Glenelg Hopkins Catchment Management Authority: Habitat Network Action Plan

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Background

The Glenelg Hopkins Catchment Management Authority (CMA) region covers 25,000 km² of south west Victoria from the South Australian border to Ballarat and Warrnambool (Figure 1). The landscape is made up of 80% private land under agricultural enterprises, and the region has 44% of the state’s wetlands.

The Glenelg Hopkins region now contains less than 18% native vegetation which continues to be impacted upon by land use change, climate change and further decline and fragmentation to a range of habitats within remaining patches. Only 4.6% of the region is predominantly intact (remnant vegetation on private land), with another 12% of remnant vegetation occurring on crown land. Therefore, in order to establish effective habitat linkages, it is vital that we have a strong working relationship with the local community.

Habitat Network Action Plan

The Habitat Network Action Plan (Glenelg Hopkins CMA 2007) provides direction for development of habitat networks across the Glenelg Hopkins region. The Plan has identified where priority action is required in subcatchments containing good vegetation connectivity. This then guides future investment in habitat protection and enhancement activities for habitat network management in the region.

The Plan aims to achieve the maintenance, improvement and extension of the landscape linkages throughout the Glenelg Hopkins region through development of habitat corridors, stepping stones and mosaics. The underlying assumption is that improved connectivity leads to enhanced biodiversity conservation across the Glenelg Hopkins CMA region.

Habitat Networks

From an asset perspective, habitat networks are a series of connected or separate areas of native vegetation that are available for native plants and animals to inhabit or use for dispersal throughout the landscape.

Habitat networks maintain connectivity in the landscape, attaching one area to another to facilitate this movement and reduce isolation. This is essential for breeding and the movement of genotypes throughout the varying populations of flora and fauna species.

Patches (or blocks) and linkages (corridors, stepping stones and mosaics) are the two elements in developing habitat networks. Consideration has to be given to the size, shape and connectivity of the elements within the landscape and the characteristics of the plants or animals that may be using the network.

In the Plan, connectivity concepts include the following.

- Corridors that form a continuous link between two habitat patches are important for species that cannot live in, or have difficulty moving through, the surrounding cleared or modified environment.
- Stepping stones may be sufficient to allow movement of species that have some mobility but limited tolerance of conditions within the surrounding cleared or modified land.
- Mosaics of vegetation (including elements such as single paddock trees) may allow movement of highly mobile species that are tolerant of land uses in the surrounding environment.

Action Plan Process, Priorities and Details

The site identification process involved definition and mapping of priority areas for actions. Information was gained from existing data, local knowledge and community input gathered from across the region. Community input was valuable for incorporating local knowledge and ownership of potential networks.

The process for setting priorities involves a triage approach to conservation and restoration. This is based on:

1. maintaining existing high quality vegetation/habitat;
2. saving damaged vegetation/habitat that requires minimal management input;
3. saving vegetation/habitat that requires major management input but where the effort is worthwhile as it will save a significant community or species; and
4. doing nothing where success is either unlikely or the benefits are outweighed by the costs of the required actions.

General broad-scale aims of the habitat network across the Glenelg Hopkins region are to:

• develop continuous vegetated habitat corridors along all of the major rivers and streams;
• develop habitat networks of corridors and stepping stones between the major rivers and streams; and
• maintain and enhance the habitat quality of all areas identified on the sub-catchment maps as either Vegetation Protection Overlays (VPOs) or Environmental Significance Overlays (ESOs).

Detailed information in the Plan includes, at a sub-catchment scale, location, land use, existing vegetation (Ecological Vegetation Class (EVC) table), significant flora species table, significant fauna species table, and the management aims and actions for sites.

Potential Networks

After all the analysis was completed, potential networks were generally located where the most important assets occurred in the landscape. Good existing vegetation occurred in the north and west of the region, with limited remnant vegetation in central, southern and eastern areas. Major rivers create north-south linkages, while wetlands, estuaries and reserves provide existing stepping stones. Revegetation along roads and private land will connect remnants, wetlands, rivers and their tributaries.

Reference


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Does Queensland do it better? Three nature refuges in Central Queensland

Ian and Cathy Herbert
‘Belgamba’, Central Qld. Email: ian.herbert@bigpond.com

In Queensland, a permanent conservation covenant is called a Nature Refuge. We have been involved with three nature refuges in Central Queensland.

Belgamba Nature Refuge

Belgamba Nature Refuge is a 540 ha leasehold property in hilly forested country 30 km south of Rockhampton, in the Dee Range near the historic gold mining town of Mount Morgan. The vegetation is mainly open eucalypt forest dominated by Grey Box (Eucalyptus moluccana) and Lemon Scented Gum (Corymbia citriodora), with riverine closed forest including palm groves in the steep gullies, and some patches of semi-evergreen vine thicket. Adjoining Belgamba to the north and south are two areas of Resources Reserve (effectively National Park).