

## Preparing a strong submission for the Geelong Strategic Assessment

### Why this is an important issue for Geelong and Victoria

Farmland set to become Geelong's newest growth areas is home to threatened animals like Striped Legless Lizards and Golden Sun Moth, and grassland communities that are close to extinction. Development will push up against important waterways like the Moorabool River and Cowies Creek, degrading water quality and putting pressure on endangered Growling Grass Frogs and native fish.

The Geelong Strategic Assessment (GSA) is supposed to set out how nature will be protected in the development of Northern and Western Geelong Growth Areas (NWGGA). It's a deal between the federal authorities (the Department of Energy, Environment, Climate Change and Water (DEECCW) and the City of Greater Geelong (CoGG). NWGGA covers over 7000 ha and is proposed to house 110,000 people. Over 900 pages of documents have just been released, with public comment open until 25 September.

Some of the land will be protected for conservation, but most is set to be bulldozed. The NGGWA claims to be sustainable development. But there is nothing sustainable about clearing the habitat of endangered plants and animals. We need sustainable development that supports nature together with long-term housing solutions.

In its current form, the Geelong Strategic Assessment is going to have unacceptable impacts on Growling Grass Frogs, Striped Legless Lizards and Golden Sun Moths. It is going to clear Natural Temperate Grassland of the Victorian Volcanic Plains and Plains Grassland. It is going to inadequately protect the Moorabool River, the Barwon River and Cowies Creek from the impacts of development. There are no commitments to transparency, and no compliance provisions to make sure the City of Greater Geelong keeps its side of the bargain.

Without strong community action, Geelong might just lose the beautiful nature that makes it a special place.

But this isn't just about Geelong either. These "Strategic Assessments" are great in principle – have a big picture look at how we can do the best job of integrating necessary development with nature – but in practice they just keep failing. The environment wears the risk, and developers get the certainty. Promises are made but never kept. We need to speak up, make sure our governments are listening, and make the future we want.

# How to structure your submission

## 1. Introduce yourself

Start your submission by briefly telling the City of Greater Geelong and the federal authorities (DEECCW) who you are, why you care about this issue and why you have taken the time to write your submission.

If you can, establish your credentials by emphasising relevant experiences and qualifications. Maybe you have spoken out to save a local wildlife population – like Koalas. Are you a member of a local community group? Do you build nesting boxes or are you passionate about Yellow Gums?

Don't go into too much detail here – you'll need to draw on your personal experiences later when talking about the issues that matter to you.

Remember: keep your submission polite and respectful.

## 2. Discuss your views on how this project will impact the things you care about

Clearly identify the issues that matter to you. You might find it helpful to turn your chosen issues into headings to guide your submission writing.

Discuss the current situation regarding this issue. Are you concerned about ecosystem decline, about the integrity of wildlife habitat or the sustainability of urban development? Do you want to preserve the health of your water catchments or protect heritage?

Outline why this is a significant issue, both locally and at a state-wide level. Elaborate by drawing on your perspective, experience and evidence to substantiate your claims. Try to articulate what is driving these problems.

Drawing on your personal experience with environmental issues is one of the most powerful ways to make an impactful submission.

See our key suggestions below for guidance and check out the useful resources provided at the end of this guide.

## 3. Use evidence and data to support your statements where possible

A way to show that our laws are failing and bolster your claims on an issue is to use hard evidence – think numbers and statistics (if you have them).

While your experiences and perspective will provide the City of Geelong and federal authorities with good local examples and case studies, it's helpful to provide evidence of how this proposal impacts nature on a local, regional or state scale. This can include recent reports and enquiries, action statements for threatened species and other relevant resources.

This doesn't have to be formal referencing; you can include links to articles or reports you have read that back your claims. Don't link to the sources if you feel uncomfortable with the content you are referring to. It is not necessary to include references but do ensure the points you make in your submission can be supported.

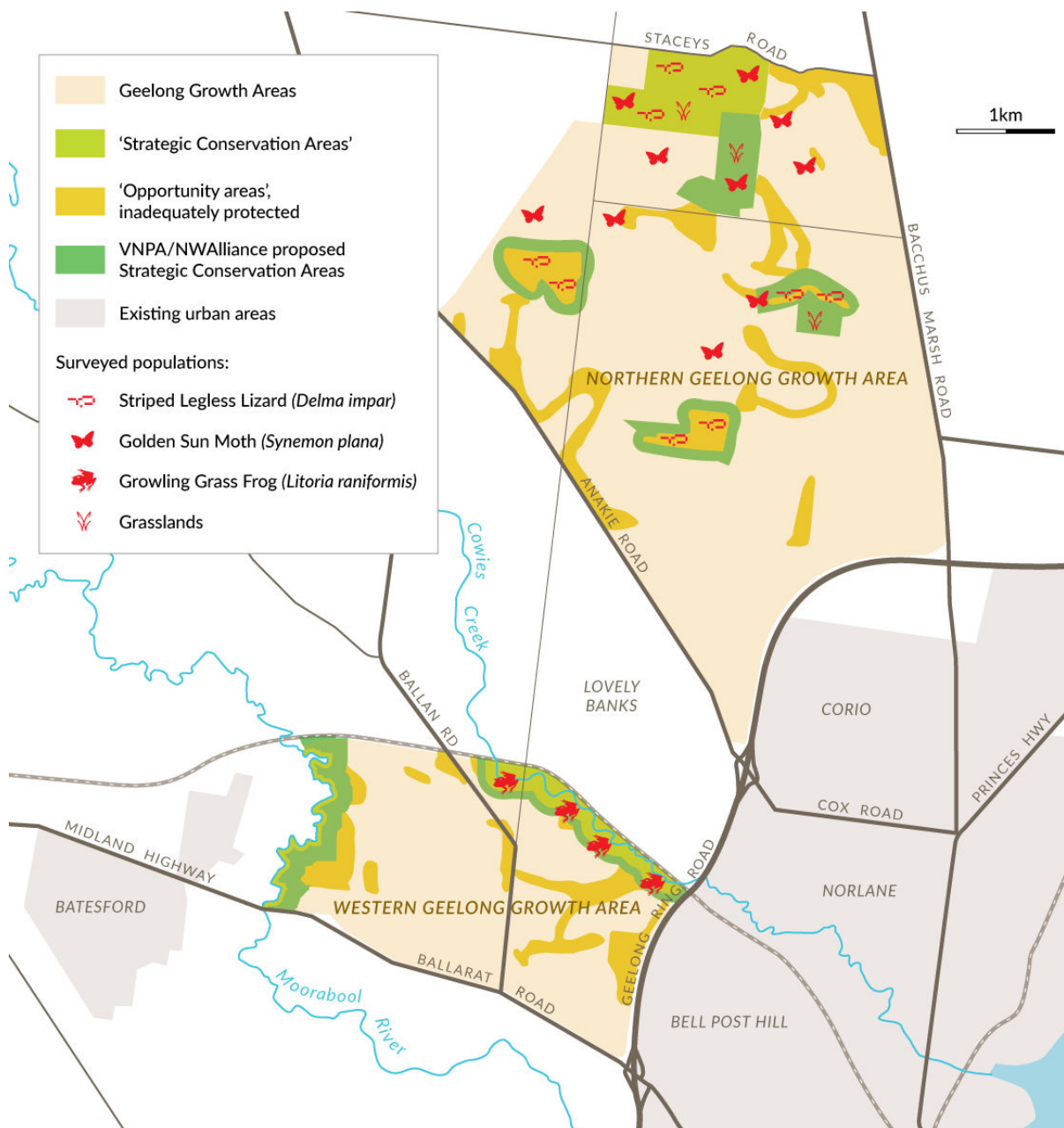
You'll find a list of resources at the end of our submission guide.

It is important to reach a firm conclusion.

## NWA's key issues with the project

Here are NWA's views on the Geelong Strategic Assessment. You can draw on this information for your submission – but please don't feel limited to the matters raised below.

USE YOUR OWN WORDS AS MUCH AS YOU CAN. IT'S VERY IMPORTANT THAT EACH SUBMISSION IS UNIQUE SO YOUR VOICE IS HEARD. THIS MAKES SURE THE AUTHORITIES TREAT IT AS AN INDIVIDUAL AND NOT A JOINT SUBMISSION.



## **Bigger, better Strategic Conservation Areas needed**

Geelong's proposal includes two sorts of conservation areas.

**Strategic Conservation Areas** have protection of nature as their primary purpose. They will be funded by a Levy on developers, meaning that City of Geelong doesn't have to pay for them. Nature will be assured protection in these areas.

**Opportunity Areas** are much more multipurpose. They will include drainage works and shared trails and picnic facilities and anything else really. They may not even protect nature, there's just the 'opportunity' to protect nature.

There are four Strategic Conservation Areas being proposed. Three along the Moorabool River, The Barwon River and Cowies Creek, and one 100 ha patch of grassland in the top corner of the Northern Geelong Growth Area.

All four Strategic Conservation Areas are too small.

In addition, three areas that should protect Striped Legless Lizard populations are only proposed to be Opportunity Areas. That means no guarantee of protection. We want those three Striped Legless Lizard populations to be protected by Strategic Conservation Areas, not Opportunity Areas.

## **Impacts on Cowies Creek and its Growling Grass Frogs (*Litoria raniformis*)**

Cowies Creek will be one of the Strategic Conservation Areas. It's really important to get it right now, because it can become a fantastic place for nature and the people of the new suburbs in years to come. It can be a real 'legacy' component of this new part of Geelong.

Cowies Creek runs along the edge of the Western Geelong Growth Area, next to the railway line, and then under the Princess Highway, through Norlane to Corio Bay.

We've known for years that there are Growling Grass Frogs on the bay side of the Princes Freeway. Now surveys have found Growling Grass Frogs all the way along Cowies Creek on the northern side in the Growth Areas. Together these form a "metapopulation".

Growling Grass Frogs used to be common, but their numbers suddenly started to decline in the 1990s. Whole metapopulations became extinct and the regularly monitored populations along waterways such as the Merri Creek in Melbourne are still declining. They are listed as Vulnerable under the federal EPBC Act and Victoria's FFG Act.

The big issue is that not enough space is being set aside for the Growling Grass Frogs in the Strategic Conservation Area.

Growling Grass Frogs need room to move up and down the Creek. They need large ponds (at least 50 m in diameter or 0.3 ha) to breed in and places to hunt, shelter and overwinter. Small offset ponds created for earlier development around Melbourne generally failed due to water supply problems, vegetation overgrowth or predatory fish. And they need a protected 'buffer' from development of at least 50 m around those ponds. Growling Grass Frogs travel up to 1km in search of breeding habitat (Heard et al 2010), thereby connecting populations and maintaining genetic diversity. The experts say that 200m is the minimum width for metapopulation nodes including off-stream wetlands (e.g. Biosis 2012).

But the City of Greater Geelong is proposing a conservation area that's on average about 100m wide on one side of the Creek, and less on the other side where there's the railway line. That's not enough. What Geelong is proposing is going to create choke points that limit the frogs' movement and simply don't provide enough space for them.

The draft Biodiversity Conservation strategy, which is one of the documents Geelong has had to produce, is full of basic errors about Growling Grass Frogs. It suggests slope is important in working out the boundary of the Strategic Conservation Area but Growling Grass Frogs don't care about that, they can climb escarpments! It says the vegetation will be wrong, but Growling Grass Frogs only care about the structure of the vegetation – they forage in open grassy areas and, in any case, we will be revegetating with grassland plants. Now they are talking about areas of micro-humidity, but that's a poor argument because that all going to change with development and increased water flows along Cowies Creek and with revegetation too.

We know the environment for the Growling Grass Frogs is going to become more stressed because the Creek will frequently carry high stormwater flows that destroy the still pools that Growling Grass Frogs breed in. Urbanisation also results in poor water quality and there are going to be lots more dogs, cats and human activity disturbing Growling Grass Frogs.

We also know that a lot of good Growling Grass Frog habitat is going to be 'lost' through development – the ephemeral wet patches, minor tributaries, dispersal routes and extensive foraging areas that are likely to be built over.

We are asking for the Strategic Conservation Area to be a minimum of 200 m all along Cowies Creek.

We also want the ephemeral waterway that is a tributary of Cowies Creek protected as part of the Cowies Creek Strategic Conservation Area. It is highly likely that this is important habitat for the Growling Grass Frogs of Cowies Creek. Currently it is described as "Opportunity Area 3", which means in practice there is no certainty of any conservation protection.

**Here's some more on the science of making good Growling Grass Frog habitat:**

Breeding habitat is critical but adjoining terrestrial environments also support essential habitat for non-breeding activity such as movement between waterbodies, foraging, over-wintering and shelter (Ecology and Heritage Partners 2011).

Growling Grass Frogs are dependent on terrestrial habitat for foraging, shelter and local movement (DEWHA 2009).

Heard and Scroggie (2009) found a strong negative relationship between the probability of wetland occupancy and the extent of buffer zone degradation measured as the cover and roads and buildings within a 150m radius of a wetland. That means keep roads, buildings and all the other human stuff well away from Growling Grass Frogs in the urban environment.

The maintenance of significant terrestrial buffer zones around wetlands is an important aspect of habitat management for Growling Grass Frogs in urbanising landscapes (Heard et al. 2009).

Under the EPBC Act policy statement Significant Impact Guidelines for *Litoria raniformis* (DEWHA 2009), it says: permanent removal or degradation of terrestrial habitat (such as between ponds, drainage lines or other temporary/permanent habitat) within 200 metres of a water body is considered a significant impact. To avoid these significant impacts, retain buffer zones of at least 200m and maintain dedicated terrestrial habitat corridors of a minimum of 100m in width.

Due to the importance of key metapopulations for the future viability of the species in the Growth Areas, maximum protection should be afforded to these populations. Therefore, for waterways where key metapopulations have been identified (e.g. Cowies Creek):

Biosis (2012) states that larger corridor widths or 'nodes' are important. As a general rule, sites of identified metapopulations (like at Cowies Creek!), should be protected by terrestrial habitat corridors of up to 200 metres width either side of the waterway. The existence of drainage lines (or other clean water sources) to feed created wetlands is important to create and maintain wetlands of

an appropriate size and hydroperiod to be suitable as Growling Grass Frog breeding habitat. Growling Grass Frog populations are more likely to persist in larger, more permanent wetlands. Space will be needed to accommodate dedicated constructed wetlands of a size that is most likely to maintain viable populations of Growling Grass Frog in the long term.

In deciding the extent of a Growling Grass Frog protection corridor, it is important to compensate for the loss of Growling Grass Frog habitat across the nearby development area, and it appears that hasn't been considered in calculations of how much land to set aside for these vulnerable creatures. Dams that are filled in, ephemeral wetlands that are built on, waterways that are diverted, channelised and put underground, the damp patches beside rural roads, all need to be compensated for because all are likely to be used as shelter, overwintering and hunting locations.

### **Impacts of the Moorabool River, it's flood plain, and the creatures that depend on it**

Strategic Conservation Area buffers along waterways need to be a minimum 200 m and encompass all areas of flood plain. Currently the Western Geelong Growth Area Strategic Conservation Areas are shown only as 50 or 100 m. Choke points that compromise the ecological function of the entire system must be avoided. Conservation buffers should not be compromised by becoming locations for infrastructure such as pipelines. As acknowledged in the Biodiversity Dataset for Northern and Western Geelong Growth Areas (BDNWGGA), "an increase in human activity adjacent to Cowies Creek and the Moorabool River is likely to increase the threats to the Australian Grayling", which is an endangered species protected under federal nature laws. Buffer zones must be designed to minimise these impacts.

The significant Plains Grassland sections on the escarpment on Figure 3-6: Biodiversity (in the Biodiversity Conservation Strategy) in the portion of the WGGGA subject to the EPBC Plan should be included within the river's conservation zone. Given these areas are likely to have only been grazed rather than cropped in the past they are potentially of high quality.

Rivers like the Moorabool and creeks like Cowies will play a vital role in providing refuge habitat in the face of climate change. They are natural biolinks in the landscape and can provide valuable pathways for species migration. They cannot perform this role unless they are given room to do so. In order to provide that functionality, conservation buffers need to be adequate, supporting broad biodiversity and ensuring connected populations.

According to the Biodiversity Dataset for Northern and Western Geelong Growth Areas (BDNWGGA), the absence of Australian Grayling and Little Galaxias in the Western Growth Area is believed to be caused by quarry-related structures downstream in the Moorabool River. The Moorabool has been recoured twice to allow access to limestone for quarrying. The earliest of these sections was done in the 1930s and is in severe disrepair. Significant amounts of streamflow are lost through broken concrete, much of it ending up in the quarry only to be pumped out further downstream. This results in a reach of the river that can be dry for months of the year, impeding the migration of many instream species including those listed above, as well as Growling Grass Frogs. It is important for the Geelong Strategic Assessment documentation to acknowledge this impact, formally endorse the planned restoration and provide pathways for funding the work through EPBC or developer levies.

Treated wastewater should not be discharged into the Moorabool River due to the risk of bioaccumulation of emerging contaminants, such as pharmaceutical compounds.

While there is room to support stormwater contributing to Moorabool River flows it is highly recommended that containment and treatment adhere to world-class standards before being discharged into the river. Additionally, there should be no allowance for net nutrient increases within the river due to stormwater movement.

## **Impacts on the Barwon River**

We don't know how the Barwon River is going to be affected. The proposed development along its length is far in the future. What we do know is that they are proposing a Strategic Conservation Area beside it that is only 50 m in width. That is shamefully narrow, and it will be inadequate for the biodiversity protection that will be needed in years to come.

We are calling for a 200 m wide Strategic Conservation Area along the Barwon River.

## **Destruction of habitat for Striped Legless Lizards**

These amazing lizards live in and between the grassland tussocks and in cracks in the soil and under rocks, places where legs can just get in the way. They are only found in grasslands, and sometimes open grassy woodlands, in south-east Australia, and most sightings of them have been in peri-urban areas to the west of Melbourne, their stronghold. Their home range is maybe only a dozen metres and, in that area, they hunt during the day for spiders, crickets, cockroaches and caterpillars.

Striped Legless Lizards are classified as Vulnerable under the federal EPBC Act and Threatened under Victoria's FFG Act.

The federal government's Scientific Advisory Committee says that every population of Striped Legless Lizards is important for the whole species' survival.

There are four populations of Striped Legless Lizards in the Northern Geelong Growth Area. Only one of these is going to be properly protected by a Strategic Conservation Area.

The other three populations are going to be in 'Opportunity Areas'. These areas have been identified as places for drainage works to control water flows, and afterwards those areas will become some sort of multi-use park. Without dedicated areas for conservation, it is going to be hard for these Striped Legless Lizards to survive.

We know that Striped Legless Lizards are sensitive to management actions that cause soil disturbance and compaction. They are unlikely to be able to move out of the way of machinery. If they are lost from an area, they are unlikely to recolonise even after the disturbances have ceased. One study demonstrates a population expanding at 12 m per year! Another study was able to detect genetic differences in Striped Legless Lizards that were more than 400m apart from each other, suggesting very little intermingling beyond this distance.

We are asking for a more considered approach to the overall drainage works in the Northern Geelong Growth Area to reduce the impacts on these populations of Striped Legless Lizards. We are asking for no-go areas to be identified now, and for those areas to become Strategic Conservation Areas. And we want a 50 m 'buffer' zone of public open space outside those no-go areas in which only passive recreation activities are allowed. If that happens, there's a good chance the populations of Striped Legless Lizards will survive.

## **Destruction of habitat for Golden Sun Moths**

This mysterious moth spends two to three years underground, feeding on the roots of grasses, before coming for just one to four days in late spring to early summer to fly low over the grasslands in search of a mate. They prefer to live in open native grasslands but also enjoy some introduced exotic weeds like Chilean Needle Grass. They are classified as Vulnerable under the federal EPBC Act and Vulnerable under Victoria's FFG Act.

There is over 700 ha of Golden Sun Moth habitat in the Northern Geelong Growth Area, and it's a very big population. The best 100 ha of habitat is being protected in a Strategic Conservation Area,

which is great, but all the rest is being cleared, with the City of Greater Geelong saying it's those grasslands are too degraded to be worth protecting.

We believe more habitat should be protected. The Strategic Conservation Area should be made bigger. The best way to protect Golden Sun Moth is to give them large reserves with a good variety of habitats so they can move around as conditions change, breeding in some places in dry years, in other places in wet years, finding their safe places. This will provide more space and variety of habitat for the population of Golden Sun Moth to expand. Geelong should make a real effort to restore 'degraded' grassland to better condition. Just giving up on it is a bit lame.

### **Destruction of grassland**

Victoria's grasslands really need protection. Grassland and grassy woodland once covered almost a third of the state, but now grasslands are reduced to a tiny 1% of their former size. Grasslands are home to many threatened plants and animals like the Striped Legless Lizard, Growling Grass Frog and Golden Sun Moth.

Apart from the one Conservation Area being set aside to protect grassland-loving Striped Legless Lizard and Golden Sun Moth, none of the hundreds of hectares of grassland across the Northern and Western Geelong Growth Areas is assured any protection. We need to be restoring at least some of the lower quality grassland, bringing it back to its former glory, not clearing it for "sustainable" housing.

We are asking for the Strategic Conservation Area in the Northern Growth Area to be enlarged to include more grassland.

### **Stronger conservation targets**

We don't want populations of Striped Legless Lizard or Growling Grass Frog to just "persist", which is the term that is currently being used as a conservation target. We want these creatures to thrive, not to hang-on by a thread. The GSA is clearing habitat, so we need to make what remains the best we can. We weed words like "increase", and for the populations to "expand" to new areas.

### **Offsetting needs to be more strategic**

A lot of habitat is being offset. It is important to ensure offsets are local, strategic and coordinated by Geelong.

There are two sets of offsets being undertaken as part of the GSA – state offsets and commonwealth offsets. The way the commonwealth offsets are being undertaken is good. But with the state offsets, Geelong is letting the developers choose where the offsets are. That means a piecemeal approach to building up a network of conservation properties. We want Geelong to strategically purchase the state offsets that are being purchased. These offsets should be in a conservation corridor or next to a conservation area, and they be within 25km of the Growth Areas.

We have an issue with size too. The current proposal is that all offsets should be 10 ha or greater in size. We don't agree with that. Many of the best grassland remnants that still survive are much smaller, and it is very important that these get protected, not overlooked because of some arbitrary size limit.



## No Interim Management

It is going to take years for the City of Greater Geelong to purchase the land that will become public land for conservation. In the interim, that land must be managed well to keep nature in good shape. At the moment the proposals put forward say nothing about this important matter. If the land goes unmanaged, we lose conservation value, and it becomes more and more expensive to restore to a healthy state once the land is purchased.

**This degradation is already happening.** The draft Biodiversity Conservation Strategy admits that: “Since the time of the EHP site assessments, subsequent assessments have been undertaken by Biosis which have confirmed that the extent of Plains Grassland (EVC 132) has deteriorated significantly... without intensive active management the conversion of Plains Grassland to a dominance of Chilean Needle-grass is likely to be permanent.”

We are calling for immediate action to implement an Interim management strategy with strong incentives and controls that will deliver good conservation management outcomes as soon as possible.

## No commitments to transparency

Nowhere in any of the 900+ pages of the proposal documentation is a commitment to transparency. We need strong assurances that Geelong will make publicly available all the development and conservation management plans, ecological surveys, offsetting calculations and other matters likely to be required in the implementation of the GSA. The community has a right to know.

## No controls on the City of Greater Geelong

The current proposal fails to put forward potential punitive actions if the City of Greater Geelong fails to deliver on its promises. At the moment, the only compliance measure that the federal authorities can use is to put the entire agreement on hold, stopping all development. That’s a very big stick that is unlikely to ever be used. We need a more considered approach to compliance. Suitable measures, and their triggers, need to be very clearly and unambiguously stated up front.

## Useful resources

<https://vnpa.org.au/geelong-grasslands/>

<https://northwestalliance.au/>

<https://yoursay.geelongaustralia.com.au/GGASA>

[NWA GSA Briefer](#)

[Letter to the Minister](#)

## References

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### Golden Sun Moth

- Graham Jury, Danielle Harmshaw & Daniel Young (2022). Golden Sun Moth (*Synemon plana*) Conservation Assessment Project, Prepared on behalf of Trust for Nature by TREC Land Services.