



**HPNL** HEALESVILLE / PHILLIP ISLAND  
**NATURE LINK** *Newsletter Summer 2021*

## Healesville to Phillip Island Nature Link Inc President's Letter February 2021



Congratulations to our well-deserving Australia Day Awards recipients including Dr Mary Cole, Dr Nigel Bertram, David Forscutt, Ross Wilkie and Rosemary Mynard. Each of these individuals have and continue to contribute unique skills to further community understanding of the relationship between humans and our environment and ensure responsible stewardship of the landscape we cherish.

While scampering around Covid-19 regulations and the latest Covid cluster has been challenging, you will see in this bumper newsletter that much has been happening. We are excited about our collaboration with Monash Art, Design and Architecture, not only with the development of the Tooradin Community/Environment/Research Centre but also with ground-breaking, catchment-wide, work integrating plans for the centre into landscape-wide planning from an architectural perspective to allow for flood mitigation, wildlife habitat connectivity and human development.

This work is critical for life quality for both people and nature as urban expansion pushes eastwards from Melbourne. As a citizen's advocacy group, we work with government and private organisations at all levels to try to achieve this.

The report on our first community workshop for the Tooradin Centre is elsewhere in this newsletter. Many thanks to our speakers who spoke passionately about Indigenous perspectives (Melissa McDevitt), history of human-nature interactions at Tooradin (Pat Macwhirter), Western Port marine life (Jeff Weir), farming (David Young) and working towards a sustainable future (Marlene Hargreaves).

Thanks also to the Monash team, led by Professor Nigel Bertram who facilitated the workshop by breaking discussions into wider catchment, Tooradin township and the centre itself. There were lively exchanges at each of the tables with much marking on maps of local knowledge, concerns and ways to address challenges.

We are all excited with what will emerge at the next meetings and workshops leading up to the final report in June which will combine vegetation and wildlife survey results with the architectural plans. Work continues on 'The Nature of Tooradin' book with chapters now coming in and completion also expected by June.

Planned or ongoing activities that are potential threats to the progress of the Nature Link include AGL plans for a gas terminal at Hastings and sandmining occurring in critical habitats on hills to the east of Western Port. As you will see in this newsletter, HPNL members and local community advocates have been active in pushing the case for environmental values and connectivity. The potential loss of Grantville's ancient Grass Tree forest is particularly distressing.

On a more positive note HPNL has been working with educators Annette Anderson and Megan Hough from Swinburne and RMIT in developing an HPNL-wide citizen science project involving schools and environmental groups examining microplastics, invertebrates and waterway habitats. If funded, this work will produce valuable data and encourage collaboration between schools and environmental groups on a landscape wide scale.

A huge thank you to Marlene and all the contributors to this newsletter and other HPNL projects. Keep safe and looking forward to working with you in the months and years to come.

Best wishes

Pat Macwhirter  
President

Healesville to Phillip Island Nature Link



Credit Naturr,

HPNL Inc is a member of the Global Alliance for the Rights of Nature [LINK](#)

# GARN

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# M E M B E R

HPNL Inc is a member of the Australian Earth Laws Alliance [LINK](#)

aela



# 2021 HOLT AUSTRALIA DAY AWARDS CEREMONY

PRESENTED BY

ANTHONY BYRNE MP

FEDERAL MEMBER FOR HOLT

TOORADIN SPORTS CLUB



View Anthony's opening address





[View Anthony's parliamentary speech](#)



# Congratulations to Holt Australia Day Award Recipient

Dr Mary Cole Agpath Laboratory, Vice President HPNL Committee



**Voluntary work:** Mornington Peninsula and Western Port Biosphere Reserve Foundation Ltd

Member and Chair of Research Committee 2015 and member of the original committee to write the successful submission that was accepted by UNESCO in 2005. A team of energetic community members who had the vision to protect the environment of Western Port and surrounds and to educate and involve the community in this vision.

*Bunyip Landcare*

Member since inception – 25 years

*HPNL Project: Tooradin Research/Environment/Community Centre*

The Centre is envisaged to be a Centre of Excellence for research, to bring the community together, educate about how we can improve our world on many levels – locally and globally – and showcase win-win solutions for our planet and all its inhabitants.

Mission:

*Ignite curiosity*

*Increase sensitivity* – especially to native wildlife and ecosystems

*Inspire* people to fall deeply, utterly and obsessively in love with Nature

*Encourage* people to go in to Nature to experience and connect with it

*Promote* understanding of just how precious wild places and animals are

*Promote* citizen science

*Educate* about Earth Jurisprudence

*Educate* about animal sentience

*Educate* on future technologies to assist people to transition to new lifestyles and industries



# Congratulations to Holt Australia Day Award Recipient

Prof Nigel Bertram Monash Art, Design & Architecture, HPNL Committee



**Voluntary work:** *Healesville to Phillip Island Nature Link Committee.* Nigel has been assisting with the architectural plans for the proposed Tooradin Research, Environment & Community Centre.

His Tooradin related work consists of; incorporating the Tooradin Centre design project in to the MADA 2019 first semester curriculum for final year Bachelor of Architecture Design Studio students with various site visits to Tooradin - Inlets and surrounding areas.

Nigel and students visited China for 3 weeks to learn from world-leading contemporary public landscape designs. and Turenscape Academy in Xixinan - key protagonists and authors of the Sponge City program. Students studied ancient, world-heritage listed villages and traditional ways of integrating water health and flow with urban life and learn from ecological repair work to rejuvenate polluted ex-industrial sites.

They applied this learning and cross-cultural exchange to produce thirteen conceptual designs for the proposed Tooradin Centre.

Nigel presented the student designs to the HPNL committee and community members at the HPNL 2019 AGM, Tooradin Sports Club,

Numerous in person and Zoom meetings have ensued including with Department of Environment, Land, Water and Planning (DELWP) and HPNL members.

On Sunday Feb 7, 2021 at Tooradin Sports Club, Nigel presented his research so far to the HPNL committee and Tooradin community members to invite feedback about the local environment and township to inform the design and progress to the next workshop.

## Congratulations to Holt Australia Day Award Recipient

David Forscutt Director EcoFuture, Director Tooradin & District Sports Club



Though the Director of two busy companies, David makes time to give back to the community. In his voluntary work, he has been a member of the Board of Directors of the Tooradin Sports Club for 5 years. As a cricketer and footballer - including coaching - in his younger days, he has a keen interest in the local football and cricket clubs.

The Club was founded in 1976 by a group of people wanting to improve sporting facilities in Tooradin and surrounding areas and today proudly consists of hundreds of members and is frequented by many visitors.

It has a TAB, gaming facilities, bistro and function rooms and from proceeds raised, proudly sponsors and assists many local sporting clubs, charities and community groups throughout the region.

For 3 years David was also a member of the Tooradin Business Association, working to promote businesses in the coastal villages area.

## Congratulations to Holt Australia Day Award Recipient

Ross Wilkie Secretary, Tooradin Foreshore Committee Of Management



In his professional career, Ross worked at senior level in the Immigration Department. For his voluntary work, he has been Secretary of the Foreshore Committee since 2008 with some earlier terms beforehand between overseas trips.

The Committee are a group of volunteers who work with Department of Environment, Land, Water and Planning (DELWP). Their main objective is to maintain and improve the foreshore area for the benefit of the general community.

The Committee has been responsible for the restoration of the 'Fisherman's Cottage' - purchased in 1968 by the Cranbourne Shire Historical society.

Notable amongst their many works, the Committee has worked to upgrade the foreshore car park, financed the boat ramp with floating pontoons, installed fishing platforms, the recent restoration of the old Jetty with floating pontoon, maintain the childrens playground, and organise the annual Christmas on the Foreshore event - a very popular family event for the community with everything from food to kids' rides, entertainment and fireworks.

## Congratulations to Holt Australia Day Award Recipient

Rosemary Mynard Former CSHS Curator Tooradin Fishermans Cottage Museum



In Rosemary's professional life she was a journalist. In her voluntary work, Secretary of the Cranbourne Shire Historical Society - member for 18 years. She served as a volunteer Curator at the Fisherman's Cottage Museum - built c.1873 - on the Tooradin Foreshore.

During her time at the Cottage, Rosemary gave guided tours of the Museum. For the first 6 years it was open every day - thereafter from 10am-4pm on weekends, public holidays, and by appointment. Bus tours came from all over Victoria; school groups, home school groups and tourists.

The Cottage is one of the earliest houses built in Tooradin and one of the few remaining examples of the fishermen's houses that originally dotted both sides of Sawtell's Inlet at Tooradin in the nineteenth and early twentieth century.

The Cottage was saved from demolition in 1968 by the action of the foundation members of the Cranbourne Shire Historical Society.

Rosemary has also served on other local committees including Tourism Officer with the Tooradin Business Association and with the Tooradin Hall Committee for around 10 years. At the time the Hall was open 7 days a week to help community members.

# Tooradin Jetty Repair/Construction State Government Stimulus Program



*Email from Tooradin Foreshore Committee of Management to Daniel White, Office of Hon Anthony Byrne MP 22/11/2020*

G'day Daniel,

A phone call from Tony Walton, Chief Ranger Parks Vic for Westernport last Friday to Ross Wilkie (Tooradin Foreshore Committee of Management) & myself, advised that works will commence on 30<sup>th</sup> Nov. with a completion date of end Dec. for repair/construction on the jetty at Tooradin.

On behalf of the TFCM, myself, & people of Tooradin Village, we are most grateful for the support of Anthony & yourself in this matter. Naturally, we are delighted that this is part of the State Government stimulus program.

Regards & thanks,

Lindsay Mitchell.

# We are improving Tooradin Jetty for boaters, fishers and the community



## Project **Tooradin Jetty Repair Works**

Contribution **\$1.36M Rye Pier Repair Works and Tooradin Jetty** (Approximately \$600K)

Completion **February 2021**

Tooradin Jetty, popular with boaters, fishers and the community, will be repaired with new structural timbers. A new all access floating pontoon will be installed to replace the existing lower landings. Funding is provided through the \$2.7 billion Building Works economic stimulus program and delivers the Government's commitment to improve boating amenities around Port Phillip Bay and Western Port.

Authorised by Parks Victoria 535 Bourke Street Melbourne

06/12/2020 Heavy equipment arrives



07/12/2020 Wooden pylons removed, concrete pylons remain





**10/12/2020 Wooden pylons replaced, all pylons covered with plastic sleeves ready for concrete pour**



17/12/2020 Floating pontoon and walkway delivered



12/02/21 Completed works – low tide



**13/02/21 Completed works – high tide**



13/02/21 Completed works – high tide



MONASH UNIVERSITY URBAN  
LAB

**HPNL** HEALESVILLE / PHILLIP ISLAND  
NATURE LINK

Report from Workshop #1 for proposed

TOORADIN

RESEARCH • ENVIRONMENT • COMMUNITY

CENTRE

Sunday February 7, 2021

Tooradin Sports Club



## HPNL Committee

1. Dr Pat Macwhirter: Bird Vet Melbourne [LINK](#)
2. Dr Mary Cole: Agpath Lab [LINK](#)
3. Marijke de Bever-Price: Western Port Catchment Landcare Network [LINK](#)
4. Marlene Hargreaves: EcoFuture [LINK](#)
5. Melissa McDevitt Weston: YBWB Clans Aboriginal Corporation
6. Lindsay Mitchell: Tidemaster Tours [LINK](#)
7. Sue Bendel: Friends of Leadbeater;s Possum [LINK](#)
8. Sue Davies: Western Port Swamp Landcare Group [LINK](#)
9. David Young: Westernport Biosphere [LINK](#)

## Monash University

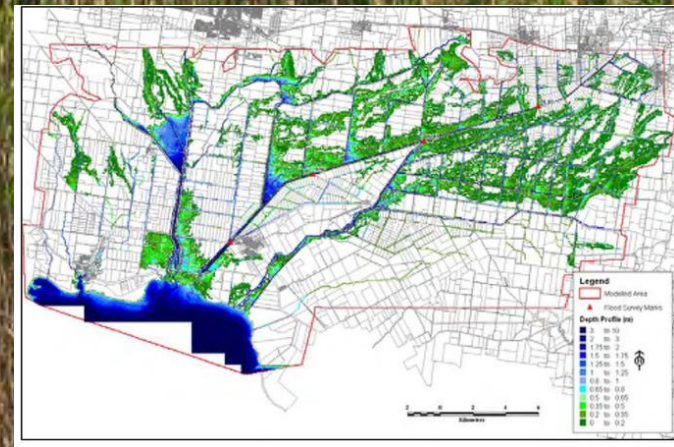
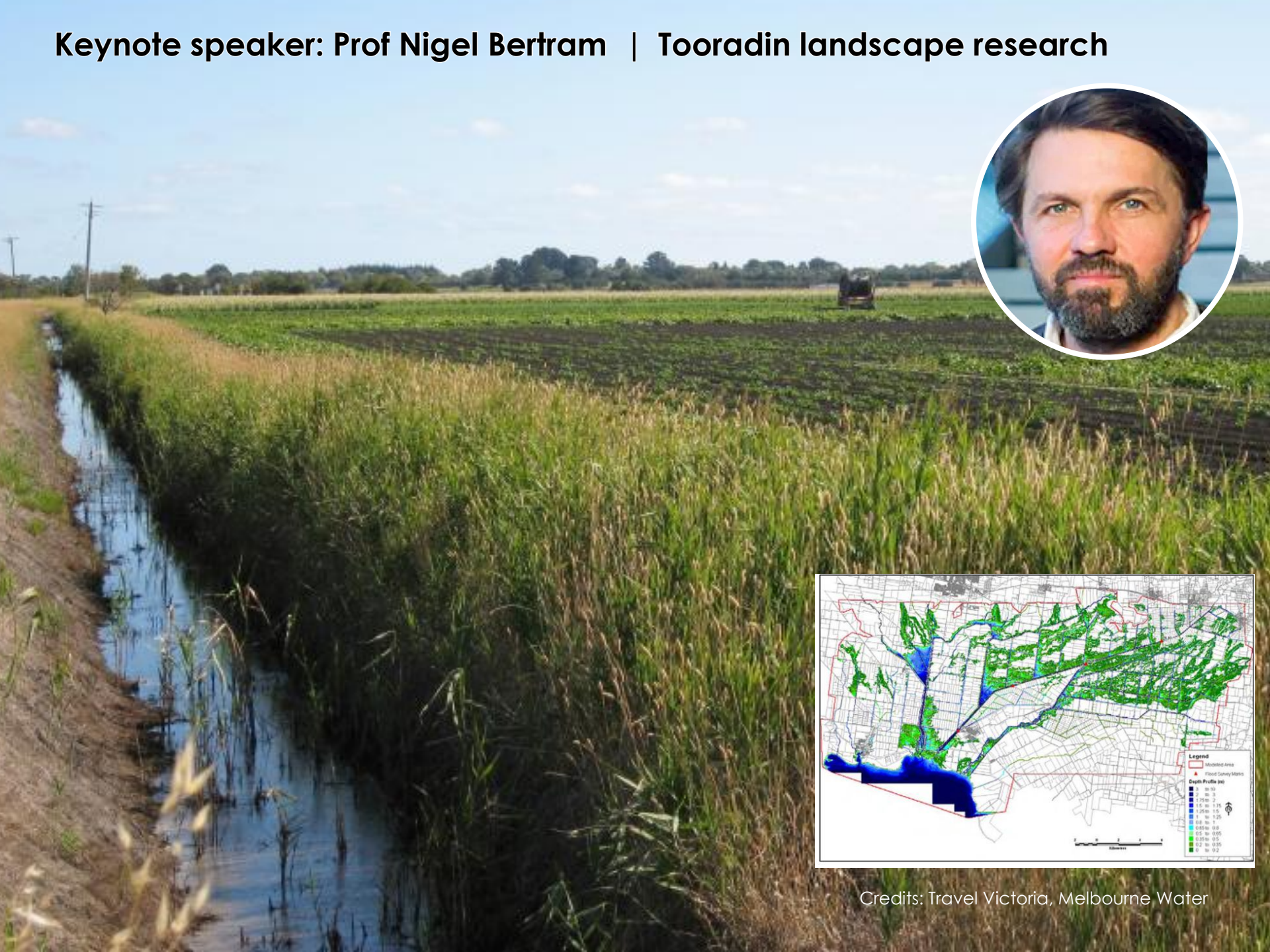
10. Prof Nigel Bertram: Monash University Art Design & Architecture [LINK](#)
11. Catherine Murphy: Monash Urban Lab [LINK](#)
12. Rutger Pasma: Monash Urban Lab
13. Jon Shinkfield: Landscape Architect, REALM Studios [LINK](#)
14. Louise Wright: Baracco + Wright Architects [LINK](#)

## Guests

15. Jeff Weir OAM: Dolphin Research Institute [LINK](#)
16. Ross Wilkie: Tooradin Foreshore Committee of Management [LINK](#)
17. Renee Sweetman Weston: Traditional owner
18. Gerome Sweetman Weston: Traditional owner
19. Asher Coleman: South-East Climate Action Network [LINK](#)
20. Barry Freeman: Cranbourne Shire Historical Society [LINK](#)
- 21 + 22. Ian and Lorraine Jaques

Thank you  
workshop  
participants

# Keynote speaker: Prof Nigel Bertram | Tooradin landscape research



Credits: Travel Victoria, Melbourne Water



# Melissa McDevitt Weston | Welcome To Country | Indigenous perspectives



# Dr Pat Macwhirter | The Nature of Tooradin



Jeff Weir OAM | Western Port Marine Systems



Caring For our Bays Since 1991



# David Young | Farming Communities



Credit: Ausveg

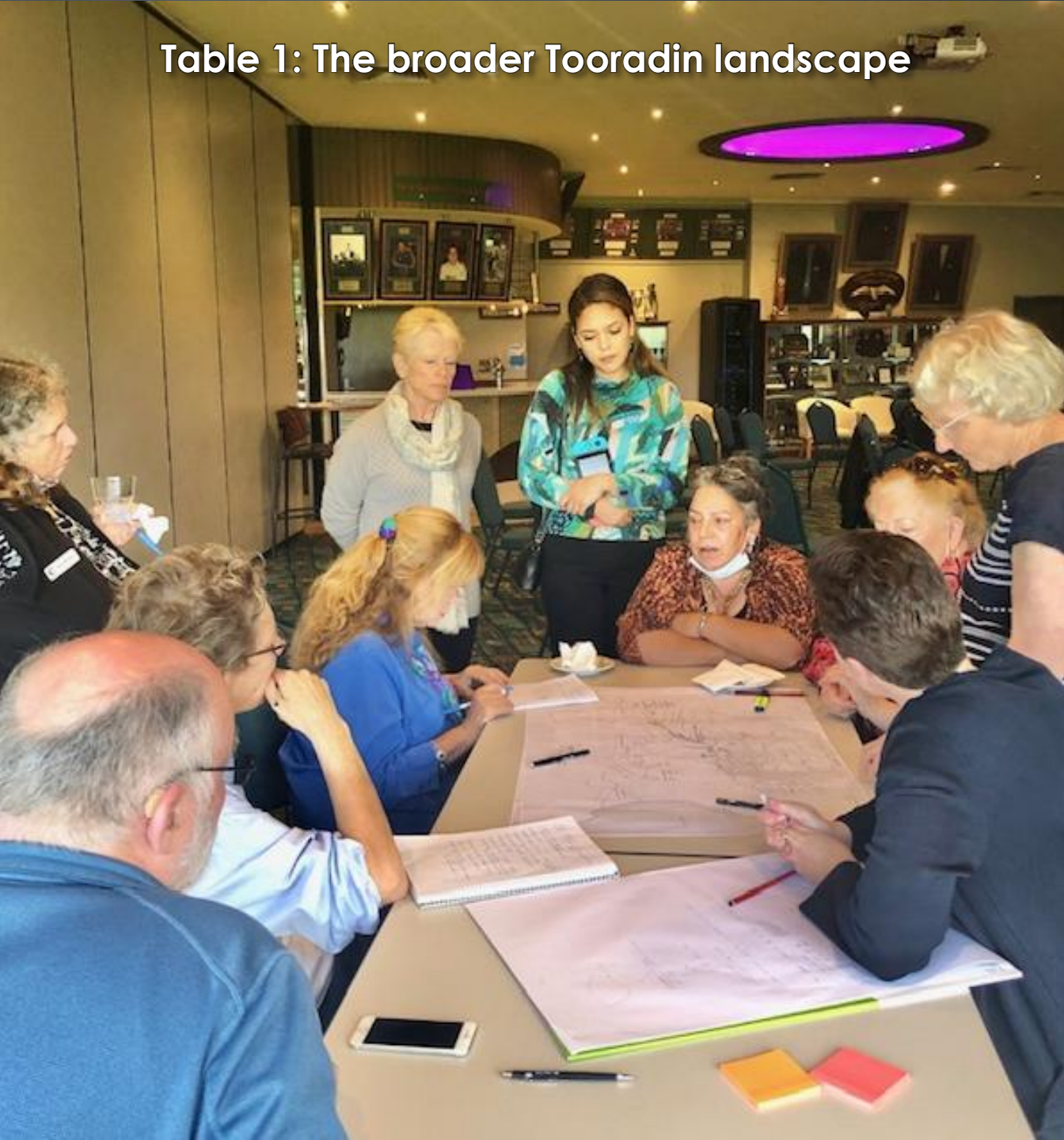
Marlene Hargreaves | Transitioning To Our Sustainable Future



Credit: Fritjof Capra, The Web of Life: A New Scientific Understanding of Living



## Table 1: The broader Tooradin landscape



## Workshop agenda

Following speaker presentations, attendees moved to three tables for discussions - to glean invaluable local knowledge about (1) Tooradin as situated in the broad landscape, (2) the township and (3) the favoured location to date for the proposed Centre - on the peninsula to the north of the Pelican Cafe.

After contributing ideas at their initial table, participants were then asked to swap tables and contribute to each discussion.

Lively exchanges ensued, many notes and drawings were made for the final debriefing session - bringing to a close a very enjoyable day.

\*\*

Thanks to the Sports Club chef for a lovely afternoon tea.

\*\*

Standing from left: Sue Bendel, Marijke de Bever-Price, Renee Sweetman Weston, Pat Macwhirter. Seated from left: Jeff Weir, Catherine Murphy, Sue Davies, Melissa McDevitt Weston, Mary Cole, Louise Wright.

## Table 2: Tooradin township

From left: Barry Freeman, Jon Shinkfield, Lindsay Mitchell, Ian Jaques





**Table 3: Proposed Tooradin Centre**  
Left: Nigel Bertram, Ross Wilkie



### Table 3: Proposed Tooradin Centre

Left: Ross Wilkie, Asher Coleman, Barry Freeman, Nigel Bertram



**Table 1: Summary** From left: Pat Macwhirter, Nigel Bertram, Louise Wright





Table 3: Summary Nigel Bertram, Rutger Pasman



## HPNL Committee 2020 End of Year celebration



Standing from left: Melissa McDevitt Weston, Marijke de Bever-Price, David Young, Ian Cole. Seated from left: Susan Bendal, Mary Cole, Sue Davies, Pat Macwhirter. Photo Marlene Hargreaves

## GGTF Update 2/11/2020

Dear Save Holden Bushland (SHB) members ... the quarry manager at the Sand Supplies Pty Ltd sand mine between the Grantville Tip and the Grantville Nature Conservation Reserve, has started to dig up and bag grass trees in the Grantville Grass Tree Forest.

Thanks to Tim Herring alerting the Steering Committee and Friends, a group of us investigated the situation last Sunday and, like him, were appalled at what we saw.

By then well over 200 grass trees, some hundreds of years old, had been dug up and bagged. Some trees looked sick; some were maybe dying or dead.

On June 4 the quarry manager told us no more grass trees would be taken until Autumn next year when he planned to extend the pit, and then maybe 40-80.

However, he also told us he intended to mine every part of the land covered by his Work Permit that had sand/gravel on it. So he might have decided to take it all now if he is concerned at our interest in his site. Even if he doesn't, what he does not take now will be taken eventually unless he is stopped.

Bass Council is taking the matter very seriously and will be discussing the Grantville Grass Tree Forest and moving a motion at tomorrow's meeting.

Regards,

Meryl Tobin







## Save Western Port Woodlands 03/01/21

**Taking our message to the city:** A small crew headed out early on Boxing Day to erect bold blue and white banners and corflute signs in four locations along Bass Highway to alert holiday visitors to what's happening just out of sight.

- STOP MINING OUR COASTAL WOODLANDS
- SAND MINES OR WILDLIFE
- OUR COASTAL WOODLANDS TOO PRECIOUS TO MINES
- SAVE OUR PRECIOUS GRASS TREES

The messages attracted plenty of attention but they didn't please everyone. Within three days the signs had all been removed, clearly not by anyone official (the council, Parks Victoria or VicRoads) since the stakes were still there.



But they had served their purpose – our message was viewed by tens of thousands of visitors from the city as they entered Bass Coast on December 26 and 27. Thanks to Tim O'Brien for organising it.

If anyone has highway frontage and is willing to host a sign or two, please let us know.

### Dandy Premix hearing

Dandy Premix has applied to expand its current pit and develop a new one, involving the clearing of a section of the wildlife corridor. In late November Planning Minister Richard Wynne called in the application, at the request of the company, and it will now go to a planning panel rather than the council. The hearing will begin on March 22 and is expected to take up to 10 days. Evidence from Dandy Premix will take up most of the first six days, while Bass Coast Shire Council, has two days.

Tim O'Brien will appear on behalf of SWPW. SWPW members Meryl Tobin, Anne Heath Mennell and Neil Rankine are presenting individual submissions and Gerard Drew is appearing on behalf of the South Gippsland Conservation Society (our auspicing body).

This is a key test case on how the government views our local interests and the environment against ideas on where sand for Melbourne's construction boom should come from. The planning panel will advise the Minister, but, unlike VCAT, he will make the final decision.

We ask members/supporters to email Richard Wynne to remind him that this matter is of great interest to the people of Bass Coast. There is no need to go into great detail as that will be canvassed during the hearing. A short, heartfelt message will have more impact.

The hearing will be held via video conference but the panel may hear local submitters at a venue in Grantville.

### **New website and Facebook**

New name, new website which has information about the campaign as well as media coverage and relevant documents. [LINK](#)

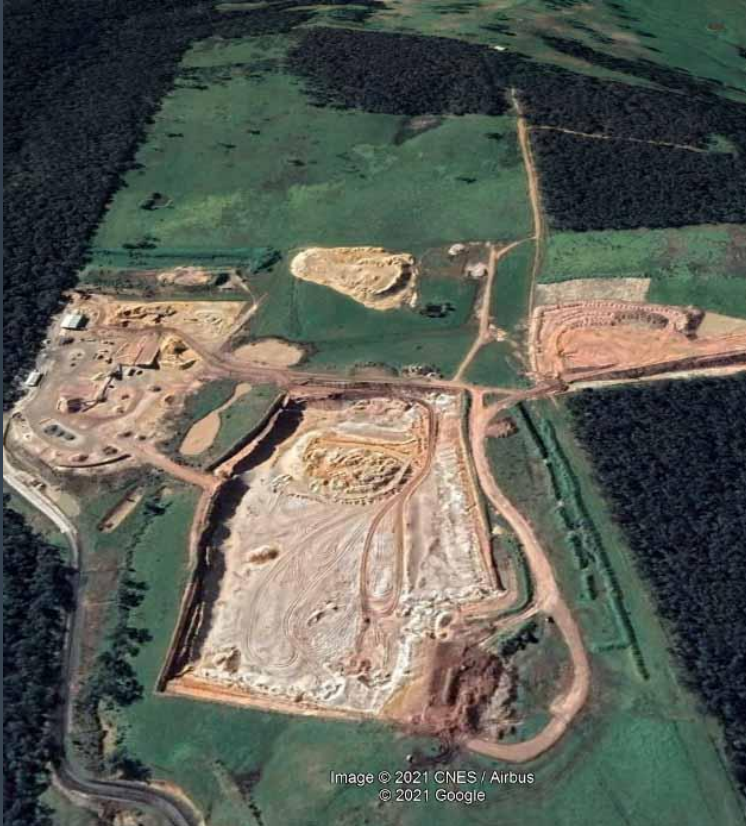
We're also on FaceBook, please share among your networks as we need to spread our message far and wide. [LINK](#)



Credit: Bass Coast Post

2019/10/19

## Dandy Premix's plan to expand its Grantville sand quarrying operation has been panned by Bass Coast Shire Council. By Catherine Watson



Dandy Premix is seeking to expand its current sand pit (foreground) and to clear vegetation (centre back) to open a new sand pit.

Dandy Premix's plan to expand its Grantville sand quarrying operation has been panned by Bass Coast Shire Council.

The council will inform a planning panel that it does not support the proposal in its current form.

And the council will ask the Planning Minister to delay opening a new pit on the site until the operator has met unfulfilled environmental obligations relating to a previous works authority.

The council will also seek a substantial increase in a rehabilitation bond for the quarry site and a community benefits scheme to offset the environmental and community impacts of the expansion.

Dandy Premix's application to deepen its current sand mine, open a new pit and expand its operating hours drew 73 objections before the Minister, Richard Wynne, called in the application at the request of the company.

The Planning Panel hearing starts on March 22 and is expected to run for 10-12 days, with the company, council, community groups and individuals presenting submissions.

The decision has wider ramifications with a surge in sand mining extensions and proposals predicted for Bass Coast with the support of the State Government. Read more here [LINK](#)

**Cr Leticia Laing:** "The Biolink Strategy and Climate Action Plan must be considered."

**Cr Michael Whelan:** "To my mind the climate emergency is fundamental. To lose the extent of vegetation we're going to lose here – the air supply, the habitat value – is unthinkable."

## Australian HempBLOCK system for homes and small buildings [LINK](#)

Queensland-based HempBLOCK Australia has begun marketing and selling the bio-based system, made by the French firm Vieille Matériaux, in Australia and New Zealand.

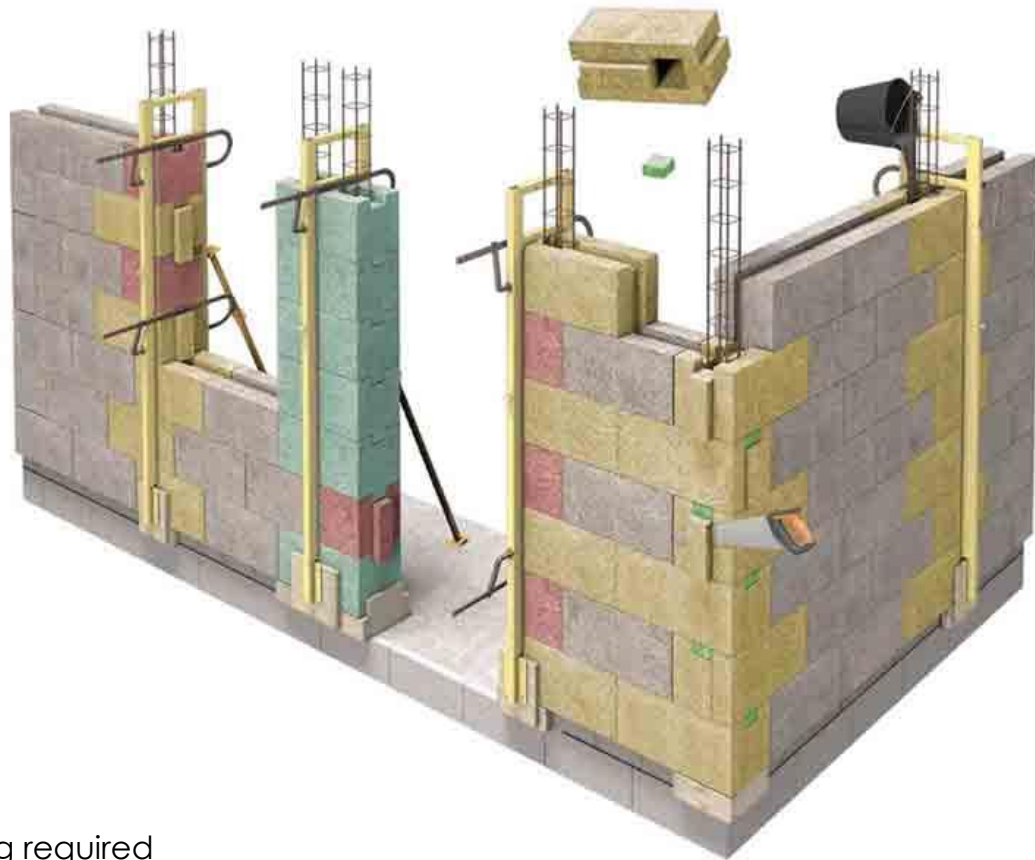


Credit: He

Credit: Hemp today

The system employs post-and-beam framing of steel and concrete combined with interlocking pre-formed hempcrete blocks in a range of configurations that weigh about 40 lbs. each. The load-bearing structure is incorporated into the walling system during construction.

The system is suitable for the construction of single-family homes and small buildings up to two stories. The blocks can also be used to insulate existing buildings, providing a rating of up to R28.

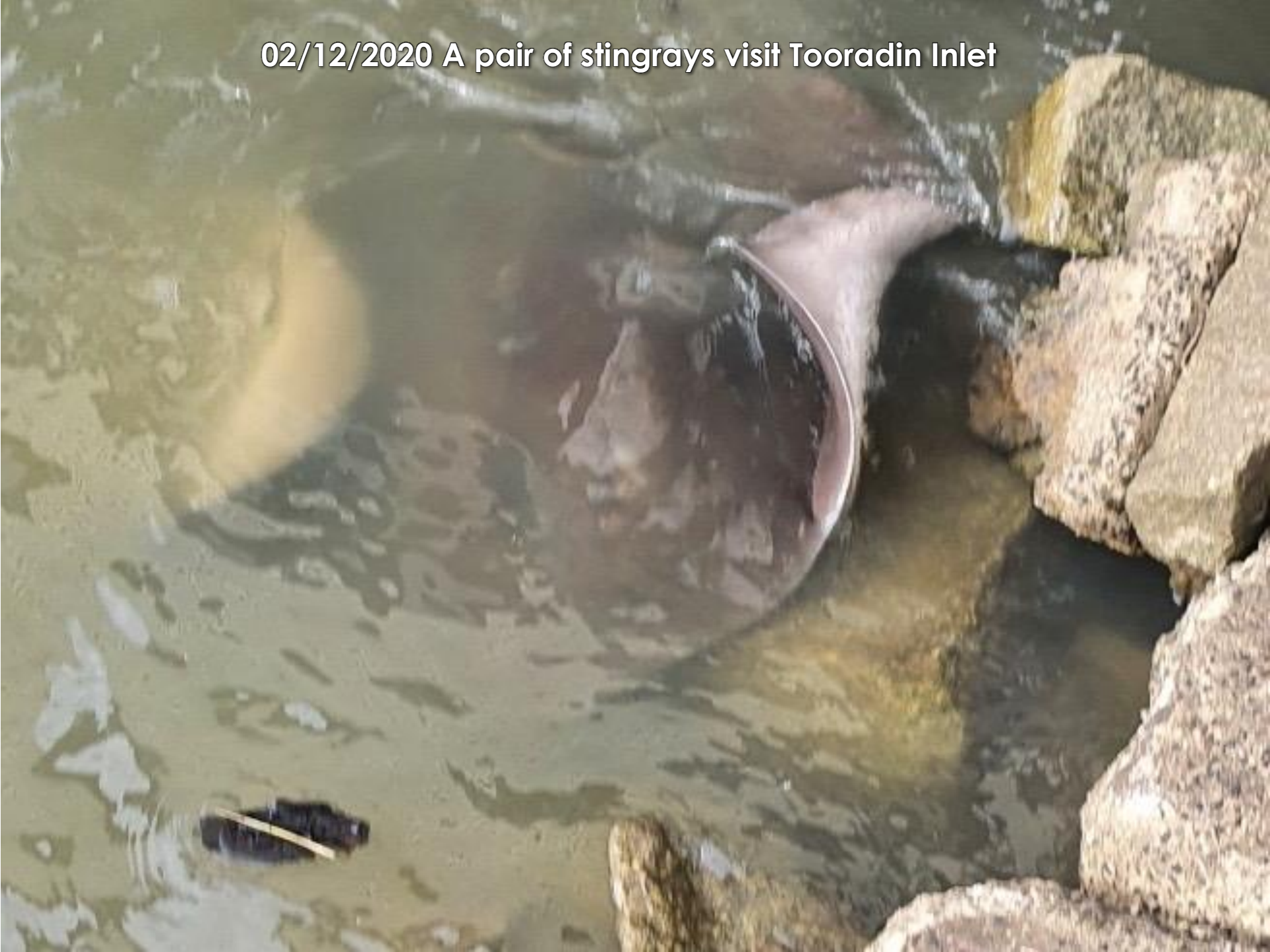


- \* Non-flammable
- No heating or cooling required
- Fast growing, renewable resource



Credit: Hemp today

02/12/2020 A pair of stingrays visit Tooradin Inlet



**24/01/2021 Tooradin Foreshore  
Weed Eradication Survey**  
Marlene Hargreaves HPNL  
& Ross Wilkie TFCM







# MONASH UNIVERSITY

URBAN  
LAB

## OPEN HOUSE MELBOURNE

### HPNL HEALESVILLE / PHILLIP ISLAND NATURE LINK

## MEL BOURNE DESIGN WEEK



**WATERSCAPES OF SOUTH WESTERNPORT:  
SELF GUIDED CAR OR BIKE TOUR  
SUNDAY, MARCH 28, 2021**

**FROM: BUNYIP RAILWAY STATION**

**TO: TOORADIN SPORTS CLUB**

(Approx 2 hours each way)

2 – 3pm Panel discussion:

Tooradin Landscape

RSVP: [patvet@bigpond.com](mailto:patvet@bigpond.com)

[LINK](#)

0 5 10 km



Credit: Cry of the Bunyips

Explore deep time ecology and delve into issues facing southern Westernport on a self-guided tour of the old swamplands of Koo Wee Rup and the coastal reserves of Tooradin.

The rapid pace of urban expansion and climate change pose a major threat to remnant vegetation and wildlife in the south Westernport landscape, which was once a buffer and sponge that protected the coastal edge of Westernport Bay.

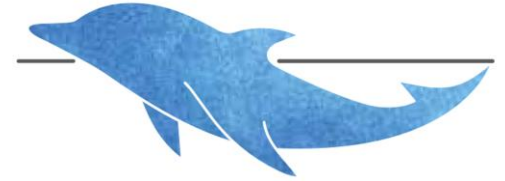
Monash University Urban Lab is undertaking a multi-disciplinary design investigation in association with Healesville to Phillip Island Nature Link (HPNL), which focuses on water quality, habitat and ecology, and opportunities for restoration and recreation projects in this highly modified wetland complex. A tour primer is provided that includes a selection of relevant visual and written material.

A discussion panel will be held at Tooradin from 2-3pm including members of Monash Urban Lab and HPNL.

Note: Bike ride each way (return Bunyip Railway Station) is approximately a 2-hour trip (4-hour round trip). Roads are a mix of quiet gravel roads and busy sealed 100km roads.



**DOLPHIN  
RESEARCH  
INSTITUTE**



Dolphins are curious and will come to you - sometimes you mightn't even realise!

The important thing is to show respect and not deliberately approach them. This is what "Dolphin Distancing" is all about.

We want to build a strong community who will do the right thing around dolphins. It's crucial for their welfare.

This is a new approach that we believe is a world-first for behaviour-change around dolphins. Learn more [LINK](#)

# The State Of The Planet:

António Guterres, Secretary-General United Nations - World Leaders Forum Streamed live 03/12/2020 [LINK](#)



Dear friends ... to put it simply, the state of the planet is broken ... humanity is waging war on nature. This is suicidal. Nature always strikes back -- and it is already doing so with growing force and fury.

Biodiversity is collapsing. One million species are at risk of extinction. Ecosystems are disappearing before our eyes. Deserts are spreading. Wetlands are being lost. Every year, we lose 10 million hectares of forests. Oceans are overfished -- and choking with plastic waste. The carbon dioxide they absorb is acidifying the seas. Coral reefs are bleached and dying. Air and water pollution are killing 9 million people annually -- more than six times the current toll of the pandemic.

And with people and livestock encroaching further into animal habitats and disrupting wild spaces, we could see more viruses and other disease-causing agents jump from animals to humans. Let's not forget that 75 per cent of new and emerging human infectious diseases are zoonotic.

Today, two new authoritative reports from the World Meteorological Organization and the United Nations Environment Programme spell out how close we are to climate catastrophe. 2020 is on track to be one of the three warmest years on record globally -- even with the cooling effect of this year's La Nina. The past decade was the hottest in human history. Ocean heat is at record levels.

This year, more than 80 per cent of the world's oceans experienced marine heat waves. In the Arctic, 2020 has seen exceptional warmth, with temperatures more than 3 degrees Celsius above average -- and more than 5 degrees in northern Siberia.

Arctic sea ice in October was the lowest on record -- and now re-freezing has been the slowest on record. Greenland ice has continued its long-term decline, losing an average of 278 gigatons a year. Permafrost is melting and so releasing methane, a potent greenhouse gas.

Apocalyptic fires and floods, cyclones and hurricanes are increasingly the new normal. The North Atlantic hurricane season has seen 30 storms, more than double the long-term average and breaking the record for a full season.

Central America is still reeling from two back-to-back hurricanes, part of the most intense period for such storms in recent years. Last year such disasters cost the world \$150 billion.

COVID-19 lockdowns have temporarily reduced emissions and pollution. But carbon dioxide levels are still at record highs – and rising. In 2019, carbon dioxide levels reached 148 per cent of pre-industrial levels.

In 2020, the upward trend has continued despite the pandemic. Methane soared even higher – to 260 per cent. Nitrous oxide, a powerful greenhouse gas but also a gas that harms the ozone layer, has escalated by 123 per cent. Meanwhile, climate policies have yet to rise to the challenge. Emissions are 62 per cent higher now than when international climate negotiations began in 1990. Every tenth of a degree of warming matters.

Today, we are at 1.2 degrees of warming ... the science is crystal clear: to limit temperature rise to 1.5-degrees Celsius above pre-industrial levels, the world needs to decrease fossil fuel production by roughly 6 per cent every year between now and 2030. Instead, the world is going in the opposite direction — planning an annual increase of 2 per cent. The fallout of the assault on our planet is impeding our efforts to eliminate poverty and imperiling food security.

We have a chance to not simply reset the world economy but to transform it. Now is the time to transform our relationship with the natural world. – and with each other. And we must do so together. Solidarity is humanity. Solidarity is survival.



Humanity is waging war against Nature ... making peace with Nature is the defining task of the 21st century.

Nature feeds us, clothes us, quenches our thirst, generates our oxygen, shapes our culture ... and forges our very identity.

We must use 2021 to address our planetary emergency and put us on a pathway to live in harmony with Nature”.

António Guterres, Secretary-General United Nations



# Automatic Habitat Loss Detector

16/12/2020 Carol Glaimo



Credit: NASA World of Change / Open pit mines in Alberta, Canada

Familiar to laypeople through software like Google Earth, overhead snapshots of the planet can be run through algorithms in order to “identify and quantify land-cover changes and habitat loss,” the authors write, potentially enabling “systematic conservation monitoring.”

Conservationists and others concerned with biodiversity protection already use satellite imagery to find new study areas, estimate unregulated fishing activity, map global forest loss, locate plastic in the ocean, and draw people’s attention to specific and spectacular cases of habitat destruction. But there aren’t many tools that can effectively scan an area of concern and watch for changes. [LINK](#)

Using satellite imagery, researchers have built an automatic habitat loss detector.

They then trained image change detection algorithms on “before and after” images of places that have recently been cleared, built on, or even covered in solar panels.

Habitat destruction is a key driver of biodiversity loss. While laws exist to protect certain swaths of land from degradation, enforcing them can be difficult.

The stakes are high - once a mountaintop is mined or a forest razed, the damage can’t be undone.

In a recent paper in *Conservation Biology*, researchers propose a relatively new tool: satellite imagery.



## Dr. Jane Goodall Teaches Conservation | Official Trailer | MasterClass

"I left England to study chimpanzees. Not just any animal, the one most like us. The DNA of humans and chimpanzees differs only by just over 1%. They use certain plants as medicine, leaves as sponges.

Each individual has his or her own personality. Chimpanzees have the same kind of emotions as we do.

When the old female, Flo, died, the older child kept going back to the body, pulled the dead hand towards him as though trying to make her groom him.

I saw him climb a tree, look down at this nest where he and his mother slept together. He climbed down, curled up on the ground and he died of grief.

People have said 'well it's only humans who have this kind of spirituality'. I don't think so.

People need to understand that chimpanzees are sentient and sapient.

Because these chimpanzees had given me so much, I knew I had to do something to conserve their environment.

I went to Africa as a scientist, I left the jungle as an activist.

In this masterclass, I'd like to share with you all the amazing things I discovered about these closest relatives of ours. I want to talk about what we all can do to right the wrongs.

*You have an indomitable spirit - you can make change in your own life today to make this a better world. There is still a window of time. Nature can win if we give her a chance."* [LINK](#)



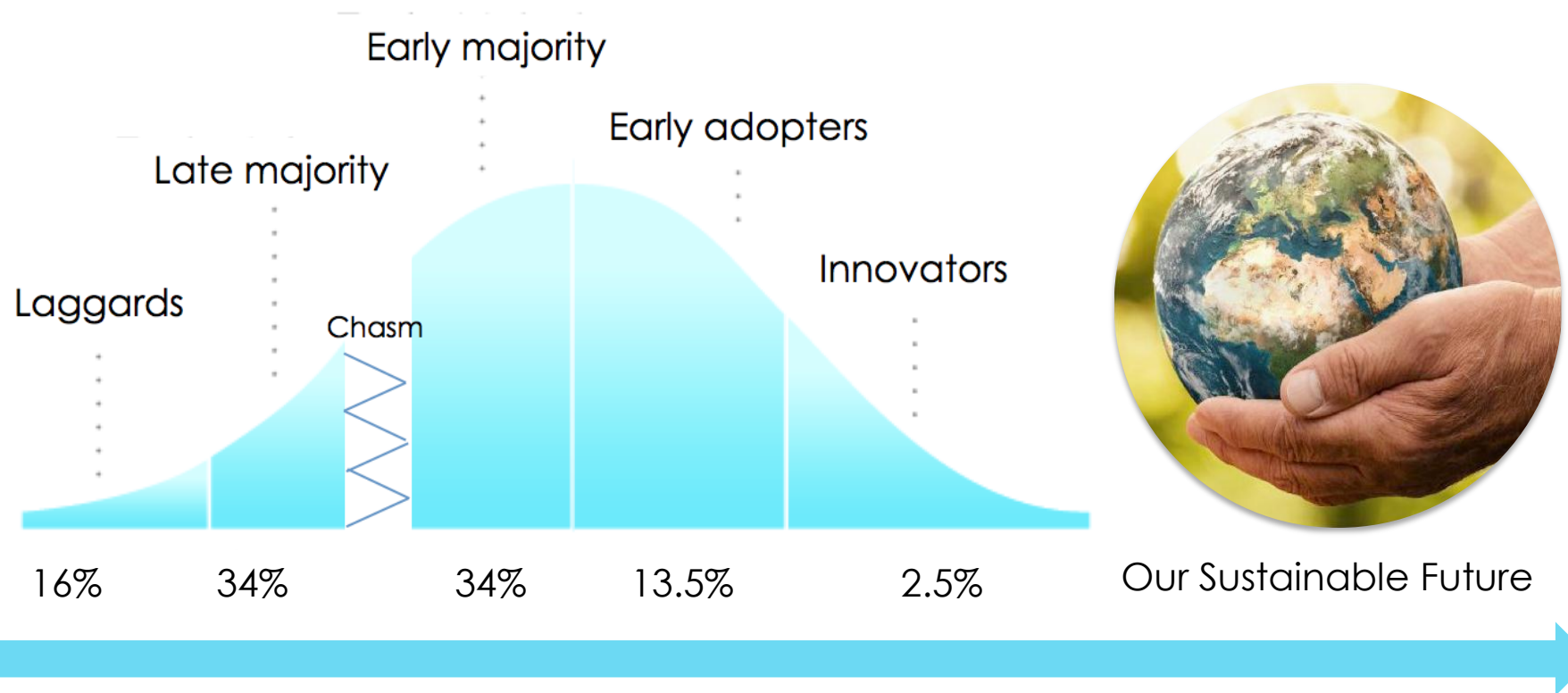
# The Law Of Diffusion Of Innovation

Three of the biggest contributors to the climate change crisis are; burning fossil fuels, cutting down rainforests, and the mass industrialisation of the breeding, raising, and slaughter of animals.

Top three ways we can help transition to our sustainable future ...  
Protect forests/plant more trees, stop using fossil fuels, adopt plant-based lifestyles

## Become an innovator or early adopter

Every dollar we spend shapes our future and moves us/the planet further to the right of the curve.





Earthship  
BIOTECHTURE

Off grid, fully self sufficient,  
solar and wind powered,  
rain water capture, on-site sewage  
treatment. indoor greenhouse



# What is an Earthship?

An Earthship is a state-of-the-art, fully self-sustainable, off-grid building that follows six basic principles, covering six basic human needs: food, energy, clean water, Shelter, garbage management, sewage treatment by;

- Building with natural and repurposed materials (rammed-earth tyres, hempcrete, bottles, cans)
- Heating and cooling through thermal mass to create a comfortable living environment.
- Using wind and solar energy to create electricity.
- Harvesting and filtering rain water at four stages in the water use cycle to provide drinking and wash water, indoor greenhouse water, toilet water and outdoor landscaping water
- Containing and treating its own waste water without external contamination.
- Producing its own food in an integrated greenhouse – growing season all year – no winter inside.













# Made of rubbish, but radically sustainable — Victoria gets its first 'Earthship'

ABC Central Victoria / Larissa Romensky 6/11/17 [LINK](#) Kinglake Earthship [LINK](#)



## General concepts

1. Create site plan – orient front of house to lowest point of sun in winter
2. Lay air ventilation pipes from ground level sloped to second layer of the tyre wall
3. Pound earth in to tyres - build walls to the desired shape/height of the house
4. Install multiple water cisterns to capture rain water from roof
5. Lay water pipes and electrical cords to various rooms
6. Thermal wrap/water proofing layer between tanks and external tyre walls
7. Cover exterior infrastructure with dirt to make a berm wall – triangular to ground level



## Rain fills water tanks – no water bills

Thick wooden beams or trusses to support roof structure  
Sloped metal roof with gutters to collect rain  
Air is cooled when travelling through pipes under ground



# The same rain water is used four times in the cycle

## Water Tanks

Rain collected and pumped to :



1

## Kitchen

(a) filtered for drinking/cooking  
(b) dishwashing

## Shower/bathroom



'Grey' water flows to:

2

## Indoor greenhouse

water plants, plants produce oxygen/food/aroma, plants filter water- no odour



Garden bed is sloped, water flows to one end, 'grey' water collects and is pumped to:

3

## Toilet

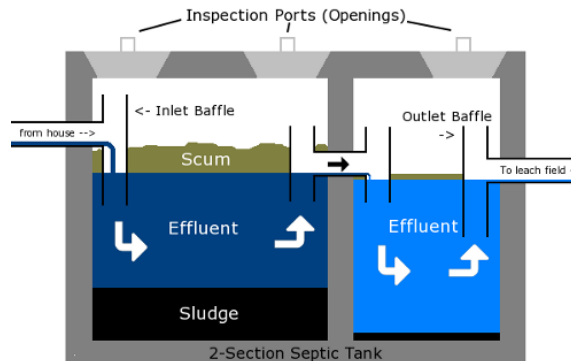
After flushing, water flows to:



4

## Anaerobic septic tank

Waste treated, 'black' water flows to:



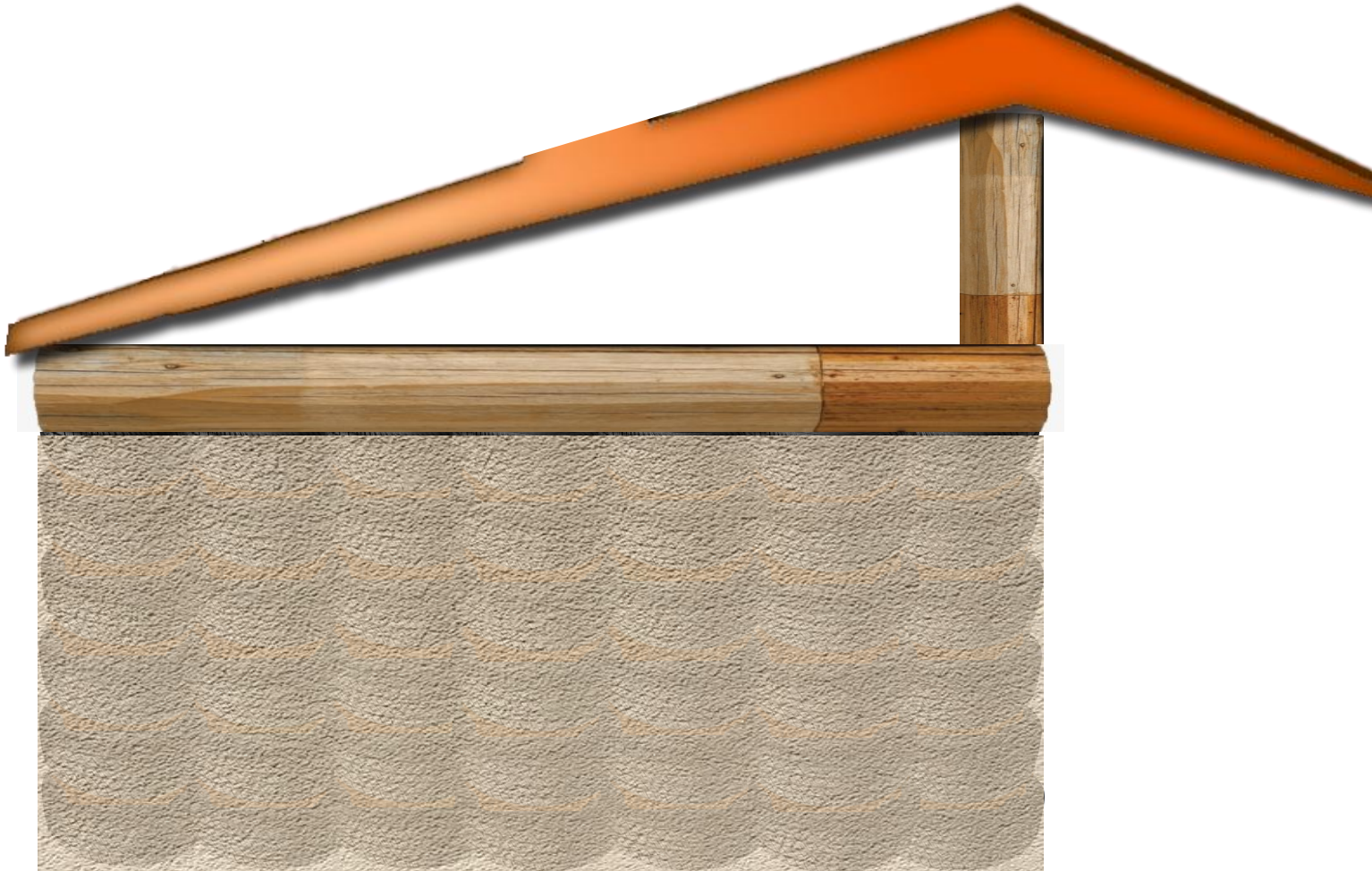
## Leach field

exterior landscape garden



## Aesthetically pleasing

Gaps in rammed earth tyres are covered with adobe and cans and bottles, then rendered over.  
Creates thermal mass walls



# Free solar power, solar hot water

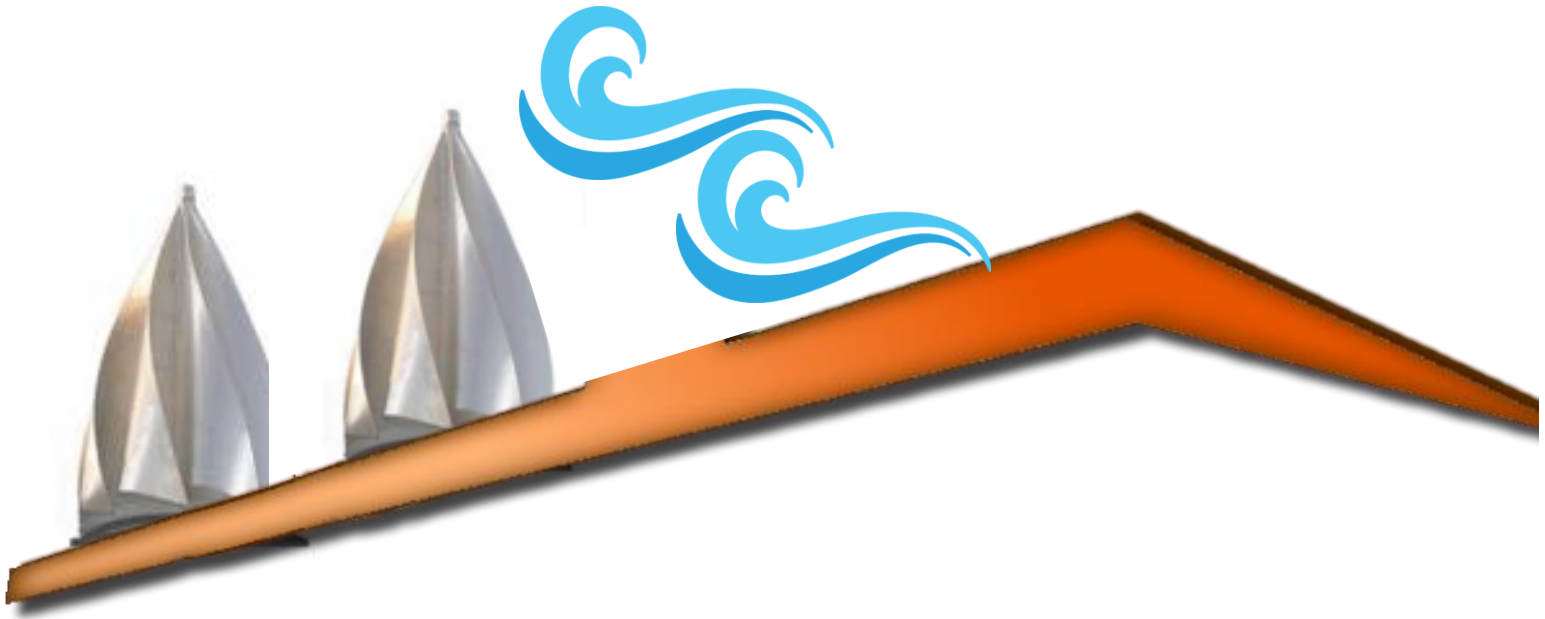


Solar energy entering windows is stored in interior thermal mass (rammed earth tyre) walls  
- internal temperature around 20 degrees celsius year round  
Solar energy collected in solar panels is stored in batteries for appliance/devices use  
Solar energy collected in hot water panels is stored in interior hot water tanks for showers



# Free wind power

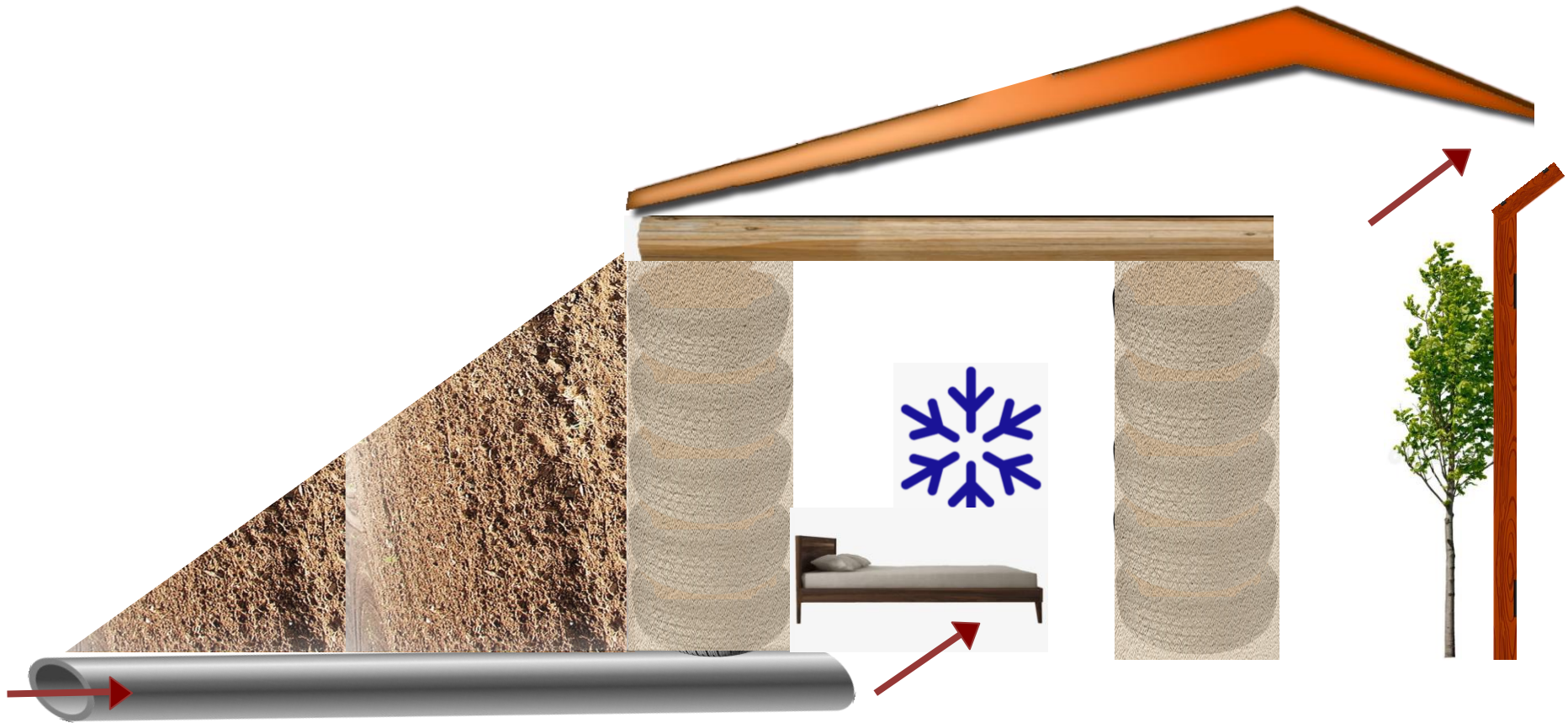
Wind energy is stored in batteries for appliance/devices use



# Free Air conditioning

Open door on pipe in wall, air is cooled while travelling under the earth (berm wall)  
When front transom windows opened, draws air through pipes - convection

Hot air pulled out of rooms when transom windows are opened



Hot air is cooled when travelling through pipes under the berm wall, rooms are cooled



Dr Martin Freney  
Lecturer Industrial Design, University of South Australia

Founder of Earthship Eco Homes, a sustainable design  
consultancy for radically sustainable homes.

Earthship Biotope Australia [LINK](#)



## How to remove micro-plastics from tap water

The 'plastic soup' affecting the oceans is making its way into our homes as microplastics in our drinking water supply—and it's not a soup any of us want on the menu. So how can you filter and remove the microplastics that studies show are present in our tap water?

Thankfully, the ceramic water filters and water filter bottles available at Biome will remove microplastics (tiny plastic fibres) from water because these ceramic filters are capable of removing particles down to 0.5 microns in size. Recent studies caught plastic fibre particles of more than 2.5 microns in size, while our filters will remove particles down to 0.5 microns.

Of course, any particles under this size will not be removed, but 0.5 microns is minuscule. To put it in perspective, a human red blood cell is about 5 microns diameter and a human hair is approximately 75 microns diameter, while many bacteria are about 1 micron across. [LINK](#)



# SMART CASEY LAUNCHPAD



# Focus Areas



## CONNECTING COMMUNITIES

Seamless digital connectivity will enhance local community connections ensuring that no one is left behind in the digital age

### OBJECTIVES

- > Digital Democracy
- > Equity and Inclusion
- > Community connection



## SMART PLACES AND SPACES

Walking and cycling around our green spaces will be safer, cleaner and greener

### OBJECTIVES

- > Developments & Infrastructure
- > Safety
- > Mobility



## ENVIRONMENTAL SUSTAINABILITY

Our City will be cleaner, more efficient and powered by data and renewable energy

### OBJECTIVES

- > Circular innovation
- > Climate Resilience & Mitigation
- > Growing Sustainably



## INNOVATIVE AND DYNAMIC CASEY

Testing, trialling and experimenting with new technology will support economic, social and environmental growth

### OBJECTIVES

- > Smart City Ecosystem
- > Education
- > New jobs and growth



## SMART COUNCIL

Council will lead by example – driving innovation internally and with the wider community

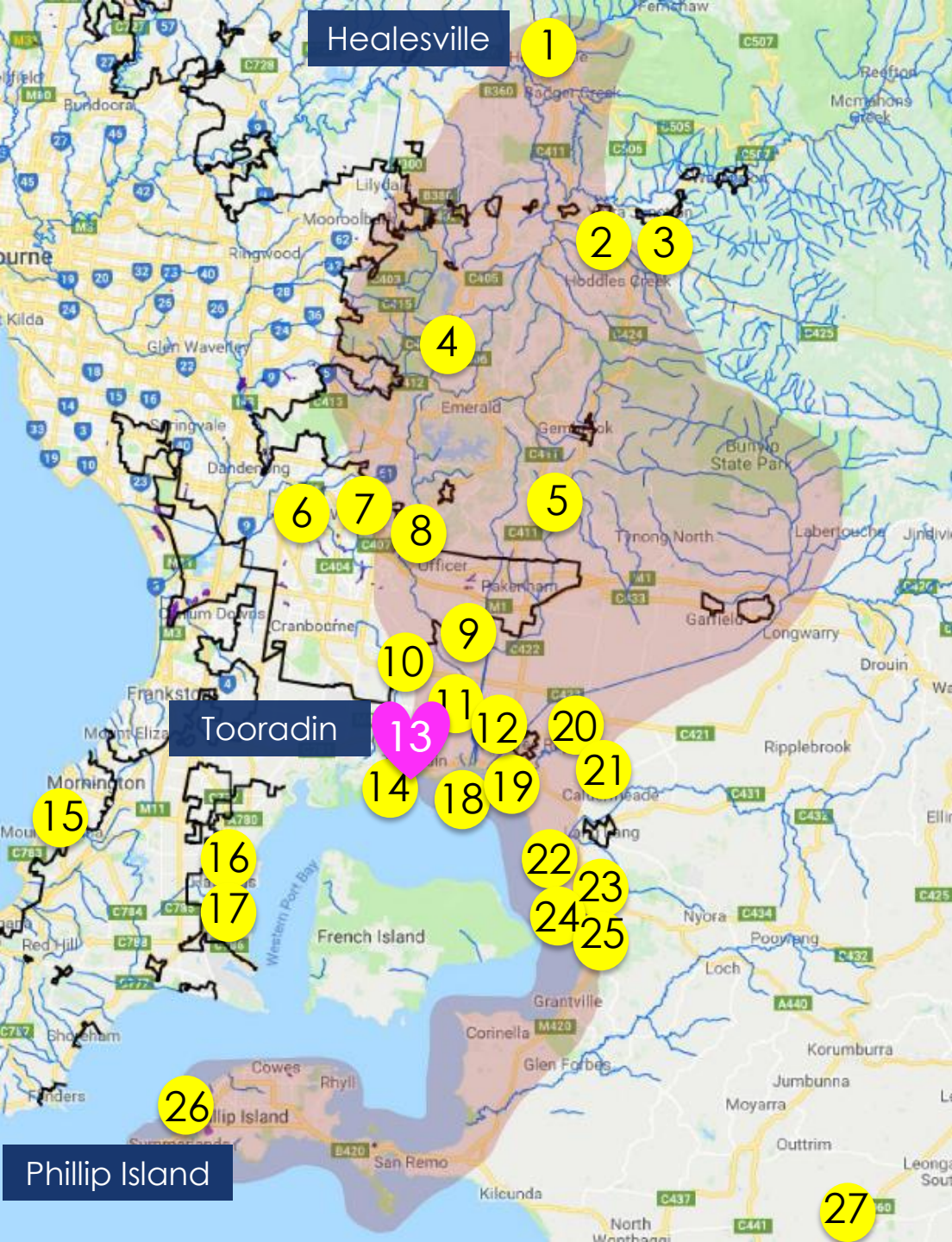
### OBJECTIVES

- > Data-led Value
- > Internal Capability
- > Partnerships

# Ways to stay involved



More information [LINK](#)



Healesville

Tooradin

Phillip Island

## HPNL NETWORK

1. Healesville Sanctuary
2. Friends of leadbeater possum
3. Friends of helmeted honey eater
4. Puffing Billy (Belgrave)
5. Bunyip Landcare
6. Monash University (MADA Caulfield)
7. Monash University Marketing Dept (Clayton)
8. Westernport Seagrass Partnership
9. City of Casey Council
10. Hon Anthony Byrne MP (Cranbourne)
11. Hillcrest / Rivercrest College
12. Federation University (Berwick)
- 13. Proposed Tooradin Research Centre**
14. Tooradin Foreshore Committee
15. Port Phillip and Westernport Catchment Management Authority (Frankston)
16. Dolphin Research Institute (Hastings)
17. Western Port Biosphere (Hastings)
18. Harewood House (Koo Wee Rup)
19. Melbourne Water (K00 Wee Rup)
20. Agpath PL (Garfield)
21. Cardinia Shire Council
22. Cardinia Environment Coalition
23. Western Port Catchment Landcare Network
24. Save Holden Bushland Committee
25. Grantville Grass Tree Forest Committee
26. Phillip Island Nature Park
27. Bass Coast Shire Council (Wonthaggi)

Connections to French Island, the rest of Western Port and Port Phillip via the Yarra River and Dandenong Creek Catchment are encouraged.

Credit: Nature as a healer: Suicide Call Back

## **NEXT MEETING:**

**Date:** Tuesday March 9, 2021

**Time:** 8pm

**Venue:** Zoom

Open meeting

RSVP for link

Speaker TBA

## **CONTACTS:**

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