We acknowledge the Noongar people as Traditional Custodians of this land and pay our respects to all Elders past and present

Landcare matters

Lake Clifton Sub-catchment

PHCC Working Together
Peel-Harvey Catchment Council

Edition 16
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Welcome to Landcare Matters: Newsletter of the Lake Clifton Stewardship Program – a program supporting landowners for healthy habitats and waterways in the Lake Clifton catchment.

The Seedling Giveaway is back!

The Lake Clifton Annual Seedling Giveaway Event is back for 2022. This year the Giveaway will be held on Sunday the 12th of June from 8.45am – 11.30am, at the Lake Clifton Community Centre. Close to 1500 native seedlings will be distributed amongst landholders that attend, that have a Lake Clifton or Herron postcode.

The selection of native seedlings for 2022 will include species that provide a food source for the three Black Cockatoo species that visit and live in the area for feeding, breeding and roosting. Species include a range of understory and midstory plants that are common to Banksia or Tuart Woodlands. Optional tree species include Tuart, WA peppermint and a range a Banksia species. Understory species include Kangaroo paw, Native broom, Grevillia, Hakea, Berry Saltbush, Scaevola, Basket bush and Templetonia or Cockys tongue.

Along with native seedlings to enhance bushland habitat, landholders will have opportunities to speak one-on-one with neighbours and representatives from various organisations on a range of topics such as controlling rabbits, identifying and managing weeds, successful revegetation tips, Land for Wildlife program and wildlife rescue and rehabilitation. Presentations and interactive stalls will be hosted by the Peel-Harvey Biosecurity Group, Lake Clifton Herron Association and Landcare Group, Mandurah Wildlife Rehabilitation and the Peel-Harvey Catchment Council. Coffee and a light morning tea will be provided.

If you would like to attend and have a Lake Clifton or Herron postcode, please complete the online registration process at the following link: https://peel-harvey.org.au/events/. If you wish to register over the phone or via email, or require further information, please contact corrine.duncan@peel-harvey.org.au. Note that latest WA health department COVID-19 protocols will be in place.

Happy participants at 2021 Seedling Giveaway

Need help with weeds in the Lake Clifton or Herron area?

If you want to learn more about best options for identifying and controlling environmental weeds in the Lake Clifton/ Herron area, then you may be interested in PHCC's upcoming Weed Workshop in May, hosted by WA weed experts Bronwen Keighery and Greg Keighery.

Weeds can be a nuisance in gardens and farm settings but can severely impact natural areas like the woodlands and forests of Lake Clifton in multiple ways. Weeds can change fire regimes, harbour pests like foxes and rabbits, worsen soil erosion, use excessive groundwater and degrade the overall quality and biodiversity of ecosystems. Weeds typically compete with native species and reduce food and habitat for native fauna, including Quenda and many bird species.

Environmental weeds at Lake Clifton/ Herron threaten the unique environments and species, including the wetlands, groundwater quality and the native species in our backyards and bushlands. If you live in the area and want expert advice on various local weeds, best resources to use and suitable management methods, come along to this free event.

Bring along any plant samples (preferably with flowers and fruits) contained in a bag to help with identification and learn weed identification techniques.

This event will be held at the Lake Clifton Community Centre on May 25 at 5.30pm – 7.30pm - a light supper will be provided. Registrations essential by May 18 via our website https://peel-harvey.org.au/events/ or P: 6369 8801 or E: corrine.duncan@peel-harvey.org.au

Please note this event is available only to Lake Clifton and Herron landholders. Register early as numbers are strictly limited.

Photos: Common weeds of the Lake Clifton/ Herron area

Surviving the Long Hot Summer: A Seedling's Perspective

Climate change is causing hotter and more variable rainfall patterns in southwest Western Australia. The past summer was unusually hot and, according to the Bureau of Meteorology (BOM), was the hottest summer recorded in Mandurah for two decades (Figure 1). Since December 2021, temperatures exceeded 35°C for at least 19 days and three days were above 40°C. Exceptionally hot and long summers can significantly impact revegetation projects. Following the hot summer of 2021/22, a number of landholders across the Peel-Harvey Catchment have reported major seedling or plant losses in their revegetation projects. Given climate predictions, revegetation is likely to get even more challenging in the near future.

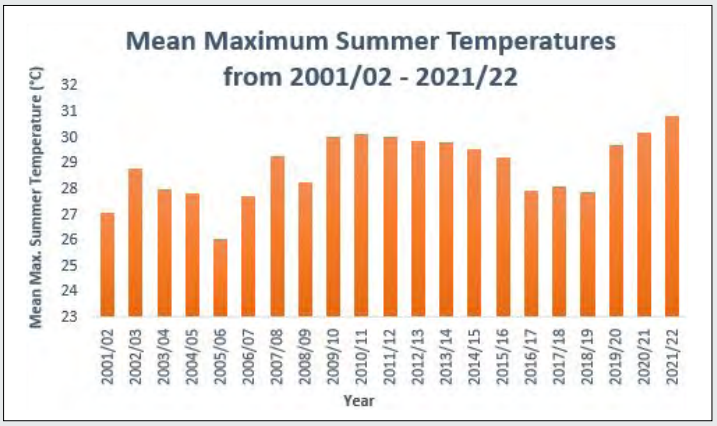

Figure 1: Mean maximum summer temperatures for Mandurah, from 2001-2022 (BOM 2022).

When the air temperature is close to 40°C, soil temperatures can exceed 60°C, particularly on exposed sandy soils on the coastal plain. These temperatures often exceed a seedling's ability to extract and store moisture, causing wilting and defoliation of leaves and shoots, or even root death, essentially 'cooking' parts of the plant. Plants suffering from heat and drought stress will be weaker, may not produce new growth and are likely to be more susceptible to insect and disease attacks. Given the trajectory of increasing temperatures, and reduced rainfall, it will be progressively more important to consider climate-resilience options when embarking on revegetation projects.

We can increase the resilience of vegetation to a more extreme climate by improving the health of seedlings and decreasing surface-soil temperatures. The following can help reduce the risk of large-scale seedling losses due to hot summer temperatures:

1. Carefully consider where species should be planted at your site – plant species that are susceptible to direct sunlight and hot conditions in heavily shaded areas (Figure 2), and plant only drought tolerant species in more exposed areas. This may include having a revegetation plan spaning several years and starting with hardier successional species, such Western Australian native species like Acacias, Hakeas and Kunzea, and establishing canopy species including Eucalypts.
2. Use an auger to first form a hole ~50cm deep, then place a small amount of soil conditioner, such as Terrcottem™ and/or mulch, at the base of the hole. Add in the soil excavated from the auger into the hole. Place the seedling into the hold near the surface, and add soil around the seedling. This will increase soil moisture retention and 'train' plant roots to grow downwards where soil moisture is greatest.
3. Excavate a small pit or basin around the seedling to trap water as it moves across the landscape.
4. Use tree guards to shade the seedling and protect it from herbivores. Ensure that tree guards are secured by 2-3 stakes, to prevent tree guards from shifting with the wind. Tree guards should be tall enough (~450mm high) to prevent kangaroos and pests grazing upon the leaves, and wide enough (~160mm wide) to allow for sufficient air flow around the plant. Avoid plastic tree guards as they can increase the air temperature and decrease air flow around the plant, and often end up in waterways or landfill.
5. Place hardwood or pine woodchips in areas around plantings to reduce soil surface temperatures, ensuring that these chips are dieback free if adding to an uninfected site.
6. Water seedlings thoroughly immediately after planting. Watering should ideally continue for at least six months in the case of no rainfall.
7. Monitor the success of your plantings and learn by past failures.
8. Consider infill planting where seedling losses are greatest based on what you've learnt.

With good planning and adaptive management techniques, revegetation is possible in even the most degraded of sites. If you are interested in funding opportunities or advice related to the restoration of native vegetation, please contact PHCC on 6363 8800.

Figure 2: Species that are susceptible to hot and dry conditions should be planted in shaded areas.

Reference:
Bureau of Meteorology (2022) 'Daily maximum temperature for Mandurah - site 9977'. Available at http://www.bom.gov.au/climate/data/index.shtml [Accessed 04 April 2022]

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