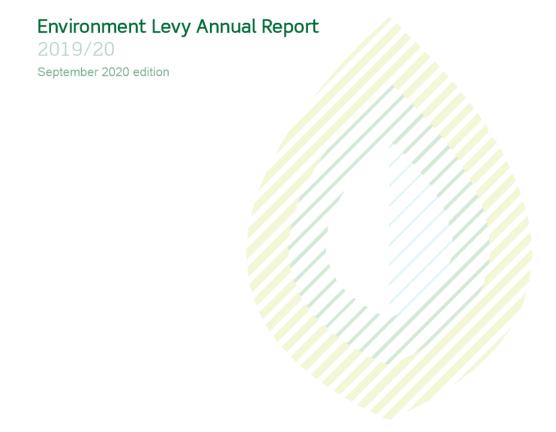


Disclaimer Acknowledgements els.sunshinecoast.qld.gov.au T 07 5475 7272 F 07 5475 7277 Locked Bag 72 Sunshine Coast Mail Centre information at the time of writing. All figures and diagrams are Image credits exercised reasonable care in preparing this document it does Page 6: Maddock Wetlands. for any loss occasioned to any person acting or refraining from acting in reliance upon any material P. Bell - Mofatt Sunset. A. Bowen - Maroochy River. K. Aland/Future-Plus Environmental Page 15: G. Schmida/Mary River Catchment River cod. Page 16: Tiaro and District Landcare Group -Mary River Turtle hatchling. Page 19: R. Liniger - Osprey with fish. Z. Davis - Coral Creeper.



From our Mayor

The Sunshine Coast's unique landscape and character is an important part of what makes our home a great place to live and visit. That's why preserving and enhancing our wonderful natural environment for current and future generations is a major priority of this Council.

A key enabler of this objective is our Environment Levywhich is paid by all ratepayers and plays in integral role in supporting Council's vision for the Sunshine Coast to be Australia's most sustainable region, healthy, smart and creative.

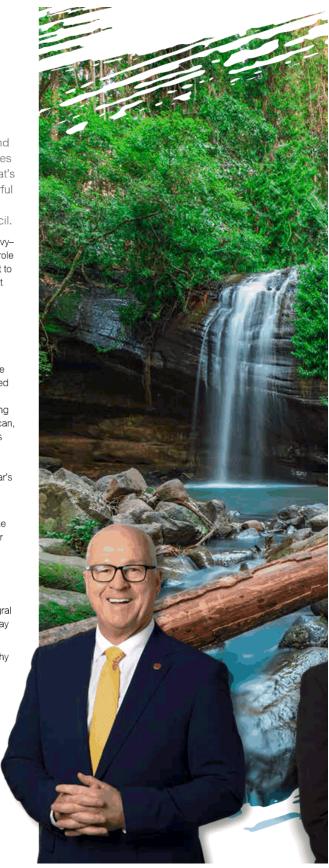
Through our Environment Levy Program, we are preserving and enhancing our outstanding natural environment for the enjoyment of current and future generations. One significant feature of the Program is our land acquisitions, which expand our impressive conservation estate. Each acquisition is chosen based on its strategic location and associated values. The Program also supports the establishment and ongoing management of the conservation estate. Where we can, we like to involve the community in tree planting days to contribute to enhancing these reserves and build local ownership. A great example of this is the Annie Hehir Environment Reserve which features in this year's Annual Report.

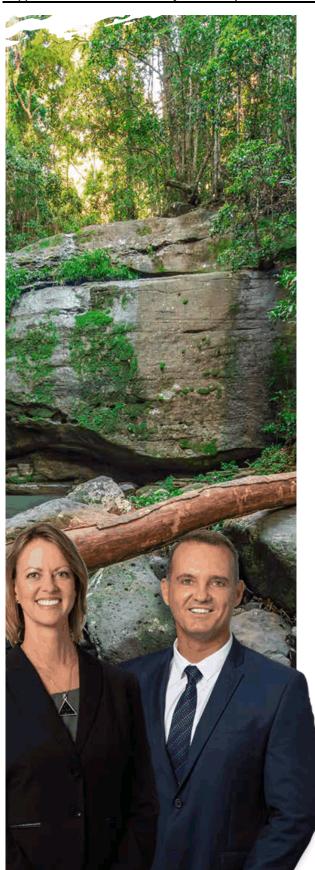
2019/20 has been another productive year for the Environment Levy Program and I encourage everyone to take the opportunity to learn more about what your Environment Levy is achieving for our community.

I would also like to thank our partners—the students, landholders, community groups and volunteers—who dedicate their time and energy to support the Environment Levy Program. Their efforts are an integral part of what we are able to achieve and go a long way towards achieving our vision.

To find out more about how we are delivering a healthy environment and liveable Sunshine Coast, visit els.sunshinecoast.qld.gov.au.

Mayor Mark Jamieson





From our Councillors

As Environment and Liveability Portfolio Councillors we are proud to showcase the many wonderful initiatives the Environment Levy Program delivers.

It enables us to buy land for conservation to protect our natural ecosystems and bushland areas, or establish new habitats and to support our native plants and animals and our natural landscapes for current and future generations.

The Environment Levy also helps build our knowledge through research and monitoring programs, it supports local environment groups to deliver environmental activities, education and on-the-ground projects, and allows us to work with landholders to rehabilitate their lands.

The Environment Levy Program allows Council, in partnership with the community, to achieve so much for the Sunshine Coast's natural environment. Through the Kids in Action program (KIA) we're helping to educate the next generation of local environmentalists so they too can protect our beautiful home in the future.

Our 2019 KIA program Connecting to Country:
Celebrating nature's icons won an award at the 2020
Queensland Reconciliation Awards for partnership.
The 2019 program was created in collaboration with our Jinibara and Kabi Kabi First Nations community members to celebrate the International Year of Indigenous Languages. It was a great way to help students deepen their understanding of environmental issues and their sense of connection to the region's natural environment. Recognising the value and importance of traditional ecological knowledge, language and cultural practices will play an important role in future KIA programs and we look forward to working with our First Nations people to build on the strong relationships we have fostered.

Councillor Maria Suarez and Councillor Peter Cox

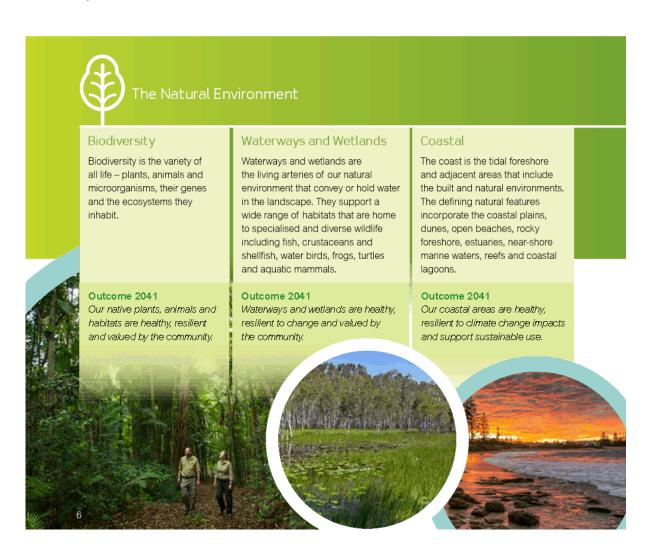
Your Environment Levy in action

Transforming the Sunshine Coast

The Environment and Liveability Strategy 2017 (ELS) sets a long-term vision to deliver a healthy environment and liveable Sunshine Coast by 2041. It provides the framework for integrated decision-making to preserve and enhance our region's landscape, character and natural environment and to guide our community towards sustainable living, valuing both our built and natural environments.

The ELS proactively responds to the challenges our region will face into the future. It strikes a balance between catering to our growing population whilst maintain a strong economy and building resilient communities, as we adapt to a changing climate.

The Environment Levy is a key funding source that supports the delivery of various Transformational Actions set out within the ELS. Environment Levy funding helps to achieve outcomes and targets for our biodiversity, waterways and wetlands, and coastal areas as defined by the natural environment theme of the ELS.





Appendix A

Transformational Actions

Connecting nature and people

Connecting our valued habitat areas to support our native flora and fauna and providing the community with opportunities to participate in conservation and to experience the natural environment.



Maintaining the blue by protecting the green



Healthy coast

Providing a strategic and coordinated approach to the protection, sustainable use and enjoyment of our dunes, beaches, rocky shores and near-shore marine waters.



Managing our invasive plants and animals

Providing a collaborative, effective and efficient response to the management of invasive plants and animals to reduce their social, economic and environmental impacts.





Building our knowledge

Enabling evidence based decisions for a healthy environment and liveable Sunshine Coast.



Sunshine Coast Council Environment Levy Annual Report 2019/20

Where did your Environment Levy go in 2019/20? Total spend: \$9.3m Delivering on-ground **Building our** Engaging and environmental knowledge supporting the projects (monitoring Sunshine Coast and research) community \$1.2m \$1.5m \$3.6m \$2.5m Buying, protecting Other environmental and enhancing operational activities environmentally including invasive

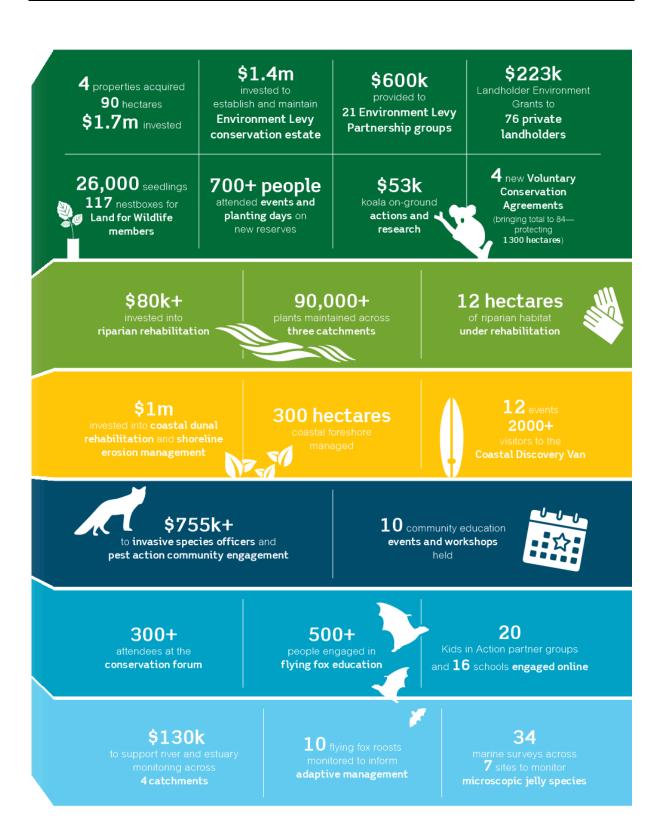
Sunshine Coast Council Environment Levy Annual Report 2019/20

plant, animal and conservation estate management

significant land

Appendix A

Environment Levy Annual Report 2019/20



Land acquired to protect and restore habitat

The Environment Levy land acquisition program aims to:

- protect, preserve and enhance our natural environment and wildlife corridors
- consolidate and grow Council's conservation reserve network
- · preserve native plants and animals
- create and protect new habitat areas to offset unavoidable vegetation loss.



Enhancing the Marcoch

The Blue Heart Sunshine Coast project presents an opportunity to protect existing habitat and to create new habitats. This year, three properties have achieved just that.

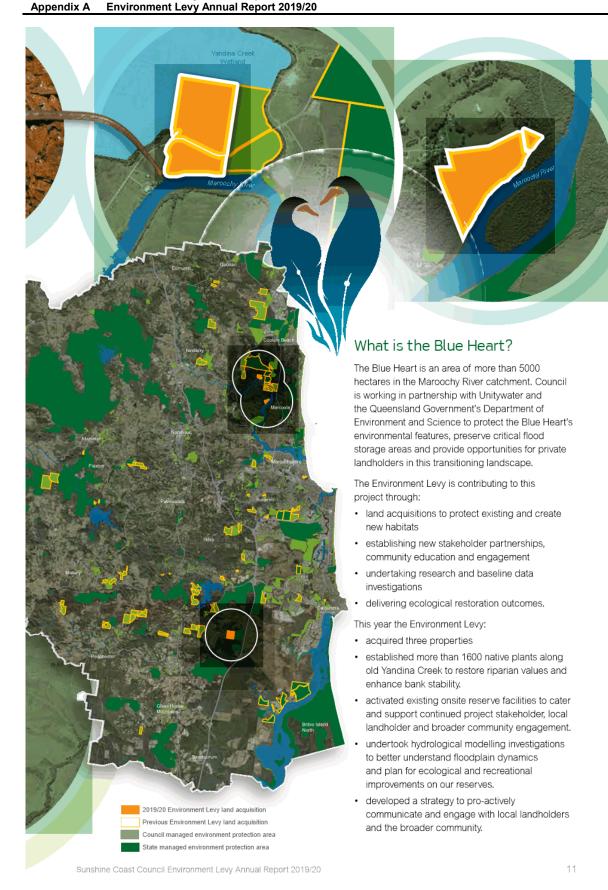
Two properties totalling 14 hectares were acquired along the Maroochy River protecting important habitat for the water mouse (Xeromys myoides). This new reserve also protects habitat for five mangrove species, some of which may be up to 200 years old.

The Environment Levy also contributed to the acquisition of a further 16 hectares of land within the core Blue Heart area, of which, 10 hectares will be dedicated to conservation outcomes. This property presents opportunities to restore wetland habitat and deliver recreational outcomes for the community.

Protecting a green frame

A 65 hectare property adjoining Glass House Mountains National Park has been added to the conservation estate. This acquisition protects eucalypt and wetland ecosystems contibuting to the green frame of the Beerwah East Major Development Area. It provides habitat for a diverse range of locally significant animal species including the brushtailed phascogale (*Phascogale tapoatafa*) and opportunities for nature based recreation to support future communities in this area.

10



Annie Hehir Environment Reserve establishment complete

Annie Hehir Environment Reserve is an exceptional conservation area containing high biodiversity values and pristine waterways. It provides a rare glimpse into what parts of the Sunshine Coast hinterland would have looked like prior to European settlement.

The reserve is situated at the southern perimeter of the Blackall Range escarpment in a valley formed by the Upper Stanley River and is within the 'Mountain View' major green space area.

The 63 hectare Environment Levy funded Annie Hehir Environment Reserve was established through the purchase of two adjoining properties in 2011 and 2017. Since then, Environment Levy funds have supported a range of management actions to protect and enhance its significant ecological values.

Actions undertaken include:

- native vegetation restorationinvasive plant and animal
- management
- · flora and fauna surveys
- upgrade and maintenance of access and fire trails
- sediment and erosion control measures
- preparation of a resiliencebased condition assessment to inform management.

The reserve supports at least 145 native animal species, of which seven are listed as conservation significant including the endangered giant barred frog (Mixophyes iteratus), the vulnerable long-nosed potoroo (Potorous tridactylus tridactylus) and the vulnerable koala (Phascolarctos cinereus).

Most of the reserve is covered by remnant vegetation, including areas of 'Lowland Rainforest of subtropical Australia'-a critically endangered ecological community that is protected under the Environment Protection and Biodiversity Conservation Act 1999. Eucalypt forest lines the reserve's ridges and rainforest lines the creeks and river flats. These vegetation communities form important landscape connections and form part of a broader core habitat area that extends from London Creek in the east to Booroobin in the west.

More than 98 native plant species are known to occur within the reserve including several poorly

conserved regional ecosystems and conservation significant plant species listed under State and Commonwealth legislation. These include the vulnerable Maroochy nut (Macadamia ternifolia), red lilly pilly (Syzygium hodgkinsoniae) and romnalda (Romnalda strobilacea).

There have been many community events held at this reserve to help establish new and enhance existing habitat. Over multiple events held on the reserve more than 100 community members assisted to establish 635 native trees. This reserve has now transitioned from the establishment program to the Environment Levy's ongoing reserve maintenance program. Community access to the reserve will be managed closely to ensure these significant values are protected.





Restoring the health of the Mary River

Located in the western parts of the local government area, the Mary River catchment is one of our five major river catchments. The Mary River's extensive watershed originates from the slopes of Conondale Range and is fed by a network of 19 tributaries (including Obi Obi Creek from the western Blackall Range foothills). The Mary River meanders north, beyond our local government area, before discharging into the Great Sandy Strait.

The well-watered and fertile soils of the Mary Valley have supported a range of agricultural uses since the early years of European settlement including timber-getting, cropping and dairying. During the 1950's, the region was regarded as one of Queensland's most important dairying areas with Mary Valley farms supplying milk to Gympie's butter factories.

The loss of important bushland and riparian vegetation areas to support these agricultural landuses

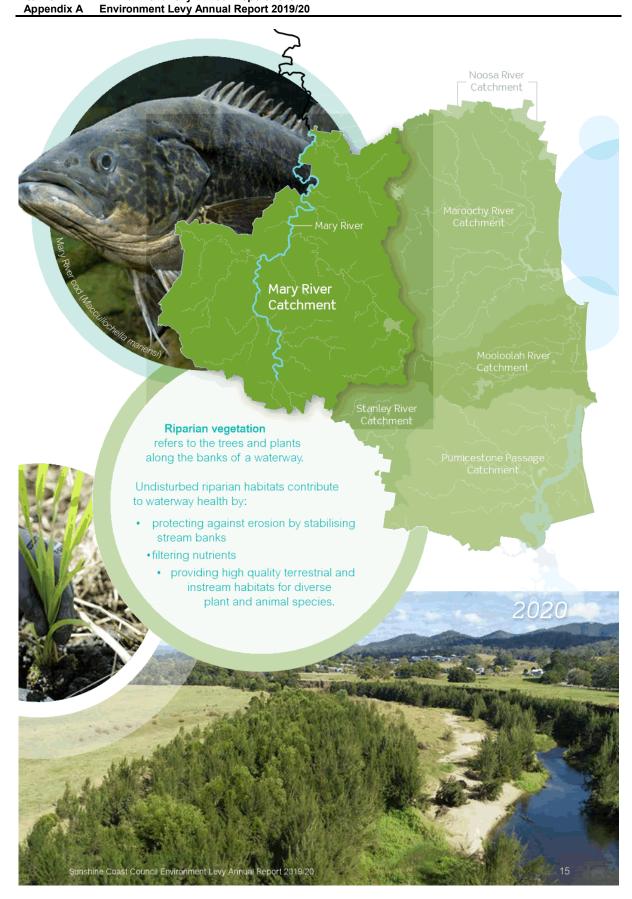
has had ongoing and far-reaching implications for water quality and species that inhabit the Mary River, including the threatened and iconic Mary River cod (Maccullochella mariensi).

In 2016/17 Council commenced a four year riparian restoration project focusing on areas contributing sediment to the river. Eight sites along a 1.7 kilometre stretch of the Mary River at Kenilworth were targeted. Over the life of the project, approximately \$500,000 was invested into establishing and maintaining more than 45,000 native plants across the six hectare project area. Project actions also included the establishment of erosion control structures to enhance bank stability and management of invasive plant species to support natural regeneration of native vegetation.

Council worked in collaboration with local landholders and a range of other organisations including the Mary River Catchment Coordinating Committee, Burnett Mary Regional Group and Seqwater. This collaborative effort was central to the project's success. The riparian restoration techniques used have been showcased to other rural landholders and the community as a working example of best practice in riparian restoration to achieve long term improvements in river health.

The positive impacts of the project are already evident with planted trees and shrubs thriving. Though still establishing, these plants are already providing habitat to native species and stability to the previously eroded sites—leading to improved outcomes for the Mary River's water quality and its instream habitats.





Protecting the Mary River turtle

The European fox (*Vulpes vulpes*) is a major threat to the endangered Mary River turtle (*Elusor macrurus*), placing additional pressure on vulnerable turtle populations through predation on unhatched eggs.

As a partner in the Mary River Turtle Protection Program, Council is working with Tiaro Landcare, the Mary River Catchment Coordinating Committee and neighbouring local governments to reduce the impacts of invasive species and conserve this unique species, found only in the Mary River.

Council continually seeks to employ the latest technology in its invasive animal control, integrating digital technology innovations where possible and as part of its best-practice management systems. The Environment Levy contributed funds towards 20 telemetry cameras to be deployed throughout private properties to detect the presence of invasive species.

The specialised cameras use artificial intelligence (AI) software to differentiate between the various species captured by the motion detecting cameras. The supporting software can identify target species, such as foxes, from native species providing greater efficiencies in data analysis— which is useful when assessing large quantities of images.

The cameras are solar-powered and operate wirelessly by transmitting real-time data accessible via a computer or mobile device. This enables remote surveillance and the ability to deliver an immediate management response when necessary.

The AI cameras also provide valuable data on native animal populations to assist with evaluating the success of invasive species management and to inform conservation actions.





Supporting the community in conservation action

With support from the Environment Levy's conservation programs, a private landholder in the Mary River catchment is protecting and enhancing important habitat areas for threatened species such as the blackbreasted button quail (*Turnix melanogaster*) and the koala (*Phascolarctos cinereus*) on their Walli Creek property. Ms Gear is a Land for Wildlife member and has also committed to protecting her property's biodiversity values through a Voluntary Conservation Agreement for future generations to also experience and appreciate.

Private landholders play a significant role in the conservation of our region's natural environment. With many of our remnant bushland areas held under private ownership, Environment Levy supported programs such as Voluntary Conservation Agreements, Landholder Environment Grants and Land for Wildlife, are vitally important in complementing the work undertaken by Council and the State Government to protect native bushland areas.

Healthy koala population supported

The Sunshine Coast Koala
Conservation Plan 2015 aims
to protect our region's koala
populations. The Plan provides a
framework of actions to restore
and conserve koala habitat as well
as mitigate many threats faced by
the species.

The koala (*Phascolarctos cinereus*) is vulnerable under both State and Commonwealth legislation. Supporting our region's koala populations is essential to assist the long-term survival of this iconic and threatened species.

Since the Plan's commencement, Environment Levy funds have supported multiple research partnerships to better understand our region's koala populations. Monitoring and tracking koalas has led to the identification of a koala 'hotspot' in the Reesville/ Howells Knob area—where a healthy population of koalas was discovered.

Council's Howells Knob Reserve, a former quarry, was identified as a key location that could enhance landscape habitat connections through revegetation. Since 2018 more than 200 koala food trees including flooded gum (Eucalyptus grandis) and tallowwood (Eucalyptus microcorys) have been planted within the reserve and, remarkably, koalas are already sourcing food from the growing trees. In addition, a number of other actions including removing barriers to koala movement and weed control to assist natural regeneration has been delivered.



Council has completed a comprehensive assessment of the interactions between fauna movement and the Sunshine Coast road network, including an investigation of the latest research on fauna crossing infrastructure and road kill mitigation technologies.

To understand the effectiveness of fauna infrastructure, researchers from the University of the Sunshine Coast monitored existing infrastructure at 13 locations across the local government area. 11 underpasses, one land bridge and one rope-bridge were monitored for almost 12 months. This monitoring study found that fauna crossings are well-utilised by fauna and provided recommendations to improve existing and plan for new infrastructure.

A spatial 'landscape model' was also developed to map the potential movement pathways for macropods, koalas, ground dwelling mammals, possums and aliders. The interaction of these potential movement pathways with the road network were then analysed and field surveys undertaken at prioritised sites. These surveys gathered evidence of fauna presence and assessed the risks and barriers to movement. Opportunities to improve the safe movement of fauna were recommended to assist with future

planning.



Sunshine Coast Council Environment Levy Annual Report 2019/20

A proactive approach to the health of our coast

A healthy coast supports natural processes, biodiversity values and opportunities for sustainable use–contributing to the Sunshine Coast identity, lifestyle and economy. Our region boasts a spectacular and diverse coastline that includes approximately 53 kilometres of surf beaches, seven kilometres of rocky shores and more than 70 kilometres of lower estuaries.

While our coastline is well-serviced and relatively unmodified, there are drivers of change, such as our growing population and changing climate, that require Council to be proactive in monitoring and managing the health of our coastal areas. The Environment Levy's Coastal Health Report project showcases Council's commitment to proactive action in this space. The report seeks to track the condition of our coastal areas as well as identify how the community values and uses these natural areas.

Council has continued to collect data to establish the baseline

condition of our beaches, headlands, estuaries and coastal lagoons. Council teams are monitoring water quality in estuaries and lagoons as well as surveying changes to beaches and vegetated dunes. In addition, Council is partnering with University of the Sunshine Coast to research coastal ecosystems and has undertaken several hundred vegetation and fauna surveys, including fish, crabs, shoreline vertebrates and rocky shore invertebrates.

The results from the first year's surveys revealed the immense biodiversity of our coastal areas with a multitude of species

identified. This included several threatened species such as the estuary stingray (Hemitrygon fluviorum), white-spotted guitar fish (Rhynchobatus australiae) and green turtle (Chelonia mydas).

These research findings will contribute to a benchmark for future assessments to ensure our coastal areas remain healthy, resilient to change and available for the community and visitors to enjoy.

The first Coastal Health Report is proposed to be delivered

in 2021.

Protecting the coast and its biodiversity

The natural vegetation along our coastal areas plays an important role in supporting coastline features, particularly our open beaches, by providing a buffer from storm events and protection from erosion. They also provide important habitat for many native animals such as the white-bellied sea eagle (Haliaeetus leucogaster) and osprey (Pandion haliaetus).

More than \$1 million of Environment Levy funds were invested into restoring and maintaining key sites across Priority actions seek to preserve our coastal areas in a natural or near-natural state where possible, and are focused largely on invasive plant management and revegetation of local native plant and tree species. Central to the success of restoration efforts is effective and ongoing management of invasive plant species such as coral creeper (Baleria repens) which smothers native vegetation and hampers restoration efforts.

To encourage sustainable access and use of our beaches and protect areas under rehabilitation dune-protection fencing and signage is installed. This year Mooloolaba dune systems were fenced to assist with natural regeneration. Ongoing community engagement and education of coastal processes and values is also an important aspect to encourage the sustainable use of these areas. The coastal discovery van is a great resource that provides this service for our community.





Managing invasive plants

Council recognises the importance of leading a coordinated approach and working with landholders in order to achieve successful long-term management of invasive species.

Through the Environment Levy's Pest Action and Community Conservation Programs, landholder assistance includes:

- on site demonstrations of invasive plant control techniques
- provision of invasive plant control equipment and resources
- advice and assistance to join community conservation programs
- · assistance to apply for Environment Levy grants
- · community engagement events.





Natural enemies assisting with invasive vines

As part of Council's integrated approach to invasive species management, biocontrol techniques are used to manage some invasive species. Biocontrol is the use of a 'natural enemy' to control a particular invasive plant species. For example, certain beetles and bugs are known to only eat particular weed species. This is useful when dealing with pesticide sensitive sites or managing large infestations of invasive plants.

Cat's claw creeper (Macfadyena unguis-cati) and madeira vine (Anredera cordifolia) are two invasive species identified as priorities in the Sunshine Coast Local Government Area Biosecurity Plan 2017. These vines are

vigorous climbers that smother trees, shrubs and understorey species—altering the structures of vegetation communities and compromising soil stability.

These species have been targeted in riparian areas of the Maroochy River catchment where they pose a serious threat to native species including the threatened Richmond birdwing butterfly vine (Pararistolochia praevenosa).

When delivering biocontrol activities, Council engages with local landholders to foster a localised community response to invasive plant management. Environment Levy funds have

supported the purchase of biocontrol insects from Mooloolah River Waterwatch and Landcare, and Gympie Landcare, who breed and supply several species of biocontrol insects to local governments and landholders.

Leaf-sucking tingid bug (Carvalhotingis

Species include the leaf-sucking tingid bug (Carvalhotingis visenda) and leaf-mining jewel beetle (Hylaeogena jureceki) to control cat's claw creeper and the leaf-feeding beetle (Plectonycha correntina) to control madeira vine.

Kids in Action goes digital

Educating the region's youth on environmental issues is critical to inspiring future environmental leaders. The Environment Levy Kids in Action (KIA) program seeks to do just this, through supporting the development of environmentally-aware and informed young citizens, equipped and confident to take action on local and global issues. In its eight-year history the program has grown significantly with many participating schools returning year after year.

The 2020 program, under the theme We are Botanica: Plants for healthy bodies, minds, spirit and planet, sought to build on the success of the award-winning 2019 program through continued engagement of First Nations' experts.

With COVID-19 restrictions significantly impacting the programs delivery in 2020, the environmental projects day, usually attended by several hundred students across multiple schools, could not take place in its traditional format. This year, in collaboration with the KIA workshop partners, the event was delivered virtually for the first time. A series of video presentations and resources were developed for teachers or parents to access safely from their home or school environments. This innovative approach allowed the program to continue its engagement with our local schools in promoting positive environmental stewardship to their students.

All of these resources are now available on Council's website for all to see.



A new direction in flying fox education

Raising the profile of our native flying foxes is an important part of the Environment Levy's community education programs. Each year Council hosts a range of flying fox education events to foster awareness of the important role our region's three native flying fox species play in maintaining the health and biodiversity of our native forest ecosystems through seed dispersal and pollination of flowering trees and plants.

The showcase event of the flying fox calendar is our annual Australasian Bat Night. This event is usually held in Maleny with a range of activities including watching the dusk fly out of flying foxes from a nearby roost. However, COVID-19 restrictions challenged Council to take this popular family event from picnic blankets in the park to an online event the community could enjoy from home.

Community members were able to participate in the virtual event packed with a range of interesting presenters exploring the fascinating world of flying foxes. The online resources developed for this event will continue to be used to help educate people about flying foxes and their importance.

