Frequently Asked Questions
for Lorne Habitat Restoration

Definitions

BIOREGIONS

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 bioregions identified within Victoria by the Department of Energy, Environment and Climate Action (DEECA).**

ECOLOGICAL VEGETATION CLASSES (EVC)

EVC's are the standard unit for classifying vegetation types in Victoria. They are classified by DEECA. Each EVC includes a collection of plant species that occur across a bioregion.

NATIVE SPECIES

According to the ***Federal Environment Protection and Biodiversity Conservation Act 1999***, native species are plants or animals that are indigenous to Australia and were present prior to 1400 AD. Native species are not indigenous to all areas of Australia.

INDIGENOUS SPECIES

Indigenous species are native plants or animals that are locally unique to an area. These species are adapted to the conditions of the area and remain in balance with other species. Plant species that are indigenous to an area are allocated to Ecological Vegetation Classes.

For example, Sweet pittosporum is native to Australia and indigenous to Gippsland. In the Otway Ranges Bioregion, Sweet pittosporum is classified as being outside its natural range and is classified as a weed. In this bioregion it out-competes indigenous plant species. Queens Park is a good example of its dominance in the landscape.

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WHY IS COAST TEA-TREE BEING REMOVED IN LORNE?

The Authority removes all weeds, woody, and non-woody from the Crown land areas we manage. The reasoning and prioritisation of these weed removal works is guided by the **Coastal Vegetation Strategy (CVS)**. Part 1 of the document provides specific information relating to the objectives of the Strategy, how it was developed and its alignment with best practice management principles. This plan updates, reviews and builds on the previous Great Ocean Road Coast Committee (GORCC) Native Vegetation and Weed Action Plan 2015-2020.

Lorne is part of the Otway Ranges Bioregion. We're taking a staged approach to remove plants that don't belong in this bioregion and replace them with indigenous species. Coast Tea-tree is an environmental weed that is not indigenous to the Otway Ranges Bioregion.

The vegetation areas identified for restoration in this project are predominantly made up of Coast Tea-tree. Removing Coast Tea-tree will reduce fire risk and increase habitat value, structure, and species diversity in this area.

You can find out more about the benefits of woody-weed removal in this **video**.

You can read more about Coast Tea-tree **here**.

HOW WILL THE COAST TEA-TREE BE REMOVED?

Coast Tea-tree removal is best conducted over the Winter months to allow for follow up revegetation in Winter and early Spring.

We remove Coast Tea-tree using a cut and paint method. This method allows the tree roots to stay in place so they can continue to bind soil for stability during the rehabilitation process.

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WHY IS THE TREE REMOVAL HAPPENING IN STAGES?

In 2022, we received feedback from the Lorne community that they would like the Coast Tea-tree removal to be undertaken in a slower, staged process. In response to this feedback, we are now planning to remove the remaining Coast Tea-tree in two stages. These stages are represented on **this map**. Stage 1 will be undertaken in August 2023. The team will monitor regrowth at these sites and then look to implement Stage 2 of removal in future years. We will activate Stage 2 once the rehabilitated area reaches approximately 1.2 metres.

The Coastal Vegetation Strategy outlines five-year objectives; however, the actual implementation of woody weed removal occurs over a much longer timeframe. The Authority (and other organisations) has been removing weeds in the Lorne township for decades.

Our staged approach to woody weed removal is therefore part of past and future work plans. We do retain some older vegetation to accommodate species as they adapt to changed conditions following large scale weed removal, but ultimately the intent is for all weeds to be eradicated.

We will keep the community informed on these habitat restoration works.

WILL THE PLANTS YOU REVEGETATE WITH REPLACE THE SCREENING, WINDBREAK, AND SHADE FUNCTIONS THAT THE COAST TEA-TREE PROVIDES NOW? HOW LONG WILL THIS TAKE?

Once weeds have been removed our usual approach, aligned with best practice science, is to allow sites to naturally regenerate.

However, in response to community concern about amenity impacts on the Lorne foreshore, we will begin replanting within a month after Coast Tea-tree removal. This will ensure the visual impact of weed removal is as minimal as possible. It is anticipated that it will take five years for the top canopy of the new vegetation to reach a similar height of the current Coast Tea-tree.

All sites on the Lorne foreshore where large-scale woody weed removal has occurred will be replanted using indigenous species. These species will support both ecological outcomes and community values through restoring habitat as well as providing the same or similar screening, windbreak and shade functions that Coast Tea-tree now provides.

You can see what a restored habitat site may look like in this **video**.

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WHEN WILL YOU REPLANT THE AREA AND WHAT PLANTS WILL YOU REPLACE THE COAST TEA-TREE WITH?

After the Stage 1 removal of Coast Tea-tree in August 2023, we plan to revegetate in September 2023. We will replant with a wide variety of indigenous species that occur within the Otway Ranges Bioregion. The species are listed in the following EVCs - Coastal Dune Scrub/Coastal Dune Grassland Mosaic, Estuarine Wetland and Shrubby Foothill Forest. The species listed below will allow for plants of various heights to grow, creating a diverse layered ecosystem that supports a variety of fauna species.

Indigenous plants we will revegetate will include:

- Eucalyptus obliqua (Stringybark or Messmate)
- Ozothamnus ferrugineus (Tree everlasting)
- Eucalyptus cypellocarpa (Mountain grey gum)
- Dichondra repens (Kidney weed)
- Allocasuarina verticillate (Drooping She-oak)
- Poa labillardierei (Common tussock-grass)
- Pomaderris aspera (Hazel pomaderris)
- Ficinia nodosa (Knobby club-rush)
- Coprosma quadrifida (Prickly currant-bush)
- Tetragonia implexicoma (Bower spinach)
- Goodenia ovata (Hop goodenia)
- Poa poiformis (Coast tussock-grass)
- Olearia argophylla (Musk daisy-bush)
- Microlaena stipoides (Weeping grass)
- Leucopogon parviflorus (Coast beard-heath)
- Solanum aviculare (Kangaroo Apple)
- Themeda triandra (Kangaroo grass).

CAN YOU RESTORE THE HABITAT UNDERNEATH THE COAST TEA-TREE AND THEN REMOVE IT MORE GRADUALLY?

Due to the weedy nature of Coast Tea-tree in this bioregion, we have found it difficult to establish indigenous species under the monoculture canopy that Coast Tea-tree creates. Our Conservation Team has tried to restore habitat underneath Coast Tea-tree at the Torquay Surf Lifesaving Club with little success. As Coast Tea-tree creates a monoculture there is little capability for indigenous species seedlings to establish under its canopy. This is evident in any area with established Coast Tea-tree along the Great Ocean Road.

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WHAT IMPACT WILL THE REMOVAL OF THE COAST TEA-TREE HAVE ON COASTAL EROSION?

Coastal erosion is a natural process; however, it can often become an issue where infrastructure and other values are impacted by the loss of sediments or bedrock from the shoreline. The management of coastal erosion is evidence based and follows the Victorian's Resilience Coast – Adapting for 2100+ framework and guidelines. This framework requires the Authority to work in close partnership with key stakeholders, the community, and rights holders to manage erosion in response to our changing climate.

The works at Lorne doesn't include any vegetation removal on the dune's interface with the high tide zone. This will allow us to manage potential localised erosion risk over time as we develop greater understanding through broader coastal Vulnerability Assessments.

WHAT IMPACT WILL REMOVING COAST TEA-TREE HAVE ON THE THREATENED RUFOUS BRISTLEBIRD?

These habitat restoration works aim to benefit many species. This is why we intend to create multi-layered ecosystems that support a large variety of species and their habitat. Research into the Rufous Bristlebird has shown that vegetation structure (the multi-layered habitat), rather than plant composition is of prime importance for its habitat (Mitchell & Wilson 2007).

The Rufous Bristlebird feeds primarily on ground-dwelling invertebrates, although details of its diet are not well known. Typically, ideal vegetation height for the Rufous Bristlebird is 80-120cm (Mitchell & Wilson 2007). The vegetation height at all the sites proposed for Coast Tea-tree removal exceeds 150cm.

Nests are built close to the ground, in tussocks or low shrubs and the Rufous Bristlebird is usually observed within close proximity to cover. Coast Tea-tree does not enable low shrubs or tussocks to grow as its high canopy monoculture obstructs light, creating an environment void of the diverse layered ecosystems below 1.2m that the Rufous Bristlebird depends on.

It is important to note that single species conservation is intricate and delicate, and one conservation outcome may not be beneficial for other species. The Authority will not undertake conservation activities that will jeopardise the continued success of protected species.

We've identified that fauna monitoring is a current gap in our conservation practice and we're working to establish a framework with key partners to create research opportunities.

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WHAT ANIMALS ARE LIKELY TO LIVE IN THE RESTORED HABITAT AREAS? DO YOU HAVE EVIDENCE OF SIMILAR WORK DONE ELSEWHERE WHERE THE MAMMALS HAVE RETURNED?

Threatened small mammals that need dense multi structure vegetation to survive and thrive including the Swamp antechinus, Long nosed bandicoot and Broad tooth rat. **Research was undertaken by Wilson and Garkaklis in 2021** that found the following key results at the Painkalac Creek dune in Aireys Inlet. These results were obtained prior to significant Coast Tea-tree removal in 2023:

- No native small mammals were found at the Coast Tea-tree infested site.
- Feral animal species persisted within the Coast Tea-tree infestation.
- Presence of Rufous bristlebird (*Flora and Fauna Guarantee Act 1988*) occurred but with infrequent records.
- Feral foxes utilised the site.
- Good numbers of native small mammals occurred within 200 metres of the Coast Tea-tree infested area in vegetation that is in good condition closer to the mouth of Painkalac Creek. Species that have been recorded in neighbouring good condition vegetation include Swamp antechinus, Bush rat (*Rattus fuscipes*), Swamp rat and Broad-toothed rat (*Mastacomys fuscus*).

The above results will be used as baseline data to monitor the occurrence of native species as indigenous vegetation is re-established at the Painkalac Dune.

WHY IS THE "HABITAT RESTORATION PROJECT" A PRIORITY, WHEN THERE ARE SO MANY OTHER ISSUES OF CONCERN? HOW ARE PROJECTS AT THE AUTHORITY PRIORITISED?

The role of the Authority is to manage, protect and foster resilience of the natural, cultural and heritage values of coastal Crown land and marine waters along the Great Ocean Road. This includes:

- Guiding sustainable tourism, supporting local employment, and enhancing the visitor experience
- Strengthening the protection of land and seascapes from the impacts of climate change
- Improving economic development for a prosperous and liveable region.

Conservation works we undertake such as these habitat restoration works, are prioritised based on the Coastal Vegetation Strategy, which considers a range of factors to help prioritise our activities.

The Coastal Vegetation Strategy is delivered in line with other Authority plans, strategies and business areas (for example the Coastal Reserves, Education and Caravan Parks), with the above overarching roles factored into all our works. All Authority teams communicate and coordinate activities to ensure works are consistently prioritised and overarching objectives delivered.

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References

M.J. Garkaklis and B.A. Wilson (2022) *Great Ocean Road Coast and Parks Authority (GORCAPA) CCMA DUNECARE: Coastal Tea-tree Leptospermum laevigatum Control at Painkalac Beach Dunes – pre-weeding fauna survey report.*

E. Mitchell and B.A. Wilson (2007), *Detection and habitat use of the Rufous Bristlebird (Dasyornis broadbenti) in coastal heathland, in south-western Victoria, Australia, Emu-Austral Ornithology, 107:4, 327-334.*