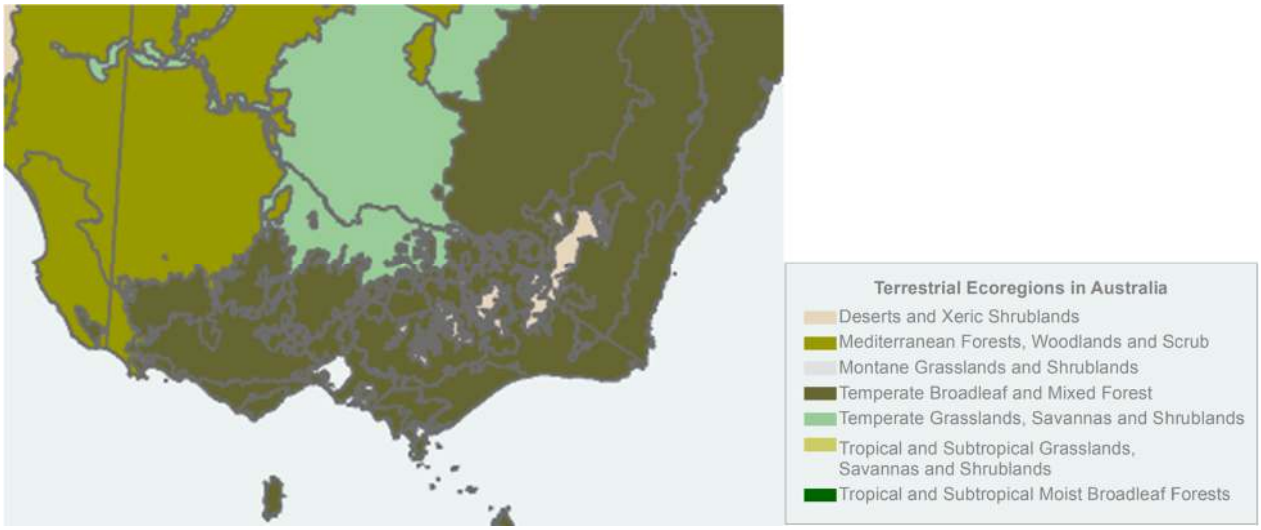
5 Location Context

5.1 Ecoregion

Ecoregions in Australia are geographically distinct plant and animal communities, defined by the World Wide Fund for Nature based on geology, soils, climate, and predominant vegetation. The GPFL Estate occurs within two Ecoregions:

- Mediterranean Forests, Woodlands and Scrub (Naracoorte Woodlands); and
- Temperate Broadleaf and Mixed Forest (Southeast Australia Temperate Forests).

The Australian Government recognises these Ecoregions under the Collaborative Australian Protected Areas Database National Reserve System (https://www.dcceew.gov.au/sites/default/files/env/pages/1716eb1c-939c-49a0-9c0e-8f412f04e410/files/ecoregions_1.pdf) and it is represented as a map. Below is a snip of the State of Victoria, which is where the GPFL estate is located. Shown are the areas where the two Ecoregions identified above occur.



5.2 Bioregions

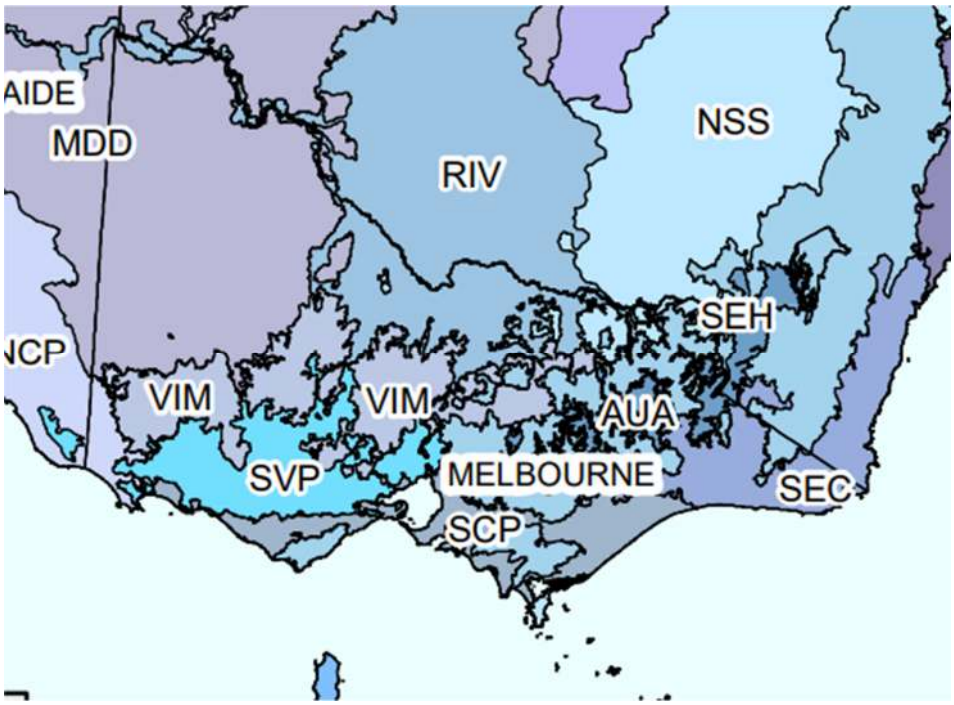
5.2.1 National Level

The national and regional planning framework for the systematic development of a comprehensive, adequate and representative 'CAR' National Reserve System is provided by the Interim Biogeographic Regionalisation for Australia

(IBRA). The latest version, IBRA7, classifies Australia's landscapes into 89 large geographically distinct bioregions based on common climate, geology, landform, native vegetation and species information. The 89 bioregions are further refined to form 419 subregions which are more localised and homogenous geomorphological units in each bioregion. GPFL's estate fall into three National Level IBRA 7 Bioregions:

- Naracoorte Coastal Plain
- Victorian Midlands; and
- Southern Volcanic Plains

See map below.



NCP = Naracoorte Coastal Plain

VIM = Victorian Midlands

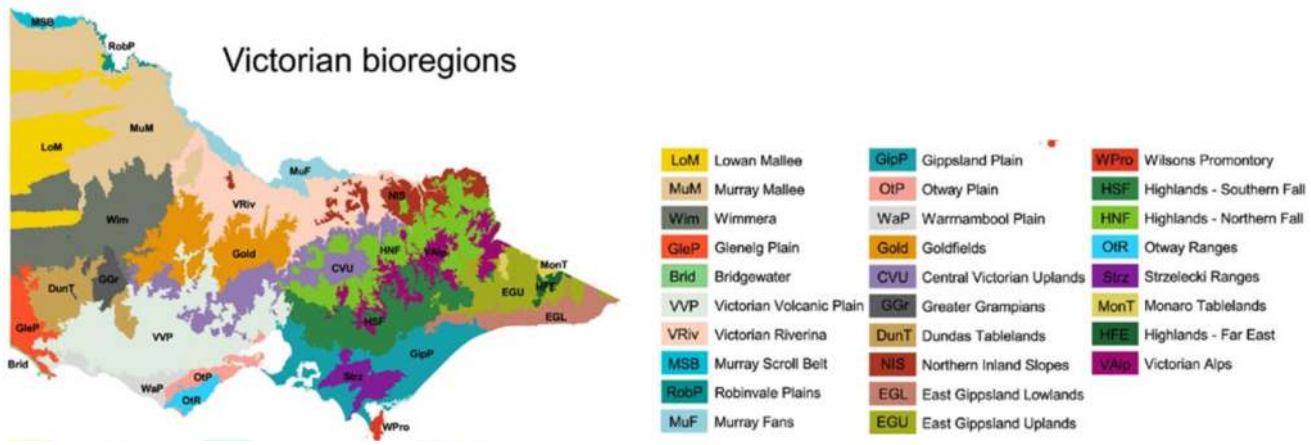
SVP = Southern Volcanic Plains

5.2.2 State Level

Bioregions are a landscape-scale approach to classifying the environment using a range of attributes such as climate, geomorphology, geology, soils and vegetation. There are 28 sub-bioregions identified within Victoria. GPFL's estate falls into the following sub-regions:

- Dundas Tablelands (DunT);
- Glenelg Plain (GleP); and
- Victorian Volcanic Plain (VVP).

See map below.



6 Value Context

6.1 Vegetation Communities (potential HCV 1 and HCV 3)

Vegetation communities at a local level play an important part in assessing the importance of biodiversity values. The identification of vegetation communities is important for a couple of reasons:

- There are some **threatened vegetation communities** that occur on the GPFL estate, which will be HCV's; and
- Vegetation communities can also help determine whether an area has potential **threatened species habitat** present.

Vegetation communities can be forest and non-forest communities (i.e. just because there are no trees doesn't mean that it is not a vegetation community or even an important one at that).

Exotic vegetation communities (vegetation primarily made up of exotic weeds) should also be identified, this information can be fed into spatial databases, and areas of large old exotic trees may have non-Aboriginal historic value.

6.2 Oldgrowth (HCV 3)

Oldgrowth can be represented by oldgrowth vegetation communities (which may or may not also be threatened vegetation communities) or oldgrowth values (individual oldgrowth trees). Where oldgrowth vegetation communities exist, these will be identified as a HCV. Where oldgrowth values exist, the will be considered in the context of other elements including threatened species habitat to determine whether they are a HCV.

6.3 Threatened Species (HCV 1 and HCV 3)

Threatened species are a species of plant (flora) or animal (fauna) listed in State or Commonwealth legislation as critically endangered, endangered, vulnerable or presumed extinct. GPFL are required by law not to harm any threatened species.

Threatened species will primarily be managed using a proximity based (known records)/potential habitat present approach. GPFL will also identify some sites at a more strategic level for threatened species surveys.

The proximity based/potential habitat present approach involves undertaking a spatial check of the area of and around a proposed operational area and identifying any known threatened species records. This check is done up to 1 km around the proposed operation area, particularly where highly mobile fauna are concerned.

If records are identified within 1km of the proposed operation area, then these species should be recorded in operational plans as having the "potential" to occur within the operational area. Next, the information sheets on the threatened species present should be checked to identify what the potential habitat requirements are for the recorded species. This potential habitat information should then be compared to the information collected on site with regard to vegetation communities/types and habitat values present. If potential habitat is present, the "potential habitat" should be inspected in the field with the information sheet on the threatened species. If the threatened species are found on the site, then operational restrictions will need to be considered depending on the time of year and potential threats. If the species is not found on site post inspection, then operations should proceed, but caution should be taken and contractors should be made aware of potential habitat and proximity of records for that species.

6.4 Habitat (potential HCV 3)

GPFL recognises that habitat can be an important contributor to HCV's. It is important that habitat values are identified as this provides a more complete picture of the likelihood of threatened species and important habitat that requires protection.

"Habitat" is defined as being the place where a species or population normally lives or occurs, the location or natural environment where a species or population is most likely to be found or the place being occupied by a species, population or community. Habitat can include natural or man-made features in which species have moved into, for examples, bats moving into mine shafts, koala's moving into eucalypt plantations, frogs moving into fire/farm dams. "Habitat" will vary depending on the species being managed. This will also determine the importance of the habitat.

6.5 Cultural Heritage (HCV 6)

Identification of cultural heritage values at a local level will play a larger role in managing cultural heritage values than those at a regional level. These values can be identified by desktop checks of State managed databases, consultation with local Aboriginal representatives and via field surveys. Cultural heritage values are generally broken into two key areas, and most State and Federal Legislation manages these separately. These are:

- Aboriginal Cultural Heritage Values
- Non-Aboriginal (Historic) Values

For the most part, cultural heritage values (regardless of type) will require active identification and protection during land management and forest management activities. Where these values exist on freehold property, regardless of whether the land is being actively managed, the landowner has legal obligations to protect these values.

Aboriginal values are highly protected and many are sacred to the Aboriginal community to whom they belong. A large part of ensuring their protection, is by ensuring their exact location is kept secret and not disclosed.

GPFL will consider the cultural heritage of all ethnic groups (Aboriginal and other Australians) in all stages of forest management. The assessment of cultural heritage significance and the development of management prescriptions should involve cultural heritage expertise. All Aboriginal and non-Aboriginal cultural heritage finds will be reported to the appropriate regulatory agency.

6.6 Geomorphology and Soil (potential HCV 4)

Geological, landform, and soil sites may be important for their intrinsic, scientific, recreational, inspirational values, other uses, and the role geodiversity plays in sustaining natural processes. They vary in their vulnerability to damage. The identification of geomorphological and soil values is critical to their protection.

Gully erosion, rill erosion, tunnel erosion, sheet erosion, mass movement (landslips) are all erosion features that need to be managed. Any existing erosion features associated with roads must be remediated. Any natural erosion features that have not been caused by human interference (i.e. not associated with roads or harvesting operations) should be left alone and a buffer of at least 10 m placed around them to protect them from further disturbance.

6.7 Water (potential HCV 4)

In the regional context, GPFL manage a tiny portion of land in any one catchment and carry out forest management activities on a fraction of that in any catchment. In addition, there are no permanently wet/flowing hydrological features on the GPFL estate. Given the proportion of land subject to forest management activities in each catchment and lack of permanent water, hydrological flows associated with regional catchment goals will not be impacted by GPFL. GPFL do not operate in the immediate catchment of any town water supply areas, however, may have operations that occur in proximity to water intakes.

6.8 Adjacent values

An important habitat element on the GPFL estate is the adjacency to national parks and other reserves. This must be considered not only from a stakeholder/neighbour point of view, but also from a biodiversity/HCV/habitat potential point of view. The table below identifies those properties that are adjacent to national parks, reserves, conservation covenants and/or informal reserves:

Property	Reserve
Bessiebelle	Budj Bim (Mt Eccles) National Park on southern boundary (and to north and north east).
Brain	Nangeela State Forest (South); Drajurk Water Production Reserve (West)
Brolga	Stokes River State Forest (west); Winnap State Forest (east); Stokes River (4) Streamside Reserve (north)
Dicker	Crawford River Water Frontage (North and West)
Lowe	Winyayung State Forest (South West)
Oldham	Murndal Lake Reserve (West)
Jarrad/Simkin	Digby H30 Bushland Reserve (South); Merino Creek Water Frontage (North East)
Smokey Valley	Hotspur State Forest (SPZ - Lowland Fst (OG), Riparian Fst, Herb-rich Foothill Fst, Heathy Woodland (OG), Riparian Scrub (OG), Powerful Owl) (North); Lake Crawford Wildlife Reserve (hunting) (North); Crawford River Water Frontage (North)

It is important that where GPFL are conducting operations on land adjacent to reserves that the potential impacts of the operations on these reserves are considered.

7 Desktop Assessment Results

7.1 HCV 1 - Species diversity

Concentrations of biological diversity including endemic species, and rare, threatened or endangered species, that are significant at global, regional or national levels. Values to be assessed for HCV 1.

Category	Sub Value
HCV 1.1	Areas that contain significant concentrations of rare and threatened species or that contain habitat critical to the survival and long-term viability of these species.
HCV 1.2	Areas that contain centres of endemism.
HCV 1.3	Areas that contain significant concentrations of rare species that are poorly reserved at the IBRA region scale.
HCV 1.4	Areas with mapped significant seasonal concentrations of species.
HCV 1.5	Areas of high species/communities diversity.
HCV 1.6	Refugia.

7.1.1 Assessment Pathway

For the Standard SIR category the assessment pathway is:

1. Consult the BAI to identify relevant datasets and prepare lists and maps of potential HCV accordingly.

2. Consult experts and other knowledgeable stakeholders to identify HCVs.

3. Undertake a gap analysis of the adequacy of existing data with a focus on Endangered and Critically Endangered species and undertake further investigation and/or research and consultation to address identified significant data gaps, including targeted surveys/habitat evaluations where required.

4. Undertake a threat assessment of proposed management activities on identified HCVs.

5. Identify management required to maintain and/or enhance identified HCVs, including actions such as exclusion areas and/or management prescriptions as required, at the MU and/or operational level.

6. Develop a program of periodic monitoring and if required, adaptive management.

7. Consult stakeholders on assessment, management and monitoring.

8. Finalise assessment and implement management and monitoring plan.

7.1.2 Assessment Results

HCV 1.1. Areas that contain significant concentrations of rare and threatened species or that contain habitat critical to the survival and long-term viability of these species.

Identified within the GPFL Estate:

Value	Conservation Status	Property	Comment
Fauna			
Red-tailed Black-Cockatoo (*Calyptorhynchus banksii graptogyne*)	Vic - E	Brain	
Brolga (*Antigone rubicunda*)	Vic - E	Brain	
Flora			
Nil			

Identified adjacent to the GPFL Estate:

Value	Conservation Status	Property	Comment
Fauna			
Southern Brown Bandicoot (*Isoodon obesulus obesulus*)	Aus - E	Brain	
Hooded Robin (*Melanodryas cucullata cucullata*)	Vic - V	Brain	
Heath Mouse (*Pseudomys shortridgei*)	Aus – E	Brain	
Swamp Antechinus (*Antechinus minimus maritimus*)	Aus - V	Brain	
Red-tailed Black-Cockatoo (Calyptorhynchus banksii graptogyne)	Vic - E	Brain; Brolga; Jarrad/ Simkin	
Brolga (*Antigone rubicunda*)	Vic - E	Brain; Brolga; Dicker; Smokey Valley; Jarrad/ Simkin	
Spot-tailed Quoll (*Dasyurus maculatus maculatus*)	Vic - E	Bessiebelle	
Spotted Quail-thrush (*Cinclosoma punctatum*)		Smokey Valley	
Musk Duck (*Biziura lobata*)	Vic - V	Smokey Valley; Oldham	
Azure Kingfisher (*Alcedo azurea*)		Smokey Valley	
Latham's Snipe (*Gallinago hardwickii*)		Smokey Valley	
Lewin's Rail (*Lewinia pectoralis pectoralis*)	Vic - V	Smokey Valley	
Variegated Pygmy Perch (*Nannoperca variegata*)	Vic - E	Smokey Valley	
Powerful Owl (*Ninox strenua*)	Vic - V	Smokey Valley	
Inland Dotterel (*Charadrius australis*)		Lowe	
Grey Goshawk (*Accipiter novaehollandiae novaehollandiae*)	Vic - E	Oldham	
Australian Shoveller (*Anas rhynchotis*)		Oldham	
Flora			
Lacey River Buttercup (*Ranunculus amplus*)		Bessiebelle	
Slender Bitter-cress (*Cardamine tenuifolia*)		Bessiebelle	
Rosemary Grevillea (*Grevillea rosmarinifolia*)	Aus - CE	Oldham	

HCV 1.2. Areas that contain centres of endemism.

Identified within the GPFL Estate:

Value	Property	Comment
Nil		

Identified adjacent to the GPFL Estate:

Value	Property	Comment
Endemic Fauna	Brain; Laszlos; Smokey Valley; Laszlos; Piccaninny; Jarrad/ Simkin	
Endemic Flora	Smokey Valley	

HCV 1.3. Areas that contain significant concentrations of rare species that are poorly reserved at the IBRA region scale.

Nil

HCV 1.4. Areas with mapped significant seasonal concentrations of species.

Nil

HCV 1.5. Areas of high species/communities diversity.

Nil

HCV 1.6. Refugia.

Identified within the GPFL Estate: Nil

Identified adjacent to the GPFL Estate:

Value	Property	Comment
Contemporary Flora Refugia	Smokey Valley; Brain; Brolga; Jarrad/Simkin	

7.2 HCV 2 – landscape-level ecosystems and mosaics

Intact Forest Landscapes and large landscape-level ecosystems and ecosystem mosaics that are significant at global, regional or national levels, and that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance. Values to be assessed for HCV 2.

Category	Sub Value
HCV 2.1	Landscape-level native forests with successional stages, forest structures, and species composition that are similar in distribution and abundance to native forests that have experienced minimal human disturbance, excluding traditional Indigenous management regimes.
HCV 2.2	Forests recognised as being regionally significant at the bioregion or larger scale in formally recognised reports or peer-reviewed journals, due to the unusual landscape-scale biodiversity values provided by size and condition of the forest relative to regional forest land cover and land use trends.
HCV 2.3	Forests that provide regionally significant habitat connectivity between larger forest areas and/or refugia.
HCV 2.4	Intact Forest Landscapes, wilderness areas, forests that are roadless, and/or have not been affected by forest management activity.

The focus of this HCV category is regionally significant large landscape-level forests. Under this HCV category, areas that are generally thousands or tens of thousands of hectares in size which contain the above values qualify as HCV 2.

7.2.1 Assessment Pathway

For the Standard SIR category the assessment pathway is:

1. Consult the BAI to identify relevant datasets and prepare lists and maps of potential HCV accordingly.

2. Consult experts and other knowledgeable stakeholders to identify HCVs.

3. Identify management required to maintain and/or enhance identified HCVs.

4. Develop a program of periodic monitoring and adaptive management as required.

5. Consult stakeholders on assessment, management and monitoring.

6. Finalise assessment and implement management and monitoring plan.

7.2.2 Assessment Results

Nil within or immediately adjacent to GPFL Estate.

7.3 HCV 3 - Ecosystems and habitats

Rare, threatened, or endangered ecosystems, habitats or refugia. Ecosystems that are rare and/or threatened at a global, national or regional level. Distinctiveness in terms of size, quality (particularly lack of human disturbance), or location within the ecosystems' geographic range may be considered in assessing ecosystem rarity. Values to be assessed for HCV 3.

Category	Sub Value
HCV 3.1	Ecosystems (including rainforests) that are threatened, depleted or poorly reserved at the IBRA bioregion scale, or are subject to threatening processes predicted to substantially reduce their extent and function.
HCV 3.2	Areas for conservation of important genes or genetically distinct populations.
HCV 3.3	Old-growth forest.
HCV 3.4	Remnant vegetation in heavily cleared landscapes and mature forest in degraded landscapes.

The focus of this HCV category is forests that are in rare, threatened or endangered ecosystems, or that contain such ecosystems.

7.3.1 Assessment Pathway

For the Standard SIR category the assessment pathway is:

1. Consult the BAI to identify relevant datasets and prepare lists and maps of potential HCV accordingly.

2. Consult experts and other knowledgeable stakeholders to identify HCVs.

3. Undertake a threat assessment of management activities on identified HCVs.

4. Identify management required to maintain and/or enhance identified HCVs, including actions such as exclusion areas and/or management prescriptions as required, at the MU and/or operational level.

5. Develop a program of periodic monitoring and adaptive management as required.

6. Consult stakeholders on assessment, management and monitoring.

7. Finalise assessment and implement management and monitoring plan.

HCV3 has been assigned based on a consideration of the following attributes:

- conservation status (rarity) of the ecosystem present,
- patch size in relation to remnant areas in the surrounding landscape,
- quality of the ecosystem:

❑ *retention of large trees,*
❑ *retention and diversity of understory lifeforms,*
❑ *absence of weeds,*
❑ *diversity of wetland species and evidence of inundation,*
❑ *presence / support for RTE species.*
❑ *retention of tree canopy cover,*
❑ *presence of appropriate recruitment,*
❑ *organic litter and logs,*
❑ *proximity and links to other native vegetation,*

7.3.2 Assessment Results

HCV 3.1. Ecosystems (including rainforests) that are threatened, depleted or poorly reserved at the IBRA bioregion scale, or are subject to threatening processes predicted to substantially reduce their extent and function.

Identified within the GPFL Estate:

Value	Property	Comment
Plains Sedgy Wetland (647)	Brain	
Plains Grassy Woodland (55)	Brain	
Plains Grassy Wetland (125)	Brain	
Sandy Stream Woodland (674)	Brain	
Floodplain Riparian Woodland (56)	Brain	
Red Gum Swamp (292)	Brain	
Heathy Herb-rich Woodland (179)	Brolga	
Sedgy Riparian Woodland (198)	Brolga; Dicker	
Swamp Scrub (53)	Lowe	
Damp Heathy Woodland (793)	Smokey Valley	
Heathy Woodland (48)	Smokey Valley	
Damp Sands Herb-rich Woodland (3)	Smokey Valley	
Herb-rich Foothill Forest (23)	Smokey Valley	

Identified adjacent to the GPFL Estate:

Value	Property	Comment
Aquatic Herbland/Plains Sedgy Wetland Mosaic (E)	Brain; Oldham	
Damp Sands Herb-rich Woodland (V)	Brain; Dicker; Laszlos; Lowe; Oldham; Piccaninny; Smokey Valley	
Damp Sands Herb-rich Woodland/Damp Heathland/Damp Heathy Woodland Mosaic (E)	Bessiebelle	
Damp Sands Herb-rich Woodland/Plains Grassy Woodland Complex (V)	Jarrad/Simkin	
Damp Sands Herb-rich Woodland/Plains Grassy Woodland Mosaic (E)	Brain; Lowe	

Value	Property	Comment
Grassy Woodland/Damp Sands Herb-rich Woodland Mosaic (E)	Piccaninny	
Heathy Herb-rich Woodland (D)	Brain	
Heathy Woodland/Damp Heathy Woodland/Damp Heathland Mosaic (V)	Brain	
Herb-rich Foothill Forest (V)	Bessiebelle; Smokey Valley	
Plains Grassland (E)	Oldham	
Plains Grassy Woodland (E)	Oldham	
Plains Sedgy Wetland (E)	Brain	
Riparian Forest (V)	Smokey Valley	
Riparian Scrub (D)	Dicker; Smokey Valley	
Sandy Stream Woodland (E)	Laszlos; Jarrad/Simkin	
Shallow Freshwater Marsh (E)	Brolga	
Stony Rises Woodland (V)	Bessiebelle	
Swamp Scrub (E)	Oldham; Smokey Valley	

HCV 3.2. Areas for conservation of important genes or genetically distinct populations.

Nil within or immediately adjacent to GPFL Estate.

HCV 3.3. Old-growth forest.

Identified within the GPFL Estate (but not present on-ground):

Value	Property	Comment
Oldgrowth Forest	Brolga	Not present on-ground

Identified adjacent to the GPFL Estate:

Value	Property	Comment
Oldgrowth Forest	Smokey Valley; Brain; Brolga	

HCV 3.4. Remnant vegetation in heavily cleared landscapes and mature forest in degraded landscapes.

Nil within or immediately adjacent to GPFL Estate.

7.4 HCV 4 – Critical ecosystem services

Basic ecosystem services in critical situations, including protection of water catchments and control of erosion of vulnerable soils and slopes. HCV 4 is focused on basic ecosystem services in critical situations. Substantial alteration of these forests is likely to result in an unacceptable impact on the delivery of ecosystem services. Values to be assessed for HCV 4.

Category	Sub Value
HCV 4.1	Areas that provide protection from flooding.
HCV 4.2	Areas that provide protection from erosion.
HCV 4.3	Areas that provide barriers to the spread of destructive fires.
HCV 4.4	Areas that provide clean water catchments.

7.4.1 Assessment Pathway

For the Standard SIR category the assessment pathway is:

1. Consult the BAI to identify relevant datasets and prepare lists and maps of potential HCV accordingly.

2. Consult experts and other knowledgeable stakeholders to identify HCVs.

3. Undertake a threat assessment of management activities on identified HCVs.

4. Identify management required to maintain and/or enhance identified HCVs, including exclusion areas and/or management prescriptions.

5. Develop a program of periodic monitoring and adaptive management as required.

6. Consult stakeholders on assessment, management and monitoring.

7. Finalise assessment and implement management and monitoring plan.

7.4.2 Assessment Results

HCV 4.1. Areas that provide protection from flooding.

Nil within or immediately adjacent to GPFL Estate.

HCV 4.2. Areas that provide protection from erosion.

Nil within or immediately adjacent to GPFL Estate.

HCV 4.3. Areas that provide barriers to the spread of destructive fires.

Nil within or immediately adjacent to GPFL Estate.

HCV 4.4. Areas that provide clean water catchments.

Nil within or immediately adjacent to GPFL Estate.

7.5 HCV 5 - Forest areas fundamental to meeting basic needs of local communities

A site or resource is fundamental for satisfying basic needs if the services it provides are irreplaceable, and if its loss or damage would cause serious suffering to affected stakeholders. HCV 5 is most likely to be more important in areas where whole communities or significant portions of them are heavily dependent on those ecosystems for their livelihoods, and where there is limited availability of alternatives. In general, if local people are dependent on Indigenous or traditionally managed ecosystems, HCV 5 may be present. Values to be assessed for HCV 5.

Category	Sub Value
HCV 5.1	Unique/main sources of water fundamental* for drinking and other daily uses.
HCV 5.2	Unique/main sources of water fundamental* for the irrigation of subsistence food crops.
HCV 5.3	Food and medicines fundamental* for local traditional Indigenous* uses.

7.5.1 Assessment Pathway

For the Standard SIR category the assessment pathway is:

1. Consult the BAI to identify relevant datasets and prepare lists and maps of potential HCV accordingly.

2. Consult experts and other knowledgeable stakeholders to identify HCVs.

3. Undertake a threat assessment of management activities on identified HCVs.

4. Identify management required to maintain and/or enhance identified HCVs, including exclusion areas and/or management prescriptions.

5. Develop a program of periodic monitoring and adaptive management as required.

6. Consult stakeholders on assessment, management and monitoring.

7. Finalise assessment and implement management and monitoring plan.

7.5.2 Assessment Results

Nil within or immediately adjacent to GPFL Estate.

7.6 HCV 6 – Cultural values

Sites, resources, habitats and landscapes of global or national cultural, archaeological or historical significance, and/or of critical cultural, ecological, economic or religious/sacred importance for the traditional cultures of local communities or Indigenous Peoples, identified through engagement with these local communities or Indigenous Peoples. Values to be assessed for HCV 6.

Category	Sub Value
HCV 6.1	Aesthetic values
HCV 6.2	Historic values of global or national cultural or archaeological significance.
HCV 6.3	Long term research sites
HCV 6.4	Social (including economic) values
HCV 6.5	Spiritual and cultural values

7.6.1 Assessment Pathway

For the Standard SIR category the assessment pathway is:

1. Consult the BAI to identify relevant datasets and prepare lists and maps of potential HCV accordingly.

2. Consult experts and other knowledgeable stakeholders to identify HCVs.

3. Undertake a threat assessment of management activities on identified HCVs.

4. Identify management required to maintain and/or enhance identified HCVs, including exclusion areas and/or management prescriptions.

5. Develop a program of periodic monitoring and adaptive management as required.

6. Consult stakeholders on assessment, management and monitoring.

7. Finalise assessment and implement management and monitoring plan.

7.6.2 Assessment Results

HCV 6.1. Aesthetic values.

Nil within or immediately adjacent to GPFL Estate.

HCV 6.2. Historic values of global or national cultural or archaeological significance.

Identified within the GPFL Estate:

Value	Property	Comment
High Cultural Heritage Sensitivity	Smokey Valley; Brain; Brolga; Lynfern; Piccaninny; Jarrad/ Simkin; Oldham	
Cultural Heritage Site	Nil	

Identified adjacent to the GPFL Estate:

Value	Property	Comment
High Cultural Heritage Sensitivity	Smokey Valley; Brain; Brolga; Lynfern; Piccaninny; Jarrad/Simkin; Oldham	
Cultural Heritage Site	Nil	

HCV 6.3. Long term research sites.

Nil within or immediately adjacent to GPFL Estate.

HCV 6.4. Social (including economic) values.

Nil within or immediately adjacent to GPFL Estate.

HCV 6.5. Spiritual and cultural values.

Nil within or immediately adjacent to GPFL Estate.

7.7 Desktop Assessment Summary

The below table represents the desktop assessment results for potential HCV's within each property.

Property	HCV 1	HCV 2	HCV 3	HCV 4	HCV 5	HCV 6
Bessiebelle	×	×	×	×	×	×
Brain	✓	×	✓	×	×	×
Brolga	×	×	✓	×	×	×
Dicker	×	×	✓	×	×	×
Laszlo	×	×	×	×	×	×
Lowe	×	×	✓	×	×	×
Lynfern	×	×	×	×	×	×
Oldham	×	×	×	×	×	×
Picaninny	×	×	×	×	×	×
Simkin/Jarrad	×	×	×	×	×	×
Smokey Valley	×	×	✓	×	×	×

7.8 Property-level Assessment Results Summary

Full property HCV Management Plans have been prepared for each property. Access to these is restricted due to the sensitivity of information. A summary of the results is provided below.

7.8.1 Brain

Brain has a number of HCV's including threatened species and threatened vegetation communities. Primarily, the threatened vegetation communities area associated with the threatened species.

Wetlands:

There are three significant wetlands on the Brain property. Two of which have significant concentrations of threatened species.


Above: Wetland 1 with Red Gum Swamp vegetation surrounding


Above: Wetland 2 with different vegetation base

Red Gum based Vegetation Communities:

The property has a number of threatened Red Gum based Vegetation Communities. These communities are supporting significant concentrations of threatened species.


Above: Threatened Red Gum based vegetation communities supporting threatened bird species.

Management Action Summary:

- Further assessment of wetlands to develop specific actions for each wetland.
- Continued weed control works in and around wetlands.

- Ensure an appropriate buffer is placed on each wetland to protect them from management activities.
- Continued weed control works in and around native vegetation areas.
- Ensure property boundaries are intact and illegal access is prevented.
- Ensure no grazing by stock.
- Ensure monitoring plots are measured annually.
- Undertake bird survey to understand aquatic and migratory species utilising wetlands.
- Maintain hydrological integrity and ensure there are no further artificial modifications to the hydrology.
- Ensure the property is not burnt as part of establishment of next rotation.
- Ensure fire protection measures are in place each year to protect the property from fire.

7.8.2 Brolga

Brolga has a threatened vegetation community within it. A monitoring plot has been established to monitor threats and condition of the vegetation community.

Above: Threatened vegetation community.

Management Action Summary:

- Continued weed control works in and around native vegetation areas.
- Ensure property boundaries are intact and illegal access is prevented.
- Ensure no grazing by stock.
- Ensure monitoring plots are measured annually.
- Continue pig control works.
- Investigate opportunities for ecological burn of remnant vegetation.

7.8.3 Dicker

Dicker has a threatened vegetation community within it.

Above: Threatened vegetation community.

Management Action Summary:

- Continued weed control works in and around native vegetation areas.
- Ensure property boundaries are intact and illegal access is prevented.
- Ensure no grazing by stock.
- Continue pig control works.
- Investigate opportunities for ecological burn of remnant vegetation.

7.8.4 Lowe

Lowe has a threatened vegetation community within it.

Above: Threatened vegetation community.

Management Action Summary:

- Continued weed control works in and around native vegetation areas.
- Ensure property boundaries are intact and illegal access is prevented.
- Ensure no grazing by stock.
- Continue pig control works.

7.8.5 Smokey Valley

Smokey Valley has a number of threatened vegetation communities within it.


Above: Threatened vegetation community.


Above: Threatened vegetation community.

Above: Threatened vegetation community.

Management Action Summary:

- Continued weed control works in and around native vegetation areas.
- Ensure property boundaries are intact and illegal access is prevented.
- Ensure monitoring plots are measured annually.
- Continue pig control works.

8 Field Assessment

8.1 General Field Assessments

Initial Field Assessments have consisted of verification of threatened EVC's and Aboriginal Heritage Sites. Numerous inaccuracies were detected in the EVC mapping, which has resulted in significant changes to EVC categories based on flora species present. The results of these changes have been captured in the HCV data.

8.2 Targeted Surveys and/or Habitat Evaluations

Targeted surveys and/or habitat evaluations will be used where specialist skills are required and unable to be provided by current staff. Where specialist skills are required, these will be performed by qualified experts and/or other suitably trained individuals in accordance with scientifically rigorous methods. These surveys will be undertaken in order to calibrate desktop assessments, inform landscape planning, inform operational management responses and monitor the effectiveness of management measures.

GPFL will undertake wetland assessments in November 2025 (best timing for assessments) with a wetland specialist from Nature Glenelg Trust.

9 Management Strategies

9.1 HCV 1 Management Strategies

Measures to maintain and/or enhance identified HCV 1 areas prevent reductions in the extent, integrity, and quality of habitat that negatively impact on long-term viability of species populations. Enhancement has been identified as the objective, measures are in place to develop, expand, and/or restore habitats, and improve the long-term viability of areas identified as HCV 1.

Management strategies and actions that can be used include:

- Protection zones
- Habitat restoration
- Pest and weed removal
- Operational prescriptions
- Connectivity planning
- Vegetation retention
- Surveys and/or habitat evaluations

9.2 HCV 2 Management Strategies

At present, there is no HCV 2 on the GPFL Estate. In the event this changes in the future, management strategies and actions to maintain and/or enhance identified HCVs will include measures to maintain the integrity of landscape-level values of identified HCV 2 areas.

Management strategies and actions that can be used include:

- Protection zones
- Harvest distribution
- Operational prescriptions
- Connectivity planning
- Vegetation retention
- Vegetation restoration

Regardless of management strategies, wood will not be sourced from HCV2 areas that constitute Intact Forest Landscapes.

9.3 HCV 3 Management Strategies

Measures to maintain and/or enhance identified HCV 3 areas will include measures to maintain and/or enhance ecosystem extent, integrity, structure and/or function and should be considered at the landscape level.

Management strategies and actions that can be used include:

- Protection zones
- Habitat restoration
- Operational prescriptions
- Introduction of habitat elements
- Vegetation retention

9.4 HCV 4 Management Strategies

Measures to maintain and/or enhance identified HCV 4 areas will include protection zones, harvest prescriptions, chemical use restrictions, and/or prescriptions for road construction and maintenance. Where enhancement is identified as the objective, measures could include action to restore water quality and quantity.

Harvesting Codes of Practice will be adhered to (both voluntary and mandatory codes of practice).

In circumstances where there is high risk of erosion or history of issues related to erosion then additional management measures will be identified where required.

9.5 HCV 5 Management Strategies

At present, there is no HCV 5 on the GPFL Estate. In the event this changes in the future, measures to maintain and/or enhance identified HCV 5 areas will be developed in cooperation with representatives and members of affected local communities and Indigenous Peoples.

9.6 HCV 6 Management Strategies

Measures to maintain and/or enhance identified HCV 6 areas will include protection zones, operational exclusions, and/or retention in operational areas. Measures for maintaining and/or enhancing cultural values will be agreed to with the Indigenous Peoples connected to the Management unit, and/or as directed by state and national laws.

9.7 General HCV Protective Measures

General HCV protection, maintenance and/or enhancement management strategies include:

- Identify these values as exclusion zones on operational maps;
- Flag the presence of these values and protective functions in the operational plans;
- Flag the presence of these values and protective functions in the site specific risk assessments;
- Where necessary, mark these on the ground with paint or flagging tape.
- Management prescriptions included within operational plans and are communicated effectively to all operational staff and contractors by showing them these values and outlining protective functions.
- Prescriptions shall be consistent with those specified in recovery/action plans developed under Commonwealth and State legislative procedures.
- Contractor induction to operational plans requires sign off that they understand all the requirements and conditions contained within the operational plans.
- Reserves, exclusion zones and areas of HCV have been mapped accurately on GPFL's internal maps to ensure protection during forest operations.
- Monitor the implementation of management prescriptions whilst undertaking routine monitoring and periodic auditing of forest operations.
- Ecologist's recommendations for biodiversity enhancement and monitoring are included within HCV Management strategies and progressively adopted across the FMU.
- Areas containing hollow bearing trees will be monitored for the presence of RTE species including the RTBC.
- Stock will be excluded from all HCV areas, including the RTBC, to protect from damage and allow natural regeneration.
- Areas will be monitored for illegal firewood harvesting and human interference.
- All dead and live nesting trees (mature red gums) to be retained and protected.
- Any revegetation works should include species natural to the area.
- Areas of HCV will be monitored for the presence of noxious weeds and managed accordingly.
- Control of pest animals.

10 Monitoring

10.1 Compliance Monitoring

Compliance monitoring will be used to determine whether prescribed management measures have actually been undertaken effectively. The results of compliance monitoring will be recorded on the iauditor form "***HCV Permanent Monitoring Plot Inspection***".

10.2 Effectiveness Monitoring

Effectiveness monitoring will be used to determine whether prescribed management measures has achieved its objective and whether the outcome was actually a consequence of management.

Effectiveness monitoring will primarily involve systematic field surveys undertaken by appropriately trained and qualified staff.

Effectiveness monitoring is adequate to detect changes in HCVs and to allow data to be clearly reported and interpreted. The systematic field survey process is:

- Systematic, transparent, credible and repeatable;
- Has clear thresholds linked to management objectives;
- Sufficiently sensitive to detect change and whether impacts are within acceptable ranges, or require intervention;
- Demonstrate suitability for the value being measured;
- Applied with due consideration of risk and the precautionary approach; and
- Time frames and spatial scales are explicit and relevant to the value being monitored.

The results of effectiveness monitoring will be recorded on the iauditor form "***HCV Permanent Monitoring Plot Inspection***".

10.3 HCV Permanent Plot Monitoring

A series of Permanent Plots have been established within HCV's across the estate. These have been set up in Brain (two plots); Brolga and Smokey Valley. This will monitor a range of values and condition factors and inform potential actions to be taken. In addition, these are used as photo points to obtain a photographic record over time. The set up of the Permanent Plots are recorded on the iauditor form "***HCV Monitoring Site Set Up***".

The results of permanent plot monitoring will be recorded on the iauditor form "***HCV Permanent Monitoring Plot Inspection***".

11 Areas for Further Assessment

GPFL will continue to undertake further assessments and refinements of values across its estate. This will involve further surveys and field validation of values. GPFL also employs adaptive management principles. As such GPFL will undertake a systematic process of improving management policies and practices by learning from the outcomes of existing measures and monitoring, which may inform further assessments.

New potential HCV's will be recorded on the iauditor form "***HCV/Special/Natural Value***" as they are identified.

12 Plan Review

This plan will be reviewed every five years. However, if GPFL becomes aware through new information or legislative changes that may affect known HCVs or add additional values, then the HCV Management Plan will be updated accordingly. This includes changes to the conservation status of flora and fauna (e.g. new or changed listing). Recognising that this is a dynamic process, as new species are listed, and information is provided by the relevant State agency (e.g. point locations, range boundaries), GPFL's GIS system will be updated to ensure the new values are incorporated.

The review process will include consulting with stakeholders that have expressed an interest in the management of HCVs, to ensure the adequacy and completeness of this assessment and management of HCVs.

The review process will be enhanced with any results from monitoring and any specialist surveys undertaken.