

From: **s22**  
To: **s22**  
Cc: **s22**  
Subject: RE: Armstrong Creek [SEC=UNCLASSIFIED]  
Date: Wednesday, 6 August 2014 1:49:19 PM  
Attachments: [image001.png](#)  
[image002.jpg](#)  
[image003.png](#)

Thanks **s22**

We look forward to catching up with **s22** and yourself next week

Do you think there is any benefit in inviting DEPI officers along to the meeting to capture the total package of information, across agencies, etc ?

The address for the meeting is 844 Barwon Heads Road, Armstrong Creek (map attached)

Cheers  
Rob

**Rob Anderson**  
Acting Manager - Planning Strategy & Urban Growth

**P** **s22**  
**M**  
**F:** 03 5272 4855  
**E:** [randerson@geelongcity.vic.gov.au](mailto:randerson@geelongcity.vic.gov.au)



Level 5, 100 Brougham Street, GEELONG  
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[www.geelongaustralia.com.au](http://www.geelongaustralia.com.au)

<http://prodpla02.cogg.local:8091/weave/mapimage/export/image4965886774258577358.png>



http://prodpla02.cogg.local:8091/weave/mapimage/export/image6745283414681735701.png



**From:** s22 [redacted]@environment.gov.au  
**Sent:** Tuesday, 5 August 2014 3:13 PM  
**To:** Robert Anderson  
**Cc:** 'markwhinfield@newland.com.au'; s22 [redacted]  
**Subject:** Armstrong Creek [SEC=UNCLASSIFIED]

Hi Rob

Thanks for your time on the phone today

As discussed, two officers from the EPBC Compliance Section of the Department of the Environment will be coming down next week to inspect the Armstrong Creek development area to ascertain whether development activities are impacting on the Ramsar wetland

We anticipate meeting with you on Thursday morning, at a time and place to be notified by you

I look forward to hearing back from you

Regards

s22

[redacted] | Assistant Director | EPBC Compliance Section | Compliance and Enforcement Branch  
Department of the Environment  
GPO Box 787 Canberra ACT 2601 | Ph (02) 6275 s22 | Fax (02) 6274 1607 s22 [redacted]@environment.gov.au

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Contact Officer: S22  
Telephone: (02) 6274s22

Our reference: CAS 697  
Email: S22@environment.gov.au

Ms Gillian Miles  
Chief Executive Officer  
Greater Geelong City Council  
PO Box 104  
Geelong, Vic 3220

Dear Ms Miles

**RE: Armstrong Creek urban growth area**

In August 2014 the Department of the Environment met with Mr Rob Anderson, Coordinator Urban Growth Area Planning, Greater Geelong City Council, and representatives from the Warralilly development in relation to the Armstrong Creek urban growth area. It is the Department's understanding that the Greater Geelong City Council has responsibility for managing stormwater emanating from the Armstrong Creek urban growth area and the purpose of the meeting was to discuss the potential application of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) to this activity.

As you may already be aware, the EPBC Act protects matters of national environmental significance. Matters of national environmental significance include Ramsar wetlands of international importance, nationally listed threatened species and ecological communities, and listed migratory species, among others. Matters of national environmental significance which are relevant in the Armstrong Creek urban growth area include the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Wetlands Site, the critically endangered ecological community Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains, and nationally threatened and migratory species, among others.

Substantial penalties apply to a person who takes an action that has a significant impact on a matter protected by the EPBC Act without referral to the Commonwealth environment minister. In the absence of a referral and a subsequent decision, the EPBC Act also provides for injunctions by third parties who may oppose the action or development on environmental grounds.

The Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Wetland site includes the Lake Connewarre Complex and by inclusion Hospital Swamp. The wetland is under increasing pressure from urbanisation in the surrounding area. For this wetland the wetting and drying regime is very important and freshwater flows at the wrong time would certainly disrupt the breeding and foraging of threatened and migratory fauna, and increase freshwater flows to saline wetlands which could adversely affect vegetation communities.

Increased and uncontrolled urban stormwater discharges to the system from the Armstrong Creek urban growth area have the potential to increase freshwater flows to the saline wetlands, resulting in the encroachment of freshwater plant species into saltmarsh areas, increased extent and duration of inundation and increased turbidity, nutrients and toxicants.

The Department is concerned that development of the Armstrong Creek urban growth area is to be staged over a number of years, with the Armstrong Creek East Precinct substantially

completed and Horseshoe Bend Precinct development due to commence shortly. The Department understands that the stormwater discharge from Armstrong Creek East Precinct is focused at the Armstrong Creek/Barwon Heads Road crossing immediately upstream from Lake Connewarre Complex, particularly Hospital Swamp. The Department is aware that stormwater discharge from Horseshoe Bend Precinct will add significantly to the volume of urban stormwater which may have the potential to impact on the ecological character of the Ramsar wetland through changes in quality, quantity, timing and duration of water discharged into the site. During the site visit in August 2014, Departmental compliance officers observed sediment-laden water flowing into Hospital Swamp and the invasive progression of the freshwater reed species *phragmites australis*.

At the meeting on 13 August 2014 the Department was provided with a folder of material including the Armstrong Creek Urban Growth Plan Volume 1, several Panel Reports and precinct plans for Armstrong Creek and Horseshoe Bend. From reviewing this material the Department understands that Greater Geelong City Council has prepared a Horseshoe Bend Precinct Surface Water Management Strategy to manage stormwater from Horseshoe Bend Precinct development which includes a Sparrovale Stormwater Management Plan. The plan involves the construction of retardation/detention basins described as Sparrovale Wetlands immediately adjacent to the Lake Connewarre Complex for the purpose of sedimentation and detention of stormwater discharge from the Horseshoe Bend Precinct development. The Department notes that the construction of the Sparrovale Wetland is to be deferred until development in the upstream catchment exceeds 25% of the developable area at Horseshoe Bend and is likely to be staged over 10 years or more.

The Department is concerned that the timeframe for implementing the Stormwater Management Plan will be too late to prevent a significant impact on the Lake Connewarre Complex and consequently the Ramsar wetland, and on threatened and migratory species. By failing to adequately consider impacts from the development on matters which are protected under the EPBC Act, and to implement measures to limit impacts from stormwater run-off on the Ramsar wetland and other protected matters prior to further development, the Greater Geelong City Council may expose itself to the risk of contravening the EPBC Act in the future.

The Department would welcome the opportunity to engage further with the Greater Geelong City Council in relation to the management of stormwater from the Armstrong Creek urban growth area in order to prevent any potential breach of the EPBC Act.

The Department invites the Greater Geelong City Council to provide any further information in relation to the issues raised or to contact s22 on (02) 6274 s22 or s22 @environment.gov.au.

Yours sincerely



A/g Director  
EPBC Compliance Section  
3 October 2014

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FOI 180202  
Document 3

s22

Acting Director  
EPBC Compliance Section  
GPO Box 787  
CANBERRA ACT 2601

29 October 2014

Our Ref: Armstrong Creek  
Direct Ph: (03) s22  
Doc No:  
Your Ref: CAS 697

Dear s22

**Re: ARMSTRONG CREEK URBAN GROWTH AREA – STORMWATER MANAGEMENT**

If refer to your letter dated 3 October 2014 relating to your teams recent meeting with Council and developer representatives regarding the Armstrong Creek Urban Growth Area.

Council officers would welcome an opportunity to met with your EPBC Compliance team and discuss the concerns raised in the letter. It would also be suggested that the meeting involve all parties involved in the issues raised in your letter. These parties would include:

- Department of Environment Primary Industries
- Corangamite Catchment Management Authority
- Parks Victoria
- Warrally development

I'll arrange for Rob Anderson, Coordinator Urban Growth to liaise with s22 of your office and arrange a suitable time for all these parties to meet and discuss your concerns.

In the meantime, if you require any additional information or have any further queries please contact Rob Anderson on s22 or alternatively randerson@geelongcity.vic.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to read "Peter Bettes".

**PETER BETTESS**  
GENERAL MANAGER  
PLANNING & TOURISM



**Australian Government**  
**Department of the Environment**

Contact Officer: s22  
 Telephone: (02) 6274 s22

Our reference: CAS 697  
 Email: s22 @environment.gov.au

CORPORATE FORMS		
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ACTION	Urban Growth	
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DOC#		

Ms Gillian Miles  
 Chief Executive Officer  
 Greater Geelong City Council  
 PO Box 104  
 Geelong, Vic 3220

*left message with s22 27/10/14*

Dear Ms Miles

**RE: Armstrong Creek urban growth area**

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completed and Horseshoe Bend Precinct development due to commence shortly. The Department understands that the stormwater discharge from Armstrong Creek East Precinct is focused at the Armstrong Creek/Barwon Heads Road crossing immediately upstream from Lake Connewarre Complex, particularly Hospital Swamp. The Department is aware that stormwater discharge from Horseshoe Bend Precinct will add significantly to the volume of urban stormwater which may have the potential to impact on the ecological character of the Ramsar wetland through changes in quality, quantity, timing and duration of water discharged into the site. During the site visit in August 2014, Departmental compliance officers observed sediment-laden water flowing into Hospital Swamp and the invasive progression of the freshwater reed species *phragmites australis*.

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The Department is concerned that the timeframe for implementing the Stormwater Management Plan will be too late to prevent a significant impact on the Lake Connewarre Complex and consequently the Ramsar wetland, and on threatened and migratory species. By failing to adequately consider impacts from the development on matters which are protected under the EPBC Act, and to implement measures to limit impacts from stormwater run-off on the Ramsar wetland and other protected matters prior to further development, the Greater Geelong City Council may expose itself to the risk of contravening the EPBC Act in the future.

The Department would welcome the opportunity to engage further with the Greater Geelong City Council in relation to the management of stormwater from the Armstrong Creek urban growth area in order to prevent any potential breach of the EPBC Act.

The Department invites the Greater Geelong City Council to provide any further information in relation to the issues raised or to contact **S22** on (02) 6274 **S22** or [katherine.reid@environment.gov.au](mailto:katherine.reid@environment.gov.au).

Yours sincerely

**s22**

A/g Director  
EPBC Compliance Section  
3 October 2014



Contact Officer: S22  
Telephone: (02) 6274 S22

Our reference: CAS 697  
Email: S22@environment.gov.au

Ms Gillian Miles  
Chief Executive Officer  
Greater Geelong City Council  
PO Box 104  
Geelong, Vic 3220

Dear Ms Miles

**Progression of stormwater mitigation resulting from development in the Armstrong Creek urban growth area**

As you would already be aware from previous correspondence, the Department of the Environment is concerned about the potential for stormwater emanating from the Armstrong Creek urban growth area to have a significant impact on the Lake Connearre complex, which is part of the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Wetlands Site. The Ramsar wetland is protected under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) as a matter of national environmental significance. The Department also has concerns about potential significant impacts on listed threatened and migratory species that use the Ramsar wetland.

On 9 December 2014 the Department met with representatives from Greater Geelong City Council (GGCC) including Mr Peter Bettess, General Manager Planning & Tourism, and representatives from the former Victorian Department of the Environment and Primary Industries (DEPI) and the Corangamite Catchment Management Authority (CCMA).

The purpose of the meeting was to discuss the Department's concerns about the timeframe for implementing the Council's Stormwater Management Plan. The Department understands that the plan involves the construction of retardation/detention basins, described as Sparrovale Wetland, immediately adjacent to the Lake Connearre complex for the purpose of sediment control and detention of stormwater discharge from the Horseshoe Bend Precinct development. The Department notes that the construction of the Sparrovale Wetland was to be deferred until development in the upstream catchment exceeded 25% of the developable area at Horseshoe Bend and is likely to be staged over 10 years or more.

The Department considers this will be too late to prevent significant impacts on the Ramsar wetland due to increased freshwater flows to the saline wetlands, particularly the the extent and duration of freshwater inundation, and increased turbidity, nutrients and toxicants.

The Department's preference is for implementation of the Stormwater Management Plan sooner rather than later to prevent a significant impact on the Lake Connearre complex and consequently the Ramsar wetland.

At the meeting on 9 December 2014, the potential for Council and the CCMA to identify an alternative, short-term solution for managing freshwater runoff was raised. Following the meeting, it was the Department's expectation that the Council would provide advice about both short and long term solutions and timing for implementation of those solutions.



The Department understands that the Armstrong Creek East precinct development is due for completion in June 2015, further exacerbating the freshwater inundation and increasing turbidity in Hospital Swamp.

To date the Department has not received any communication about progress in relation to the proposed stormwater mitigation measures. The Department invites the Greater Geelong City Council to provide further information in relation to the issues raised.

Should you have any queries about the matters raised in this letter please call the contact officer, s22 on (02) 6274s22 or s22 @environment.gov.au.

Yours sincerely



A/g Director  
EPBC Compliance Section

20 May 2015

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s22

Director Compliance  
Department of the Environment  
GPO Box 787  
Canberra ACT 2601



4 February 2016

Our Ref: C259 & C301  
Direct Ph: (03) 5272 4069  
Doc No: File No.  
Your Ref: 2015/7553

Min No: C	Division: 950	Link:
DLO: HP	Date: 18-2	
RECEIVED 18 FEB 2016	Environment Minister	
<input type="checkbox"/> Covering Brief	<input type="checkbox"/> Departmental Reply	
<input type="checkbox"/> VIP Reply	<input checked="" type="checkbox"/> For Information Action	
<input type="checkbox"/> Minister Reply	<input type="checkbox"/> For Information (NFA)	
<input type="checkbox"/> CoS/Adviser Reply	<input type="checkbox"/> Campaign	
<input type="checkbox"/> Advice/Min		
<input type="checkbox"/> Refer ID		

Dear Mr Dutkiewicz

**Re: Armstrong Creek Stormwater Bypass Channel - EPBC Referral 2015/7553**

**Introduction**

Council has recently become aware that the above referral was determined to be a controlled action under the *Environment Protection & Biodiversity Conservation Act 1999* (EPBC Act), subject to assessment by preliminary documentation.

Given the potential implications of that determination for the delivery of public drainage infrastructure Council wishes to engage with the Department and the Commonwealth Minister for Environment regarding the above proposal, and more broadly in relation to the proposed development of the Sparrovale Wetlands complex, into which the diversion channel is to discharge.

Council has also received a copy of a letter from the Department dated 7 December 2015 to Warralily Newland Developers Pty Ltd expressing concerns about stormwater discharges to Ramsar wetlands, comprising the Port Phillip Bay (Western Shoreline) and the Bellarine Peninsula Ramsar wetland (**the Ramsar wetland complex**). The letter states that:

The Department is concerned that increased and uncontrolled urban stormwater discharges to the Ramsar wetland from the proposed Armstrong Creek East Precinct may have the potential to increase freshwater flows to the saline wetlands, resulting in encroachment of freshwater plant species into saltmarsh areas, increased extent and duration of inundation and increased turbidity, nutrients and toxicants.

In reply, further correspondence was subsequently sent to you from the Armstrong Creek Development Corporation Pty Ltd (**ACDC**) by letter dated 4 January 2016.

The purposes of this letter are to:

1. outline Council's views regarding the merits of the drainage infrastructure proposed for the Ramsar wetland complex;
2. commence a dialogue with the Department and the Minister for Environment regarding the future approach to the assessment of the Sparrovale Wetlands project; and

- to invite further dialogue with the Department and the Minister regarding these matters.

### The Sparrovale Wetlands project

The information submitted in support of referral 2015/7553 includes an updated stormwater strategy (dated 2015) that notes the relationship of the diversion channel to the Sparrovale Wetlands project. The drainage rationale underpinning the Sparrovale Wetlands project is detailed in the incorporated Stormwater Management Strategy for the Horseshoe Bend Precinct of the Armstrong Creek Urban Growth Area, 2013 (see copy enclosed).

Whereas the Sparrovale wetlands project is to be delivered by the City of Greater Geelong and is funded through the Armstrong Creek Horseshoe Bend Development Contributions Plan (at a cost of \$9million), the diversion channel is to be delivered by ACDC as a works in kind contribution to local infrastructure as part of the proposed Amendment C301.

The proposed diversion channel will regulate the flows from Armstrong Creek, that currently directly discharge to the Hospital Swamp section of the Ramsar wetland complex, and divert low flows to a proposed constructed wetland complex known as 'Sparrovale Wetlands' which is located outside the declared Ramsar wetland area.

The spatial relationship between Sparrovale and the Ramsar wetland complex can be seen below. Treated water discharged to Sparrovale Wetlands will then be detained in the Sparrovale wetland outside the Ramsar wetland boundary where it will be subject to detention, evaporation and treatment. This strategy results in a significant reduction in summer inflows into the Ramsar wetland complex. The following image has been sourced from the referral information supplied to the Department:



The extent to which the Sparrovale project will mitigate inflows and unseasonal inundation is the subject of further analysis commissioned by Council. The existing analysis shows a marked reduction of peak drainage flows to Hospital Swamp during the summer period. While Council is prepared to provide you with a copy of this information, the report is at draft stage and is yet to be publically released.

It is also relevant to note that the stormwater management strategy provides that the areas are all low lying and subject to risk of future permanent inundation under forecast sea-level rise scenarios associated with climate change.

The drainage strategy which lead to the development of the Sparrovale Project and the diversion channel proposal was developed in conjunction with the precinct planning processes for Armstrong Creek. In its response to Amendment C301 dated 12 October 2015 (see copy enclosed) the Department of Environment, Land Water and Planning (DELWP) advised that:

DELWP welcomes the provision in the amendment to initiate diversion of stormwater from Armstrong Creek to the proposed Sparrovale Wetlands, and to seek to minimise some unintended consequences of previously approved development flows to Hospital Swamp.

DELWP's response went on to advise that the proposed drainage strategy addresses several policy objectives of the Victorian Waterway Management Strategy by (among other things):

seeking to reduce the impacts to the ecological character of Ramsar wetlands through mitigating adverse changes in hydrology.

### **Concerns regarding the scope of assessment for drainage infrastructure**

Council has a concern that the Department may not have given due recognition to the benefits of the proposal for the Ramsar complex considered as a whole. Council is concerned that there may be a view that the issue of urban runoff from the Armstrong Creek growth area should be assessed through a process akin to a strategic assessment for urban development, similar to that which was carried out under the Melbourne Strategic Assessment for the expansion of Melbourne's growth corridors. Council's view is that it is now too late to develop a strategic assessment under the EPBC Act as the growth corridor is already substantially under development.

In this regard, it is important to note that any referral by Council of the Sparrovale wetlands as an action under the EPBC Act will likely define the 'action' by reference to the drainage infrastructure alone and will not extend to assessment of the cumulative impacts of urban development by private developers.

Council's view is that the proposed diversion channel and Sparrovale wetlands must be assessed on the basis that there will be a particular volume of urban runoff to the Ramsar wetland complex from the Armstrong Creek urban growth corridor that needs to be managed, irrespective of whether the proposed drainage infrastructure proceeds.

Seen from this perspective, Council considers that the Sparrovale project and the diversion channel should be regarded as representing a positive outcome for the Ramsar wetland complex. If the diversion channel is not approved, then there will continue to be direct discharge of urban runoff to Hospital Swamp via the existing Armstrong Creek drainage alignments, which may, in the long term, adversely affect the hydrological regime of the Ramsar wetland complex.

## **Possible procedural options for assessment of Sparrovale**

Before referring the Sparrovale project under the EPBC Act Council would hope to persuade the Minister that the project is not a controlled action, or alternatively that the determination should be made under section 77A of the EPBC Act to the effect that the Sparrovale proposal is not a controlled action if carried out in a specified manner.

However, in the event that Sparrovale wetlands is found to be a controlled action requiring approval, Council considers that there may be benefits in assessing the effects of the diversion channel and the Sparrovale project through a joint accredited assessment process. However, Council is also concerned that a delay in the assessment of the diversion channel under the EPBC Act will create ongoing uncertainty among stakeholders within the growth corridor.

Under the revised Victorian 'Assessment' Bilateral Agreement dated December 2014, Council understands that a planning permit process and advisory committees appointed by the Minister for Planning are accredited assessment processes for assessing controlled actions. Planning permits will be required under the *Planning and Environment Act 1987* to construct the diversion channel and Sparrovale project.

In order to coordinate the further strategic planning required for these projects, including the acquisition of land, Council asks that the Department consider:

- whether it agrees that the drainage infrastructure proposed could be found to represent a positive outcome for the Ramsar wetland complex, such that it might be found not to be a controlled action if carried out in a particular manner; and
- in the event that the Sparrovale project is found to be a controlled action, whether a planning permit process combined with an independent advisory committee appointed by the Minister for Planning could be considered as a suitable accredited process for the purposes of assessing the effects of the Sparrovale Project on Matters of National Environmental Significance under the EPBC Act.

If an accredited process is used, this will enable Victorian planning processes to be coordinated and aligned with the timing of assessments under the EPBC Act, consistent with the government's 'one stop shop' policy.

## **Further engagement**

In its letter dated 4 January 2016 ACDC indicated its willingness to meet with yourself, Council and other affected stakeholders. Council considers that there is merit in meeting to discuss the future approach to assessment of the drainage infrastructure but does not consider it would be appropriate to invite broader consultation with other developers in relation to the drainage infrastructure. As set out above, Council's view is that the issue is confined to proposed drainage infrastructure.

Council has forwarded a copy of this letter to the Minister for Environment with a view to briefing him regarding the merits of the drainage strategy. Council hopes that the Minister can schedule time to visit the Armstrong Creek growth area to gain a direct understanding of the physical context of this important growth corridor and the significant scale and benefits of the Sparrovale Wetland project. Alternatively, Council officers would like to arrange to meet with the Minister at a convenient time.

Council hopes to persuade the Minister that supporting the Sparrovale project would represent a proactive and coordinated government response to the management of risks

posed by urban development to the Ramsar wetland complex that may serve as a case study for other growth areas.

Council looks forward to your response and further engagement regarding the matters raised above. Please do not hesitate to contact me should you wish to discuss this matter.

Yours sincerely



**PETER BETTESS**  
GENERAL MANAGER PLANNING & DEVELOPMENT  
**PLANNING & DEVELOPMENT**

- Attach:
1. Armstrong Creek Horseshoe Bend Stormwater Management Strategy
  2. Department of Environment, Land, Water & Planning submission to Greater Geelong Planning Scheme Amendment C301

Copy To: The Hon. Greg Hunt MP  
Minister for the Environment  
PO Box 6022  
House of Representatives  
Parliament House  
CANBERRA ACT 2600

s22

**From:** Sarah Shortall <sarah@apdprojects.com.au>  
**Sent:** Thursday, 16 November 2017 2:07 PM  
**To:** s22  
**Cc:** Andrew Hill; Brad Paddon; s22; TNatt@geelongcity.vic.gov.au  
**Subject:** EBPC Matter 2015/7553 - Briefing Pack Email 1 of 2  
**Attachments:** 2017.11.15 EPBC Briefing Note V3 FINAL - Letter Only.pdf; Attachment 1 - 0989ENAC-SK80 Fed response 4 revC Keirl and Clancy.pdf; Attachment 1 - 0989ENAC-SK80 Fed response 4 revC Overall.pdf; Attachment 2A - 6903\_Sparrovale\_EPBC\_Act\_Referral\_Finalv2\_28082015.pdf; Attachment 2B - 0989ENAC-SK69 Sparrowvale outflow Sparrowvale.pdf; Attachment 2C - Greater+Geelong+C301+004paoMaps67\_78+Exhibition+Gazetted.pdf

s22

Ahead of next Tuesday's meeting to discuss EBPC Reference 2015/7553, I enclose a copy of our briefing pack.

Due to file size, I will send over two emails.

The pack contains the below information:

EPBC Briefing Note

Annexure 1 – Armstrong Creek Development Area Plan  
Annexure 2 – Proposed Diversion Channel Map and Referral Application  
Annexure 3 – Neil Craigie advice  
Annexure 4 – Decision on referral  
Annexure 5 – Panel Report Amendment C357  
Annexure 6 – Compliance Letter Lloyd Environmental Report

If you could kindly confirm receipt of this information when received.

Regards



**Sarah Shortall** | Development Manager | **APD Projects**  
[sarah@apdprojects.com.au](mailto:sarah@apdprojects.com.au) | T 03 9804 5885 | M 0410 280 973 | [apdprojects.com.au](http://apdprojects.com.au)  
Level 3, 468 St Kilda Road, Melbourne VIC 3004

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To: s22  
Department of Environment and Energy (DoEE)

CC: Andrew Hill (Ecology and Heritage),  
Sarah Shortall (APD Projects),  
s22 (City of Greater Geelong)  
Neil Craigie (Neil M Craigie Pty Ltd)

From: Brad Paddon

Date: 15 November 2017

Regarding: EPBC Referral Reference: 2015/7553  
Armstrong Creek Diversion Channel

APD Projects Pty Ltd  
ABN 54 706 717 691

Level 3  
468 St Kilda Road  
Melbourne VIC 3004  
Phone: 03 9804 5885

www.apdprojects.com.au

s22

Further to recent discussions, I provide the following briefing note ahead of our scheduled meeting on 21 November 2017.

#### Background

APD Projects (APD) represents the incoming landowner of the development site at 892-990 Barwon Heads Road, Armstrong Creek, informally referred to as the 'Keirl and Clancy' holdings.

The Keirl and Clancy holdings are located within the recently approved Armstrong Creek South Precinct Structure Plan (ACSPSP), which forms a small part of the broader Armstrong Creek Development Area (ACDA) (see Annexure 1).

The ACSPSP was approved through Amendment C301 to the City of Greater Geelong Planning Scheme and gazetted 9 March 2017.

Critically, Amendment C301 provided the legal mechanism to lodge a Public Acquisition Overlay (PAO) over land identified for the proposed Armstrong Creek diversion channel which is the subject of the current EPBC referral (see Annexure 2).

In summary, the diversion channel is intended to divert controlled excess dry season fresh water flows to the proposed Sparrovale/Cold Winds (Sparrovale) wetlands and away from parts of the EPBC Act listed Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar site, which is also referred to as the Lake Connewarre Complex (LCC).

Design of the diversion channel is outlined in the Neil M Craigie Pty Ltd expert advice of 3 February 2016 and stormwater management strategy of 29 June 2017 (refer Annexure 3).

The Keirl and Clancy holdings were purchased by entities associated with APD from CGM Land Pty Ltd, original proponent for the current EPBC Act referral.





### Original Application

The original EPBC Act referral was lodged by CGM Land Pty Ltd on 28 August 2015.

The original application was a referral for the construction of the diversion channel, in order to provide a solution to the increase in water from the ACDA, which is linked at a local level to the development of Land contained within ACSPSP and Amendment C301. The central issue was, and remains, the construction of the proposed Armstrong Creek diversion channel and related, positive impacts on storm water flows into the Ramsar listed LCC, from the entire Armstrong Creek catchment.

No threatened flora and fauna species have been recorded to date within the area proposed for the channel. Further, the location of the proposed diversion channel was designed to avoid the Subtropical and Temperate Coastal Saltmarsh (STCS) remnants, which are part of a listed community (Status: Vulnerable). The channel hugs the STCS remnants – and is designed to not encroach and/or impact the community. Any indirect impacts to this STCS would also be managed through the six week construction cycle.

A response from the DoEE was received on the 23 November 2015, which designated the referral a *Controlled Action*, and subject to commissioning several studies and a public assessment process prior to the final decision for approval. A copy of this response is included under Annexure 4.

There have been important developments since the original application, including but not limited to;

1. Public Exhibition and Panel Hearing into Amendment C301
2. Adoption of Amendment C301 by City of Greater Geelong and
3. Approval by the Minister for Planning and its Gazettal on 9 March 2017

As part of the C301 Panel Process, a number of important background reports and consultations were undertaken. Consultations were held with DELWP, CCMA, City of Greater Geelong, Geelong Field and Game and Parks Victoria. Without exception, all regulatory bodies supported the proposed amendment and its central feature of a Diversion Channel into the proposed Sparrovale/Cold Winds (Sparrovale) wetland.

The proposed Sparrovale wetland provides the ultimate receiving water body for controlled dry season flows diverted from the entire Armstrong Creek catchment, (which includes the ##ha Armstrong Creek East PSP to the north and west of the subject site, and the upstream Armstrong Creek Town Centre Precinct), the Armstrong Creek West Precinct and the Armstrong Creek Industrial Precinct, as well as the direct inputs from the Horseshoe Bend Precinct.

The Sparrovale proposal is critical to the proper functioning of the broader Armstrong Creek urban growth area stormwater management strategy and will be the subject to a future referral from the City of Greater Geelong.

In addition to the resolution of C301 there has been considerable important progress on amendment C357 and related C360. C357 is critical to securing tenure to the Sparrovale wetlands properties through the application of a Public Acquisition Overlay.



Since the original application, the C357 Amendment has been subject to;

1. Public Exhibition and Panel Hearing commencing 6 September 2017
2. Release of the Panel Report on 8 November 2017

A copy of the panel report is attached at Annexure 5.

As with Amendment C301, expert submitters, regulatory bodies and the Panel itself were supportive of the proposed amendment without exception.

These recent, public processes appear to have put the strategic merit of the broader storm water strategy beyond any doubt.

#### DoEE Involvement

APD understands that the proposed diversion channel was an important consideration within Lloyd Environmental's expert report dated 25 March 2016, a report commissioned for the DoEE.

A copy of this report is attached in Annexure 6.

Section 3.7 of the Lloyd Report recommends diversion of seasonal flows from Armstrong Creek to the proposed Sparrovale wetlands outfall. The diversion channel is an important infrastructure asset to ensure water is stored and treated then discharged in a manner to mimic the natural flows and without threat to the Hospital Swamps.

The proposal for construction of the Diversion Channel under the current referral is therefore consistent with the recommendation in the Lloyd report.

#### APD Position

s47G(1)(b)



Summary

s47G(1)(b)

Please do not hesitate to contact me with any queries ahead of our meeting.

Regards

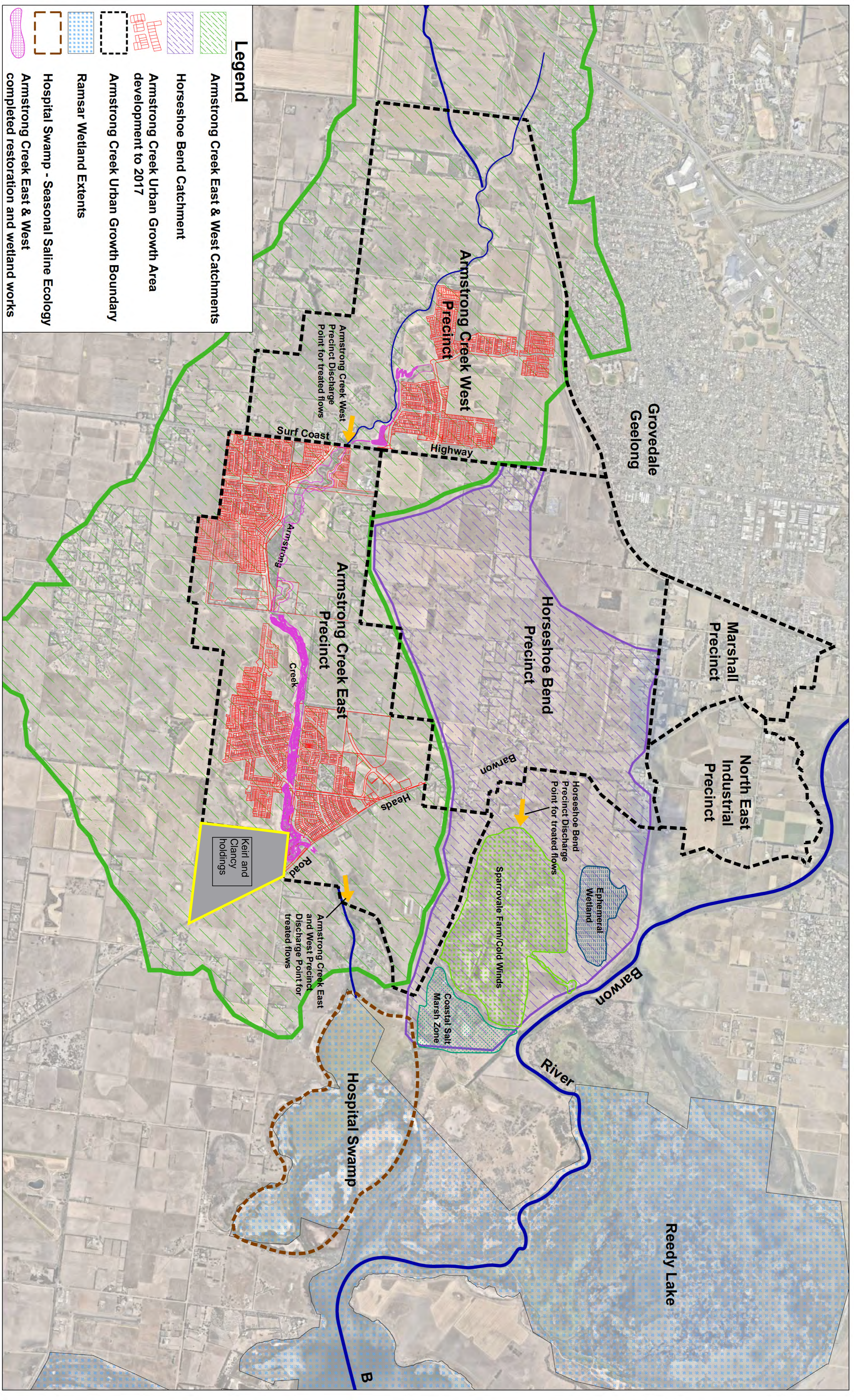


BRAD PADDON  
DIRECTOR

Enc:

- Annexure 1 - Armstrong Creek Development Area Plan
- Annexure 2 - Proposed Diversion Channel
- Annexure 3 - Neil Craigie advice
- Annexure 4 - Decision on referral
- Annexure 5 - Panel Report Amendment C357
- Annexure 6 - Compliance Letter Lloyd Report

RESIDENTIAL & COMMERCIAL  
PROPERTY DEVELOPMENT  
PROJECT MANAGEMENT



**Legend**

- Armstrong Creek East & West Catchments
- Horseshoe Bend Catchment
- Armstrong Creek Urban Growth Area development to 2017
- Armstrong Creek Urban Growth Boundary
- Ramsar Wetland Extents
- Hospital Swamp - Seasonal Saline Ecology
- Armstrong Creek East & West completed restoration and wetland works

REVISION	DATE	DESIGN	APPD
D	9/11/17	CB/CB	SM
C	28.6.16	CB/CB	CB
B	7.6.16	CB/CB	CB
A	12.05.16	CB/CB	CB

DESIGNED	DRAWN	CHECKED	AUTHORISED
Initial Surname	Initial Surname	Initial Surname	Initial Surname
Date	Month	Year	

DATE	DESIGN	APPD
12.05.16	CB/CB	CB

DESIGNED	DRAWN	CHECKED	AUTHORISED
Initial Surname	Initial Surname	Initial Surname	Initial Surname
Date	Month	Year	

Scale @ A1  
N.T.S.

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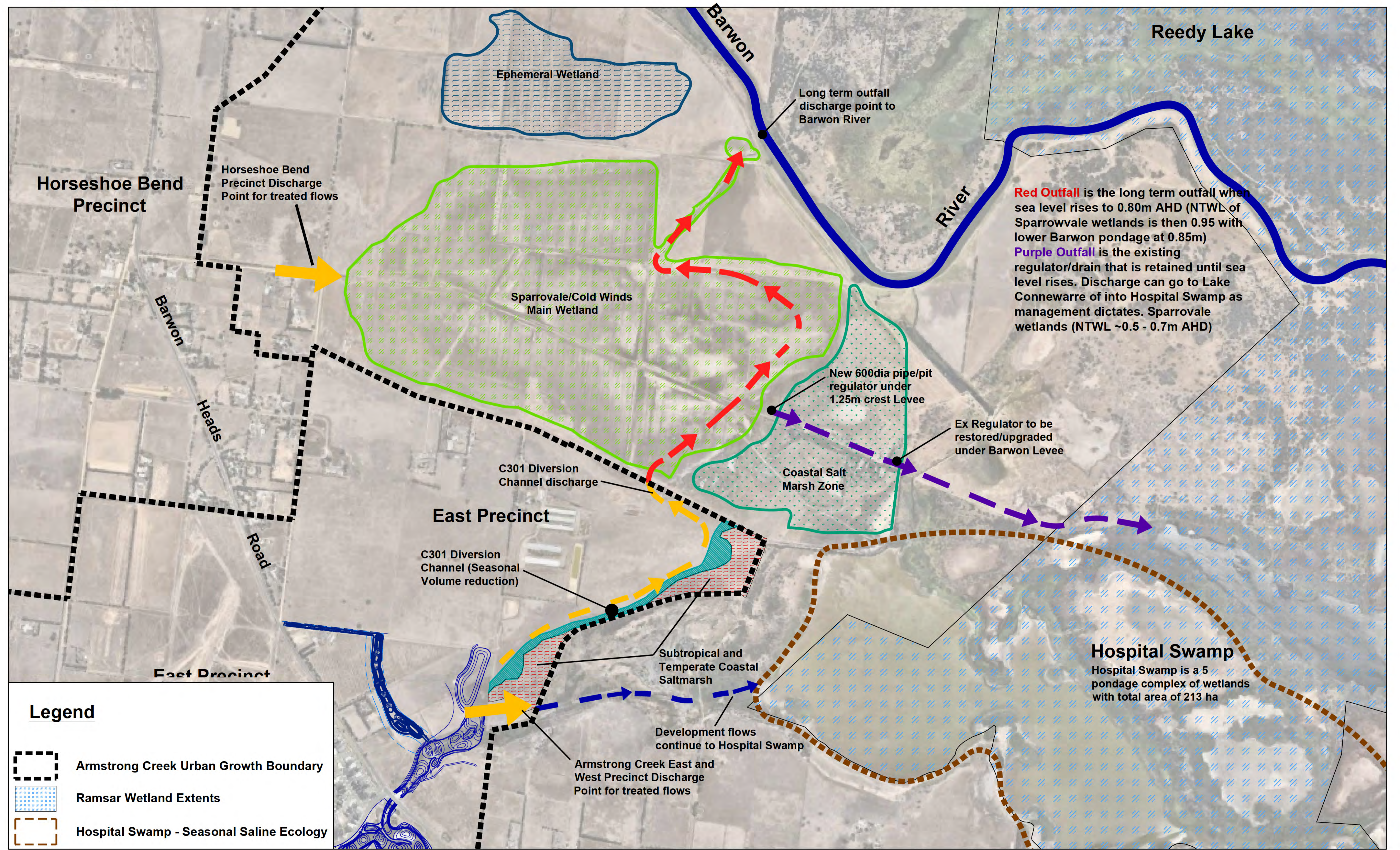
**Armstrong Creek Catchment**

City Of Greater Geelong  
Armstrong Creek Growth Area & Catchment Map

Drawing No. 0989ENAC-80  
Sheet No. 3 of 5

Check Print  
For internal discussion only

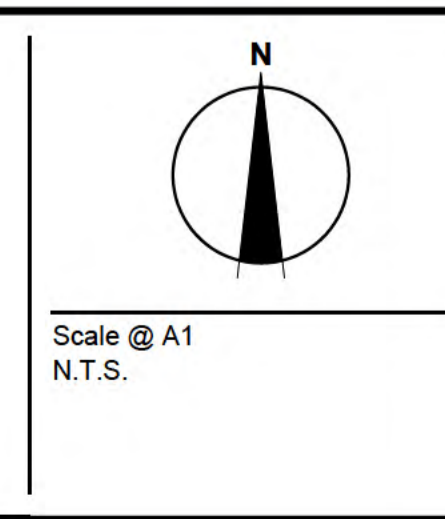
Rev D



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REVISION	DATE	DES/DFT	APP'D	Principal
C	29.6.16	CB/CB	CB	-
B	7.6.16	CB/CB	CB	-
A	12.05.16	CB/CB	CB	-

Designed Initial.Surname	
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Checked Initial.Surname	
Authorised Initial.Surname	
Date	
Month Year	



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**Armstrong Creek Catchment**

City Of Greater Geelong  
 Armstrong Creek and Surrounding Catchment  
 Functional Schematics Map

Drawing No. **0989ENAC-80** Rev **C**  
 Sheet No. 4 of 5

**Check Print**  
 For internal discussion only



**Australian Government**  
**Department of the Environment**

## Referral of proposed action

### What is a referral?

The *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act) provides for the protection of the environment, especially matters of national environmental significance (NES). Under the EPBC Act, a person must not take an action that has, will have, or is likely to have a significant impact on any of the matters of NES without approval from the Australian Government Environment Minister or the Minister's delegate. (Further references to 'the Minister' in this form include references to the Minister's delegate.) To obtain approval from the Environment Minister, a proposed action should be referred. The purpose of a referral is to obtain a decision on whether your proposed action will need formal assessment and approval under the EPBC Act.

Your referral will be the principal basis for the Minister's decision as to whether approval is necessary and, if so, the type of assessment that will be undertaken. These decisions are made within 20 business days, provided sufficient information is provided in the referral.

### Who can make a referral?

Referrals may be made by or on behalf of a person proposing to take an action, the Commonwealth or a Commonwealth agency, a state or territory government, or agency, provided that the relevant government or agency has administrative responsibilities relating to the action.

### When do I need to make a referral?

A referral must be made for actions that are likely to have a significant impact on the following matters protected by Part 3 of the EPBC Act:

- World Heritage properties (sections 12 and 15A)
- National Heritage places (sections 15B and 15C)
- Wetlands of international importance (sections 16 and 17B)
- Listed threatened species and communities (sections 18 and 18A)
- Listed migratory species (sections 20 and 20A)
- Protection of the environment from nuclear actions (sections 21 and 22A)
- Commonwealth marine environment (sections 23 and 24A)
- Great Barrier Reef Marine Park (sections 24B and 24C)
- A water resource, in relation to coal seam gas development and large coal mining development (sections 24D and 24E)
- The environment, if the action involves Commonwealth land (sections 26 and 27A), including:
  - actions that are likely to have a significant impact on the environment of Commonwealth land (even if taken outside Commonwealth land);
  - actions taken on Commonwealth land that may have a significant impact on the environment generally;
- The environment, if the action is taken by the Commonwealth (section 28)
- Commonwealth Heritage places outside the Australian jurisdiction (sections 27B and 27C)

You may still make a referral if you believe your action is not going to have a significant impact, or if you are unsure. This will provide a greater level of certainty that Commonwealth assessment requirements have been met.

To help you decide whether or not your proposed action requires approval (and therefore, if you should make a referral), the following guidance is available from the Department's website:

- the Policy Statement titled Significant Impact Guidelines 1.1 – Matters of National Environmental Significance. Additional sectoral guidelines are also available.

- the Policy Statement titled Significant Impact Guidelines 1.2 - Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies.
- the Policy Statement titled Significant Impact Guidelines: Coal seam gas and large coal mining developments—Impacts on water resources.
- the interactive map tool (enter a location to obtain a report on what matters of NES may occur in that location).

### **Can I refer part of a larger action?**

In certain circumstances, **the Minister may not accept a referral for an action that is a component of a larger action and may request the person proposing to take the action to refer the larger action for consideration under the EPBC Act (Section 74A, EPBC Act)**. If you wish to make a referral for a staged or component referral, read 'Fact Sheet 6 Staged Developments/Split Referrals' and contact the Referrals Gateway (1800 803 772).

### **Do I need a permit?**

Some activities may also require a permit under other sections of the EPBC Act or another law of the Commonwealth. Information is available on the Department's web site.

### **Is your action in the Great Barrier Reef Marine Park?**

If your action is in the Great Barrier Reef Marine Park it may require permission under the *Great Barrier Reef Marine Park Act 1975* (GBRMP Act). If a permission is required, referral of the action under the EPBC Act is deemed to be an application under the GBRMP Act (see section 37AB, GBRMP Act). This referral will be forwarded to the Great Barrier Reef Marine Park Authority (the Authority) for the Authority to commence its permit processes as required under the Great Barrier Reef Marine Park Regulations 1983. If a permission is not required under the GBRMP Act, no approval under the EPBC Act is required (see section 43, EPBC Act). The Authority can provide advice on relevant permission requirements applying to activities in the Marine Park.

The Authority is responsible for assessing applications for permissions under the GBRMP Act, GBRMP Regulations and Zoning Plan. Where assessment and approval is also required under the EPBC Act, a single integrated assessment for the purposes of both Acts will apply in most cases. Further information on environmental approval requirements applying to actions in the Great Barrier Reef Marine Park is available from <http://www.gbrmpa.gov.au/> or by contacting GBRMPA's Environmental Assessment and Management Section on (07) 4750 0700.

The Authority may require a permit application assessment fee to be paid in relation to the assessment of applications for permissions required under the GBRMP Act, even if the permission is made as a referral under the EPBC Act. Further information on this is available from the Authority:

Great Barrier Reef Marine Park Authority

2-68 Flinders Street PO Box 1379

Townsville QLD 4810

AUSTRALIA

Phone: + 61 7 4750 0700

Fax: + 61 7 4772 6093

[www.gbrmpa.gov.au](http://www.gbrmpa.gov.au)

### **What information do I need to provide?**

**Completing all parts of this form will ensure that you submit the required information and will also assist the Department to process your referral efficiently. If a section of the referral document is not applicable to your proposal enter N/A.**

You can complete your referral by entering your information into this Word file.

#### **Instructions**

Instructions are provided in blue text throughout the form.

#### **Attachments/supporting information**

The referral form should contain sufficient information to provide an adequate basis for a decision on the likely impacts of the proposed action. You should also provide supporting documentation, such as environmental reports or surveys, as attachments.

Coloured maps, figures or photographs to help explain the project and its location should also be submitted with your referral. Aerial photographs, in particular, can provide a useful perspective and context. Figures should be good quality as they may be scanned and viewed electronically as black and white documents. Maps should be of a scale that clearly shows the location of the proposed action and any environmental aspects of interest.

**Please ensure any attachments are below three megabytes (3mb) as they will be published on the Department's website for public comment. To minimise file size, enclose maps and figures as separate files if necessary. If unsure, contact the Referrals Gateway (email address below) for advice. Attachments larger than three megabytes (3mb) may delay processing of your referral.**

**Note: the Minister may decide not to publish information that the Minister is satisfied is commercial-in-confidence.**

### **How do I pay for my referral?**

From 1 October 2014 the Australian Government commenced cost recovery arrangements for environmental assessments and some strategic assessments under the EPBC Act. If an action is referred on or after 1 October 2014, then cost recovery will apply to both the referral and any assessment activities undertaken. Further information regarding cost recovery can be found on the [Department's website](#).

#### **Payment of the referral fee can be made using one of the following methods:**

- **EFT Payments can be made to:**

BSB: 092-009  
Bank Account No. 115859  
Amount: \$7352  
Account Name: Department of the Environment.  
Bank: Reserve Bank of Australia  
Bank Address: 20-22 London Circuit Canberra ACT 2601  
Description: The reference number provided (see note below)

- **Cheque - Payable to "Department of the Environment"**. Include the reference number provided (see note below), and if posted, address:

The Referrals Gateway  
Environment Assessment Branch  
Department of the Environment  
GPO Box 787  
Canberra ACT 2601

- **Credit Card**

Please contact the Collector of Public Money (CPM) directly (call (02) 6274 2930 or 6274 20260 and provide the reference number (see note below).

Note: in order to receive a reference number, submit your referral and the Referrals Gateway will email you the reference number.

### **How do I submit a referral?**

Referrals may be submitted by mail or email.

#### **Mail to:**

Referrals Gateway  
Environment Assessment Branch  
Department of Environment  
GPO Box 787  
CANBERRA ACT 2601

- If submitting via mail, electronic copies of documentation (on CD/DVD or by email) are required.



**Email to: [epbc.referrals@environment.gov.au](mailto:epbc.referrals@environment.gov.au)**

- Clearly mark the email as a 'Referral under the EPBC Act'.
- Attach the referral as a Microsoft Word file and, if possible, a PDF file.
- **Follow up with a mailed hardcopy including copies of any attachments or supporting reports.**

**What happens next?**

Following receipt of a valid referral (containing all required information) you will be advised of the next steps in the process, and the referral and attachments will be published on the Department's web site for public comment.

The Department will write to you within 20 business days to advise you of the outcome of your referral and whether or not formal assessment and approval under the EPBC Act is required. There are a number of possible decisions regarding your referral:

**The proposed action is NOT LIKELY to have a significant impact and does NOT NEED approval**

No further consideration is required under the environmental assessment provisions of the EPBC Act and the action can proceed (subject to any other Commonwealth, state or local government requirements).

**The proposed action is NOT LIKELY to have a significant impact IF undertaken in a particular manner**

The action can proceed if undertaken in a particular manner (subject to any other Commonwealth, state or local government requirements). The particular manner in which you must carry out the action will be identified as part of the final decision. You must report your compliance with the particular manner to the Department.

**The proposed action is LIKELY to have a significant impact and does NEED approval**

If the action is likely to have a significant impact a decision will be made that it is a *controlled action*. The particular matters upon which the action may have a significant impact (such as World Heritage values or threatened species) are known as the *controlling provisions*.

The controlled action is subject to a public assessment process before a final decision can be made about whether to approve it. The assessment approach will usually be decided at the same time as the controlled action decision. (Further information about the levels of assessment and basis for deciding the approach are available on the Department's web site.)

**The proposed action would have UNACCEPTABLE impacts and CANNOT proceed**

The Minister may decide, on the basis of the information in the referral, that a referred action would have clearly unacceptable impacts on a protected matter and cannot proceed.

**Compliance audits**

If a decision is made to approve a project, the Department may audit it at any time to ensure that it is completed in accordance with the approval decision or the information provided in the referral. If the project changes, such that the likelihood of significant impacts could vary, you should write to the Department to advise of the changes. If your project is in the Great Barrier Reef Marine Park and a decision is made to approve it, the Authority may also audit it. (See "*Is your action in the Great Barrier Reef Marine Park*," p.2, for more details).

**For more information**

- call the Department of the Environment Community Information Unit on 1800 803 772 or
- visit the web site <http://www.environment.gov.au/topics/about-us/legislation/environment-protection-and-biodiversity-conservation-act-1999>

All the information you need to make a referral, including documents referenced in this form, can be accessed from the above web site.

# Referral of proposed action

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**Project title:** Warralily - East Precinct Sparrovale Outfall, Armstrong Creek

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## 1 Summary of proposed action

**NOTE:** You must also attach a map/plan(s) and associated geographic information system (GIS) vector (shapefile) dataset showing the location and approximate boundaries of the area in which the project is to occur. Maps in A4 size are preferred. You must also attach a map(s)/plan(s) showing the location and boundaries of the project area in respect to any features identified in 3.1 & 3.2, as well as the extent of any freehold, leasehold or other tenure identified in 3.3(i).

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### 1.1 Short description

The proposed rezoning of land at 892-990 Barwon Heads Road, Armstrong Creek to Urban Growth Zone as part of Amendment C301, under the City of Greater Geelong Planning Scheme, has provided the trigger for the need to construct a bypass channel between Armstrong Creek (downstream of the Armstrong Creek East Precinct) and the proposed Sparrovale Wetlands, in order to divert excess drainage water from entering the Lake Connewarre Complex (LCC). The construction of this stormwater bypass channel has support from the City of Greater Geelong, Corangamite Catchment Management Authority and the Department of Environment, Land, Water and Planning (DELWP) and other stakeholders associated with the management of the wetland system. The proposed rezoning is part of a residential development being implemented by Armstrong Creek Development Corporation adjacent to the southern boundary of the Armstrong Creek East Precinct (EHP 2015 - Attachment 1).

---

1.2

**Latitude and longitude**

Latitude and longitude details are used to accurately map the boundary of the proposed action. If these coordinates are inaccurate or insufficient it may delay the processing of your referral.

location point	Latitude	Longitude
	decimal degrees	decimal degrees
1	-38.23307659440	144.38240894900
2	-38.23195329010	144.38379054200
3	-38.23182521080	144.38397144000
4	-38.23160477240	144.38437603200
5	-38.23153247100	144.38456374500
6	-38.23147406500	144.38475095900
7	-38.23143669850	144.38494623500
8	-38.23126187030	144.38552549300
9	-38.23112040420	144.38604184700
10	-38.23101222190	144.38680383400
11	-38.23065727760	144.38835039100
12	-38.23034955300	144.38920766000
13	-38.22961370950	144.39051217200
14	-38.22932417330	144.39156270100
15	-38.22924432450	144.39172422500
16	-38.22889448800	144.39193947300
17	-38.22834375040	144.39218834100
18	-38.22817240350	144.39230024200
19	-38.22802923950	144.39242876600
20	-38.22779496050	144.39272194300
21	-38.22788921370	144.39294849700
22	-38.22800927950	144.39278207500
23	-38.22818402370	144.39257821600
24	-38.22826067300	144.39251746200
25	-38.22845981150	144.39240456800
26	-38.22874212860	144.39227988700
27	-38.22907904920	144.39210917800
28	-38.22933239930	144.39193263900
29	-38.22945349530	144.39181270200
30	-38.22977566560	144.39060334700
31	-38.23050534640	144.38933431500
32	-38.23082060800	144.38850322000
33	-38.23116032250	144.38712004900
34	-38.23130930790	144.38610250100
35	-38.23154339330	144.38536554700
36	-38.23169215940	144.38470533000
37	-38.23185855240	144.38433127300
38	-38.23219744600	144.38382586600
39	-38.23269900910	144.38324369600
40	-38.23339879610	144.38234747000

The Interactive Mapping Tool may provide assistance in determining the coordinates for your project area.

If the area is less than 5 hectares, provide the location as a single pair of latitude and longitude references. If the area is greater than 5 hectares, provide bounding location points.

There should be no more than 50 sets of bounding location coordinate points per proposal area.

Bounding location coordinate points should be provided sequentially in either a clockwise or anticlockwise direction.

If the proposed action is linear (eg. a road or pipeline), provide coordinates for each turning point.

Also attach the associated GIS-compliant file that delineates the proposed referral area. If the area is less than 5 hectares, please provide the location as a point layer. If greater than 5 hectares, please provide a polygon layer. If the proposed action is linear (eg. a road or pipeline) please provide a polyline layer (refer to GIS data supply guidelines at [Attachment A](#)).

---

**Do not use AMG coordinates.**

**1.3 Locality and property description**

Provide a brief physical description of the property on which the proposed action will take place and the project location (eg. proximity to major towns, or for off-shore projects, shortest distance to mainland).

The proposed channel is located at 76-88 Groves Road in Armstrong Creek, and is located approximately 10 kilometres south of Geelong. The area proposed for the construction of the channel is approximately 3.71 hectares, consisting of relatively flat farming land with a slight slope towards the south/east.

The Sparrovale Wetlands is part of a 524 hectare expansion of the Barwon River Parklands which includes a new large scale wetland based around Sparrovale Farm within the Horseshoe Bend Precinct. The site is located at 109-215 Sparrowvale Road (Sparrovale Farm) and 1-87 Groves Road (Cold Winds), Armstrong Creek. This development has been approved as part of the Horseshoe Bend Precinct Structure Plan (CoGG 2014 – Attachment 3).

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1.4	<b>Size of the development footprint or work area (hectares)</b>	The acquisition area for the channel is approximately 3.71 hectares. Amendment C301 covers approximately 52 hectares.
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1.5	<b>Street address of the site</b>	76-88 Groves Road, Armstrong Creek VIC 3217 –Channel between Armstrong Creek and the proposed Sparrovale Wetlands. 892-990 Barwon Heads Road, Armstrong Creek –Amendment C301 811-899 Barwon Head Road, Armstrong Creek – Armstrong Creek Linear Wetlands
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1.6 **Lot description**  
Describe the lot numbers and title description, if known.  
Lot 1 LP210971 – Channel  
Lot 1 TP839787 – C301 Amendment development  
Lot 3 LP92692, Lot 4 LP92692, Allot. E1 Sec. 7 Parish of Connewarre – Armstrong Creek Linear Wetlands

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1.7 **Local Government Area and Council contact (if known)**  
If the project is subject to local government planning approval, provide the name of the relevant council contact officer.  
City of Greater Geelong  
Rob Anderson (Coordinator – Urban Growth) 03 5272 4589

Note – City of Greater Geelong have recently (20145/15) been in consultation with the EPBC Act Compliance team (Trish Randall and Katherine Reid) in regards to the overall impacts of the ACUGA.

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1.8 **Time frame**  
Specify the time frame in which the action will be taken including the estimated start date of construction/operation.  
The prerequisite for the development to commence is all the necessary approvals and the construction of the proposed Horseshoe Bend / Sparrovale Wetlands, assuming that all these are met we anticipate the development would commence in 2018 and be completed within six months for the diversion channel.

1.9	<b>Alternatives to proposed action</b> Were any feasible alternatives to taking the proposed action (including not taking the action) considered but are not proposed?	✓	No
			Yes, you must also complete section 2.2
1.10	<b>Alternative time frames etc</b> Does the proposed action include alternative time frames, locations or activities?	✓	No
			Yes, you must also complete Section 2.3. For each alternative, location, time frame, or activity identified, you must also complete details in Sections 1.2-1.9, 2.4-2.7 and 3.3 (where relevant).
1.11	<b>State assessment</b> Is the action subject to a state or territory environmental impact assessment?	✓	No
			Yes, you must also complete Section 2.5
1.12	<b>Component of larger action</b> Is the proposed action a component of a larger action?		No
		✓	Yes, you must also complete Section 2.7
1.13	<b>Related actions/proposals</b> Is the proposed action related to other actions or proposals in the region (if known)?		No
		✓	Yes, provide details: Armstrong Creek Urban Growth Area within the City of Greater Geelong including the development of multiple precincts
1.14	<b>Australian Government funding</b> Has the person proposing to take the action received any Australian Government grant funding to undertake this project?	✓	No
			Yes, provide details:
1.15	<b>Great Barrier Reef Marine Park</b> Is the proposed action inside the Great Barrier Reef Marine Park?	✓	No
			Yes, you must also complete Section 3.1 (h), 3.2 (e)

## 2 Detailed description of proposed action

**NOTE:** It is important that the description is complete and includes all components and activities associated with the action. If certain related components are not intended to be included within the scope of the referral, this should be clearly explained in section 2.7.

### 2.1 Description of proposed action

This should be a detailed description outlining all activities and aspects of the proposed action and should reference figures and/or attachments, as appropriate.

892-990 Barwon Heads Road, Armstrong Creek is being considered for rezoning into the Urban Growth Zone (UGZ) under Amendment C301 to the City of Greater Geelong Planning Scheme. Amendment C301 aims to rezone 892-990 Barwon Heads Road to allow for subdivision and residential development as an integrated component of the already approved Armstrong Creek East Precinct (ACEP).

The drainage outfall for the already approved ACEP is Armstrong Creek, and this flows into the LCC. As part of Amendment C301 it is proposed that a bypass channel for excess drainage water be constructed, between Armstrong Creek (and associated linear wetlands constructed as part of ACEP Precinct Structure Plan) and the Sparrovale wetlands to divert excess water from the LCC and also avoid vegetation remnants located along Armstrong Creek, downstream of the ACEP (SMEC 2915 - Attachment 2).

The construction of the bypass channel provides a solution to the increase of water volume within the Armstrong Creek Growth Urban Area (ACUGA) catchment. Completion of this channel will resolve all issues related to potential impacts of increased urban runoff from the entire ACUGA on the Hospital Swamps which form part of the Port Phillip Bay (western shoreline) and Bellarine Ramsar Site (Craigie 2015 – Attachment 8). The Sparrovale Wetlands are a significant part of the development of the whole ACUGA and its implementation will protect the Ramsar listed Hospital Swamps from inappropriate storm water quality and volume (Craigie 2015).

A Surface Water Management Strategy has been prepared for the proposed action site including consideration of the hydraulic link between Armstrong Creek and the Sparrovale Wetlands (Craigie 2015).

### 2.2 Alternatives to taking the proposed action

Not undertaking the proposed action is the alternative. This may lead to adverse impacts on the Ramsar listed LCC, including Hospital Swamps, due to increased volumes of urban run-off from the ACUGA development.

### 2.3 Alternative locations, time frames or activities that form part of the referred action

If you have identified that the proposed action includes alternative time frames, locations or activities (in section 1.10) you must complete this section. Describe any alternatives related to the physical location of the action, time frames within which the action is to be taken and alternative methods or activities for undertaking the action. For each alternative location, time frame or activity identified, you must also complete (where relevant) the details in sections 1.2-1.9, 2.4-2.7, 3.3 and 4. Please note, if the action that you propose to take is determined to be a controlled action, any alternative locations, time frames or activities that are identified here may be subject to environmental assessment and a decision on whether to approve the alternative.

The final channel alignment is subject to further detailed design and will be selected to ensure avoidance and protection of remnant vegetation identified with the ACEP Native Vegetation Precinct Plan (NVPP) (SMEC 2010 – Attachment 10), including Coastal Saltmarsh (EVC 9) recorded within Habitat Zone 2 and 3 (SMEC 2009 – Attachment 5) (Figure 1).

## **2.4 Context, planning framework and state/local government requirements**

Explain the context in which the action is proposed, including any relevant planning framework at the state and/or local government level (e.g. within scope of a management plan, planning initiative or policy framework). Describe any Commonwealth or state legislation or policies under which approvals are required or will be considered against.

The ACUGA is an important strategic project in Victoria and provides for the principal urban growth of the City of Greater Geelong and the broader Geelong Region. The ACUGA is located at the south of existing urban Geelong and includes the communities of Marshall, Connewarre and Mt Duneed. At capacity, the ACUGA is made up of seven precincts and is expected to accommodate approximately 54,000 persons and 22,000 dwellings.

Multiple planning scheme amendments have been approved since 25 November 2008 relating to the rezoning of the land to Urban Growth Zone (Amendment C138 and C170) as well as approval of Precinct Structure Plans for individual Precincts (Amendment C206, C207, C240, C259 and C267).

The implementation of the Sparrovale Wetlands, which was endorsed as part of Amendment C259, is an important part of the ACUGA development and is vital for protecting the Ramsar listed LCC, including Hospital Swamps, from increased volumes of storm water.

### **Local Planning Schemes**

The study area is located within City of Greater Geelong the municipality.

The channel is located within the Urban Growth Zone (UGZ2) and is subject to an Environmental Significance Overlay (ESO-2), a Development Contributions Plan Overlay (DCP-03) and a Flood Overlay. Native vegetation within the vicinity of the channel locations is recorded under the Armstrong Creek East Precinct Native Vegetation Precinct Plan (NVPP). A Planning Permit from City of Greater Geelong is required to remove, destroy or lop any native vegetation identified for retention within the NVPP.

The proposed development at 892-990 Barwon Heads Road is currently zoned Farming Zone (FZ), and no environmental overlays currently apply to the site. A Planning Permit from City of Greater Geelong is required to remove, destroy or lop any native vegetation.

Sparrovale Wetlands are being delivered within the approved Horseshoe Bend Precinct and are funded via its Development Contributions Plan (DCP). Once agreements are in place for the existing private landholdings to be converted to public ownership, the Sparrovale Wetlands in turn enable the creation of the channel across to Armstrong Creek. The Armstrong Creek linear wetlands system across the north frontage of the proposed channel and the new waterway further west to Horseshoe Bend Road (SMEC 2015) were delivered within the approved Armstrong Creek East Precinct as a DCP item and have now practically constructed. As part of Amendment C301 SWMS it is proposed to include the costs of land acquisition and construction of the channel, beyond the limits covered by the ACEP DCP, all the way through to Sparrovale Wetlands.

### **Permitted clearing of native vegetation - Biodiversity assessment guidelines (Victoria)**

Areas of remnant native vegetation, Scattered Trees and habitat for rare or threatened species must be offset if they are proposed to be disturbed as part of the project. No remnant vegetation is proposed to be removed as part of the construction of the channel.

The offset requirement for native vegetation removal as part of the Amendment C301 at 892-990 Barwon Heads Road, is 0.203 General Biodiversity Equivalence Units.

### **Water Act 1989 (Victoria)**

Given the study area is in close proximity to Armstrong Creek and subsequently Ramsar wetlands of significance downstream, a 'works on waterways' permit from the Corangamite CMA may be required

as a precautionary approach where an action has the potential to impact a waterway within or adjoining the study area.

## **2.5 Environmental impact assessments under Commonwealth, state or territory legislation**

The proposed development is not subject to a state environmental impact process.

## **2.6 Public consultation (including with Indigenous stakeholders)**

Your referral must include a description of any public consultation that has been, or is being, undertaken. Where Indigenous stakeholders are likely to be affected by your proposed action, your referral should describe any consultations undertaken with Indigenous stakeholders. Identify the relevant stakeholders and the status of consultations at the time of the referral. Where appropriate include copies of documents recording the outcomes of any consultations.

All relevant Amendments relating to the ACUGA have been exhibited for public comment and assessed through a Panel as part of the City of Greater Geelong Planning Scheme requirements.

Amendment C301 will also be subject to statutory public notification requirements and will be on exhibition for a month commencing late August 2015.

Cultural Heritage assessments have been completed for all approved Precinct Structure Plans in consultation with the relevant Registered Aboriginal Party for the area.

## **2.7 A staged development or component of a larger project**

If you have identified that the proposed action is a component of a larger action (in section 1.12) you must complete this section. Provide information about the larger action and details of any interdependency between the stages/components and the larger action. You may also provide justification as to why you believe it is reasonable for the referred action to be considered separately from the larger proposal (eg. the referred action is 'stand-alone' and viable in its own right, there are separate responsibilities for component actions or approvals have been split in a similar way at the state or local government levels).

The Sparrovale Wetlands are proposed to protect the LCC, including Hospital Swamps from the impact of increased volumes of freshwater run-off arising from urban development not just within the Horseshoe Bend Precinct catchment, as per Amendment C259, but also across the whole ACUGA catchment. The channel between Sparrovale Wetlands and Armstrong Creek, from the terminal wetlands in the Armstrong Creek East Precinct, is of critical importance to this primary environmental objective given that it will enable increased stormwater runoff from the whole of the Armstrong Creek catchment to be diverted around the LCC, including the Hospital Swamps. The channel is proposed to connect into Sparrovale Wetlands on the upstream (west) side of the proposed internal levee bank (Figure 1).

The proponent is currently developing a large area within the ACEP, as part of the Warralily Master Plan, directly to the north and west of Amendment C301. Further, there are several other developments within the ACEP that are about to begin construction further north of Amendment C301.

The Sparrovale Wetlands are part of the Horseshoe Bend Precinct and there are other proponents responsible for the delivery of this item. The proposed channel should be assessed as a stand-alone project in its own right, given it is within the Armstrong Creek East Precinct and has separate approvals from the adjacent Precincts.



# 3 Description of environment & likely impacts

## 3.1 Matters of national environmental significance

Describe the affected area and the likely impacts of the proposal, emphasising the relevant matters protected by the EPBC Act. Refer to relevant maps as appropriate. The interactive map tool can help determine whether matters of national environmental significance or other matters protected by the EPBC Act are likely to occur in your area of interest.

Your assessment of likely impacts should refer to the following resources (available from the Department's web site):

- specific values of individual World Heritage properties and National Heritage places and the ecological character of Ramsar wetlands;
- profiles of relevant species/communities (where available), that will assist in the identification of whether there is likely to be a significant impact on them if the proposal proceeds;
- *Significant Impact Guidelines 1.1 – Matters of National Environmental Significance*; and
- associated sectoral and species policy statements available on the web site, as relevant.

Your assessment of likely impacts should consider whether a bioregional plan is relevant to your proposal. The Minister has prepared four marine bioregional plans (MBP) in accordance with section 176. It is likely that the MBP's will be more commonly relevant where listed threatened species, listed migratory species or a Commonwealth marine area is considered.

**Note that even if your proposal will not be taken in a World Heritage area, Ramsar wetland, Commonwealth marine area, the Great Barrier Reef Marine Park or on Commonwealth land, it could still impact upon these areas (for example, through downstream impacts). Consideration of likely impacts should include both direct and indirect impacts.**

### 3.1 (a) World Heritage Properties

#### Description

The study area does not contain, nor is close to any World Heritage Properties.

#### Nature and extent of likely impact

There will be no impacts on any World Heritage Properties.

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### 3.1 (b) National Heritage Places

#### Description

The study area does not contain, nor is close to any National Heritage Places.

#### Nature and extent of likely impact

There will be no impacts on any National Heritage Places

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### 3.1 (c) Wetlands of International Importance (declared Ramsar wetlands)

## **Description**

Armstrong Creek flows into the Barwon River and fringes of Lake Connewarre and Reedy Lake which forms part of the larger Port Phillip Bay (Western Shoreline) and Bellarine Ramsar Site.

Baensch's Wetland and Hospital Swamps are part of the Lower Barwon River Wetlands and estuary, and are connected to Lake Connewarre (referred to as the LCC). Baensch's Wetland and Hospital Swamps are directly adjacent to the south and east of the proposed channel.

## **Nature and extent of likely impact**

[Address any impacts on the ecological character of any Ramsar wetlands.](#)

Construction of the bypass channel will mitigate against any potential impacts to the Ramsar wetland. The development of the bypass channel between Sparrovale Wetlands and the terminal wetlands within the ACEP and adjacent developments will enable the diversion of increased volumes of stormwater runoff from the whole of the Armstrong Creek catchment, in order to avoid the LCC and Ramsar Wetlands, including Hospital Swamps.

Implementation of the bypass channel has been strongly advocated by the City of Greater Geelong, Corangamite CMA, DELWP, Geelong Field and Game and many other stakeholders as it provides an integrated solution to the increase volumes of stormwater from the development within the ACUGA.

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### **3.1 (d) Listed threatened species and ecological communities**

## Description

Based upon the assessment by SMEC (2009), no threatened flora or fauna species have been recorded within the area proposed for the channel. One listed ecological community Subtropical and Temperate Coastal Saltmarsh, has been recorded immediately adjacent to the area proposed for the channel.

Fauna: The LCC, including Lake Connewarre, Reedy Lake, and the Hospital Swamps support significant numbers of four shorebirds – Sharp-tailed Sandpiper, Curlew Sandpiper, Marsh Sandpiper and Red-necked Stint (Ecology Australia 2006).

A number of terrestrial and wetland migratory species have been previously identified and include the Great Egret *Ardea alba* and Cattle Egret *Ardea ibis*. Habitat resources for these species are limited although the Cattle Egret has the potential to occur intermittently across the channel site. Similarly, wetland species of conservation significance which include the Glossy Ibis *Plegadis falcinellus*, Royal Spoonbill *Platalea regia*, Australasian Bittern *Botaurus poiciloptilus*, Australasian Shoveler *Anas rhynchos*, Hardhead *Aythya australis* and Musk Duck *Biziura lobata* have extremely limited if any habitat occurring within the channel area (SMEC 2009).

Flora: Spiny Peppergrass, which is mostly found on heavy clay soils near salt lakes, and Creeping Rush, which is restricted to saline or sub saline communities or around saline lakes, are both considered to have a moderate to high likelihood of occurrence in the in the Coastal Saltmarsh adjacent to the channel site (Ecology Australia 2006, SMEC 2009).

Communities: Based on the vegetation descriptions and habitat hectare scoring, Coastal Saltmarsh (EVC 9) vegetation adjacent to the proposed channel site (HZ 2 and 3) is likely to be representative of the EPBC Act listed community Subtropical and Temperate Coastal Saltmarsh (Figure 1). This community has not been discussed in previous reports as the community was listed after their publication (listed in August 2013).

### Nature and extent of likely impact

[Address any impacts on the members of any listed threatened species \(except a conservation dependent species\) or any threatened ecological community, or their habitat.](#)

The proposed action is unlikely to have a significant impact on any listed threatened species or ecological communities. The design of the channel will avoid areas of remnant vegetation during construction and appropriate mitigation measures will be applied to ensure that vegetation is not indirectly impacted.

Wetland bird species are unlikely to be impacted as they usually occupy lower lying areas designated as flood zones, and the channel is proposed to be located away from these areas.

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### 3.1 (e) Listed migratory species

## **Description**

A total of 115 Migratory and/or Marine species have been recorded within 10 kilometres of the study area (EHP 2015).

## **Nature and extent of likely impact**

The channel area does not support marine habitat, nor does it provide habitat for an ecologically significant proportion of any of these species. The channel area would not be classed as an 'important habitat' as defined under the EPBC Act Policy Statement 1.1 Principal Significant Impact Guidelines (DoE 2013). Therefore, it is considered unlikely that there will be a significant impact on migratory or marine species.

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### **3.1 (f) Commonwealth marine area**

(If the action is in the Commonwealth marine area, complete 3.2(c) instead. This section is for actions taken outside the Commonwealth marine area that may have impacts on that area.)

#### **Description**

The study area does not contain, nor is close to any Commonwealth Marine area.

#### **Nature and extent of likely impact**

There will be no impacts on any Commonwealth Marine area.

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### **3.1 (g) Commonwealth land**

(If the action is on Commonwealth land, complete 3.2(d) instead. This section is for actions taken outside Commonwealth land that may have impacts on that land.)

#### **Description**

There are no Commonwealth lands present within the site or adjacent areas.

#### **Nature and extent of likely impact**

There will be no impact to any Commonwealth land.

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### **3.1 (h) The Great Barrier Reef Marine Park**

#### **Description**

The study area is not in, or near, the Great Barrier Reef Marine Park.

#### **Nature and extent of likely impact**

The proposed action will not have any effect on the Great Barrier Reef Marine Park.

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### **3.1 (i) A water resource, in relation to coal seam gas development and large coal mining development**

## Description

The proposed action is not a coal seam gas development or large coal mining development

### Nature and extent of likely impact

The proposed action will not have any effect relating to a coal seam gas development or large coal mining development.

## 3.2 Nuclear actions, actions taken by the Commonwealth (or Commonwealth agency), actions taken in a Commonwealth marine area, actions taken on Commonwealth land, or actions taken in the Great Barrier Reef Marine Park

You must describe the nature and extent of likely impacts (both direct & indirect) on the whole environment if your project:

- is a nuclear action;
- will be taken by the Commonwealth or a Commonwealth agency;
- will be taken in a Commonwealth marine area;
- will be taken on Commonwealth land; or
- will be taken in the Great Barrier Reef marine Park.

Your assessment of impacts should refer to the *Significant Impact Guidelines 1.2 - Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies* and specifically address impacts on:

- ecosystems and their constituent parts, including people and communities;
- natural and physical resources;
- the qualities and characteristics of locations, places and areas;
- the heritage values of places; and
- the social, economic and cultural aspects of the above things.

3.2 (a)	Is the proposed action a nuclear action?	✓	No
			Yes (provide details below)

**If yes, nature & extent of likely impact on the whole environment**

3.2 (b)	Is the proposed action to be taken by the Commonwealth or a Commonwealth agency?	✓	No
			Yes (provide details below)

**If yes, nature & extent of likely impact on the whole environment**

3.2 (c)	Is the proposed action to be taken in a Commonwealth marine area?	✓	No
			Yes (provide details below)

**If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(f))**

3.2 (d)	Is the proposed action to be taken on Commonwealth land?	✓	No
			Yes (provide details below)

**If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(g))**

3.2 (e)	Is the proposed action to be taken in the Great Barrier Reef Marine Park?	✓	No
			Yes (provide details below)

**If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(h))**

### 3.3 Other important features of the environment

Provide a description of the project area and the affected area, including information about the following features (where relevant to the project area and/or affected area, and to the extent not otherwise addressed above). If at Section 2.3 you identified any alternative locations, time frames or activities for your proposed action, you must complete each of the details below (where relevant) for each alternative identified.

#### 3.3 (a) Flora and fauna

Flora and fauna information about the channel site is based on SMEC 2009:

Coastal Saltmarsh zones, HZ2 and HZ3, which are immediately adjacent to the channel site, are located in the north-east of the ACEP adjacent to the Lake Connearre State Game Reserve associated with Reedy Lake. This section of the Precinct is seasonally inundated which promotes saline to sub-saline wetlands when left in a relatively natural state. The vegetation is considered to be EVC 9: Coastal Saltmarsh within the Otway Plain bioregion of Victoria. The vegetation within HZ2 and HZ3 is continuous with existing vegetation located within the Barwon River floodway. Common indigenous species within the two patches included Southern Seablite *Suaeda australis*, Glasswort *Halosarcia* sp., Pigface *Carpobrotus*, Australian Salt-grass *Distichlis distichophylla*, Chaffy Saw-sedge *Gahnia filum*, and *Cotula* sp.

Fauna species (predominantly birds) associated with extensive wetlands to the east (both freshwater and saline origin) typically occupy areas fringing these sites. These species were predominately observed utilising lower lying areas designated as flood zones. As a result these are unlikely to be impacted upon by any development since these areas are typically avoided. Species examples include the Swamp Harrier, Brolga and Blue-winged Parrot.

#### 3.3 (b) Hydrology, including water flows

Extensive works on the waterway system have already been implemented with the expanding development of the ACEP and additional Armstrong Creek Precincts including the construction of wetlands and the realignment of Armstrong Creek. Both the Armstrong Creek linear wetland system (which is located with the ACEP) across the north frontage of Amendment C301, and the new waterway further west to Horseshoe Bend Road are now practically completed, indicating the hydrology and water flows in this area are being managed in line with the urban development (Craigie 2015).

Based upon the work by Craigie (2015), hydrological models and appropriate engineering, indicate that the proposed bypass channel will prevent increased volumes of run off from entering the LCC, and ensure that the pre-development water regime of the inputs of Armstrong Creek into the LCC is maintained. Further details regarding the management strategies for surface water are detailed in Craigie (2015), and Condina and Craigie (2014).

The construction of the bypass channel provides the land managers with the ability to manipulate and divert unseasonal additional flows away from the LCC and Sparrovale catchment, which will be particularly useful during summer periods.

#### 3.3 (c) Soil and Vegetation characteristics

The study area is located at the interface between the Victorian Volcanic Plain and the Otway Plain bioregions. The main geomorphological features in the area include extensive broad flats and undulating plains consistent with the Victorian Volcanic Plain bioregion. The land typically slopes

towards the east draining into the lowlands of Hospital Swamps and the extended Lower Barwon Wetlands which are within the Otway Plain bioregion.

Native vegetation has largely been cleared and is highly modified, with the majority of extant native vegetation consisting of scattered trees or patches associated with roadsides or waterways and floodplains. Vegetation within the wider area is generally comprised of woodland, wetland vegetation and grassland (Ecology Australia 2006). Based upon the vegetation mapping by SMEC (2009), there are no native vegetation patches within the channel site, and the area is likely to be dominated by introduced pasture species.

### **3.3 (d) Outstanding natural features**

There are no outstanding features within the study area.

### **3.3 (e) Remnant native vegetation**

The ACEP detailed flora and fauna assessment (SMEC 2009) identified two remnant patches of Coastal Saltmarsh (EVC 9) adjacent to the channel site.

Modified patches of Plains Grassland (EVC 125) (not EPBC Act listed) were also identified within Amendment C301 at 892-990 Barwon Heads Road (Ecology and Heritage Partners 2015a).

### **3.3 (f) Gradient (or depth range if action is to be taken in a marine area)**

The topography of the channel area is generally flat with a gentle slope towards the lowlands east of the study area.

### **3.3 (g) Current state of the environment**

[Include information about the extent of erosion, whether the area is infested with weeds or feral animals and whether the area is covered by native vegetation or crops.](#)

The site is currently used for agriculture (grazing) and there are no major land management issues present. Weeds infestations are likely to consist of pasture grass species and there is likely to be only low pest animal activity.

### **3.3 (h) Commonwealth Heritage Places or other places recognised as having heritage values**

There are no Commonwealth Heritage Places or other significant heritage areas present within the site of the proposed action.

### **3.3 (i) Indigenous heritage values**

Numerous assessments have been undertaken in relation to cultural heritage values within the ACUGA (Ecology and Heritage Partners 2015b). The area around the proposed channel does not contain an area of Cultural Heritage Sensitivity as described by the Aboriginal Heritage Regulations 2007; however numerous Aboriginal Places have previously been recorded in adjacent areas. A desktop assessment of the Amendment C301 area (Ecology and Heritage Partners 2015b) concluded that:

- Aboriginal cultural heritage may be found in lands within 500 m of Armstrong Creek. Such sites may be found in creek bank landforms, but may also be found on flat open floodplain landforms in close proximity to the creek.
- Higher density sites may be found along the margins of the floodplain, either on slightly elevated landforms or along the margins of former swamp systems.
- Lower density sites may be found almost anywhere in the region, including on the floodplain itself.

**3.3 (j) Other important or unique values of the environment**

Describe any other key features of the environment affected by, or in proximity to the proposed action (for example, any national parks, conservation reserves, wetlands of national significance etc).

The broader lower Barwon River and Lake Connewarre area contains a wetland of international significance and contains habitat from numerous rare and threatened species of national and State significance.

**3.3 (k) Tenure of the action area (eg freehold, leasehold)**

Freehold

**3.3 (l) Existing land/marine uses of area**

The channel area is currently used for agriculture (grazing).

**3.3 (m) Any proposed land/marine uses of area**

The channel area is currently zoned Urban Growth Zone and is intended to be developed as part of the ACUGA.



## 4 Measures to avoid or reduce impacts

**Note:** If you have identified alternatives in relation to location, time frames or activities for the proposed action at Section 2.3 you will need to complete this section in relation to each of the alternatives identified.

Provide a description of measures that will be implemented to avoid, reduce, manage or offset any relevant impacts of the action. Include, if appropriate, any relevant reports or technical advice relating to the feasibility and effectiveness of the proposed measures.

For any measures intended to avoid or mitigate significant impacts on matters protected under the EPBC Act, specify:

- what the measure is,
- how the measure is expected to be effective, and
- the time frame or workplan for the measure.

Examples of relevant measures to avoid or reduce impacts may include the timing of works, avoidance of important habitat, specific design measures, or adoption of specific work practices.

Provide information about the level of commitment by the person proposing to take the action to implement the proposed mitigation measures. For example, if the measures are preliminary suggestions only that have not been fully researched, or are dependent on a third party's agreement (e.g. council or landowner), you should state that, that is the case.

Note, the Australian Government Environment Minister may decide that a proposed action is not likely to have significant impacts on a protected matter, as long as the action is taken in a particular manner (section 77A of the EPBC Act). The particular manner of taking the action may avoid or reduce certain impacts, in such a way that those impacts will not be 'significant'. More detail is provided on the Department's web site.

For the Minister to make such a decision (under section 77A), the proposed measures to avoid or reduce impacts must:

- clearly form part of the referred action (eg be identified in the referral and fall within the responsibility of the person proposing to take the action),
- be must be clear, unambiguous, and provide certainty in relation to reducing or avoiding impacts on the matters protected, and
- must be realistic and practical in terms of reporting, auditing and enforcement.

More general commitments (eg preparation of management plans or monitoring) and measures aimed at providing environmental offsets, compensation or off-site benefits CANNOT be taken into account in making the initial decision about whether the proposal is likely to have a significant impact on a matter protected under the EPBC Act. (But those commitments may be relevant at the later assessment and approval stages, including the appropriate level of assessment, if your proposal proceeds to these stages).

The design of the channel aims to avoid any impacts to the EPBC Act listed ecological community. Details relating to construction works have not been fully developed however, the primary focus of the design has been on avoiding all ecological impacts and the construction of the channel will follow this position.

# 5 Conclusion on the likelihood of significant impacts

Identify whether or not you believe the action is a controlled action (ie. whether you think that significant impacts on the matters protected under Part 3 of the EPBC Act are likely) and the reasons why.

## 5.1 Do you THINK your proposed action is a controlled action?

- No, complete section 5.2
- Yes, complete section 5.3

## 5.2 Proposed action IS NOT a controlled action.

Specify the key reasons why you think the proposed action is NOT LIKELY to have significant impacts on a matter protected under the EPBC Act.

During the preparation of the Horseshoe Bend and ACEP Precinct Structure Plans, developers and consultants worked closely with Council and the Corangamite CMA to manage 'substantial and measurable changes' to the hydrological regime and water quality of the Ramsar listed wetlands. The Precinct Structure Plans maintained the existing flow rates of Armstrong Creek so that there would be no 'substantial or measurable change' to the hydrological regime. Migratory species are unlikely to be impacted as the hydrological regime is being maintained and new water retention basins and wetlands are being created to supplement available habitat for these species.

The proposed bypass channel delivers the link from the ACEP (Armstrong Creek wetlands) to the Sparrovale Wetlands, to resolve all issues related to impacts of increase urban runoff from the entire Armstrong Creek urban area on the LCC, including Hospital Swamps, especially during the summer/autumn periods (Craigie 2015).

Based on the proposed design for the channel (SMEC 2015) and the surface water management strategy for the site (Craigie 2015), the internationally significant wetlands of the Hospital Swamps and the nationally significant ecological community *Subtropical and Temperate Coastal Saltmarsh* will not be impacted as part of the development.

The proposed development is committed to retaining all areas that contain, or have a low likelihood of supporting matters of National Environmental Significance and it is considered likely that approval under the EBPC Act is not required in this instance. However, the proponents have volunteered to make this referral as a non-controlled action to ensure compliance with the EPBC Act and the Commonwealth Government.

## 5.3 Proposed action IS a controlled action

Type 'x' in the box for the matter(s) protected under the EPBC Act that you think are likely to be significantly impacted. (The 'sections' identified below are the relevant sections of the EPBC Act.)

### Matters likely to be impacted

- World Heritage values (sections 12 and 15A)
- National Heritage places (sections 15B and 15C)
- Wetlands of international importance (sections 16 and 17B)
- Listed threatened species and communities (sections 18 and 18A)
- Listed migratory species (sections 20 and 20A)
- Protection of the environment from nuclear actions (sections 21 and 22A)

	Commonwealth marine environment (sections 23 and 24A)
	Great Barrier Reef Marine Park (sections 24B and 24C)
	A water resource, in relation to coal seam gas development and large coal mining development (sections 24D and 24E)
	Protection of the environment from actions involving Commonwealth land (sections 26 and 27A)
	Protection of the environment from Commonwealth actions (section 28)
	Commonwealth Heritage places overseas (sections 27B and 27C)

Specify the key reasons why you think the proposed action is likely to have a significant adverse impact on the matters identified above.

## 6 Environmental record of the responsible party

**NOTE:** If a decision is made that a proposal needs approval under the EPBC Act, the Environment Minister will also decide the assessment approach. The EPBC Regulations provide for the environmental history of the party proposing to take the action to be taken into account when deciding the assessment approach.

		Yes	No
<b>6.1</b>	<p><b>Does the party taking the action have a satisfactory record of responsible environmental management?</b></p> <p><b>Provide details</b>                      The Warralily Estate development was the first project in Geelong to be awarded EnviroDevelopment certification under the UDIA's nationally recognised standards and has been recognised for the following elements: Ecosystems, Waste, Water and Community.</p> <p>The development has also been recognised by the Geelong Chamber of Commerce for its environmental management and has an exemplary working relationship with the City of Greater Geelong (Environment, Engineering and Planning teams) with the delivery of the Warralily Estate.</p>	✓	
<b>6.2</b>	<p><b>Has either (a) the party proposing to take the action, or (b) if a permit has been applied for in relation to the action, the person making the application - ever been subject to any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources?</b></p> <p><b>If yes, provide details</b></p>		✓
<b>6.3</b>	<p><b>If the party taking the action is a corporation, will the action be taken in accordance with the corporation's environmental policy and planning framework?</b></p> <p><b>If yes, provide details of environmental policy and planning framework</b></p> <p>As a minimum, the proponents address all aspects of statutory controls and complied with additional standards under the EnviroDevelopment certification.</p>	✓	
<b>6.4</b>	<p><b>Has the party taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?</b></p> <p><b>Provide name of proposal and EPBC reference number (if known)</b></p>		✓

# 7 Information sources and attachments

(For the information provided above)

## 7.1 References

- List the references used in preparing the referral.
- Highlight documents that are available to the public, including web references if relevant.

CCMA, 2015. Draft Seasonal Watering Proposal for the Lower Barwon Wetlands 2015-16. Report prepared by the Corangamite Catchment Management Authority. Available online at [www.ccma.vic.gov.au/admin/file/content2/c7/B%20-%20Draft%20Wetlands%20SWP%202014-15%20-%20Draft%20for%20Release%20\\_final\\_.pdf](http://www.ccma.vic.gov.au/admin/file/content2/c7/B%20-%20Draft%20Wetlands%20SWP%202014-15%20-%20Draft%20for%20Release%20_final_.pdf)

City of Greater Geelong, 2014. Horseshoe Bend Precinct Structure Plan. Plan prepared by the City of Greater Geelong. (Attachment 3 – Sparrovale Wetlands plan from PSP document). PSP is available online [www.geelongaustralia.com.au/armstrongcreek/precincts/article/item/8cfbe2a26a4a881.aspx](http://www.geelongaustralia.com.au/armstrongcreek/precincts/article/item/8cfbe2a26a4a881.aspx)

Condina & Craigie, 2014. An assessment of the sustainability of the proposed Sparrovale wetlands and assessment of the associated social, economic and environmental risks. Report prepared for the City of Greater Geelong (Attachment 7)

Craigie, N.M., 2015. Amendment C301 City of Greater Geelong Planning Scheme, Armstrong Creek East Precinct – Stormwater Management Strategy. Report prepared for Newland Developers Pty Ltd (Attachment 8)

Ecology and Heritage Partners Pty Ltd, 2015a. Biodiversity Assessment, 892-990 Barwon Heads Road, Armstrong Creek. Report prepared for CGM Land Pty Ltd (Attachment 6)

Ecology and Heritage Partners Pty Ltd, 2015b. Cultural Heritage Letter of Advice for proposed rezoning and subsequent subdivision at 892-990 Barwon Heads Road, Armstrong Creek, Victoria. Report prepared for CGM Land Pty Ltd (Attachment 9)

Ecology and Heritage Partners Pty Ltd 2015c. Figure 1 – EPBC Referral Submission. Figure prepared for the EPBC referral (Attachment 1).

Ecology Australia 2006. Armstrong Creek Urban Growth Plan. Technical Report: Flora and Fauna. Report prepared for the City of Greater Geelong (Attachment 4)

SMEC 2009. Detailed Ecological Assessment, Armstrong Creek East Precinct. Report prepared for the City of Greater Geelong (Attachment 5)

SMEC 2010. Armstrong Creek East Precinct – Native Vegetation Precinct Plan. Prepared for the City of Greater Geelong (Attachment 10)

SMEC 2015. Warralily – East Precinct Sparrovale Outfall. Technical design prepared for Newland Develops Pty Ltd (Attachment 2)

## 7.2 Reliability and date of information

For information in section 3 specify:

- source of the information;
- how recent the information is;
- how the reliability of the information was tested; and
- any uncertainties in the information.

Numerous technical assessments have been undertaken by a range of specialist consultants within the ACUGA on behalf of the City of Greater Geelong and individual developers and land managers within the growth area since 2006. Assessments range from those with a broad ACUGA focus to more specific assessments on individual Precincts within the ACUGA (specifically the ACEP and Horseshoe Bend Precinct) and individual properties within the Precincts and adjacent areas (specifically the Warralily Estate).

The information presented in this referral has been collated from specialist flora and fauna assessments, surface water management strategies, detailed technical designs, precinct structure plans and relevant asset management plans prepared predominantly in 2014 and 2015 (see references above).

## 7.3 Attachments

Indicate the documents you have attached. All attachments must be less than three megabytes (3mb) so they can be published on the Department's website. Attachments larger than three megabytes (3mb) may delay the processing of your referral.

		✓ attached	Title of attachment(s)
<b>You must attach</b>	figures, maps or aerial photographs showing the project locality (section 1)	✓	Attachment 1 - Figure 1 EPBC Referral Submission
	GIS file delineating the boundary of the referral area (section 1)		
	figures, maps or aerial photographs showing the location of the project in respect to any matters of national environmental significance or important features of the environments (section 3)	✓	Attachment 2 - Warralily East Precinct Outfall Plan  Attachment 3 - Sparrovale Wetlands Plan
<b>If relevant, attach</b>	copies of any state or local government approvals and consent conditions (section 2.5)		
	copies of any completed assessments to meet state or local government approvals and outcomes of public consultations, if available (section 2.6)	✓	Horseshoe Bend Precinct Structure Plan (CoGG 2014) - online  Attachment 10 – Armstrong Creek East Native Vegetation Precinct Plan (SMEC 2009)
	copies of any flora and fauna investigations and surveys (section 3)	✓	Attachment 4 – Armstrong Creek Urban Growth Plan Flora and Fauna Assessment (Ecology Australia)

		<p>2006)</p> <p>Attachment 5 – Detailed Ecological Assessment Armstrong Creek East Precinct (SMEC 2009)</p> <p>Attachment 6 – Biodiversity Assessment, 892-990 Barwon Heads Road, Armstrong Creek (EHP 2015)</p>
<p>technical reports relevant to the assessment of impacts on protected matters that support the arguments and conclusions in the referral (section 3 and 4)</p>	<p>✓</p>	<p>Attachment 7 – An assessment of the sustainability of the proposed Sparrovale wetlands and assessment of the associated social, economic and environmental risks (Condina &amp; Craigie 2014)</p> <p>Attachment 8 - Amendment C301 Stormwater Management Strategy (Craigie 2015)</p> <p>Draft Seasonal Watering Proposal for the Lower Barwon Wetlands 2015-16 (CCMA 2015) - online</p>
<p>report(s) on any public consultations undertaken, including with Indigenous stakeholders (section 3)</p>	<p>✓</p>	<p>Attachment 9 – Cultural Heritage Letter of Advice for proposed rezoning and subsequent subdivision at 892-990 Barwon Heads Road, Armstrong Creek, Victoria (EHP 2015)</p>

## 8 Contacts, signatures and declarations

**NOTE:** Providing false or misleading information is an offence punishable on conviction by imprisonment and fine (s 489, EPBC Act).

Under the EPBC Act a referral can only be made by:

- the person proposing to take the action (which can include a person acting on their behalf); or
- a Commonwealth, state or territory government, or agency that is aware of a proposal by a person to take an action, and that has administrative responsibilities relating to the action<sup>1</sup>.

### Project title:

---

#### 8.1 Person proposing to take action

1. Name and Title: Matthew Fleischmann – Project Manager
2. Organisation (if applicable): CGM Land Pty Ltd
3. EPBC Referral Number (if known):
- 4: ACN / ABN (if applicable): ACN – 128 508 752
5. Postal address: 501 Blackburn Road, Mount Waverley VIC 3149
6. Telephone: 0418 276 726
7. Email: matthewfleischmann@newland.com.au
8. Name of designated proponent (if not the same person at item 1 above and if applicable): N/A
9. ACN/ABN of designated proponent (if not the same person named at item 1 above): N/A

#### COMPLETE THIS SECTION ONLY IF YOU QUALIFY FOR EXEMPTION FROM THE FEE(S) THAT WOULD OTHERWISE BE PAYABLE

- an individual; OR
- I qualify for exemption from fees under section 520(4C)(e)(v) of the EPBC Act because I am:
- a small business entity (within the meaning given by section 328-110 (other than subsection 328-119(4)) of the *Income Tax Assessment Act 1997*); OR
- not applicable.**

If you are small business entity you must provide the Date/Income Year that you became a small business entity:

---

<sup>1</sup> If the proposed action is to be taken by a Commonwealth, state or territory government or agency, section 8.1 of this form should be completed. However, if the government or agency is aware of, and has administrative responsibilities relating to, a proposed action that is to be taken by another person which has not otherwise been referred, please contact the Referrals Gateway (1800 803 772) to obtain an alternative contacts, signatures and declarations page.



**Note: You must advise the Department within 10 business days if you cease to be a small business entity. Failure to notify the Secretary of this is an offence punishable on conviction by a fine (regulation 5.23B(3) Environment Protection and Biodiversity Conservation Regulations 2000 (Cth)).**

**COMPLETE THIS SECTION ONLY IF YOU WOULD LIKE TO APPLY FOR A WAIVER**

I would like to apply for a waiver of full or partial fees under Schedule 1, 5.21A of the [EPBC Regulations](#). Under sub regulation 5.21A(5), you must include information about the applicant (if not you) the grounds on which the waiver is sought and the reasons why it should be made:

**not applicable.**

Declaration I declare that to the best of my knowledge the information I have given on, or attached to this form is complete, current and correct.  
I understand that giving false or misleading information is a serious offence.  
I agree to be the proponent for this action.  
I declare that I am not taking the action on behalf of or for the benefit of any other person or entity.

Signature 

Date 28/08/2015

---

**8.2 Person preparing the referral information (if different from 8.1)**

*Individual or organisation who has prepared the information contained in this referral form.*

Name Robyn Giles  
Title Senior Botanist  
Organisation Ecology and Heritage Partners Pty Ltd  
ACN / ABN (if applicable) 111 427 920 / 65 685 233 760  
Postal address 230 Latrobe Terrace, Geelong West VIC 3218  
Telephone 0430 506 690  
Email rgiles@ehpartners.com.au

Declaration I declare that to the best of my knowledge the information I have given on, or attached to this form is complete, current and correct.  
I understand that giving false or misleading information is a serious offence.

Signature 

Date 28/08/2015

# REFERRAL CHECKLIST

NOTE: This checklist is to help ensure that all the relevant referral information has been provided. It is not a part of the referral form and does not need to be sent to the Department.

## HAVE YOU:

- Completed all required sections of the referral form?
- Included accurate coordinates (to allow the location of the proposed action to be mapped)?
- Provided a map showing the location and approximate boundaries of the project area?
- Provided a map/plan showing the location of the action in relation to any matters of NES?
- Provided a digital file (preferably ArcGIS shapefile, refer to guidelines at [Attachment A](#)) delineating the boundaries of the referral area?
- Provided complete contact details and signed the form?
- Provided copies of any documents referenced in the referral form?
- Ensured that all attachments are less than three megabytes (3mb)?
- Sent the referral to the Department (electronic and hard copy preferred)?

## **Geographic Information System (GIS) data supply guidelines**

If the area is less than 5 hectares, provide the location as a point layer. If the area greater than 5 hectares, please provide as a polygon layer. If the proposed action is linear (eg. a road or pipeline) please provide a polyline layer.

GIS data needs to be provided to the Department in the following manner:

- Point, Line or Polygon data types: ESRI file geodatabase feature class (preferred) or as an ESRI shapefile (.shp) zipped and attached with appropriate title
- Raster data types: Raw satellite imagery should be supplied in the vendor specific format.
- Projection as GDA94 coordinate system.

Processed products should be provided as follows:

- For data, uncompressed or lossless compressed formats is required - GeoTIFF or Imagine IMG is the first preference, then JPEG2000 lossless and other simple binary+header formats (ERS, ENVI or BIL).
- For natural/false/pseudo colour RGB imagery:
  - If the imagery is already mosaiced and is ready for display then lossy compression is suitable (JPEG2000 lossy/ECW/MrSID). Prefer 10% compression, up to 20% is acceptable.
  - If the imagery requires any sort of processing prior to display (i.e. mosaicing/colour balancing/etc) then an uncompressed or lossless compressed format is required.

Metadata or 'information about data' will be produced for all spatial data and will be compliant with ANZLIC Metadata Profile. ([http://www.anzlic.org.au/policies\\_guidelines#guidelines](http://www.anzlic.org.au/policies_guidelines#guidelines)).

The Department's preferred method is using ANZMet Lite, however the Department's Service Provider may use any compliant system to generate metadata.

All data will be provide under a Creative Commons license (<http://creativecommons.org/licenses/by/3.0/au/>)

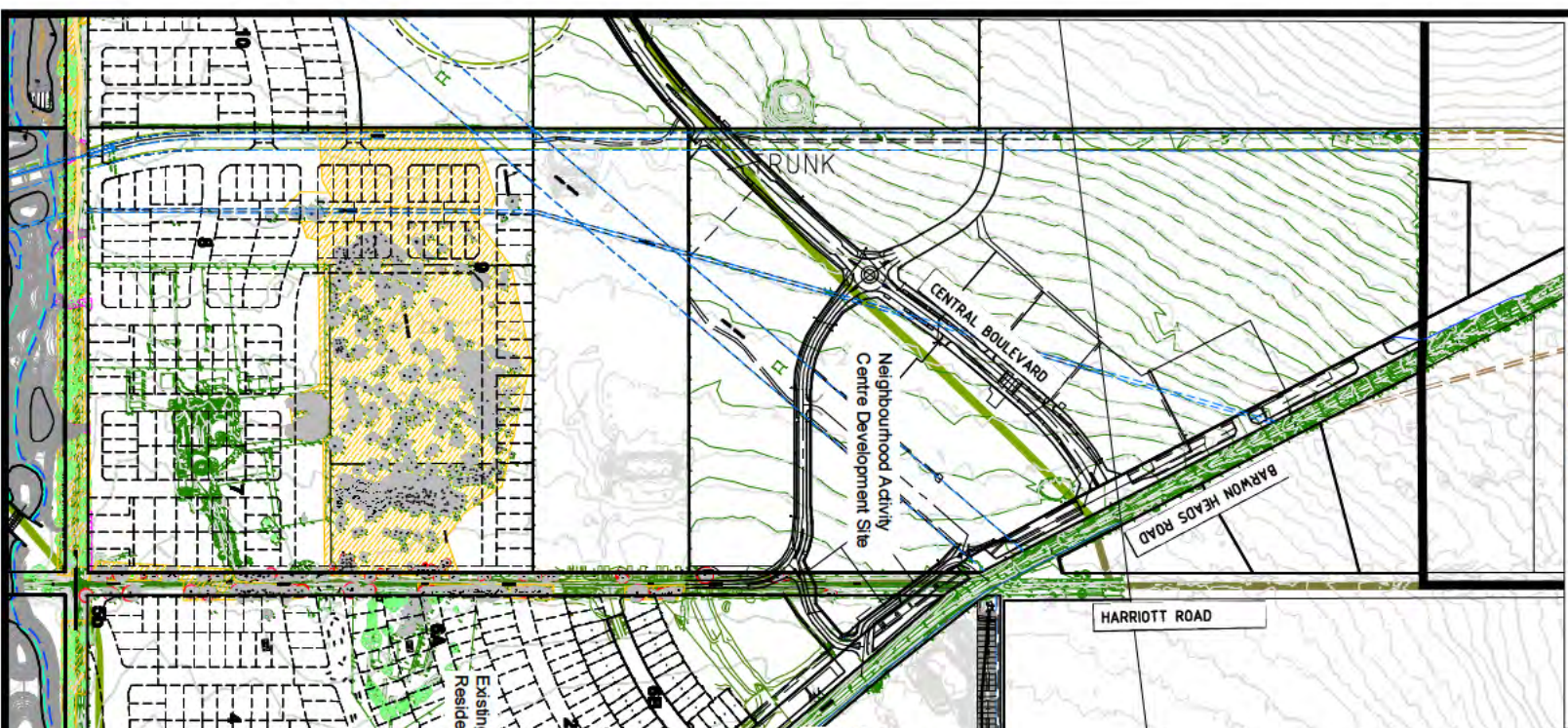


# Warrally - East Precinct Sparrowale Outfall

Ref: 3440989ENAC-SK69  
Revision: D  
Date: 5/01/2016  
Scale: N.T.S.



ALL BOUNDARY LINES AND AREAS CONTAINED WITHIN THIS PLAN REMAIN APPROXIMATE ONLY UNTIL VERIFIED VIA FIELD SURVEY. ACCURACY PRIOR TO FIELD SURVEYS IS APPROXIMATELY +/- 5m



Example of Weir with removable drop boards. For this project our requirements are 1.2m wide weir only (approx one bay only on the above example).

Twin 1800dia culvert crossing wetlands with access road over.

Adjustable Weir Control 1.2m wide with removable drop boards or similar RL 1.3 AHD

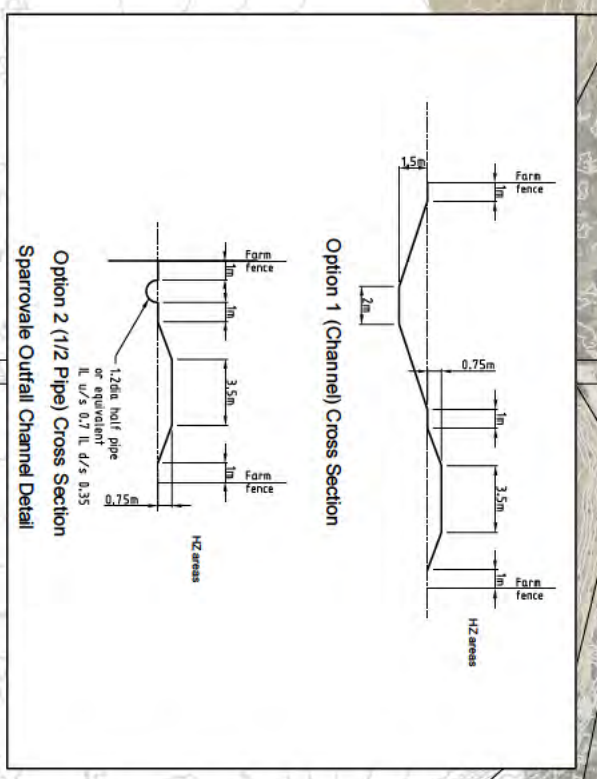
Temporary open drain to divert flows to link channel (replaced by future wetlands) Gate Valve fitted to existing 300dia PVC pipe

ACQUISITION FOR DRAINAGE 3.7ha

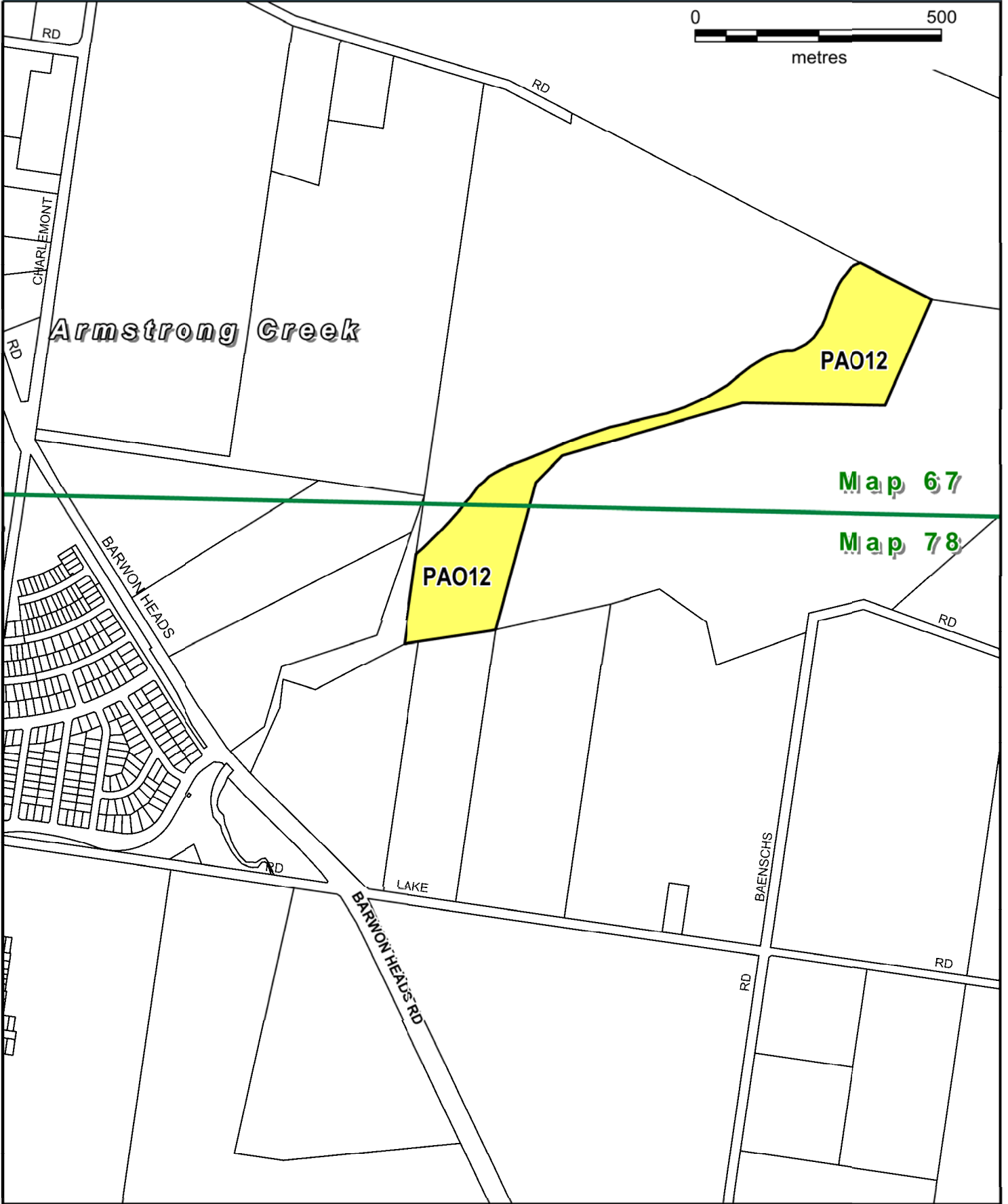
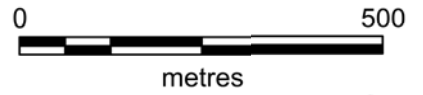
MINIMUM DRAINAGE CHANNEL 22m WIDE



Link channel connection to be upstream (west) of the proposed internal Sparrowale Wetlands levee.



# GREATER GEELONG PLANNING SCHEME



## LEGEND

**PAO12** Public Acquisition Overlay - Schedule 12

Part of Planning Scheme Map Nos.67PAO & 78PAO

# AMENDMENT C301



s22

**From:** Sarah Shortall <sarah@apdprojects.com.au>  
**Sent:** Thursday, 16 November 2017 2:13 PM  
**To:** s22  
**Cc:** Andrew Hill; Brad Paddon; s22; TNatt@geelongcity.vic.gov.au  
**Subject:** EBPC Matter 2015/7553 - Briefing Pack Email 2 of 2  
**Attachments:** Attachment 4 - 6903\_Fig1\_EPBC\_Referral.pdf; Attachment 4A - 2015-7553-Referral decision letter to proponent SIGNED.PDF; Attachment 4B - 2015-7553-Referral-signed notice.pdf; Attachment 4C - 2015-7553-assessment-PD request Att A.docx.pdf; Attachment 4D - 2015-7553-assessment-PD request letter.docx.pdf; Attachment 5 - Greater+Geelong+C357++&+C360+Panel+Report.pdf; Attachment 6 - Compliance letter - 2017.pdf

s22

Further to the below, Attachments 4-6 attached.

Regards



**Sarah Shortall** | Development Manager | [APD Projects](#)  
[sarah@apdprojects.com.au](mailto:sarah@apdprojects.com.au) | T 03 9804 5885 | M 0410 280 973 | [apdprojects.com.au](http://apdprojects.com.au)  
 Level 3, 468 St Kilda Road, Melbourne VIC 3004

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Please consider the environment before printing this email

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**From:** Sarah Shortall  
**Sent:** Thursday, 16 November 2017 1:55 PM  
**To:** s22@environment.gov.au; s22@environment.gov.au  
**Cc:** 'Andrew Hill' <ahill@ehpartners.com.au>; Brad Paddon <brad@apdprojects.com.au>; s22@environment.gov.au; s22@environment.gov.au; 'TNatt@geelongcity.vic.gov.au' <TNatt@geelongcity.vic.gov.au>  
**Subject:** EBPC Matter 2015/7553 - Briefing Pack Email 1 of 2

s22

Ahead of next Tuesday's meeting to discuss EBPC Reference 2015/7553, I enclose a copy of our briefing pack.

Due to file size, I will send over two emails.

The pack contains the below information:

- EPBC Briefing Note
- Annexure 1 – Armstrong Creek Development Area Plan
- Annexure 2 – Proposed Diversion Channel Map and Referral Application
- Annexure 3 – Neil Craigie advice
- Annexure 4 – Decision on referral
- Annexure 5 – Panel Report Amendment C357
- Annexure 6 – Compliance Letter Lloyd Environmental Report

If you could kindly confirm receipt of this information when received.

Regards



**Sarah Shortall** | Development Manager | **APD Projects**

[sarah@apdprojects.com.au](mailto:sarah@apdprojects.com.au) | T 03 9804 5885 | M 0410 280 973 | [apdprojects.com.au](http://apdprojects.com.au)

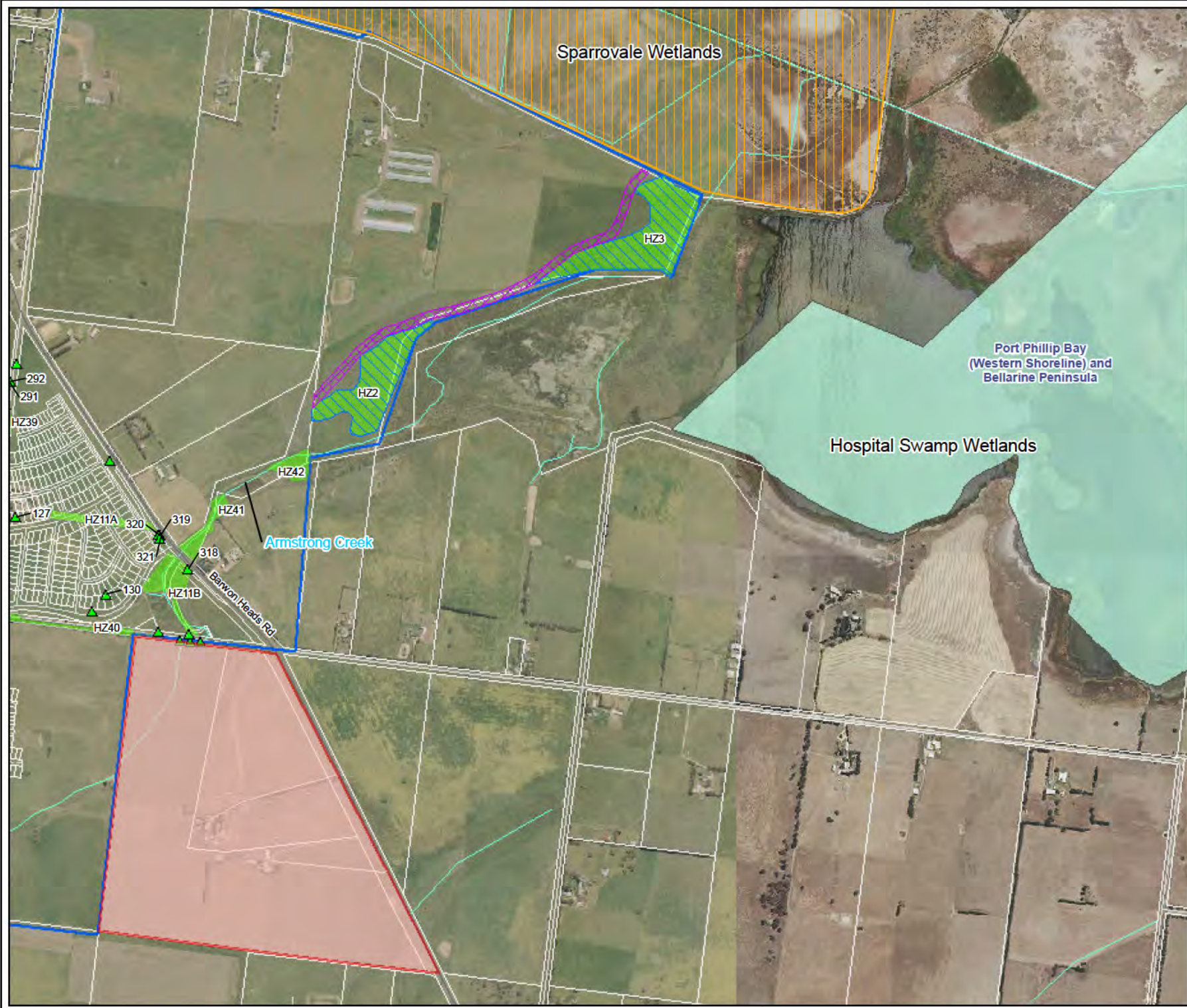
Level 3, 468 St Kilda Road, Melbourne VIC 3004

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 Please consider the environment before printing this email

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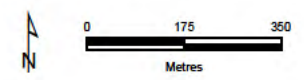
Message protected by MailGuard: e-mail anti-virus, anti-spam and content filtering.  
<http://www.mailguard.com.au>



- Legend**
- ACEP Precinct boundary
  - C301 Amendment
  - Proposed Drainage Channel
  - Ramsar wetland
- Vegetation**
- ACEP Habitat Zones NVPP
  - Subtropical and Temperate Coastal Saltmarsh
- Scattered Trees**
- ▲ Scattered Trees

FOI 180202  
Document 7a

**Figure 1**  
**EPBC Referral submission**  
*Warralily Development -  
 Armstrong Creek East  
 Precinct and C301  
 Amendment*



VicMap Data: The State of Victoria does not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that the State of Victoria shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

3251\_Fig01\_Warralily\_Master.mxd 12/06/2014 RG





EPBC Ref: 2015/7553

Mr Matthew Fleischmann  
Project Manager  
CGM Land Pty Ltd  
501 Blackburn Road  
Mount Waverley  
Victoria 3149

Dear Mr Fleischmann

**Decision on referral**

**Warrally-Sparrovale Outfall, stormwater bypass channel, Armstrong Creek, Victoria (EPBC 2015-7553)**

Thank you for submitting a referral under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This is to advise you of my decision about the referral of the proposed action, to construct a stormwater bypass channel at 76-88 Groves Road Armstrong Creek, Victoria.

**As a delegate of the Minister for the Environment, I have decided under section 75 of the EPBC Act that the proposed action is a controlled action and, as such, it requires assessment and a decision about whether approval for it should be given under the EPBC Act.**

The information that I have considered indicates that the proposed action is likely to have a significant impact on the following matters protected by the EPBC Act:

- declared Ramsar wetland (section 16 & section 17B);
- listed migratory species (sections 20 & 20A); and
- listed threatened species and communities (sections 18 & 18A).

Based on the information available in the referral, the proposed action is likely to have a significant impact on the following matters of national environmental significance, but not limited to:

- The proposed action may result in a substantial and measurable change in the hydrological regime of the wetland.
- The proposed action may result in a substantial and measurable change in the physico-chemical status of the wetland.
- The proposed action may substantially modify an area of important habitat for migratory species.
- The proposed action may result in loss or modification of habitat for threatened species.

Please note that this decision only relates to the potential for significant impacts on matters protected by the Australian Government under Chapter 2 of the EPBC Act.

I have also decided that the project will need to be assessed by preliminary documentation.

Each assessment approach requires different levels of information and involves different steps. All levels of assessment include a public consultation phase, *in which any third parties can comment on the proposed action.*

Please note, under subsection 520(4A) of the EPBC Act and the *Environment Protection and Biodiversity Conservation Regulations 2000* your assessment is subject to cost recovery. Please find attached a copy of the fee schedule for your proposal and an invoice for Stage 1. Fees will be payable prior to each stage of the assessment proceeding. Further details on cost recovery are available on the Department's website at: <http://www.environment.gov.au/epbc/cost-recovery>.

If you disagree with the fee schedule provided, you may apply under section 514Y of the EPBC Act for reconsideration of the method used to work out the fee. The application for reconsideration must be made within 30 business days of the date of the fee schedule and can only be made once in respect of a fee. Further details regarding the reconsideration process and an application form for reconsideration can be found on the Department's website at: <http://www.environment.gov.au/epbc/cost-recovery>.

Details on the assessment process for the project and the responsibilities of the proponent are set out in the enclosed fact sheet. Further information is available from the Department's website at <http://www.environment.gov.au/topics/environment-protection/environment-assessments>.

A copy of the document recording these decisions is enclosed.

While I have determined that your project will be assessed by preliminary documentation, some further information will be required to be able to assess the relevant impacts of the action. You should expect to receive a letter from the Department within 10 business days of the payment of stage 1 fees, outlining the information required.

Provided the additional information requested is adequately addressed in the preliminary documentation, provisions M and N in the fee schedule are likely to drop to low complexity when the fee is reconsidered before stage 3 is payable. This may significantly reduce the total amount payable.

The project manager will contact you shortly to discuss the assessment process.

I have also written to the following parties to advise them of this decision:

---

State Ministers

John Ginivan as appointed delegate for the Hon  
Richard Wynne MP

---

You may elect under section 132B of the EPBC Act to submit a management plan to be considered during the assessment at any time before an approval decision is made.

If a management plan is submitted or revised after approval it may incur additional fees under cost recovery. Please refer to the enclosed information for more details.


The Department considers that your project may be suitable for the application of outcomes-based conditions in accordance with the draft *Outcomes-based Conditions Policy 2015*. The Department may seek further information through the assessment process to allow outcomes-based conditions to be applied, in the event that your project is approved with conditions. Please call your project manager if you wish to discuss what outcomes-based conditions involve, or if you are concerned about your capability and willingness to comply with outcomes-based conditions.

Please also note that once a proposal to take an action has been referred under the EPBC Act, it is an offence under section 74AA to take the action while the decision making process is ongoing (unless that action is specifically excluded from the referral or other exemptions apply). Persons convicted of an offence under this provision of the EPBC Act may be liable for a penalty of up to 500 penalty units. The EPBC Act is available on line at: <http://www.environment.gov.au/epbc/about/index.html>

The Department has recently published an *Environmental Impact Assessment Client Service Charter* (the Charter) which outlines the Department's commitments when undertaking environmental impact assessments under the EPBC Act. A copy of the Charter can be found at: <http://www.environment.gov.au/epbc/publications/index.html>.

If you have any questions about the referral process or this decision, please contact the project manager, s22 [redacted] by email to s22 [redacted]@environment.gov.au, or telephone 02 6274s22 [redacted] and quote the EPBC reference number shown at the beginning of this letter.

Yours sincerely



Deb Callister  
Assistant Secretary  
Assessments and Policy Implementation Branch

23/ 11/2015



**Notification of  
REFERRAL DECISION AND DESIGNATED PROPONENT – controlled action  
DECISION ON ASSESSMENT APPROACH**

**Warralily-Sparrovale Outfall, stormwater bypass channel, Armstrong Creek, Victoria  
(EPBC 2015-7553)**

This decision is made under section 75 and section 87 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

---

**proposed action** To construct a stormwater bypass channel at 76-88 Groves Road Armstrong Creek, Victoria [See EPBC Act referral 2015-7553].

---

**decision on proposed action** The proposed action is a controlled action.  
The project will require assessment and approval under the EPBC Act before it can proceed.

---

**relevant controlling provisions**

- Wetlands of international importance (sections 16 & 17B)
- Listed migratory species (sections 20 & 20A)
- Listed threatened species and communities (sections 18 & 18A)

---

**designated proponent** CGM Land Pty Ltd  
ACN: 128 508 752

---

**assessment approach** The project will be assessed by preliminary documentation.

---

**Decision-maker**

---

**Name and position** Deb Callister  
Assistant Secretary  
Assessments and Policy Implementation Branch

---

**Signature**

---

**date of decision**

23 / 11 / 15

---



## **Attachment A**

### **REQUEST FOR ADDITIONAL INFORMATION REQUIRED FOR ASSESSMENT BY PRELIMINARY DOCUMENTATION**

#### **Warrailly-Sparrovale Outfall, stormwater bypass channel, Armstrong Creek, Victoria (EPBC 2015-7553)**

It has been determined that the proposed action, to construct a stormwater bypass channel at 76-88 Groves Road Armstrong Creek, Victoria (EPBC 2015/7553), is likely to have a significant impact on the following controlling provisions, which are protected under Part 3 of the EPBC Act:

- Declared Ramsar wetland (section 16 & section 17B);
- Listed migratory species (sections 20 & 20A); and
- Listed threatened species and communities (sections 18 & 18A).

It has also been determined that the proposed action will be assessed by preliminary documentation. Preliminary documentation for the proposal will include:

- the information contained in your original referral;
- the further information you provide on the impacts of the action and the strategies to mitigate and/or offset that impact (as described below); and
- any other relevant information on the matters protected by the EPBC Act.

The preliminary documentation should be sufficient to allow the delegate to make an informed decision on whether or not to approve, under Part 9 of the EPBC Act, the taking of the action for the purposes of each controlling provision.

The preliminary documentation must address the following matters.

#### **GENERAL CONTENT, FORMAT AND STYLE**

The preliminary documentation should be contained as one document with attachments and include sufficient information to avoid the need to search out previous or supplementary reports.

The information provided should be objective, clear, and succinct and, where appropriate, be supported by maps, plans, diagrams or other descriptive detail.

- The best available scientific literature;
- Relevant maps, plans, diagrams, tables and databases;
- References or other descriptive detail (e.g. addressing how recent the information is); and

The preliminary documentation is to avoid passive language and use active, clear commitments (e.g. "must" and "will") wherever appropriate. Passive language affects the auditability of approval conditions and is likely to be unacceptable. The preliminary documentation should be complete and inclusive of appendices. The preliminary

documentation must include a copy of this request and a table indicating where the information fulfilling this request is included in the preliminary documentation.

## **SPECIFIC CONTENT OF THE ADDITIONAL INFORMATION**

### **1. DESCRIPTION OF THE ACTION**

The preliminary documentation must provide a detailed description of the proposed action. The preliminary documentation must include a summary of all components of the action, a description of the activities associated with the potential development, and plans or maps to delineate the position of all activities and components of the action (including retained vegetation). In particular, please clarify the follow proposed activities and impact areas including:

- (a) The location, boundaries and size (in hectares) of the area that will be directly disturbed by the proposed action. Information should outline the proposed construction activities associated with each activity (pre-construction, construction, and operational);
- (b) The location, boundaries and size (in hectares) of adjoining areas, which may be indirectly impacted by the proposal including alteration of hydrology.
- (c) Information on historical, current and proposed hydrology of the site. Historical information should take into account all information and be developed in consultation with a suitably qualified expert. For each of the historical, current and proposed context, provide:
  - i. A map of current and proposed drainage patterns across the site
  - ii. Current and predicted volumes of runoff that will reach the channel
  - iii. Clear information on the volume and rainfall events that will be diverted by the channel and a prediction of volumes or rainfall events that will not be diverted by the channel;
- (d) Detailed specifications for engineering of the channel and levee including bank height and batter (slopes), construction and design criteria for stormwater flows and storm surge;
- (e) Locations and descriptions of any structures forming part of the channel. This may include pollutant traps and weirs;
- (f) Details on construction methods, techniques and materials;
- (g) A description of the operational activities that may be associated with the channel in the future, including any anticipated maintenance works;
- (h) A description of the connectivity of the channel with surrounding structures (existing and proposed) such as the Armstrong Creek East Precinct ponds and the proposed Sparrovale Wetlands. This must include hydrological details, such as volumes during normal and storm events;
- (i) The anticipated timing and duration (including start and completion dates) for both construction and operational components;
- (j) Maps that illustrate the location of any proposed construction exclusion zones or buffer zones, and details on how these areas will be excluded, or protected;

Where relevant information was provided at the referral stage, incorporate or refer to this information as necessary in the consolidated preliminary documentation.

## **2. DESCRIPTION OF THE ENVIRONMENT AND MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE**

The preliminary documentation must provide a general description of the environment of the development site, as well as the surrounding areas that may be impacted by the action both in the short and long term. This section must specifically address the following matters:

- (a) A description of the matters of national environmental significance (MNES), which may be affected by the proposal. This section must address, but need not be limited to, the following matters:
  - Port Phillip Bay (Western Shoreline) and Bellarine Peninsula – listed Ramsar site
  - Curlew sandpiper (*Calidris ferruginea*) – listed critically endangered species and listed migratory species
  - Red-necked stints (*Calidris ruficollis*) – listed migratory species
  - Sharp-tailed sandpiper (*Calidris acuminata*) – listed migratory species
  - Orange-bellied parrot (*Neophema chrysogaster*) – listed critically endangered species
  - Other EPBC listed migratory species or EPBC listed threatened species that may be impacted by the action

Where information was provided in the referral information but updated information is now available, please provide the updated information. This may include:

- Information about the resources used to identify and assess the environmental values on site (i.e. was consultation or advice sought from flora and fauna experts in regard to the potential presence of threatened species and ecological communities);
- Information detailing known/recorded populations or habitat for the relevant MNES in the area surrounding the proposed action area. Information may include maps with distribution of MNES and associated habitat; and
- An assessment of the adequacy of any surveys undertaken (including survey effort and timing), in particular the extent to which these surveys were appropriate to key MNES and undertaken in accordance with the Department's relevant scientific and policy guidance.

## **3. RELEVANT IMPACTS**

The preliminary documentation must include an assessment of potential impacts (including direct, indirect, consequential and cumulative impacts) that may occur as a result of all elements and project phases of the proposed action on the MNES Ramsar wetland, migratory species, and threatened species addressed at Section 2.

Consideration of impacts must not be confined to the immediate areas surrounding the proposed action but must also consider the potential of the proposed action to impact on adjacent areas. Consideration should be given to all relevant information sources available to minimise assumptions with regard to the ongoing operation of the channel. Potential impacts should be assessed in consultation with a suitably qualified expert.

#### Ramsar Wetlands

For protected EPBC listed Ramsar sites consideration of impacts must include, but not be limited to, an assessment of:

Actions related to the construction of the channel

- (a) Geotechnical survey of the site including surface and subsurface hydrology (e.g. paleo-channels or other structure which would lead to weaknesses in the channel and/or levee) and acid sulfate soil assessment;
- (b) Potential impacts to water quality including impacts immediately downstream of the proposed channel, and at the eventual outfall site of captured flows into the Ramsar site;
- (c) Impacts to water quality must include an analysis of the impacts on salinity, freshwater incursion, and pollutants;
- (d) Erosion and sedimentation;
- (e) Weeds and pathogens;
- (f) Spills and contamination;

Actions related to the operation of the channel

*Operation activities affecting water quality – nature of the Ramsar site*

- (g) Measures to control or improve water quality including removal of pollutants

*Operation activities affecting water volumes – hydrology of the Ramsar site*

- (h) Modelling of historical, current, and predicted flows including dry season, wet season and flood events, and an analysis of changes to these flows detailing volumes and timing;
- (i) A discussion on how changes to current flows will affect the Ramsar site;
- (j) Monitoring of erosion, sedimentation, pollutants; and
- (k) Monitoring and management of invasive species including phragmites and typha which are likely to spread rapidly in areas with increased volumes of freshwater.

#### Migratory species

For the protection of EPBC listed migratory species

- (l) Outline an injury mitigation plan to prevent direct mortality or harm resulting from construction activities;



- (m) Impacts to habitat resulting from changes in hydrology
- (n) Impacts to habitat resulting from changes in water quality at the Ramsar site

#### Threatened species

For the protection of EPBC listed threatened species

- (a) The direct and indirect loss and/or disturbance of habitat from the proposed action. This must include the quantum and quality of habitat (in hectares and as number of individuals, if available and applicable) for the species likely to be impacted.
  - i. Direct impacts to habitat for orange-bellied parrot including subtropical and temperate coastal saltmarsh (STCS) as a result of construction including physical damage, exposure to acid sulfate soils,
  - ii. Indirect impacts to STCS as a result of changes to hydrology, water quality (including nutrient load and pollutants), introduction of invasive species and freshwater incursion
  - iii. Impacts to habitat for listed threatened species found at the Ramsar site, such as the effects changes in hydrology may have on the wetting and drying cycles of mudflats
- (b) Details on the distance of proposed works to any habitat for (or individuals of) EPBC Act listed threatened species and communities within 500 metres of the disturbance footprint, and information on the long term viability of these populations if the proposal was to proceed. The information should consider and describe in detail all possible indirect impacts associated with the action, and should quantify the areas of habitat in hectares (and as number of individuals, if available) which may be indirectly impacted as a result of the proposal;
- (c) Details on whether any impacts are likely to be unknown, unpredictable or irreversible;
- (d) Analysis of the acceptability of the relevant impacts;
- (e) Any technical data and other information used or needed to make a detailed assessment of the relevant impacts; and
- (f) A local and regional scale analysis of the likely impacts. This should include a discussion of connectivity, potential cumulative impacts within the broader regional and information on the long term viability of MNES if the proposed was to proceed.

All discussions and conclusions drawn regarding the assessment of impacts, direct or indirect, should include a full justification based on the best available information, including relevant conservation advices, recovery plans and threat abatement plans, if applicable. These are available from the Department's Species Profile and Threats Database. If these are not applicable, a brief statement to this effect must be included.

#### 4. PROPOSED AVOIDANCE, MANAGEMENT AND MITIGATION MEASURES

The preliminary documentation must provide information on specific measures proposed to avoid, mitigate and manage impacts to the protected Ramsar wetland and species addressed at Section 2 from the proposed action.

4.1 Specific measures should be presented in the form of management plans, such as a Conservation Management Plan and a Water Management Plan for MNES (and/or relevant document/s). At a minimum the plan must include details of the key commitments and measures to ensure that impacts to the Ramsar wetland and species addressed in Section 2 are avoided and minimised. The plan should be in colour and in a form that is clear and easy to understand, including clearly annotated maps and diagrams. Locations of proposed conservation and management measures within the proposed project site should be included.

To assist you, the Department's *Environmental Management Plan Guidelines 2014* are available at:

[www.environment.gov.au/epbc/publications/environmental-management-plan-guidelines](http://www.environment.gov.au/epbc/publications/environmental-management-plan-guidelines).

The plan must incorporate conservation advices, recovery plans and threat abatement plans, where relevant. In particular, demonstrate how the mitigation measures are consistent with the following documents, other related policies and subsequent approved plans:

- *Information Sheet on Ramsar Wetlands (RIS) 1999; Port Phillip Bay (Western Shoreline) & Bellarine Peninsular Ramsar site – Strategic Management Plan 2003;*
- *Better Bays and Waterways A Water Quality Improvement Plan for Port Phillip Bay and Western Port 2009; State Environment Protection Policy (SEPP) – Waters of Victoria; National Water Quality Management Strategy – Australian and New Zealand Guidelines for Fresh and Marine Water Quality;*
- *Approved Conservation Advice for *Calidris ferruginea* (Curlew Sandpiper) 2015;*
- *Wildlife Conservation Plan for Migratory Shorebirds 2015;*
- *EPBC Act Policy Statement 3.21 - Industry Guidelines for avoiding, assessing and mitigating impacts on EPBC Act listed migratory shorebird species;*
- *Commonwealth Listing Advice on *Neophema chrysogaster* 2006; National Recovery Plan for the Orange-bellied Parrot (*Neophema chrysogaster*) 2006;*
- *Commonwealth Conservation Advice for Subtropical and Temperate Coastal Saltmarsh;*

4.2 Documentation should clearly set out the following measures for each environmental issue and MNES likely to be impacted by the proposed action (e.g. in the form of a schedule). These measures must include, but not be limited to, the following:

- (a) Address all project phases (pre-construction, construction and operation) of the proposed action;
- (b) State the environmental and conservation objectives, performance criteria and targets, monitoring, reporting, corrective action, responsibility and timing for each environmental issue;
- (c) Baseline data for water quality and hydrology, and a discussion of how the channel and its operation will change or maintain this baseline;
- (d) A discussion of how the engineering of the channel will mitigate impacts to water quality and changes in hydrology of the Ramsar site;
- (e) The identification, implementation, monitoring, maintenance and auditing of appropriate control measures, including treatment, to prevent the discharge of sediments, gross pollutants and/or other contaminants to the proposed action and/or the Ramsar site;
- (f) Management of excavated material, including protocols for the handling of acid sulfate soils if found;
- (g) Describe contingencies for events, such as the identification of protected matters during pre-construction searches;
- (h) Include an assessment of the expected or predicted effectiveness of the mitigation measures;
- (i) Include any statutory or policy basis for the mitigation measures;
- (j) Monitoring of water quality for stormwater entering the channel and any water discharged into the environment

Ongoing monitoring plan for planned and unplanned releases, including:

- comprehensive lists of the parameters to be monitored in receiving environment and justification for the parameters chosen;
- detailed descriptions of the sampling frequency, locations and methods as well as all quality assurance and control procedures to be adopted for each type of sampling or laboratory based analysis as advocated in the Monitoring and Sampling Manual (DEHP 2013);
- development or adoption of locally-relevant trigger values for key water quality indicators including, but not limited to: pH, dissolved oxygen (DO), turbidity, electrical conductivity (EC), total suspended solids (TSS) and hydrocarbons;
- details regarding the provision of any on-line real-time water quality monitoring and reporting for the Sparrovale wetlands and any flows into Armstrong Creek (that will discharge to the LCC in the PPBBP Ramsar site), in particular, but not limited to pH, EC, DO and turbidity;
- application of procedures and/or guidelines from the Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000 and other relevant guideline documents; and
- identification, description, monitoring and responses to any potential adverse surface water quality that could be discharged;

- (k) Provide details of ongoing research and monitoring programs (including monitoring of the Ramsar site) to support an adaptive management approach and determine the effectiveness of the proposed mitigation measures;
- (l) Provide details of protocols along with the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program;
- (m) Contingency or adaptive management measures that may be implemented if performance targets are not met;
- (n) Describe long term funding for management measures;
- (o) A description of any rehabilitation of temporarily disturbed areas or retained open spaces (e.g. habitat improvement works within conservation buffer zones). This should also address management, methodology, timing, duration and effort of rehabilitation works;
- (p) Details of the vegetation or habitat to be retained must include the location and quantification of the total area, presence of protected matters, protection measures such as buffers and fencing, management measures and their suitability with respect to any protected matters present and any conservation arrangements.
- (q) A discussion of the likely residual impacts to protected matters after proposed avoidance and/or mitigation measures are taken into account;
- (r) Post development management plan, including:
  - appropriate event (e.g. storm events), incident (e.g. contaminate spill in the catchment of the channel) and recovery plans;
  - a management of the stormwater collection and reticulation system for the entire urban catchment of the channel and Sparrovale wetland ;
  - rehabilitation and ongoing management of the areas of the LCC impacted by previous runoff including water quality and aquatic ecology monitoring programs; and
  - structural integrity management for the channel and levee.
- (s) Justification of all assumptions and choices made.

## **5. PROPOSED OFFSETS AND COMPENSATION**

5.1 The preliminary documentation must include an assessment of the likelihood of residual impacts occurring, after mitigation and management measures relating to the project have been applied. This section must clearly state whether there are residual direct or indirect impacts on any of the MNES identified in Section 2.

If residual significant impacts to protected matters are likely, please provide:

- (a) Details of proposed compensation (this may be in the form of conservation management plan) for the residual impacts of the project, such as how, when and where the compensation will be delivered and managed;

- (b) A description of how the compensation will ensure the protection, conservation and management of MNES for the duration of the impact;
- (c) A description of how the compensation is consistent with relevant Commonwealth policies and guidance documents on offsets under the EPBC Act. These documents can be found at the following link: [www.environment.gov.au/epbc/publications/environmental-offsets-policy.html](http://www.environment.gov.au/epbc/publications/environmental-offsets-policy.html); and
- (d) The anticipated cost (financial and other) of delivery of the compensation;

5.2 The proposed compensation should include, but not be limited to the following:

- a) Location, description and suitability of proposed offset site, including baseline conditions, environmental values and connectivity with other relevant habitat;
- b) Extent to which the proposed offset actions correlate to, and adequately compensate for, the impacts on MNES and habitat critical to the survival of MNES;
- c) Conservation gain to be achieved by the offset, i.e. positive management strategies that improve the site or avert the future loss, degradation or damage of the ecological community and MNES habitat;
- d) Current land tenure of any proposed offset and the method of legally securing the offset for at least the duration of the impact;
- e) Measures to protect, and/or manage and rehabilitate the ecological community and MNES habitat at the offset site, including timing, frequency and longevity for each measure and performance criteria that must be met;
- f) Monitoring and reporting activities to assess the success of the offset; and
- g) An assessment of the proposed offset, using the Department's Offsets Assessment Guide, and clear justification for each input entered.

5.3 The offset package can comprise a combination of direct offsets and other compensatory measures, so long as it meets the requirements of the *EPBC Act Environmental Offset Policy*. Offsets should align with conservation priorities and be tailored specifically to the attribute of the protected matter that is impacted, in order to deliver a conservation gain.

5.4 Offsets should compensate for an impact for the full duration of the impact.

5.5 Offsets must directly contribute to the ongoing viability of MNES and deliver an overall conservation outcome that improves or maintains the viability of the ecological community and habitat for MNES, as compared to what is likely to have occurred under the status quo, i.e., if neither the action nor the offset had taken place.

5.6 Note that offsets do not make an unacceptable impact acceptable and do not reduce the likely impacts of a proposed action. Instead, offsets compensate for any residual significant impact.

5.7 Offsets required by the State can be applied if the offsets meet the Department's *EPBC Act Environmental Offset Policy*.

## **6. ENVIRONMENTAL OUTCOMES**

6.1 If the proponent wishes to pursue outcomes-based conditions in the event that the action is approved with conditions the preliminary documentation must provide information on the outcomes that the proponent will achieve.

6.2 Outcomes need to be specific, measurable and achievable and must be based on robust baseline data. Outcomes must be developed in consideration of the *Outcomes-based Conditions Policy 2015* and *Outcomes-based Conditions Guidance 2015*, with suitable justification for considerations identified in the policy and guidance.

6.3 To allow application of outcomes-based conditions, the preliminary documentation should include the specific environmental outcomes to be achieved and the reasoning for these in reference to the documents described in section 4 and other related policies.

6.4 For each proposed outcome, the information must include:

- (a) The risks associated with achieving the outcome;
- (b) The measurability of the outcome, including all suitable performance measures;
- (c) Appropriate baseline data upon which the outcome has been defined and justified;
- (d) The likely impacts that the proposed outcome will address;
- (e) Demonstrated willingness and capability of achieving the outcome;
- (f) Commitments to independent and periodic audits of performance towards achieving outcomes;
- (g) Assessment of the likely level of control that the proponent will have over achieving the outcome;
- (h) Details of proposed management to achieve the outcome, including, but not limited to, performance indicators, periodic milestones, proposed monitoring and adaptive management, record keeping, publication and reporting processes; and
- (i) Discussion of possible contingency measures to be implemented if outcomes are not achieved.

## **7. SOCIAL AND ECONOMIC**

7.1 The preliminary documentation must address the economic and social impacts (both positive and negative) of the proposed action. Matters of interest may include:

- (a) Details of any public consultation activities undertaken and their outcomes;
- (b) Details of any consultation with Indigenous stakeholders;
- (c) Any monitoring programs to monitor ongoing changes to economic and social characteristics potentially affected by the proposed action;

- (d) Projected costs and benefits of the project, including the basis for their estimation through cost/benefit analysis or similar studies; and
- (e) Employment opportunities expected to be generated by the project (including construction and operational phases).

7.2 Economic and social impacts should be considered at the local, regional and national levels.

## **8. ECOLOGICALLY SUSTAINABLE DEVELOPMENT (ESD)**

8.1 Provide a description of the proposed action in relation the principles of ecologically sustainable development, as defined in the EPBC Act:

- a) the long-term and short-term economic, environmental, social and equitable considerations,
- b) the precautionary principle which states that a lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation where there are threats of serious or irreversible environmental damage,
- c) the principle of inter-generational equity which states that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations,
- d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making, and
- e) improved valuation, pricing and incentive mechanisms should be promoted.

8.2 To assist you, the National Strategy for Ecologically Sustainable Development (1992) is available on the following web site: <http://www.environment.gov.au/resource/national-strategy-ecologically-sustainable-development>.

## **9. ENVIRONMENTAL RECORD OF PERSON(S) PROPOSING TO TAKE THE ACTION**

9.2 The information provided must include details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:

- (a) the person proposing to take the action,
- (b) the executive officers of the company,
- (c) the executive officers of any parent company or other parent body, and
- (d) for an action for which a person has applied for a permit, the person making the application.

9.3 If the person proposing to take the action is a corporation, details of the corporation's environmental policy and planning framework must also be included.

## **10. OTHER APPROVALS AND CONDITIONS**

10.1 The preliminary documentation must include information on any other requirements for approval or conditions that apply, or that the proponent reasonably believes are likely to apply, to the proposed action. This must include:

- (a) a description of any approval that has been obtained or is required to be obtained from a State, Territory or Commonwealth agency or authority (other than an approval under the EPBC Act), including any conditions that apply (or are reasonably expected to apply) to the action, and
- (b) a description of the monitoring, enforcement and review procedures that apply, or are proposed to apply, to the action.





EPBC Ref: 2015/7553

Mr Matthew Fleischmann  
Project Manager  
CGM Land Pty Ltd  
501 Blackburn Road  
Mount Waverley  
Victoria 3149

Dear Mr Fleischmann

**Request for additional information: Warrailly-Sparrovale Outfall, stormwater bypass channel, Armstrong Creek, Victoria (EPBC 2015/7553)**

I am writing to you in relation to your proposal to construct a master planned residential development in Coomera, Queensland.

On 23 November 2015, a delegate of the Minister decided that the proposed action is a controlled action and that it will be assessed by preliminary documentation. Further information will be required to enable the Department to assess the relevant impacts of the proposed action. Details outlining the further information required in the preliminary documentation are at **Attachment A**.

In the Department's letter of 23 November 2015, you were informed that your project may be suitable for the application of outcomes-based conditions in the event that your action is approved with conditions. The requirements of the draft *Outcomes-based Conditions Policy 2015* are included in **Attachment A**.

If you have any questions about the process, please contact the project manager, <sup>s22</sup> [redacted], by email to <sup>s22</sup> [redacted]@environment.gov.au, or telephone 02 6274<sup>s22</sup> [redacted] and quote the EPBC reference number shown at the beginning of this letter.

Yours sincerely

James Barker  
Assistant Secretary  
Assessments and Policy Implementation Branch

7 March 2016

*Planning and Environment Act 1987*

**Panel Report**

**Greater Geelong Planning Scheme Amendments C357 and  
C360**

**Armstrong Creek Public Acquisition Overlays**

**12 October 2017**

*Planning and Environment Act 1987*

Panel Report pursuant to section 25 of the Act

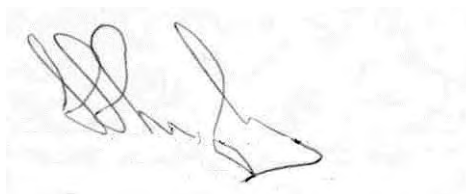
Greater Geelong Planning Scheme Amendments C357 and C360

Armstrong Creek Public Acquisition Overlays

12 October 2017



Brett Davis, Chair



Greg Sharpley, Member

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**Appendix A Submitters to Amendment C357**

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## List of Abbreviations

DCP	Development Contributions Plan
DELWP	Department of Environment, Land, Water and Planning
EVC	Ecological Vegetation Class
HBP	Horseshoe Bend Precinct
LAC Act	Land Acquisition and Compensation Act 1986
LPPF	Local Planning Policy Framework
NVPP	Native Vegetation Protection Plan
PAO	Public Acquisition Overlay
PSP	Precinct Structure Plan
SPPF	State Planning Policy Framework
SWMS	Storm Water Management Strategy
UGP	Armstrong Creek Urban Growth Plan

## Overview

Amendment Summary	
<b>The Amendment</b>	Greater Geelong Planning Scheme Amendments C357 and C360
<b>Common name</b>	Armstrong Creek Public Acquisition Overlays
<b>Brief description</b>	The Amendments propose to apply the Public Acquisition Overlay to land within the Horseshoe Bend Precinct of the Armstrong Creek Urban Growth Area to facilitate the construction and commissioning of stormwater management infrastructure.
<b>Subject sites</b>	<p>Amendment C357:</p> <ul style="list-style-type: none"> <li>- 109 – 215 Sparrovale Road, Charlemont</li> <li>- 1 – 87 Groves Road, Armstrong Creek (Cold Winds)</li> </ul> <p>Amendment C360:</p> <ul style="list-style-type: none"> <li>- 661 – 669 Barwon Heads Road, Charlemont</li> <li>- 619 – 639 Boundary Road, Charlemont</li> <li>- 641 – 655 Boundary Road, Charlemont</li> <li>- 657 – 669 Boundary Road, Charlemont</li> </ul>
<b>Planning Authority</b>	Greater Geelong City Council
<b>Authorisation</b>	Authorisations for the Amendments were issued by the Minister for Planning on 17 October 2016. The Authorisations were not subject to any conditions.
<b>Exhibition</b>	12 December 2016 – 15 February 2017
<b>Submissions</b>	<p>Amendment C357: 9 submissions</p> <p>Amendment C360: 8 submissions</p>

Panel Process	
<b>The Panel</b>	Brett Davis (Chair) and Greg Sharpley
<b>Directions Hearing</b>	Greater Geelong offices, 25 July 2017
<b>Panel Hearing</b>	Geelong Conference Centre, 6 – 7 September 2017
<b>Site Inspections</b>	Unaccompanied, 6 September 2017
<b>Appearances</b>	See Table 3
<b>Date of this Report</b>	12 October 2017

## Executive Summary

### (i) Summary

Greater Geelong Planning Scheme Amendments C357 and C360 (the Amendments) propose to apply the Public Acquisition Overlay (PAO) to land within the Horseshoe Bend Precinct (HBP) of the Armstrong Creek Urban Growth Area, to facilitate the construction and commissioning of stormwater management infrastructure. Key issues raised in submissions included:

- strategic justification for the proposed PAO
- amount of land proposed to be acquired
- alignment of the proposed PAO boundary and alternative options
- flooding
- safety due to future public access in the area to be acquired.

There were several supporting submissions in respect of the Amendments. Supporting submissions were received from landowners in the HBP as well as the Department of Environment, Land, Water and Planning.

Council submitted it is critical that the Amendment sites be acquired in order that development may continue. Council submitted that development within the relevant parcels of the HBP is nearing the development 'ceiling' identified in the Storm Water Management Strategy (SWMS). Without the PAO and commissioning of the wetlands, then future development would be restricted.

It is clear to the Panel that the Sparrovale Wetland is an inextricable part of the drainage scheme for the HBP. It is enshrined in previously approved Amendment processes in a Precinct Structure Plan and Development Contributions Plan.

Council is to be commended on bringing to fruition 10 years of robust strategic planning for the Horseshoe Bend Precinct. The Panel accepts the evidence presented and concludes that the extent of the PAO is justified given the particular topography and hydrology of both the proposed overland flow path and the Sparrovale and Cold Winds properties.

The adopted drainage strategy and application of the PAO will protect the ecological conditions of the Hospital Swamps and Sparrovale Farm wetlands. Evidence presented outlined how this would benefit the adjacent Ramsar wetland.

Submitters raised issues relating to acquisition impacts. The Panel agrees with the submissions of Council that the objectives in acquiring the sites is clearly sound. The Panel concludes whichever property Council chooses, the submission will always be that the owner will not be able to achieve the prospective development potential of their land.

On matters of compensation the Panel notes that the owners will be compensated according to the community standards set out in the relevant legislation. It is beyond the scope of this Panel to comment on obligations and procedures under the *Land Compensation and Acquisition Act 1986*.

Submitters raised alternative options during the Hearing such as realignment of boundaries and more underground piping. Other than Council, no other parties called expert evidence

on this aspect. It is not the Panel's role to interrogate alternatives. The Panel is appointed to determine the strategic merit of the proposed application of the PAO before it, and whether it can deliver the drainage and environmental initiatives proposed by Council.

Several submitters raised concerns with the effects of downstream flooding on their properties due to the interim works that had taken place. Council acknowledged these issues and reiterated the need to implement the full scheme under the PAO would assist in mitigating these issues.

The Panel concludes that Council has provided more than adequate strategic and practical justification for the application of the PAO and the Amendments. To the extent that there may be some question about the precise area of land which is ultimately required, the Panel agrees there are more detailed designs to follow, and the extent of land may be reduced. Council submitted it may be possible to make some adjustments to the ultimate boundary.

The Amendment is sound and should be supported as exhibited.

## **(ii) Recommendations**

Based on the reasons set out in this Report, the Panel recommends that Greater Geelong Planning Scheme Amendments C357 and C360 be adopted as exhibited.

## **(iii) Further recommendations**

The Panel makes the following further recommendations:

- **The alignment of the waterway through properties affected by C360 should be designed within the affected properties to generally follow the alignment of the existing property boundaries and the extent of any land ultimately required should be minimised.**
- **The Council and the developers of the Horseshoe Bend Precinct should implement appropriate interim measures to minimise flooding risks for the downstream properties while the final stormwater infrastructure is being constructed.**



# 1 Introduction

## 1.1 The Amendment

### (i) Amendment Description

Greater Geelong Planning Scheme Amendments C357 and C360 (the Amendments) propose to apply the Public Acquisition Overlay (PAO) to land within the Horseshoe Bend Precinct (HBP) of the Armstrong Creek Urban Growth Area, to facilitate the construction and commissioning of stormwater management infrastructure.

#### Amendment C357

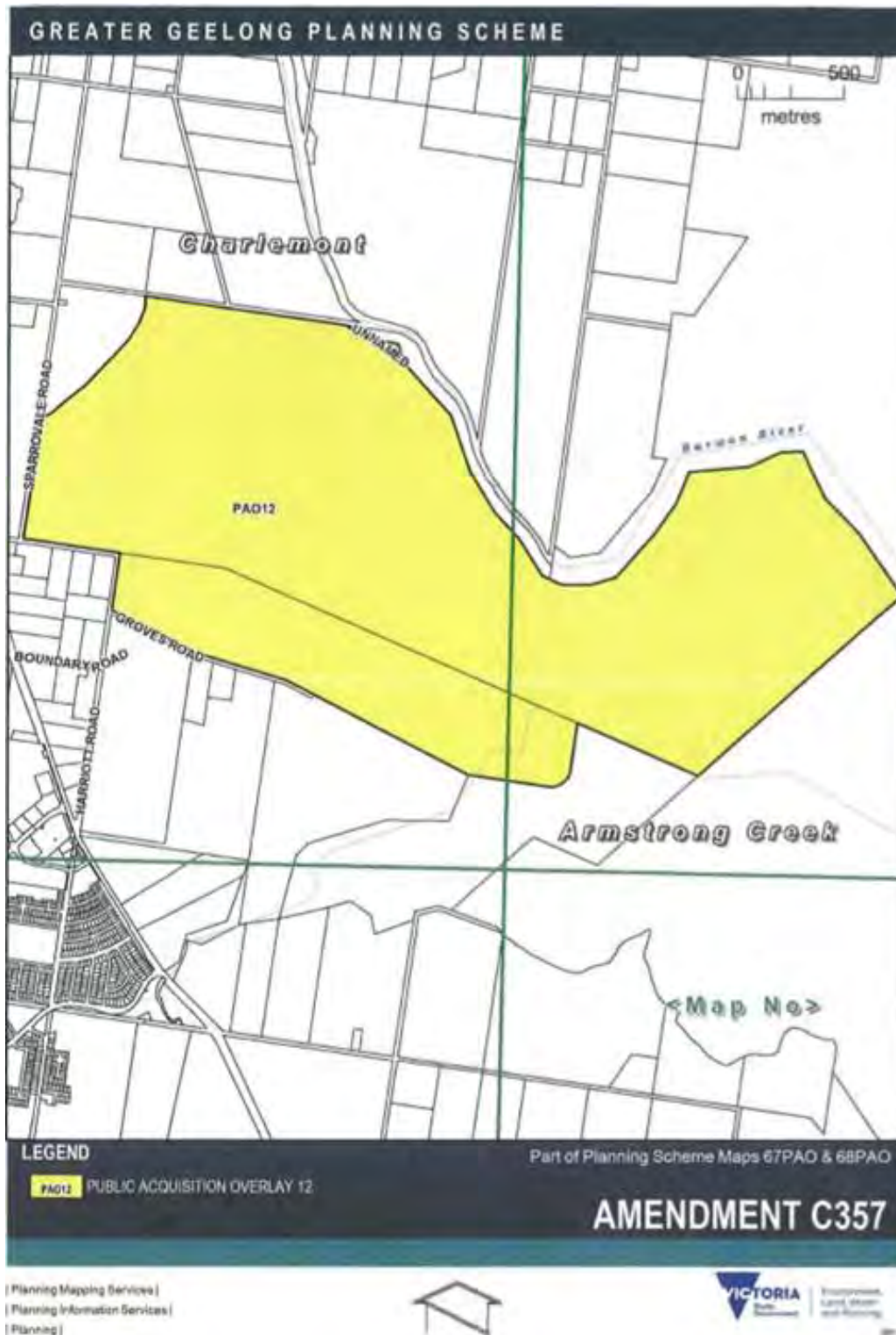
Amendment C357 applies to approximately 510 hectares of land within the following sites:

Table 1: Amendment C357 Summary

Land	Total site area	Area of proposed PAO	Existing zones and overlays	Existing use and development
109 – 215 Sparrovale Road, Charlemont (Sparrovale)	436 hectares	423 hectares (97%)	Farming Zone - majority of site Urban Growth Zone, Schedule 4 (UGZ4) - 12 hectares fronting Sparrovale Road which is also affected by a Development Contributions Plan Overlay, Schedule 5 (DCPO5) Floodway Overlay Environment Significance Overlay, Schedule 2 – High Value Wetlands and Associated Habitat Protection (ESO2) Vegetation Protection Overlay, Schedule 1 – Areas of Flora and Fauna Habitat and of Geological and Natural Interest (VPO1)	Parts of the PAO area are used for cattle grazing. The remainder of the PAO area is vacant and unused due to inundation and / or access issues (particularly the area to the east of the existing levee on the site). The north-west section of the Sparrovale site (not subject to the PAO) is developed with dwellings, sheds and associated outbuildings.
1 – 87 Groves Road, Armstrong Creek (Cold Winds)	87 hectares	87 hectares (100%)	Farming Zone Floodway Overlay ESO2	Cattle grazing

Figure 1 outlines the Amendment C357 area.

Figure 1 The Subject site – Amendment C357



## Amendment C360

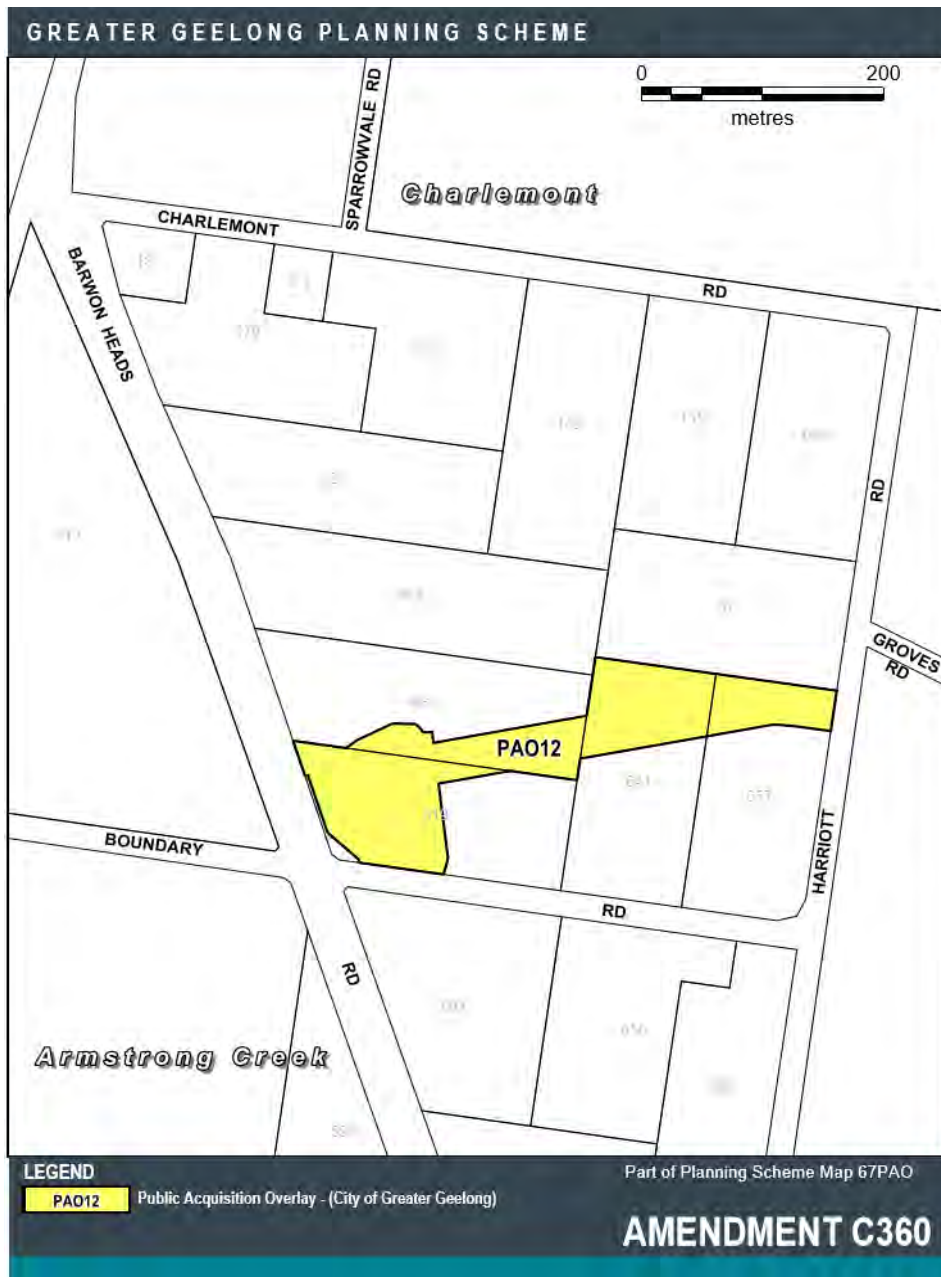
Amendment C360 applies to approximately 2.153 hectares of land within the following sites:

Table 2: Amendment C360 Summary

Land	Total site area	Approximate area of proposed PAO	Existing zones and overlays	Existing use and development
661 – 669 Barwon Heads Road, Charlemont	2.35 hectares	0.56 hectares (24%)	UGZ4 DCPO5 PAO3 – for the widening of Barwon Heads Road	Used and developed for the purposes of a dwelling and associated shedding in the north-west corner of the site with property access via a driveway off Barwon Heads Road.
619 – 639 Boundary Road, Charlemont	2.03 hectares	1 hectare (50%)	UGZ4 DCPO5 PAO3	Used and developed for the purposes of a dwelling in the south-east corner of the site with property access via a driveway off Boundary Road.
641 – 655 Boundary Road, Charlemont	2.02 hectares	0.7 hectares (35%)	UGZ4 DCPO5 Floodway Overlay	Used and developed for the purposes of a dwelling and associated outbuildings in the south-west corner of the site with property access via a driveway off Boundary Road.
657 – 669 Boundary Road, Charlemont	2.01 hectares	0.4 hectares (20%)	UGZ4 DCPO5 Floodway Overlay	Used and developed for the purposes of a dwelling and associated outbuildings in the south-west corner of the site with property access via a driveway off Boundary Road.

Figure 2 outlines the Amendment C360 area.

Figure 2 The Subject site – Amendment C360



Council submitted that the dwellings and associated outbuildings on the Amendment C360 sites would sit outside the extent of the proposed PAO, however, some sheds on the 619 – 639 Boundary Road site would be within the PAO. The existing access arrangements for these properties would not be disturbed.

## 1.2 Panel process

Council and the Panel discussed the grouping of the Amendments and agreement was reached that the Panel hear and consider both Amendments as part of one Hearing process.

Further, that one report be prepared in relation to both matters. References to State and Local Policy refer to both Amendments.

Those in attendance at the Panel Hearing are listed in Table 1.

Table 3 Parties to the Panel Hearing

Submitter	Represented by
Greater Geelong City Council	Briana Eastaugh of Maddocks, with Dinah O'Brien (Senior Strategic Planner) who called the following expert witnesses: <ul style="list-style-type: none"> <li>- Andrew MacMahon of Ecology Australia, in flora and fauna</li> <li>- Andrew McCowan of Water Technology, in drainage and flooding</li> </ul>
DELWP	Mr Geoff Brooks
S O'Hara	In person
L Lim	In person
Charlemont Rise	Sarah Wright, Spiire
L and C Devlin <sup>1</sup>	In person
Dennis Family Corporation	Alex Gelber, HWL Ebsworth
ID Land	Mark Bartley, HWL Ebsworth

### 1.3 Procedural issues

On 21 August 2017 Council referred late submissions to the Panel on behalf of ID Land, for both Amendments.

On 1 September 2017 parties Robertson and Perkins (submissions 6 and 7) withdrew their submissions, and requests to be heard. This affected the timetable and version 3 was issued accordingly. On 5 September 2017 Robertson and Perkins confirmed they did not wish the Panel to consider their written submissions.

Council submitted in its Part B statement (Document 2) *"While these submissions have been withdrawn, Council's response is set out below for the avoidance of any doubt, and for the benefit of those parties who may be unfamiliar with the compulsory acquisition process."*

While the Council referred extensively to responding to these submissions in its Part B submission on the matters of compensation, as they were withdrawn the Panel does not refer to or respond to these submissions. Broader issues relating to compensation matters, raised by other submitters, are discussed in Chapter 3.

### 1.4 Background to the Amendments

In its Part A Statement, Council provided a historical planning context and detailed chronology providing background to the Amendments. This is shown in Table 2 below.

<sup>1</sup> L and C Devlin were scheduled to appear and informed the Panel on the day of the Hearing they were unable to attend. They supplied a further written submission via email. (Document 9a)

Table 4 Chronology

Date	Event / Document
1988	Directions – The Geelong Region Development Strategy 1988 – 1998 prepared by the Geelong Regional Commission
February 2006	Armstrong Creek Urban Growth Area Flooding and Drainage Technical Report prepared by Water Technology and Fauna Technical Report prepared by Ecology Australia
28 November 2006	Council adopted the <i>Armstrong Creek Urban Growth Plan (UGP)</i> and resolved to prepare and exhibit Amendment C138 to the Scheme.
May 2008	The UGP is finalised (subsequently amended in May 2010 and September 2012) through future planning scheme amendment processes
4 December 2008	Amendment C138 (UGP) was gazetted
10 March 2009	Council adopted the Armstrong Creek Integrated Infrastructure Delivery Plan (IIDP)
3 June 2010	Amendment C206 (Armstrong Creek East Precinct PSP and NVPP) was gazetted
31 October 2011-12 February 2012	First and second Discussion Papers completed by Neil Craigie in respect of the HBP Stormwater Management Strategy
12 July 2012	Amendment C214 (Armstrong Creek East Precinct DCP) was gazetted
7 March 2013	Amendment C240 (Armstrong Creek West Precinct PSP, DCP and NVPP) was gazetted
October 2013	Storm Water Management Strategy (SWMS) completed by Neil Craigie
August 2014	Barwon River Interface with the Armstrong Creek Growth Area Background Issues and Opportunities Discussion Paper completed by Thompson Berrill Landscape Design
September 2014	Horseshoe Bend PSP and DCP and NVPP completed
23 October 2014	Amendment C267 (Town Centre Precinct PSP, DCP and NVPP) was gazetted
27 November 2014	Amendment C259 (Horseshoe Bend Precinct PSP, DCP and NVPP) was gazetted
27 September 2016	Council resolved to prepare and exhibit the Amendments
9 March 2017	Amendment C301 (South Precinct PSP) was gazetted
2 June 2017	Council Delegate considered the submissions to the Amendments and resolved to refer them to a Panel

Council submitted by way of background:

*Since the preparation of these earlier strategic documents, a raft of detailed strategic planning and technical analysis has confirmed the Growth Area as the principal area designated for broad hectare urban development within the City of Greater Geelong.*

*The Growth Area is anticipated to provide housing for some 54,000 people, together with a major (sub-regional) town centre, a number of neighbourhood and local activity centres and two substantial employment areas.*

*An overview of how planning for the Growth Area has been progressed and implemented into the Scheme is outlined below, with a particular focus on the key issues as they relate to the matters before this Panel.*

## **1.5 Issues dealt with in this report**

The Panel considered all written submissions made in response to the exhibition of the Amendment; as well as further submissions, evidence and other material presented to it during the Hearing, and observations from site visits.

The Panel has reviewed a large volume of material. The Panel has had to be selective in referring to the more relevant or determinative material in the report. All submissions and materials have been considered by the Panel in reaching its conclusions, regardless of whether they are specifically mentioned in the report.

This report deals with the issues under the following headings:

- Planning context
- Are the PAOs strategically justified?
- Drainage, flooding and environmental issues.

## 2 Planning context

Council provided a response to the Strategic Assessment Guidelines as part of the Explanatory Report.

The Panel has reviewed Council's response and the policy context of the Amendment, and has made a brief appraisal of the relevant zone and overlay controls and other relevant planning strategies.

### 2.1 Policy framework

#### (i) State Planning Policy Framework

Council submitted that the Amendment is supported by the following clauses in the SPPF:

Clause 11.02-1 (Supply of Urban Land) is relevant in that the Amendments will ensure that the HBP continues to provide residential, commercial, retail, recreational and community land to meet supply requirements for an estimated 25 years.

Clause 11.02-4 (Sequencing of development), is relevant in that the Amendments will assist in the timely provision of key infrastructure for the management of stormwater for the HBP area.

Clause 11.09-4 (Environmental assets), which relates specifically to the Geelong G21 region, includes strategies to:

- protect, restore and enhance the quality of land and marine areas, waterways, biodiversity and soils; and
- maintain and protect the region's natural assets, including the region's parks and reserves.

Clause 12 (Environmental and Landscape Values) provides that planning should help to protect the health of ecological systems and the biodiversity they support (including ecosystems, habitats, species and genetic diversity) and conserve areas with identified environmental and landscape values.

Clause 12.01-1 (Protection of biodiversity) provides that planning strategies should be adopted to protect the biodiversity and minimise impacts, including cumulative impacts of land use and development on Victoria's biodiversity.

Clause 13.02-1 (Floodplain management) which seeks to assist with the protection of:

- life, property and community infrastructure from flood hazard;
- the natural flood carrying capacity of rivers, streams and floodways;
- the flood storage function of floodplains and waterways;
- floodplain areas of environmental significance or of importance to river health.

Clause 13.02-1 outlines several strategies, to achieve the above listed objectives. These include avoiding the intensifying impacts of flooding through inappropriately located uses and developments. Council considered that the Amendments respond to this strategy through implementation of the SWMS, which will inform the provision of the main drainage infrastructure for the HBP.



Clause 14.02-1 (Catchment planning and management), seeks to assist the protection and, where possible, restoration of catchments, waterways, water bodies, groundwater and the marine environment is also relevant.

Clause 19 (Infrastructure) is relevant in that the Amendments are costed into the HBP Development Contributions Plan and will ensure that stormwater entering wetlands and estuaries does not have a detrimental effect on the environment (Clause 19.03-3).

**(ii) Local Planning Policy Framework**

Council submitted that the Amendment supports the following local planning objectives:

- Clause 21.05 – Natural Environment
- Clause 21.05-3 – Biodiversity
- Clause 21.08-2 – Open Space
- Clause 21.11 – Armstrong Creek Urban Growth Area

**(iii) Other planning strategies or policies used in formulating the Amendment**

- Armstrong Creek Urban Growth Plan (2008)
- Barwon River Parklands Strategy (2011)
- G21 Regional Growth Implementation Plan (2013)
- Horseshoe Bend Precinct Structure Plan, Development Contribution Plan (2014)
- Horseshoe Bend Native Vegetation Protection Plan (2014)

## **2.2 Planning scheme provisions**

**(i) Zones**

The land affected by the PAO falls within a combination of the Urban Growth Zone (C360 land) and Farming Zone (C357).

**(ii) Overlays**

The Sparrovale and Cold Winds sites are subject to the Environmental Significance Overlay Schedule 2. The ESO2 relates to 'High Value Wetlands and Associated Habitat Protection'.

**Bellarine Ramsar Site**

Council submitted that Amendment C357 is consistent with the statement of environmental significance set out in ESO2 and in particular noting that the sites are directly adjacent to the Bellarine Ramsar Site. ESO2 notes that the Ramsar Site:

*...provide important habitat for migratory birds, waterfowl and endangered species and sustain significant proportions of the Australian populations of these species. They are also remnants of wetland types that were once much more extensive in the Geelong region and elsewhere in Victoria, contain a high diversity of plant and animal species and conserve the genetic diversity of particular species.<sup>2</sup>*

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<sup>2</sup> Council Part A Statement: pg. 42

**(iii) Particular provisions**

Clause 56.07-4 – urban runoff management objectives) to limit downstream impacts to pre-development flows is particularly relevant in justifying the application of the PAO.

## **2.3 Ministerial Directions and Practice Notes**

**(i) Ministerial Directions**

Council submitted that the Amendment meets the relevant requirements of the following Ministerial Directions:

### **Ministerial Direction No 11 - Strategic Assessment of Amendments**

The Amendment is consistent with Ministerial Direction 11 (Strategic Assessment of Amendments) and Planning Practice Note 46 (Strategic Assessment Guidelines).

### **Ministerial Direction No 15 – The Planning Scheme Amendment process**

The Amendment is consistent with this Ministerial Direction.

### **The Form and Content of Planning Schemes (s7(5))**

The Amendment is consistent with the Ministerial Direction on the Form and Content of Planning Schemes under Section 7(5) of the Act.

## **2.4 Discussion**

The Panel concludes that the Amendment is supported by, and implements, the relevant sections of the State and Local Planning Policy Framework, and is consistent with the relevant Ministerial Directions and Practice Notes. Strategic justification of the Amendments is discussed in Chapter 3.

### **3 Are the Public Acquisition Overlays strategically justified?**

#### **3.1 The issue**

The issue relates to whether or not the application of the PAO is strategically justified.

#### **3.2 Evidence and submissions**

Ten submissions were received in respect of Amendment C357, including 3 objections; and 9 submissions were received for Amendment C360, including 3 objections. As noted in 1.3 of this report, two of the objections for Amendment C357 have been withdrawn prior to the hearing. The remaining submission for Amendment C357 related to flooding and this is dealt with in Chapter 4.

Key issues for Amendment C360 predominately related to the amount of land to be acquired, the alignment and location of the PAO and safety concerns. At the Hearing, submitters also raised concerns with regards to compensation and acquisition issues.

Council outlined how the Amendment is strategically justified against the State and Local Planning Policy Framework in Chapter 2. In its Part B submission, Council submitted that the Amendments would realise the objectives of the *Horseshoe Bend Precinct Structure Plan (PSP) and Development Contributions Plan (DCP)* and facilitate:

- *the establishment of the Sparrovale Wetlands (C357) and the construction of associated drainage infrastructure (C357 and C360), which is critical to the continued development of the HBP; and*
- *the creation of an associated environmental biodiversity conservation area as part of the broader Barwon River Parklands (C357).*

#### **(i) Extent of the PAO (amount of land)**

Several submitters (Lim, O'Hara and Devlin) objecting to Amendment C360 questioned the extent of land required within the PAO. Council submitted that the PAO boundary across these properties *"has been dictated primarily by the retarding basin and stormwater infrastructure requirements identified by the SWMS. The detailed design of this infrastructure was explored in the Cardno concept designs prepared for the C259 Panel."*

Council submitted that Mr McCowan had looked at this issue in more detail and concluded that the land shown as subject to the Amendment C360 PAO is necessary to convey stormwater from the southern part of the HBP to the Sparrovale Wetland. He noted that the PAO alignment generally aligns with modelled overland flow paths (Water Technology, 2006).

#### **(ii) Alignment and location of the PAO (alternative options)**

Council submitted that alternative options were canvassed in detail and tested prior to the Amendment C259 panel process. It explained that the Panel was provided with a significant volume of detail that goes to this. It included evidence demonstrating that the SWMS had:

*Evolved over the course of three years of analysis and refinement, was examined and tested through the Amendment C259 process. It was placed on exhibition and all interested landowners and agencies were provided with the opportunity to comment. Further, save for concerns regarding the costs of the 10 year management plan, the Sparrovale Wetland concept was **not** challenged by any party before the C259 panel.*

Council submitted that its initial preference had then been to try and negotiate the purchase of the nominated properties, and only consider the application of the PAO if that failed.

Several submitters, (Lim, O'Hara and Devlin) requested that alternative locations be considered. Council argued that it was not the role of the Panel to make such considerations, as the location had been interrogated in Amendment C259, and others over a 10 year period. It noted within this context the comments of the Panel in Wyndham Amendment C127<sup>3</sup> when considering 'alternative options'. Wyndham C127 considered the application of a PAO in favour of Melbourne Water to facilitate drainage works. The Panel concluded:

*The Panel is unable to determine whether or not one scheme is better than another. The Panel needs to be satisfied that the proposed scheme is an appropriate one and that it has been adequately and conscientiously prepared by Melbourne Water.*

*Nothing put to the Panel suggested that this was not the case.*

Similarly, the Panel in Maroondah Amendment C69<sup>4</sup> noted the following when considering its role in considering 'alternatives':

*In general terms, it will usually only be appropriate for the Panel to consider an amendment which has been exhibited, and the issues associated with that amendment. The Panel's role is not to consider alternative options. However if the amendment is found to be inappropriate, or if it raises fundamental planning concerns that alternatives appear not to, the Panel may recommend that other options be looked at. This is not a task that would be undertaken as part of the Panel hearing.*

Council acknowledged that it may be possible to adjust the ultimate boundary of the acquired area at the detailed design stage of the process, resulting in less land being acquired than that which is subject to the PAO.

In these circumstances Council submitted that it is more appropriate to acquire the area proposed in Amendment C360 and compensate the landowners appropriately. Council submitted that in any event, there are provisions in the *Planning and Environment Act 1987* (s107) to protect owners from the implications of this.

Mr McCowan noted that the Amendment C360 PAO alignment provided opportunities to integrate remnant riparian vegetation into the design of the waterway environment.

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<sup>3</sup> Wyndham C127 (PSA) [2011] PPV 123.

<sup>4</sup> Maroondah C69 (PSA) [2011] PPV 1.

**(iii) Land Acquisition and Compensation Act 1986 (LAC Act)**

During the course of the Hearing, several submitters raised general compensation issues. Council submitted that the role of the Panel, consistent with decisions of previous panels who have considered the application of the PAO, is to determine the strategic merit of the proposed application of the PAO and whether it can deliver the drainage and environmental initiatives being pursued by the Council.

Those panels<sup>5</sup> have consistently focused their attention on the key matters relevant to their expertise and jurisdiction. That is, the strategic justification for the Amendment. They have properly noted that it is not for panels to comment on obligations and procedures under the LAC Act.

**(iv) VicRoads**

The Panel had directed that prior to the Hearing, Council was to make contact with VicRoads to seek their input in respect of Amendment C360. Council advised:

*A response was received on 5 September 2017. VicRoads notes the abuttal of the existing (PAO3) and proposed (PAO12) overlays but does not raise any concerns. Council is satisfied that the interface between the overlays can be resolved at the detailed design stage.*<sup>6</sup>

**3.3 Discussion**

With regard to the extent of the PAO, the Panel notes that in some places, the PAO boundary has been straightened to follow property boundaries. It agrees with the methodology of Council that this has been done in cases where following the precise alignment of the anticipated drainage infrastructure would have resulted in small, irregularly shaped residual parcels of land in private ownership that would have been severed and inaccessible from the balance of the land.

Clearly negotiations have not been able to finalise the acquisition of the properties for their intended purpose. The Panel agrees with the Council position that no alternatives to the SWMS drainage strategy have been put to this Panel, or indeed were put to the C259 panel for consideration.

The Panel commends Council in attempting to resolve this without the need for a PAO. Ultimately, the matter has now come before the Panel and it should be supported. The amount of strategic rigour and background work for the implementation of the PAO, is in the Panel's view, very good.

**3.4 Conclusions**

The Panel concludes:

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<sup>5</sup> See for example, Greater Dandenong C87 Panel Report (July 2008); Greater Shepparton C148 Panel Report (December 2011); Wangaratta C36 Panel Report (February 2012); Melton C109 Panel Report (March 2012); Casey C136, Frankston C76 and Dandenong C115 Panel Report (May 2012).

<sup>6</sup> Document 4

- To the extent that there may be some question about the precise area of land which is ultimately required for a project, there are subsequent stages and milestones available whereby the area of land to be acquired can be reduced.
- There are provisions in the legislation to protect owners from the implications of this. *The Planning and Environment Act 1987* s107 enables a landowner to claim compensation for the removal of a reservation over land.
- The Panel notes that the owners will be compensated according to the community standards set out in the relevant legislation.
- It is beyond the scope of this Panel to comment on obligations and procedures under the *Land Compensation and Acquisition Act 1987*.
- Council has been careful to determine the area of land which it anticipates will be required for the public purpose.
- The application of the PAO is required, warranted and strategically justified.

## **4 Drainage, Flooding and Environmental Issues**

### **4.1 The issue**

Drainage, flooding and environmental issues raised by submitters primarily related to the acquisition of land rather than piped easements through their properties and the alignment of the proposed drainage channel on their properties. Objectors and submitters were concerned in relation to both current and potential future flooding issues related to the timing of upstream flood detention works and the interrelationship with the sensitive wetlands further to the east.

### **4.2 Evidence and submissions**

Amendment C357 relates to a PAO for two large parcels of land (514 hectares) situated some distance to the east of the HBP. These two parcels are currently used as degraded grazing land. The purchase of these properties was included in the DCP, with the aim of rehabilitating them into a high-quality wetland to receive urban run-off. They are proposed to be used as a freshwater wetland and stormwater detention system (Sparrovale Wetlands) to appropriately treat the increased volume and rate of flow of stormwater from the northern portion of the HBP prior to discharge into the Barwon River.

They were identified in early hydraulic modelling (Water Technology - 2006 and Stormwater Management Strategy. Neil Craigie - 2013) undertaken as part of the overall development of the Precinct Structure Plan and are in fact an integral part of the development, which limits the amount of residential development that can be undertaken in the HBP to 25 per cent of the final development, until such time as the Sparrovale Wetlands are developed.

The Sparrovale Wetlands will provide a number of environmental benefits beyond those associated with the treatment and control of storm water from the future residential areas. These include protection of the adjacent Hospital Swamp and saline Ramsar wetlands from effects of increased freshwater inputs, extension of the Barwon River Parklands, maintenance of the significant biodiversity values of the Sparrovale and Ramsar sites, etc.

Amendment C360 properties are situated between the HBP and the proposed Sparrovale Wetlands. Currently drainage from the southern portion of the HBP drains through these properties in a small drainage channel to the proposed Sparrovale Wetlands.

Due to the development of the HBP, the volume and rate of flow of stormwater through these properties will be considerably increased. As a result, without significant works being undertaken on these properties the majority, if not all of the properties will be subject to frequent inundation during storm flows.

#### **(i) Drainage**

The only objection raised in relation to C357 relates to current flooding issues associated with storm water discharges from the early stage developments of the ID Land, Watermark Estate to the north-west of the Devlin property (submitter 1) and the potential for increased flooding when full development of the HBP is undertaken.

In written submission to the Panel (document 9a), the submitter noted:

*We have had a large increase into the amount of water coming from the Reserve road horseshoe bend Precinct , which is currently being pumped and dumped under the Barwon Heads Road onto farming land , down the hill again to us.*

*Likewise, the Boundary Road Horseshoe bend development, has insufficient holding ponds that are being pumped under horseshoe bend road on to farm land and down the hill to us as well,, currently all the drains end up within less than 100m of our property.*

Figure 3 Flooding at Harriott Road<sup>7</sup>



In relation to the long-term flooding impacts on the Devlin’s property, Council sought advice from Mr McCowan, the hydraulic modelling expert appointed to undertake a peer review of the modelling work associated with both C357 and C360. He provided the following response:

*The property and wider area is at risk of flooding from both the Barwon River and stormwater runoff (refer to attached map and 2006 study). The stormwater flooding is a pre-development condition and is caused by overland flow from Barwon Heads Road and upstream catchment.*

*I agree that unmitigated development would increase flood risk on the property however, the implementation of the proposed SWMS will alleviate risk to their property. The proposed waterway corridor for C360 will convey the overland flow (including increased runoff from upstream development) to*

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<sup>7</sup> Document 9A



*the Sparrovale Wetland and provide a greater level of protection to their property. This should result in a significant reduction of flooding at the site.*

Submitters Pohl, O'Hara and Lim (3, 5 and 7) to Amendment C360 raised concerns on the loss of land associated with the PAO and land value due to the reduction in area of their property. They submitted that in order to minimise the loss of land, all flows should be piped through their properties, and the alignment moved to follow, property boundaries, thus minimising the amount of land required.

Submitter Lim also raised concerns in relation to the presence of a storage basin being situated on their land and advised that it should be situated on the other side of the Barwon Heads Road.

Mr McCowan advised the Panel that the proposed alignment or the drainage waterway coincided with the existing drainage path through these properties. He did, however, consider that there is potential for some realignment of the proposed waterway to more closely follow the property boundaries to be undertaken as part of the detailed design phase. Ms O'Brien, on behalf of Council advised the panel that any reduced requirement for land under the PAO could be reversed by subsequent amendment.

In relation to the use of piped system through these properties Mr McCowan advised that the use of a naturalised waterway is consistent with both the management of major storm water flows elsewhere in the HBP and with current good practice which seeks to provide a more natural approach to stormwater systems. He also stated that the proposed basin on the Lim land was required to enable flows to pass over the top of a Barwon Water outfall sewer, which crosses the site.

Subsequent to his appearance at the Hearing, Mr McCowan provided the following advice through the Council:

*As described in our report, the intent is to establish a "naturalised" waterway environment, wherever possible. In this respect, I note that the current alignment generally aligns with modelled overland flow paths (Water Technology, 2006). This would provide opportunities to integrate remnant riparian vegetation into the design.*

*The reliance on above ground drainage corridor also ensures the natural flood carrying capacity of the waterways is maintained and protected, as per Clause 13.02-01 (Floodplain management) of the State Planning Policy Framework. An underground drainage arrangement may limit the conveyance capacity of the drainage infrastructure and will reduce the flood storage function of the floodplain.*

**(ii) Environmental impacts / benefits**

Mr McMahan, on behalf of Council, dealt with the environmental impacts related to C357. These are summarised in his statement of expert evidence as:

- *improved water quality entering the Ramsar site.*
- *Security provided to the existing on site values; enhancement of existing values through informed management;*

- *provision of a biodiversity-focused buffer to the adjoining Ramsar site; and*
- *effective increase in patch size and connectivity for the Ramsar site.*

It was his evidence that:

- *The Sparrovale scheme also has the potential to provide habitat that is currently poorly represented in the Ramsar site and vastly depleted in the broader context, namely shallow freshwater wetlands. The estimated extent of the wetland (220 ha) will represent a material contribution to this habitat type regionally.*
- *Further, as climate change threatens coastal wetlands, with many predicted to transition to marine environments (Department of Environment, Land, Water and Planning 2016), those less vulnerable and capable of maintaining freshwater to brackish conditions are likely to become increasingly important. My understanding is that this could potentially apply to the Sparrovale wetlands.*
- *In addition, these biodiversity games could have broader implications for amenity and landscape. The Barwon River Parklands Strategy (2011) provides for an open space network of parks, trails and conservation areas along the Barwon River, from Buckley Falls in Geelong to the river mouth at Barwon Heads. The Strategy currently refers to Sparrovale farm as an opportunity to expand public open space adjoining Lake Connewarra.*

Mr Geoff Brooks from DELWP appeared at the Hearing. He was also supportive of the amendments noting:

*Together, the stormwater management arrangements that are proposed for the land which is the subject of this amendment and C357 will provide a positive and effective response to past DELWP advocacy in respect of stormwater drainage impacts from Armstrong Creek Growth Area precincts on the Ramsar listed Lake Connewarre complex.*

The Panel notes that the full development of the Sparrovale Wetlands will also enable better protection and operational control of water flows into the adjacent Hospital Swamp to the south east of the Sparrovale site. There is also potential to use the Sparrovale site to treat storm water from areas further south from the HBP.

### **(iii) Timing**

In relation to the current increased flooding of the land adjacent to Submitter 1 (C357) property. Mr Bartley on behalf of ID Land (submitter 10 for both Amendments) advised that they are currently in negotiation with the Council to enable temporary works to be undertaken to reduce the run-off to the Sparrovale Wetlands until such time as adjacent residentially zoned land has been developed. He advised that currently Council is unwilling to authorise temporary works; requiring the final works to be undertaken only.

As noted above, the HBP Development Plan requires the Sparrovale wetlands to be in place prior to development with in the HBP exceeding 25%. The Panel was advised by both Council and the various developers who appeared at the Hearing that this limit is either

close to or has been reached. As a result, it is considered imperative that the PAO proceed as expeditiously as possible.

### 4.3 Discussion

Based on the extensive strategic planning and modelling undertaken over many years, together with independent peer review of the results, the Panel is satisfied that the proposed works are both required and desirable to enable the further development of the HBP and to protect the properties affected by Amendment C360.

Amendment C357 is considered essential for the further development of the HBP and indeed the Panel acknowledges that the development of the Sparrovale wetlands will not only meet the water quality requirements of the HBP, but will also provide regional environmental improvement through the protection of the Ramsar wetlands and potential augmentation of freshwater wetlands in the Barwon area.

Based on the submissions, there appears to be a recently existing issue in relation to increase in stormwater flows to the east of the HBP due to the development of the early stages of the precinct. Once Sparrovale wetlands are developed, and prior to final development of all infrastructure associated with the various stages of development of the land, there will be an increased potential for flooding of the land between the wetlands and the HBP. This could have significant impact on the affected properties.

While noting that the land is generally covered by an existing Floodway Overlay, the Panel is of the opinion that the Council needs to work with the developers to proactively stage mitigation works to minimise the temporary risk of increased flooding.

The Panel appreciate the concerns of submitters who will lose some land due to having the drainage waterway crossing the rear of their properties. The Panel are satisfied that the location of the waterway is appropriate as it is based on the existing drainage path and has been subject to extensive modelling to verify the size and nature of the works proposed.

Based on the advice of both Mr McCowan and the Council, the Panel considers it appropriate that the route of the natural waterway be modified as part of the detailed design phase to minimise the land required to be acquired by “*meandering*” the waterway to follow the existing property boundaries where considered appropriate.

The owners of the land affected by C360 will be compensated in accordance with the LAC Act . As discussed in Chapter 3, matters of compensation are not issues for consideration by this Panel.

In relation to the use of pipes in an easement in lieu of a naturalised waterway through acquired land the Panel notes that the owners will be appropriately compensated for the land, which will be used to provide a lower risk in relation to flow capacity while potentially serving as an environmentally enhanced linear access route for the public.

Ms O’Hara (submitter 5) raised concerns in relation to potential public access along the waterway resulting in security issues along the rear of their property. The Panel considers that, as part of any land acquisition, the provision of appropriate fencing between what will become a public asset and private land is an issue for detailed design and consideration between the parties.

#### **4.4 Conclusion**

The Panel concludes that C357 and C360 are technically appropriate and urgently required to enable the further development of the Horseshoe Bend Precinct, and should be implemented as expeditiously as possible.

#### **4.5 Recommendations**

The Panel recommends that the Amendment be adopted, as exhibited.

##### **(i) Further recommendations**

- **The alignment of the waterway through properties affected by C360 should be designed within the affected properties to generally follow the alignment of the existing property boundaries and the extent of any land ultimately required should be minimised.**
- **The Council and the developers of the Horseshoe Bend Precinct should implement appropriate interim measures to minimise flooding risks for the downstream properties while the final stormwater infrastructure is being constructed.**

## Appendix A Submitters to Amendment C357

No.	Submitter
1	Mr and Mrs Devlin
2	Barwon Water
3	DEDJTR
4	EPA Victoria
5	Dennis Family Corporation
6	Rennick and Gaynor on behalf of Robertson
7	Rennick and Gaynor on behalf of Perkins
8	Spiire on behalf of Gary Smith
9	DELWP (Geoff Brooks)
10	Albert Weddell, ID Land

---

## Appendix B Submitters to Amendment C360

No.	Submitter
1	Barwon Water
2	DEDJTR
3	G and L Pohl
4	EPA Victoria
5	S O'Hara
6	Dennis Family Corporation
7	S and L Lim
8	DELWP (Geoff Brooks)
9	VicRoads
10	Albert Weddell, ID Land

---

## Appendix C Document list

No.	Date	Description	Presented by
1	28/8/17	Part A submission. City of Greater Geelong. 2 No. folders	Briana Eastaugh
2	6/9/17	Part B Submission. City of Greater Geelong. 6/9/2017	“ ”
3	“	11 No. A3 photo maps of subject area	“ ”
4	“	VicRoads letter to the Senior Strategic Planner Council. 5/9/2017	“ ”
5	“	Letter from State Minister for the Environment to the CEO Council. 22/1/15	“ ”
6	“	Letter from Federal Dept. of Environment to the Development Manager Warralily. 7/12/15	“ ”
7	“	2010 Newspaper article and press release – 3 pages	“ ”
8	“	DELWP submission. 6/9/2017	Geoff Brooks
9	“	S O’Hara (C360) submission	Sandra O’Hara
9a	“	Further written submission L and C Devlin	L and C Devlin
10	7/9/17	Charlemont Rise submission	Sarah Wright
11	“	Dennis Family Corporation [Ashbury] submission. 7/9/2017	Alex Gelber
12	“	Horseshoe Bend Precinct, A3 Urban Structure Plan 22/9/2014	“ ”
13	“	Section 36 of subdivision act 1988	“ ”
14	“	ID Land Submission. 5/9/2017	Mark Bartley
15	“	Watermark Estate. 3 No. A3 plans of layout and sedimentation ponds	“ ”
16	“	Email from Senior Development Engineer, Council to Development Manager, ID Land. 21/8/2017	“ ”



24 APR 2017

Contact Officer: s22  
Telephone: (02) 6274 s22

Our reference: CAS697  
Email: s22@environment.gov.au

Mr Matthew Fleischmann  
Development Manager - Warrailiy  
Newland Developers Pty Ltd  
497 Blackburn Road  
MT WAVERLEY VIC 3149

Dear Mr Fleischmann

***Environment Protection and Biodiversity Conservation Act 1999***  
**RE: Armstrong Creek urban growth centre, Armstrong Creek East Precinct**

I am writing in relation to the enquiries being made by the Department of the Environment and Energy into an allegation that the Armstrong Creek urban growth centre, Armstrong Creek East Precinct residential development, is changing the ecological character of the Port Phillip Bay (Western Shoreline) and the Bellarine Peninsular Ramsar wetland, which may constitute a breach of section 16 of the *Environment Protection and Biodiversity Conservation Act 1999*.

Compliance officers of the Department, accompanied by a suitably qualified expert, inspected potentially affected areas on 20 January 2016. Officers were accompanied by a qualified expert. A copy of the expert advice is attached for your information and comment.

The information contained in the report will be used, consistent with the Department's Compliance and Enforcement Policy, to inform how to best progress the matter. As the expert advice may inform a decision that results in an adverse effect on Newland Developers Pty Ltd, you may wish to provide comment or have the advice peer reviewed.

If you wish to provide comment on the advice, or request additional time to undertake a peer review, please advise the Department as soon as possible but by no later than close of business on **2 May 2017** by email: [compliance@environment.gov.au](mailto:compliance@environment.gov.au), or by phone at 1800 110 395, or in writing to:

Compliance Section  
GPO Box 787  
Canberra ACT 2601

Yours sincerely,

s22

Acting Director  
Compliance Section  
18 April 2017



**Department of the Environment**  
(Government of Australia)

Expert advice regarding the Armstrong Creek residential development  
near Port Phillip Bay (Western Shoreline) and Bellarine Peninsula  
Ramsar wetland, Victoria



**Lance Lloyd**



**25<sup>th</sup> March 2016**

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Inquiries on this report can be made to:

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 PO Box 3014, SYNDAL, Victoria 3149

Please refer to this document as:

Lloyd, L.N. 2016. **Expert advice regarding the Armstrong Creek residential development near Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar wetland, Victoria.** Lloyd Environmental report to Department of the Environment (Government of Australia), Syndal, Victoria.

## 1. INTRODUCTION

The Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site is located near Geelong, Victoria, Australia. The site comprises six distinct areas that include Point Cook/Cheetham, Werribee/Avalon, Point Wilson/Limeburners Bay, Swan Bay, Mud Islands, and the Lake Connewarre Complex, each with their own unique values.

The area most likely to be affected by the urban development at Armstrong Creek East and Horseshoe Bend Precincts (Warralily) is the Lake Connewarre Complex, and specifically, the Hospital Swamps, which is almost 3500 hectares or 15% of the total area of the Ramsar Site. The development precinct is about the same size as the lower Barwon wetlands area (Lake Connewarre Complex, and specifically, the Hospital Swamps; Figure 1). The Armstrong Creek Urban Growth Area is expected to accommodate about 54,000 persons and 22,000 dwellings (City of Geelong 2012). The Council's own objectives for the site are that it be developed as a sustainable community, setting new benchmarks in best practice urban development (City of Geelong 2012).

The Ramsar Site is a low-lying area and the natural discharge point for the rivers and creeks draining the region. The tidal amplitude within the Lake Connewarre Complex is reduced significantly (more than other parts of the Ramsar Site), compared with Bass Strait due to the very restricted opening of the Barwon Heads. The Site supports a variety of wetland types ranging from shallow marine waters to seasonal freshwater swamps and extensive sewage ponds. Wetland areas include freshwater lakes, estuaries, mangroves, saltmarshes, intertidal mudflats and seagrass beds. This Ramsar Site is the sixth most important area in Australia for migratory waders, and the most important in Victoria. Large numbers of bird species, including Pied Oystercatchers, Banded Stilts, Red-necked Stint, Sharp-tailed Sandpiper, Fairy Tern, Australasian Shoveler, Red-necked Avocets, Blue-billed Duck, and Freckled Duck, have been recorded at the Ramsar Site.

The EPA (2009) "Better Bays and Waterways" document is the water quality improvement plan for the Port Phillip and Western Port region, which sets out the overall policy for managing urban development around the region which calls for flows to be maintained at pre-urbanisation levels, and that urban wetlands should be built to reduce existing and new stormwater pollutant loads to waterways of the region. The State Environment Protection Policy (SEPP; EPA 1970) requires stormwater quality treatment from all urban developments be undertaken. The SEPP is binding on all government agencies, private individuals and businesses conducting activities on private and public land and the City of Geelong is committed to this policy (City of Geelong 2012).

The Department of the Environment (Government of Australia) has commissioned Lloyd Environmental Pty Ltd to examine the possible impacts from the urban development near Geelong on the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site.

### 1.1 Project Objectives

The project's main objective were to provide an assessment of the extent and distribution of impacts from the developments at the Armstrong Creek East and Horseshoe Bend Precincts to the ecological character of the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site, and specifically, discuss how the ecological character of the Ramsar Site may be affected by the likely changes in flow and water quality.

This work mainly consisted of a desktop assessment, supported by an inspection of the site with DotE compliance officers to further understand the habitats likely to be affected and ground truth the issues identified. The report also considers the likelihood of mitigation actions being undertaken to prevent impacts, or assess the likelihood of additional mitigation actions to manage likely impacts.

## 2. METHODOLOGY

This project consists of three components:

- Information Review
- Site Visit
- Impact Assessment

The outcomes of these components have been compiled into a draft report and finalised after comments a DotE review were addressed.

### 2.1 Information Review

Information used in this report was developed out of several projects undertaken by the author, information provided by the CCMA, Parks Victoria and Victorian Field and Game, as well as a document search on the internet and other resources. Key documents include:

- Yugovic, J. (1985). The vegetation at the Lake Connewarre State Game Reserve. ARI Technical Report Series No. 18, March 1985.
- Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Information Sheet (1999)
- Port Phillip Bay Western Shoreline and Bellarine Peninsula Ramsar Site Strategic Management Plan (2003)
- Environmental Flows of the Barwon River and its Estuary, this included the wetlands of the lower Barwon system (2006).
- Better Bays and Waterways: Port Phillip Bay and Western Port catchments Water Quality Improvement Plan (2009)
- Flow/ecology relationships and scenarios for the Lower Barwon Wetlands environmental entitlement Project (2011-12).

### 2.2 Site Visit

Figure 1 shows the aspects of the Ramsar Site affected by the urban development at the Armstrong Creek East and Horseshoe Bend Precincts (Warralily). Table 1 explains the sites visited and the rationale for each site.

Table 1: Areas visited on the Ramsar Site visit on the 20<sup>th</sup> Jan 2016.

Site No.	Name	Description of Activity/Site
1	Taits Pt	Initial meeting location. Overview of Hospital Swamp area. Discussion of objectives and background issues
2	Hospital Swamps Rd	Hospital Swamp lower region
3	Baensch Lane	Baensch Lane to Edge of Main Hospital Swamp to observe areas upstream (at wetland built by F&G) and downstream (main basin)
4	Cnr Barwon Heads Rd and Warralily Blvd	Armstrong Creek leaves urban estate – observed downstream at impact/flows into wetland and upstream at wetlands developed by Council/Developer
5	Sparrowvale Farm.	ACHBP Outfall Area Discharge from both Armstrong Creek and Horseshoe Bend may reach here.

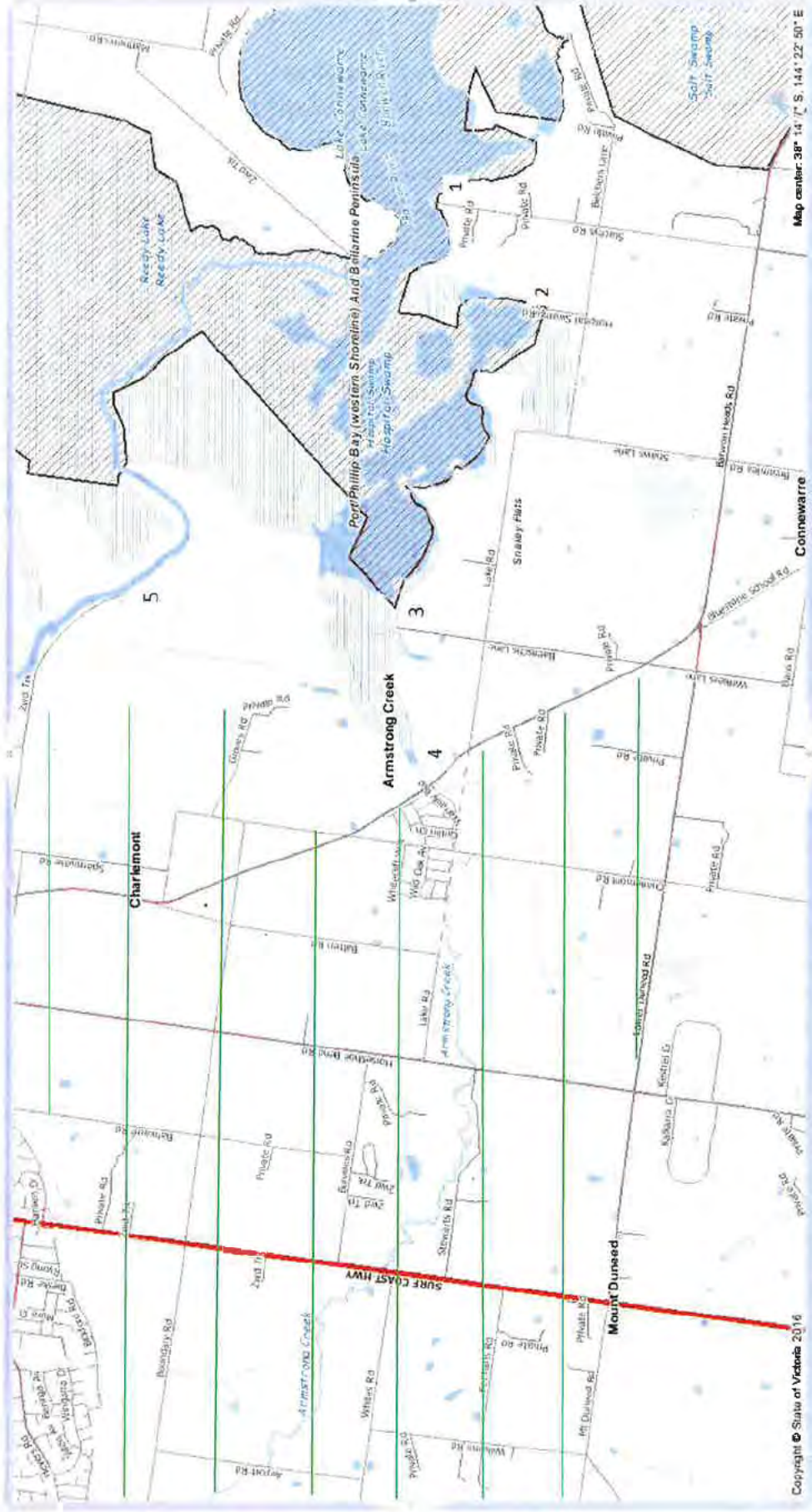


Figure 1: Armstrong Creek and Ramsar Site (<http://mapshare2.dse.vic.gov.au/MapShare2EXT/imf.jsp?site=bim>) (Green lines mark approx. area of development precinct)

## 2.3 Impact Assessment

The impact assessment was undertaken by considering the following aspects:

- The Ramsar Site and its Ecological Character which includes documenting the wetland types present and which components contribute to the Ecological Character;
- Understanding the likely changes to hydrology and water quality from the urban development; and,
- Assessing the likely changes to ecosystems, ecological processes and ecological character.

## 3. DISCUSSION

### 3.1 Ramsar Site and its Ecological Character

The Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site is located near Geelong, Victoria, Australia. The site comprises six distinct areas that include Point Cook/Cheetham, Werribee/Avalon, Point Wilson/Limeburners Bay, Swan Bay, Mud Islands, and the Lake Connewarre Complex, each with their own unique values.

The Ramsar Site is a low-lying area and the natural discharge point for the rivers and creeks draining the region. The tidal amplitude within the Lake Connewarre Complex is reduced significantly (more than other parts of the Site) compared with Bass Strait due to the very restricted opening of the Barwon Heads. The Site supports a variety of wetland types ranging from shallow marine waters to seasonal freshwater swamps and extensive sewage ponds. Wetland areas include freshwater lakes, estuaries, mangrove, saltmarshes, intertidal mudflats and seagrass beds. This Ramsar Site is the sixth most important area in Australia for migratory waders and the most important in Victoria. Large numbers of bird species including Pied Oystercatchers, Banded Stilts, Red-necked Stint, Sharp-tailed Sandpiper, Fairy Tern, Australasian Shoveler, Red-necked Avocets, Blue-billed Duck, and Freckled Duck, have been recorded at the Site.

The Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site meets four of the nine criteria for Ramsar listing.

Criterion 1: Port Phillip Bay (Western Shoreline) and Bellarine Peninsula includes a range of marine and inland wetlands characteristic of the South East Coastal Plain bioregion as well as artificial wetlands. Within the Ramsar Site there are good examples of saltmarshes, estuarine wetlands and a shallow marine embayment and nearshore areas. A major unique feature of the site is the Mud Islands, which are sand islands that have been formed through the interactions of bird guano and marine waters to anchor the islands in the shifting sands.

Criterion 3: The Ramsar Site is one of the most important sites in Victoria for migratory shorebirds and the Avalon-Werribee Wetlands regularly support tens of thousands of Straw-necked Ibis. Additionally, 137 native plants and 135 bird species have been recorded in the Lake Connewarre State Game Reserve.

Criterion 5: Wetlands in the Ramsar Site regularly support more than 20,000 waterbirds, including large numbers of migratory waders, thousands of Black Swans, ducks, ibis and cormorants. In particular, Lake Connewarre, Reedy Lake and the Water Treatment Plant support significant numbers of waterbirds during the summer months.

Criterion 6: Port Phillip Bay (Western Shoreline) and Bellarine Peninsula regularly supports more than 1% of the known Australian population of fourteen species: Pied Oystercatcher; Grey, Lesser Golden, Mongolian and Double-banded Plovers; Banded Stilt; Red-necked Avocet; Ruddy Turnstone; Eastern Curlew; Greenshank; Marsh, Sharp-tailed and Curlew Sandpipers, and Red-necked Stint.

It is clear from the explanation of these criteria that the Lake Connewarre Complex is quite important to the ecological character of the Site. The reason this part of the Ramsar Site is so important is because it has large areas of saltmarshes and estuarine wetlands which support a huge biodiversity of waterbirds and migratory waders, with many of these species being rare and threatened. The biodiversity of vegetation and fish, in particular, also matches that of the water birds utilising the natural habitats present.

### 3.2 Hydrology and Sedimentation

Hospital Swamps are located to the south of the outlet of the Barwon River to Lake Connewarre and have five wetland basins which receive water from both the Barwon River (in high flows) and local runoff. The natural hydrodynamic of the swamp was altered due to drainage in the previous century and would only hold water temporarily after heavy winter rain or when flooded by the Barwon River. The hydrology of Hospital Swamps was modified in 1983 by the installation of regulators and a water supply channel from the Barwon River. In the early 1980s the swamp held water for most of the year (Yugovic 1985). Regulated water is diverted from the Barwon River via a regulated channel through Sparrowvale Farm and can be drained when the regulator is opened (Lloyd et al 2012).

The water management cycle for Hospital Swamps which has operated over the last 25 years (with no changes in vegetation over that time), is, in summary, a system which fills in spring, drops to shallow water (30cm) in January and is usually dry by end of summer (Lloyd et al 2012).

While sedimentation is much higher in modern times than in pre-European conditions within the system generally, deposition in Hospital Swamps was still low under the conditions prior to the Armstrong Creek development (Figure 2; Lloyd et al 2012). With the changed hydrology and increased sediment run off from Armstrong Creek, it is likely that Hospital Swamps will be subjected to much higher rates of sedimentation. This will change the nature of the wetland basins, affect the vegetation and alter water quality, affecting aquatic plants, fish and macro-invertebrates.

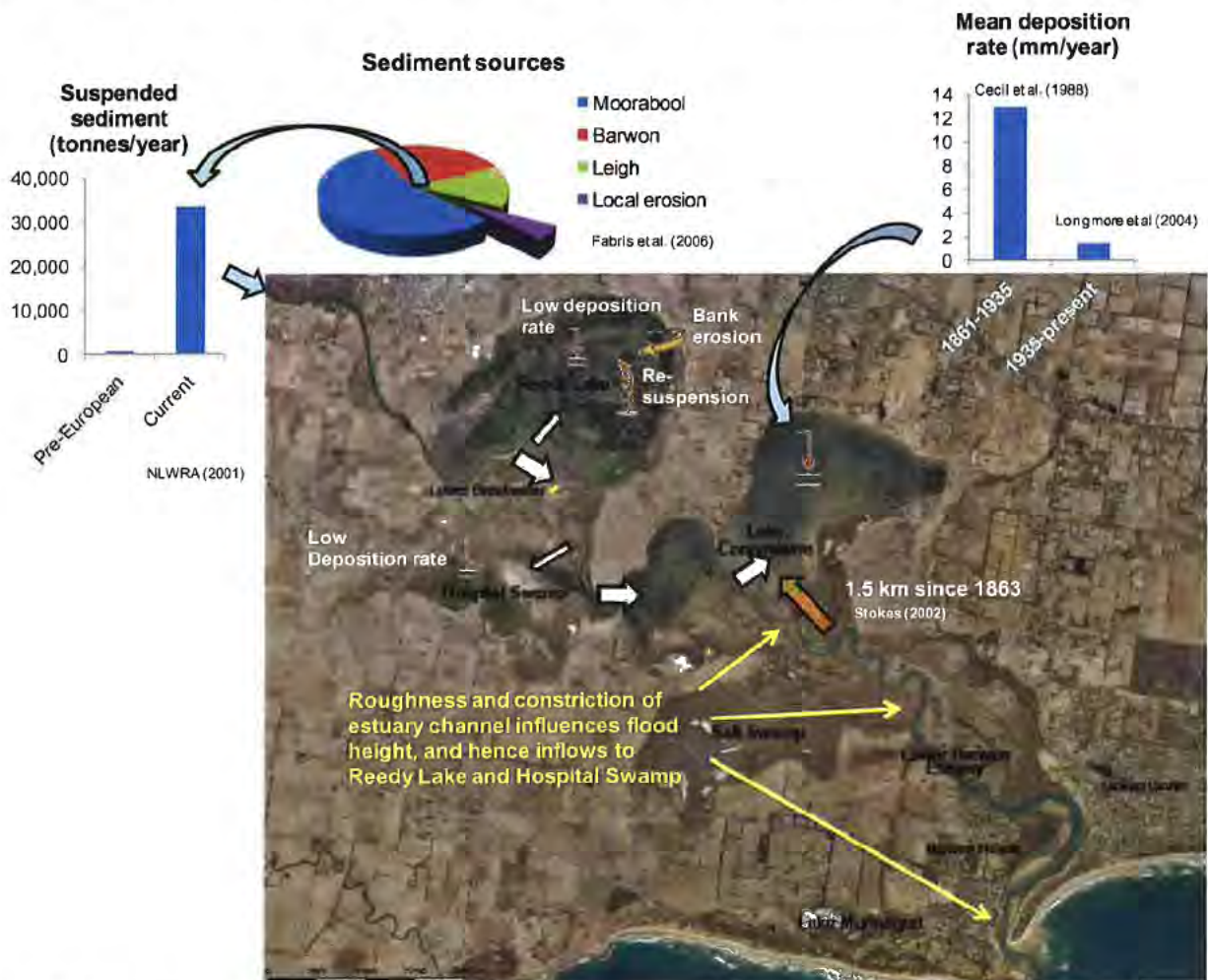


Figure 2: Conceptual model of the geomorphological processes at the Lower Barwon Wetlands (Lloyd et al. 2012).

### 3.3 Vegetation biodiversity

Vegetation distribution and diversity is dependent upon the hydrology of the system. The marginal wetland vegetation of Hospital Swamps is *Lignum* (*Muehlenbeckia florulenta*) shrubland which is found with the grass, *Distichlis distochophylla*, and the reed, *Juncus kraussii*. The vegetation occurs in soils that are seasonally waterlogged, and while flooding is tolerated, it is not required to maintain this vegetation. Salt tolerant sedges and herbs (such as *Bolboschoenus caldwellii* with *Sarcocornia quinqueflora* and *Selliera radicans*) grows in association with other grasses and sedges. The vegetation in this area most likely reflects a zone of permanent waterlogging where saline groundwater discharges to the surface, but soil salinities are reduced seasonally by flooding (Lloyd et al 2012).

Reeds, *Phragmites australis*, *Bolboschoenus caldwellii* and *Schoenoplectus validus*, are found at the normal full level of the wetland. The area which is regularly inundated supports a range of submerged and semi-emergent herbs and shrubs, some of which are saline tolerant. More freshwater species are found when the water is fresher in early spring and more salt tolerant species as the system dries out. Low water levels in November and December are required for these species to flower and set seed before excessive temperatures, high salinities, or dry conditions in January and February inhibit further growth. The suite of species present at Hospital Swamps indicates that a late spring drawdown of the wetland creates this vegetation structure (Lloyd et al 2012).

### 3.4 Likely Changes to Hydrology

The current water regime of Hospital Swamps has been stable largely since the 1970s which has led to the Hospital Swamps ecosystem remaining relatively unchanged since the 1970s in terms of waterbird populations and since the 1980s in terms of vegetation. It is assumed that fish populations would have also been stable but monitoring data is absent to show this. The suite of species present at Hospital Swamps indicates that a late spring drawdown of the wetland creates this vegetation structure (Lloyd et al 2012). Maintenance of this water management regime will, importantly, prevent changes and potential threats to the ecological character into the future (Lloyd et al 2012).

The Lloyd et al (2012) report identified the threats to Hospital Swamps as being derived through potential future changes to water regime from stormwater inflows from Armstrong Creek (developments upstream are likely to produce increasing amounts of run-off). The run-off will result in increases of inflows over summer and autumn when low or no flows are required in this period.

The inspection on the 20<sup>th</sup> January 2016 showed large areas of Hospital Swamps dry and drying, resetting the system as expected. A large rainstorm occurred on the 27<sup>th</sup> January 2016 which impacted on the Baensch Lane and Hospital Swamps wetland areas (Ian McLachlan, pers. comm., Feb 2016). It was reported that 45mm of rainfall fell over the Warrally precinct and the flows into the wetland were large, peaking around 48-72 hours later at almost one metre (0.91m on the Baensch Lane wetland gauge, Ian McLachlan, pers. comm., Feb 2016) and flowing into the Hospital Swamps (Figure 3). The water levels only slowly dropped to about a half a metre depth after two weeks, but the remaining water is unlikely to evaporate quickly, potentially affecting the wetland vegetation. The water quality (e.g. silt load) worsened as time went on, presumably as the water from the construction areas upstream of the developed areas arrived towards the end of the event (Figure 4).

This scenario is what is expected on a more regular basis as the areas of urban development are expanded. The 45mm event is a relatively small event, as the records show that summer storms has peaked to twice this previously and that 45mm is the January average for that area (BOM website; Feb 2016). It can be expected that these run-off events will be frequent during each summer/autumn period disrupting the current water regime, which is seen to be vital to maintaining the ecological character of the Site.





Figure 3: Baenches Lane Wetland before rain storm (20 Jan 2016; left; Lance Lloyd) and after (27 Jan 2016; right; Ian McLachlan).



Figure 4: Water Quality flowing from Armstrong Creek (Waralily) Precinct after rain storm on 27 Jan 2016 (Ian McLachlan)

### 3.5 Likely Changes to Water Quality

The stormwater run-off will not only change the amount and patterns of run-off into the Ramsar Site (the Hospitals Swamps, in particular), but also alter its water quality. Stormwater is known to have high loads of organic matter, sediments, toxicants (such as oils, detergents, herbicides, and pesticides) and heavy metals, as well as gross pollutants such as litter and debris, (CSIRO 1999, Australian Government 2000). There is no testing on the current run-off from the Armstrong Creek precinct, but studies in the past have shown that stormwater is consistently high in the levels of these pollutants in most urban developments in Australia (CSIRO 1999, WBM Oceanics Australia 2002).

The State Environment Protection Policy (SEPP; EPA 1970) requires stormwater quality treatment from all urban developments be undertaken. The SEPP is binding on all government agencies, private individuals and businesses conducting activities on private and public land and the City of Geelong is committed to this policy (City of Geelong 2012). They state that if run-off water from the land surface is causing, or is likely to cause, non-compliance, then control measures are required. The intention of the policies is to eliminate or treat the sources of contaminated run-off from the changes to land use. There are targets for suspended solids (sediment), litter, nutrients and toxicants set out in CSIRO (1999).

### 3.6 Likely Changes to Ecosystems, Ecological Processes and Ecological Character

#### 3.6.1 Ecosystem Processes

The ecosystem processes and, ultimately, ecological character, of the Hospital Swamps will be altered by increases of inflows over summer and autumn, as the system relies upon the normally low flows, or no flows, in this period to create saline conditions in the wetland bed. These conditions exclude emergent macrophytes and maintains a diverse community of plants. Further, summer inflows will suppress groundwater discharge to the wetland and dilute surface water salinities. This is likely to lead an increase in the extent of reeds and a loss of a variety of salt-tolerant herbs, sedges and shrubs (Figure 5).

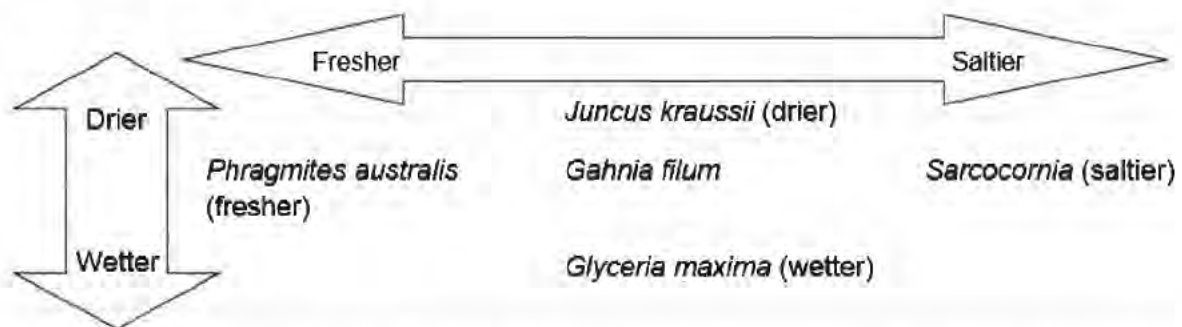


Figure 5: Conceptual models of salinity and species composition at the edge of the Hospital Swamps (Lloyd et al. 2012)

Further, sediment and nutrient run-off from urban stormwater is also likely to change the nutrient status of the Hospital Swamps, and therefore, the vegetation community and the rest of the ecosystem through trophic cascades.

### 3.6.2 Waterbirds

Waterbirds are also dependent upon the wetland hydrology and, in particular, the depth of inundation and the wetting and drying regime (Figure 6).

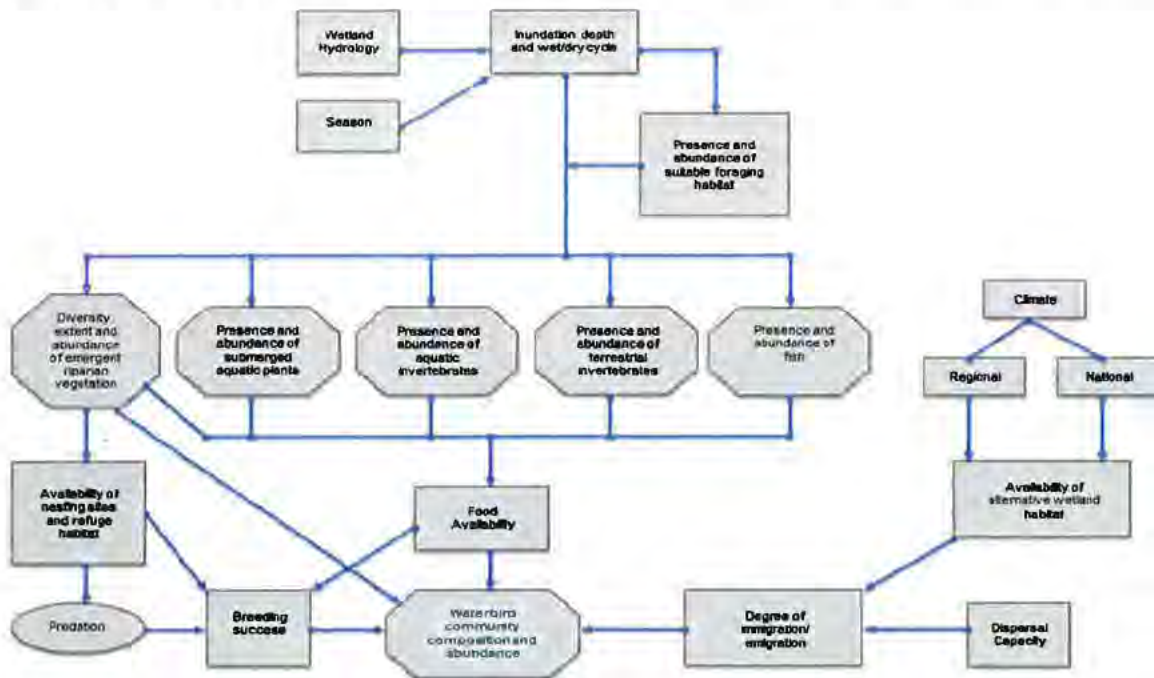


Figure 6: Factors driving the diversity and abundances of waterbirds at the Hospital Swamps (Lloyd et al. 2012).

The extent and diversity of vegetation and habitat types within the Hospital Swamps has been relatively stable in the medium term, providing foraging habitat for an abundant and diverse waterbird community. The existing habitat diversity which supports waterbirds includes transient regions of open water, a range of emergent and fringing vegetation types, regions of annual zones of inundation and drying, shallow water (<0.3 m) regions, mudflat areas and saltmarsh. This habitat diversity is derived from the annual water level cycle described above (Sections 3.2 and 3.3). As with the vegetation, the drying of the Hospital Swamps in late summer or early autumn is a key prerequisite for some waterbird species to breed on the wetland.

The increase in stormwater inflow via drains into Armstrong Creek from developments to the south west of the Hospital Swamps has implications for the swamps' ecology. If summer stormwater inflows prevent the annual drying and salinisation of the swamps, then marked changes, and probably simplification, of the vegetation communities across the wetlands is likely, with significant reductions in waterbird community diversity.

### 3.6.3 Fish and aquatic fauna

Marine derived and estuarine dependent fish are common in the Hospital Swamps, but a range of other species are present in this brackish to saline wetland which is intermittently connected to the Barwon River. Rising water levels in the Hospital Swamps in spring are critical to create new habitat and boost invertebrate populations for food, triggering fish spawning and then allowing sustained food resources to enhance recruitment of juveniles. Deeper water in late spring allows creation of open water habitat required for some species and provides time for growth and maturation. Recession of water level to expose the entire wetland bed will restart wetland processes, allow eggbanks to be produced and laid, and control carp populations.

The increase in stormwater inflow during the summer will not allow the wetland to dry in summer, which will prevent the system resetting and prevent the spring response which is critical to the fish abundance and diversity. The increased summer flows will also freshen the wetland and this will reduce the habitat for the estuarine species, reducing the biodiversity of fish. The pooled water will allow carp populations to survive and not be controlled by a drying sequence.

### 3.7 Potential Mitigation

In line with State Government and City of Geelong policies, a potential mitigation action has been proposed by Ian McLachlan and supported by Parks Victoria and CCMA. The mitigation and treatment concept involves the diversion of Armstrong Creek, as marked by the green arrow in Figure 7, to large constructed wetlands situated on Cold Winds and Sparrowvale Farms. This same area would receive run-off from other parts of the urban development precinct (marked in blue). These wetlands would store and treat water quality before discharge either directly into the Barwon River or the Hospital Swamps in a manner to mimic natural/current flows. The detention and insitu treatment would prevent sediment and nutrient impacts on the river or the lower Barwon wetlands. This proposal has already been referred to the Department (EPBC 2015/7553, <http://epbcnotices.environment.gov.au/referralslist/>).



Figure 7: Aerial Photograph of the Site showing possible mitigation action (DotE supplied photo).

It is likely that the planning and works required for this mitigation and treatment option will take over two years to be realised and become operational, so it is imperative the works are initiated as soon as possible as already large volumes of stormwater are entering the wetlands and altering their hydrology, water quality and ecology and the volumes will only increase as time goes on and further areas in the precinct are developed.

#### 4. CONCLUSION

The extensive and increasing urban developments in the catchment of the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site are likely to alter key components of the ecological character of the Site. These changes will result in a major change in the water regime experienced by the Lake Connearre Complex (and especially the Hospital Swamps), which will affect major ecological processes of the system and affect critical components of the ecosystem and EPBC listed bird and fish species (Table 2).

Table 2: Ramsar Criteria, potential critical components affected and impacts from the Armstrong Creek Development Precinct

Ramsar Criteria	Potential critical components (Lake Connearre Complex) affected	Impacts from the Armstrong Creek Development
Criterion 1: Port Phillip Bay (Western Shoreline) and Bellarine Peninsula include a range of marine and inland wetlands characteristic of the South East Coastal Plain bioregion as well as artificial wetlands. Within the Ramsar Site there are good examples of saltmarshes, estuarine wetlands and a shallow marine embayment and nearshore areas. A major unique feature of the site is the Mud Islands, which are sand islands that have been formed through the interactions of bird guano and marine waters to anchor the islands in the shifting sands.	Saltmarshes and estuarine wetlands with EPBC listed plant, bird, frog and fish species.	High flows from urban areas will alter the water regime of the Hospital Swamps and affect the sediment and nutrient status of the wetlands. Both impacts will alter vegetation structure, multiple threatened plant and bird species (listed under EPBC Act), one frog species (Vulnerable under EPBC Act) and fish species (three of which are listed under the EPBC Act).
Criterion 3: The Ramsar Site is one of the most important sites in Victoria for migratory shorebirds and the Avalon-Werribee Wetlands regularly support tens of thousands of Straw-necked ibis. Additionally, 137 native plants and 135 bird species have been recorded in Lake Connearre State Game Reserve.	EPBC Listed water bird species	High flows from urban areas will alter the water regime of Hospital Swamps and affect the sediment and nutrient status of the wetlands. Both impacts will alter vegetation structure, and EPBC listed water bird species.
Criterion 5: Wetlands in the Ramsar Site regularly support more than 20,000 waterbirds, including large numbers of migratory waders, thousands of Black Swans, ducks, ibis and cormorants. In particular, Lake Connearre, Reedy Lake and the Water Treatment Plant support significant numbers of waterbirds during the summer months.		
Criterion 6: Port Phillip Bay (Western Shoreline) and Bellarine Peninsula regularly supports more than 1% of the known Australian population of fourteen species: Pied Oystercatcher; Grey, Lesser Golden, Mongolian and Double-banded Plovers; Banded Stilt; Red-necked Avocet; Ruddy Turnstone; Eastern Curlew; Greenshank; Marsh, Sharp-tailed and Curlew Sandpipers, and Red-necked Stint.		

Without mitigation, it is clear that the continued and increasing frequent flows from the urban development precinct adjacent to the Ramsar Site (the Hospital Swamps, in particular) are very likely to result in significant changes to ecosystems and habitats, ecological processes within the wetlands, and, ultimately, the ecological character of the Ramsar Site. Action taken now to ensure some type of mitigation (e.g. as proposed in section 3.6) would prevent and reverse any impacts from such developments. Given the mitigation and treatment option will take some time to become functional, it is important that planning, and then works, are begun as soon as possible to prevent further impacts on the Ramsar Site.

## 5. REFERENCES

- Australian Government. 2000. Australian Guidelines for Urban Stormwater Management - National Water Quality Management Strategy. Agriculture and Resource Management Council of Australia and New Zealand and Australian and New Zealand Environment and Conservation Council.
- City of Geelong. 2012. Armstrong Creek Urban Growth Plan, Volume 1, May 2010, Amended September 2012.
- CSIRO. 1999. Urban stormwater: best practice environmental management guidelines. Victorian Stormwater Committee with assistance of Environment Protection Authority, Melbourne Water Corporation, Department of Natural Resources and Environment and Municipal Association of Victoria.
- Dept of the Environment. 1999. Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Information Sheet.
- EPA Victoria. 2009. Better Bays and Waterways: Port Phillip Bay and Western Port catchments Water Quality Improvement Plan.
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s22

**From:** s22  
**Sent:** Friday, 17 November 2017 8:13 AM  
**To:** 'Sarah Shortall'; s22  
**Cc:** Andrew Hill; Brad Paddon; TNatt@geelongcity.vic.gov.au  
**Subject:** RE: EBPC Matter 2015/7553 - Briefing Pack Email 2 of 2 [SEC=UNCLASSIFIED]

Hi Sarah,

Thank you for the attached information. I can confirm we have received both emails.

Have a great weekend,

s22

---

**From:** Sarah Shortall [mailto:sarah@apdprojects.com.au]  
**Sent:** Thursday, 16 November 2017 2:13 PM  
**To:** s22 @environment.gov.au>  
**Cc:** Andrew Hill <ahill@ehpartners.com.au>; Brad Paddon <brad@apdprojects.com.au>; s22 @environment.gov.au>; TNatt@geelongcity.vic.gov.au  
**Subject:** EBPC Matter 2015/7553 - Briefing Pack Email 2 of 2

s22

Further to the below, Attachments 4-6 attached.

Regards



**Sarah Shortall** | Development Manager | [APD Projects](#)  
[sarah@apdprojects.com.au](mailto:sarah@apdprojects.com.au) | T 03 9804 5885 | M 0410 280 973 | [apdprojects.com.au](http://apdprojects.com.au)  
Level 3, 468 St Kilda Road, Melbourne VIC 3004

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**From:** Sarah Shortall  
**Sent:** Thursday, 16 November 2017 1:55 PM  
**To:** s22 @environment.gov.au s22 @environment.gov.au>  
**Cc:** 'Andrew Hill' <ahill@ehpartners.com.au>; Brad Paddon <brad@apdprojects.com.au>; s22 @environment.gov.au' s22 @environment.gov.au>; 'TNatt@geelongcity.vic.gov.au' <TNatt@geelongcity.vic.gov.au>  
**Subject:** EBPC Matter 2015/7553 - Briefing Pack Email 1 of 2

s22

Ahead of next Tuesday's meeting to discuss EBPC Reference 2015/7553, I enclose a copy of our briefing pack.

Due to file size, I will send over two emails.

The pack contains the below information:

EPBC Briefing Note

- Annexure 1 – Armstrong Creek Development Area Plan
- Annexure 2 – Proposed Diversion Channel Map and Referral Application
- Annexure 3 – Neil Craigie advice
- Annexure 4 – Decision on referral
- Annexure 5 – Panel Report Amendment C357
- Annexure 6 – Compliance Letter Lloyd Environmental Report

If you could kindly confirm receipt of this information when received.

Regards



**Sarah Shortall** | Development Manager | **APD Projects**  
[sarah@apdprojects.com.au](mailto:sarah@apdprojects.com.au) | T 03 9804 5885 | M 0410 280 973 | [apdprojects.com.au](http://apdprojects.com.au)  
Level 3, 468 St Kilda Road, Melbourne VIC 3004

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s22

**From:** s22  
**Sent:** Thursday, 23 November 2017 3:27 PM  
**To:** 'Brad Paddon'; Sarah Shortall; Andrew Hill; Terry Natt  
**Cc:** s22  
**Subject:** EPBC 2015/7553 Warralily-Sparrovale Outfall, stormwater bypass channel, Armstrong Creek [SEC=UNCLASSIFIED]

Dear Brad, Sarah, Terry and Andrew,

Thank you for meeting with the Department to discuss EPBC 2015/7553 Warralily-Sparrovale Outfall, stormwater bypass channel, Armstrong Creek and for sending though your set of minutes from the meeting.

Please find below information on the Departments polices and processes as discussed.

**CHANGE OF PROPONENT**

Please refer to the Department's policy statement - Change of person proposing to take an action; Change of proponent; Transfer of approvals: Sections 78(5), 145B and 156F of the EPBC Act at:

<http://www.environment.gov.au/resource/epbc-act-policy-statement-change-person-proposing-take-action-change-proponent-transfer>

**SPLIT REFERRAL**

Please refer to the Department's policy statement Staged Developments - Split referrals: Section 74A of the EPBC Act at: <http://www.environment.gov.au/resource/epbc-act-policy-statement-staged-developments-split-referrals-section-74a-epbc-act>. This policy statement helps to identify whether a referred action is a 'split referral' and, if so, whether it should be treated as part of a larger non-referred action or treated separately as a component of a larger action. As discussed, it would be helpful to address aspects of any future actions at the site in the referral information.

**APPROVAL PROCESS (Including the requirements to refer or not)**

Further information on the Department's assessment and approval process, including the requirement to refer or not, and cost recovery arrangements for environmental assessments can be found at:

<http://www.environment.gov.au/protection/environment-assessments/assessment-and-approval-process> and <http://www.environment.gov.au/epbc/cost-recovery>, respectively.

**SIGNIFICANT IMPACT GUIDELINES**

The Department's policy guidelines should be consulted to consider if this impact is likely to result in a significant impact on a matter of national environmental significance in relation to these matters. These include:

<http://www.environment.gov.au/epbc/publications/significant-impact-guidelines-11-matters-national-environmental-significance> and species specific docs here <http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>.

**STRATEGIC ASSESSMENTS**

<http://www.environment.gov.au/protection/assessments/strategic>

The Department will get back to you on the project specific information requested during the meeting as soon as possible. In the mean time if you have any questions please do not hesitate to contact me.

Regards,  
Alex

s22  
Assessments Victoria & Tasmania

Assessments & Governance Branch  
Environmental Standards Division  
Department of the Environment and Energy  
02 6274 s22 @environment.gov.au



---

**From:** Brad Paddon [mailto:brad@apdprojects.com.au]  
**Sent:** Thursday, 23 November 2017 11:26 AM  
**To:** s22 @environment.gov.au; s22 @environment.gov.au; s22 @environment.gov.au  
**Cc:** Sarah Shortall <sarah@apdprojects.com.au>; Andrew Hill <ahill@ehpartners.com.au>; Terry Natt <TNatt@geelongcity.vic.gov.au>  
**Subject:** EPBC Matter 2015/7553 Armstrong Creek Diversion Channel

Good Morning s22

Thanks again for making the time to meet, on what is clearly a complex matter.

I have attached a brief set of minutes from our discussion on Tuesday. Any clarifications please advise.

I look forward to working with you and City of Greater Geelong in the months ahead to progress the application.

Regards



**Brad Paddon** | Director | [APD Projects](#)  
brad@apdprojects.com.au | T 03 9804 5885 | M 0409 968 049 | apdprojects.com.au  
Level 3, 468 St Kilda Road, Melbourne VIC 3004

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**From:** [Brad Paddon](#)  
**To:** [Cooper, Alex](#)  
**Cc:** [Sarah Shortall](#); [Andrew Hill](#); [Terry Natt](#) s22  
**Subject:** RE: EPBC Matter 2015/7553 Armstrong Creek Diversion Channel - Lloyds Environmental Report [SEC=UNCLASSIFIED]  
**Date:** Tuesday, 5 December 2017 12:36:41 PM

---

Thanks s22 appreciated.

We are working CoGG and the consultant team on the further information.  
Will be in touch again in the near future.

Regards



**Brad Paddon** | Director | [APD Projects](#)  
[brad@apdprojects.com.au](mailto:brad@apdprojects.com.au) | T 03 9804 5885 | M 0409 968 049 | [apdprojects.com.au](http://apdprojects.com.au)  
Level 3, 468 St Kilda Road, Melbourne VIC 3004

*Please note the APD office will close on **Friday 22 December 2017** and re-open on **Monday 8 January 2018**. The Directors and staff of APD wish everyone a safe and happy festive season.*

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**From:** s22 [mailto:s22@environment.gov.au]  
**Sent:** Tuesday, 5 December 2017 12:17 PM  
**To:** Brad Paddon <[brad@apdprojects.com.au](mailto:brad@apdprojects.com.au)>  
**Cc:** Sarah Shortall <[sarah@apdprojects.com.au](mailto:sarah@apdprojects.com.au)>; Andrew Hill <[ahill@ehpartners.com.au](mailto:ahill@ehpartners.com.au)>; Terry Natt <[TNatt@geelongcity.vic.gov.au](mailto:TNatt@geelongcity.vic.gov.au)>; s22 @environment.gov.au; s22 @environment.gov.au  
**Subject:** EPBC Matter 2015/7553 Armstrong Creek Diversion Channel - Lloyds Environmental Report [SEC=UNCLASSIFIED]

Good Afternoon Brad,

I have just received confirmation from our Compliance section that the Department is happy to release the Lloyds Environmental report for use in the assessment package for EPBC 2015/7553. Please note that the report was commissioned as part of the Department's compliance enquiries. I have attached a copy of the report for your convenience.

Please accept my apologies for the delay in getting back to you on this matter.

If you have any further questions please do not hesitate to contact me.

Regards,  
s22

---

**From:** Brad Paddon [<mailto:brad@apdprojects.com.au>]  
**Sent:** Thursday, 23 November 2017 11:26 AM  
**To:** s22 [redacted] [@environment.gov.au](mailto:[redacted]@environment.gov.au); s22 [redacted] [@environment.gov.au](mailto:[redacted]@environment.gov.au); s22 [redacted] [@environment.gov.au](mailto:[redacted]@environment.gov.au)  
**Cc:** Sarah Shortall <[sarah@apdprojects.com.au](mailto:sarah@apdprojects.com.au)>; Andrew Hill <[ahill@ehpartners.com.au](mailto:ahill@ehpartners.com.au)>; Terry Natt <[TNatt@geelongcity.vic.gov.au](mailto:TNatt@geelongcity.vic.gov.au)>  
**Subject:** EPBC Matter 2015/7553 Armstrong Creek Diversion Channel

Good Morning s22 [redacted]

Thanks again for making the time to meet, on what is clearly a complex matter.

I have attached a brief set of minutes from our discussion on Tuesday. Any clarifications please advise.

I look forward to working with you and City of Greater Geelong in the months ahead to progress the application.

Regards



**Brad Paddon** | Director | **APD Projects**  
[brad@apdprojects.com.au](mailto:brad@apdprojects.com.au) | T 03 9804 5885 | M 0409 968 049 | [apdprojects.com.au](http://apdprojects.com.au)  
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