

# ***Border Ranges Rainforest Biodiversity Management Plan – pre draft concepts and background information***

The Border Ranges Rainforest Biodiversity Management Draft Plan (the Plan) will cover the rainforests, adjacent wet sclerophyll forests and enclosed systems within the Australian Government's Border Ranges North and South Biodiversity Hotspot (NSW and Qld). The area covered by the Plan lies within the Scenic Rim, Southeast Hills and Ranges south of Beenleigh and the Southern Coastal Lowlands IBRA provinces. The plan will consider 97 rainforest plants, 31 animals and 3 ecological communities that are listed as threatened at either a National or State level (NSW/QLD). The Plan will also include 61 priority plants and 54 priority fauna species including freshwater fish and invertebrates.

## **Proposed Overall Objective**

To protect rainforest biodiversity and to provide a consistent and effective recovery program for species and communities of conservation concern within the Border Ranges Rainforest "hotspot" (NSW and Queensland). The recovery program will focus on improving the condition (connectivity and integrity) of rainforest communities, their component species and systems.

## **Proposed goals:**

- No loss of extant Rainforest.
- A consistent cross-border, landscape approach seeking biodiversity improvement across all land tenure.
- Ensure the survival and adaptive capacity of species, populations and ecological communities of plants, animals and micro-organisms native to the Border Ranges Rainforest.
- Rehabilitation and restoration of ecosystems.
- Increase in the extent of native vegetation cover through targeted ecological restoration works.
- The identification and, where possible, management of threatening processes.
- The recognition and incorporation of cultural values based on on-going Indigenous engagement.
- Promote the importance of native biodiversity protection and restoration across the Plan area, through strengthening existing initiatives and developing new ones in consultation with the community, industry and relevant government agencies;
- Increased engagement and ownership by local communities.
- Identify precincts for priority conservation and repair focus for the life of the Plan.
- Improved management of an increasing scientific, social and cultural knowledge base.
- Long-term, prioritised commitment to cost effective recovery processes.
- Actions being integrated into broader NRM planning.
- Contribute to CAP targets for NRCMA and SEQC.
- Contribute to PAS actions for NRCMA and DECC

## **Threatening processes**

Threatening processes result in four primary stresses affecting biodiversity:

- habitat loss,
- habitat modification,
- loss of individuals and

- loss of genetic integrity.

All threat activities contribute to these stresses at a range of scales. For this draft Plan the terms Landscape – the entire project area, broadest extent, Precinct – local area, identified area or region and Site – local small specific area, have been coined to explain the geographical scales being considered.

Around 277 threat activities have been identified as being active in the project area. These can be broadly grouped into 12 categories. Threats are active on a range of scales across the project area: landscape, precinct and site or species specific. Each threat applies across a range of scales of severity, geographical extent and contributes at various intensities to each of the four stresses at different scales. Each threat activity or the effects of the activity vary in the degree to which they can be mitigated or controlled depending on the geographical extent and scale of application. It is important to note is that most if not all of these threats tend to be associated with and exacerbated by the other threats.

Within the draft Plan the extent, severity and irreversibility of each threat will be considered at a range of geographic scales i.e. landscape, locality and site. The Plan area will also been separated into Lowlands (0-50m), Midlands (50-600m) and Uplands (600+m). The actions within the Plan will be targeted at the largest effective geographical scale.

Some of the issues to be considered at the landscape scale are discussed below and are being considered as the landscape scale objectives.

## ***LANDSCAPE SCALE OBJECTIVES***

Central to the maintenance of rainforest biodiversity is the conservation of all rainforest and associated habitats across the entire landscape matrix, including all land tenures. In achieving this objective, the Biodiversity Management Plan will therefore aim to operate at a number of scales, ranging from landscape to site level. A number of key landscape objectives, tasks and actions presently being considered for the draft Plan is summarized below.

### **REGIONAL RAINFOREST CLIMATE CHANGE CORRIDOR**

Potential impacts on biodiversity from the effects of climate change are an emerging and worrying threat. One aspect in dealing with these issues is the identification and protection of a rainforest “sea to the mountains” elevational corridor as a key management action. A cross-border Regional Rainforest Corridor would provide a focus for protection and restoration of rainforest to enhance connectivity, provide for wildlife movement and potential range shifts for rainforest plants due to climate change. The corridor would build on, and align with, the Great Escarpment Corridor project and other regionally identified corridors. The focus of this rainforest corridor would be in connecting the Main Range in Queensland through the border rainforests in NSW and linking with corridors in the Byron, coastal Tweed and Gold Coast areas and rainforest in the Richmond Range.

### **BUREAUCRATIC PROCESSES**

Bureaucratic impediments to efficient and cost effective management are proposed as a threat to the successful implementation of biodiversity management and threatened species recovery. A key objective is therefore to reduce impediments by improving communication within and between agencies, departments and the community and simplify processes for delivery of resources, information and on-ground projects.

## **HABITAT LOSS and HABITAT DEGRADATION (Human induced)**

Clearing, fragmentation and degradation of rainforests in the Border Ranges Hotspot area has been significant, particularly in lower elevations. Whilst many areas of rainforest, for example in the escarpment country, are within public lands such as national parks, many rainforest areas remain under threat from agricultural activities, urban expansion, fire and weed invasion. Many of these areas are also located within areas managed for intensive agriculture and are isolated and fragmented from other intact vegetation or upstream connections.

In lowland areas and areas of higher soil fertility, the majority of the native vegetation cover has already been removed (eg. the Big Scrub, lowland rainforest in the Brunswick Valley and littoral rainforest). Accordingly, a primary objective of the Plan will be to protect all rainforest and associated habitats within the project area. Additionally, many other areas require considerable repair to restore essential ecosystem functions and processes.

Compliance with State and Australian Government legislation will assist in the prevention of rainforest clearing. Government agencies at all levels can promote funding and resources for restoration and management and provision of supporting mechanisms and incentives for private land conservation.

Bell Miner Dieback is causing significant issues for forests adjacent to rainforest in the project area. Dieback also appears to be linked to an increase in lantana and fire risk. The Bell Miner Dieback Action Plan is being referred to and discussions are ongoing with the BMAD team.

The significant extent of rainforest decline at the landscape level makes it imperative that all remaining rainforest and associated ecosystems are managed for their conservation values and, where possible, restored toward self-sustaining systems.

## **WEEDS**

Weeds have the potential to severely degrade rainforests and associated habitats. A landscape objective of the Plan will be targeted towards the protection of rainforest from new weed species invasion. It is also recognized that a program to strategically eradicate priority weeds or control existing weeds in rainforest and associated habitats will require a long-term approach.

A catchment approach to the control of weeds distributed by water through dealing with infestations in upper catchments is also required. Education and extension to landowners on weeds that pose a threat to the environment, is also a high priority. Mapping of weed distribution, abundance and threat, developing species-specific management guidelines, promoting early control of isolated occurrences of serious weeds and the adoption of systematic control methods has also been identified as a priority.

Another component being considered is promoting the establishment of a Weed Spotters and Rapid Response Plan. Engaging the broader community in weed control and habitat management is also a high priority. Existing Threat Abatement Plans and Weed management strategies will be referred to.

## **FIRE**

Fire is recognized as a major threat to rainforest and therefore an objective of the draft Plan will be to manage fire regimes in and adjacent to rainforest. Fire management regimes on adjacent vegetation is critical to the protection of rainforest, particularly dry rainforest. This is exacerbated by drought and climate change.

Protection of rainforest from fire therefore becomes focused on appropriate management of adjacent and surrounding vegetation and application of appropriate ecological fire regimes.

It is proposed that a consistent and coordinated approach to rainforest fire protection in South-East Queensland and NE NSW be fostered and that potential partnerships between public and private landholders for protecting rainforest from fire be explored. This will also include engaging the broader community in rainforest protection and fire management. Existing fire planning processes will be referred to.

### **GRAZING AND TRAMPLING BY INTRODUCED HERBIVORES**

Introduced domestic herbivores can impact on rainforest areas and adjacent wet forest habitats through grazing, trampling and degrading water quality. Management actions being considered include promoting the removal of domestic stock in riparian zones, rainforest gullies and implementing of appropriate weed management and provision of ‘off stream’ watering points.

### **HUMAN INTERFERENCE**

Issues for consideration include impacts from domestic pets, native fauna killed by traffic, vandalism, dumping, impacts from disturbance, collecting, hunting, and fishing and other tourism and visitor activities.

### **INTRODUCED PREDATORS AND COMPETITORS**

Feral pest species can have significant impacts on native species and will be considered with regard to managing existing pest species and preventing new and emerging pest species from arriving and establishing.

Existing Threat Abatement Plans and Pest Management Strategies will be referred to. The promotion for the establishment of a Pest Animal Spotter and Rapid Response Plan is being considered.

Pest species of concern include the Cane Toad, Cat, Red Fox, Feral Dogs (not including Dingoes), Gambusia, Feral Pigs, Banded Grunter and potentially Feral Poultry, Red Imported Fire Ant, Yellow Crazy Ant, Feral Deer, Goats and Rabbits.

### **CHEMICALS**

Chemical pollution of waterways, spray drift, runoff and spills potentially affect rainforest fauna and flora including the invertebrate and fungal communities. Measures to encourage protection of rainforest biodiversity will be considered.

### **PATHOGENS**

Approaches to control and minimize impacts of introduced pathogens and diseases on rainforest and associated habitat fauna will be considered including promotion of hygiene protocols, and vehicle washdowns.

### **COMMUNITY ENGAGEMENT**

Engaging the community and private landholders in biodiversity conservation within rainforest and associated habitats will be an important management objective. The draft Plan will recognize the cultural value of rainforest and associated habitats and species to the Indigenous Community and engage the Indigenous community in the protection and enhancement of rainforest and associated habitats biodiversity and cultural values.

## **RESEARCH AND INFORMATION COLLATION / MONITORING AND EVALUATION**

The delivery of long-term rainforest biodiversity conservation outcomes is reliant upon improving our knowledge and understanding of rainforest biodiversity related issues. Effective biodiversity conservation needs to take account of the latest information. This requires a continuous improvement cycle where actions move through the phases of planning, implementation, monitoring and review. Management actions will include undertaking further research and survey to improve available knowledge and best practice rainforest management.

## **FUNDING AND INCENTIVE OPPORTUNITIES**

Provision of reliable funding to deliver rainforest biodiversity conservation outcomes is essential to achieving recovery actions in the Plan. The Plan will provide a summary of the main types of incentives and supporting mechanisms that are available to target key funding sources for resourcing of recovery actions.