

Melissa Allan

From: [REDACTED]
Sent: Friday, 23 February 2018 11:20 AM
To: amendments
Cc: Ben Hawkins
Subject: Corrected [REDACTED] Submission to Amendment C234 Cardinia Planning Scheme
Attachments: Submission by [REDACTED] Amendment C234 Cardinia Planning Scheme.pdf; Water Technology Advice [REDACTED].pdf; New 55 Plan of Subdivision or Consolidation (Ver _3) (1).pdf; Final [REDACTED] personal submission Amendment C234.pdf

Dear Sir/ Madam

Re: **Corrected** [REDACTED] Submission to Amendment C234 Cardinia Planning Scheme
PPTY: 10,11 and 14 – [REDACTED]

Please find attached a **corrected** submission in relation to Amendment C234 to the Cardinia Planning Scheme on behalf of [REDACTED].
This submission is made up of 3 reports and a copy of title.

Please note that the submission documents supplied by xwb consulting **were NOT the final copies**. Please disregard those attachments and replace with these 4.

Your acknowledgement of this Corrected submission would be wonderful,

with thanks

From: Philip Walton [mailto:mail@xwbconsulting.com.au]
Sent: Friday, 23 February 2018 10:49 AM
To: amendments@vpa.vic.gov.au
Cc: 'Optus'
Subject: Submission to Amendment C234 Cardinia Planning Scheme

Please find attached a submission in relation to Amendment C234 to the Cardinia Planning Scheme on behalf of [REDACTED].

Please acknowledge receipt of this submission.

Regards

Phil

Phil Walton

xwb consulting

Town Planning and Bushfire Consultants

0408517143

23 February 2018

Victorian Planning Authority
amendments@vpa.vic.gov.au

Dear Sir / Madam

**Re: Amendment C234 Cardinia Planning Scheme
Pakenham East Precinct
Submission by [REDACTED]**

I refer to Amendment C234 to the Cardinia Planning Scheme which has been placed on public exhibition in relation to the Pakenham East Precinct.

This submission is made on behalf of my client [REDACTED] who are the owners of the land at 45, 55 and 95 Dore Road Pakenham. The land is identified as Parcels 10, 11 and 14 in the Pakenham East Precinct Structure Plan ("the PSP") and has an area of 73.12ha which constitutes 11.6% of the total land in the PSP. The configuration of my client's land has changed from the configuration shown in the PSP and the correct configuration is shown on the attached plan of subdivision PS815190Y.

My client's submission is set out in two parts. Below is the principal submission in relation to Amendment C234 which includes advice received from Water Technology who are experts in waterway management and drainage issues. Also attached is a more personal submission from my clients which highlight a number of issues touched on in the submission below, but also raise frustrations with the process in terms of getting access to information, a limited amount of time to review a mountain of information released as part of the exhibition of Amendment C234, and the perceived inequity with another landowner in the precinct who has been full access to information through the PSP preparation process.

In principle my client supports Amendment C234 to the Cardinia Planning Scheme to the extent that it allows for the urban development of the land within the precinct. However, my client is extremely concerned at the amount of net developable land on their property under the PSP and seeks changes to Amendment C234 and the PSP to increase the amount of net developable land. It is noted that under the property specific land budget in Appendix A of the PSP, the percentage of net developable land is 69.33% of the total area of land in the precinct. My clients land has a total area of 72.67ha and the PSP designates 42.16ha as developable land, which is a net development area of 58%. A large proportion of the land lost to development is associated with the treatment of Deep Creek, and my client wishes to raise a number of objections / concerns in relation to the treatment of Deep Creek in the PSP.

Deep Creek Reserve

The PSP proposes a 100m reserve along the east side of Deep Creek which affects my client's land. It is not clear within the PSP documentation the purpose for which this 100m reserve is required. Indeed the plans within the PSP are inconsistent in relation to the purpose of the 100m reserve as shown in the table below:

Plan	Purpose of reserve	Comments
Plan 3 Future urban structure	Uncredited open space / drainage Watercourse	Note that conservation areas are separated defined on the plan
Plan 4 Land use budget	Waterway and drainage reserve	Note that conservation areas are separated defined on the plan
Plan 6 Open space	Waterway reserve	Note that conservation areas are separated defined on the plan
Plan 9 Integrated water management	Natural waterway corridor Stormwater quality treatment and drainage asset.	
Figure 6 Deep Creek concept plan	Drainage conservation area	

It is submitted that the PSP requires greater clarity in relation to the purpose of this 100m reserve.

As suggested in the majority of the plans above, the purpose of the 100m reserve is for waterway and drainage purposes. My client has engaged Water Technology Pty Ltd to review the PSP and associated background documents in relation to waterway and drainage management. Water Technology have concluded:

- Deep Creek is a highly modified waterway and its floodplains have limited natural values.
- It may be possible to modify the current 1% AEP Deep Creek channel, levees and floodplain to improve flood conveyance, reduce erosion within Deep Creek in the long-term and maximise the land within the PSP (increase Net Developable Area).
- Any modification to the Deep Creek riparian corridor would need to be supported by a detailed hydraulic study and, possibly, vegetation off-set.
- A 50 m corridor is likely to be sufficient, as this is what has been allowed for at the downstream end of Deep Creek within the PSP.
- The retardation and water quality assets WI-05 is likely to be oversized given the proposed upstream land use and alternatively linear wetlands may be constructed within the waterway corridor (instead of WI-05).
- It may be possible to incorporate off stream wetlands and retarding basins with minimal or no loss of native vegetation.

A copy of Water Technology's advice is attached to this submission. On this basis it is submitted that the 100m Deep Creek reserve should be reviewed.

Conservation Buffer Zone

Figure 6 Deep Creek Concept Plan and Requirement 57 in the PSP designate a 30m buffer zone around all edges of the Deep Creek Reserve. Requirement 57 states:

"A 30m buffer zone must be provided around all edges of the Deep Creek Conservation Reserve. The buffer zone must exclude buildings but may include roads, paths, nature strips, public open space and drainage infrastructure. A frontage road must be provided between the conservation area and adjacent development in accordance with the relevant cross section in Appendix C: Road Cross Sections and Intersections."

My client objects to the inclusion of the 30m buffer zone within the PSP.

There is no evidence that the 100m Deep Creek Reserve is in its entirety a conservation reserve. It is not designated as a conservation reserve in the majority of plans within the PSP, which only include parts of the 100m reserve as conservation areas. The background report Ecological Investigations for the Pakenham East Precinct Structure Plan January 2018 prepared by Ecology and Heritage Partners does not identify the need for a 100m reserve along Deep Creek or a 30m buffer zone for ecological purposes. Based on the principal plan with the PSP, Plan 3 Future Urban Structure, the 30m buffer is shown from uncredited open space / drainage and not from the conservation areas which are derived from the Ecology and Heritage Partners report.

Figure 6 shows the 30m buffer zone from the 100m Deep Creek Reserve and Wetland Reserve. This buffer creates further uncredited open space by stealth which is not reflected within the land budget within the PSP.

The residential land shown on the plan below in the highlighted area is not developable based on the 30m buffer as the buffer according to the PSP excludes buildings.



Rural Conservation Zone

It is noted that as part of Amendment C234, the land within the drainage reserve adjoining Deep Creek is included within a Rural Conservation Zone. My client objects to the inclusion of this land in its entirety within the Rural Conservation Zone as it provides no flexibility in relation to the boundary of the Deep Creek Reserve or adjoining developable land. This is inconsistent with the PSP and the background documents on which the PSP is based as shown in the table below:

PSP document / section	Statement
Proposed Drainage Strategy (Revision D) December 2017 prepared by Stormy Waters Solutions	All assets detailed in this report are at the strategy development / concept design stage. As such all proposals are subject to change as the planning and design process for the PSP continues.
Figure 6 Deep Creek Concept Plan	Extent of the conservation area to be confirmed.
Plan 9 Integrated Water Management	Stormwater quality treatment, drainage assets and waterway widths on this plan are subject to confirmation through detailed design to the satisfaction of Melbourne Water.
Requirement 93 within the PSP	Final design and boundaries of constructed waterways, waterway corridors, retarding basins, stormwater quality treatment infrastructure and associated paths, boardwalks, bridges and planting, must be to

	the satisfaction of Melbourne Water and the responsible authority.
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EPBC Referral and Biodiversity Conservation Strategy

The Explanatory Report for Amendment C234 includes a statement:

“A referral has been made to the Commonwealth Department of Environment and Energy under Part 7 of the Environment Protection and Biodiversity Conservation (EPBC) Act (1999).

The outcome of the referral will determine the planning controls put in place on the land abutting Deep Creek within the PSP.

The PSP and Scheme ordinance has been drafted to accommodate the potential conditions that may be required if the EPBC Act referral indicates a controlled action has been triggered.

Measures include:

- The land will be zoned Rural Conservation Zone (RCZ2);*
- The drainage infrastructure includes the provision of growling grass frog habitat;*
- Setbacks consistent with the Biodiversity Conservation Strategy from Deep Creek have been established; and*
- A Conservation Area Concept Plan has been included in the PSP for the Deep Creek reserve.”*

My client is extremely concerned at this statement and its implications for Amendment C234 and the PSP. If the outcome of the referral will determine the planning controls put in place on the land abutting Deep Creek within the PSP, why was the Amendment C234 exhibited without the outcome of the referral being known. It is more concerning that the PSP and Scheme ordinance has been drafted to accommodate the potential conditions that may be required if the EPBC Act referral indicates a controlled action has been triggered. We now know that the EPBC referral has determined that a controlled action has not been triggered, but are left wondering what requirements have unnecessarily been included in Amendment C234 and the PSP as a consequence of this. Similarly the explanatory report notes that setbacks consistent with the Biodiversity Conservation Strategy from Deep Creek have been established, however the Ecological Investigations for the Pakenham East Precinct Structure Plan January 2018 prepared by Ecology and Heritage Partners clearly states that the Biodiversity Conservation Strategy does not apply.

Other issues

A local sports reserve SR-01 has been designated in the PSP on my client’s land with an area of 10.08ha. Whilst in principle my client is not opposed to the location of the local sports reserve, it is noted that the concept design shown in Figure 3 is an inefficient layout, particularly when compared to the layout shown for the other local sports reserve SR-02 shown in Figure 4. It is submitted that the size of SR-01 could be reduced without compromising the delivery of the facilities shown on the concept plan in Figure 3. It is noted that the background economic assessment undertaken for the PSP concludes that the north west section of the precinct will be some distance from any centre. It states:

“There is insufficient demand in the north western part of the precinct to warrant a further neighbourhood centre. However, there would be justification for identifying a site for a convenience store in this part of the precinct to service the 1,800 residents anticipated in this location at full development. Such a site should be classified as a local centre with no more than 300 square metres of retail space. This size would enable the provision of top-up groceries without impacting on other centres in the network and without establishing an expectation of a larger centre that could begin to rival the neighbourhood centres.”

It is submitted that a local convenience centre should be identified in what is currently the north east corner of the local sports reserve. This would provide local retail facilities to support the north west neighbourhood and would provide for a more efficient use of the land for the sports reserve whilst restoring developable land to my client.

The PSP shows a local connecting road to the land west of Deep Creek via a bridge over Deep Creek. It is noted that the bridge across Deep Creek is listed in the Precinct Infrastructure Plan as an ICP item, however the section of road leading to the bridge through the Deep Creek Reserve area (shown on the plan below) is not shown as an ICP item.



It is submitted that my client or any future developer of my client's land should not be responsible for the construction of this section of road which is not needed for the development of the land and does not have a reasonable nexus to the development of the land. This section of road should be an ICP item to be funded from contributions from development across the PSP.

In relation to the gas transmission easements which pass through the land, my client seeks to ensure that to the maximum extent possible, road reserves are located within the gas transmission easements and are not treated as mutually exclusive infrastructure items resulting in an inefficient urban design outcome. My clients have also been approached by the APA Group seeking to purchase an additional 2ha of land adjoining the Dore Road facility. It is noted that such an expansion of this facility has not been addressed within the PSP and my client would be strenuously opposed to the future loss of urban land for such purposes.

Conclusion

In principle my client supports Amendment C234 to the Cardinia Planning Scheme to the extent that it allows for the urban development of the land within the precinct. However, my client is extremely concerned at the amount of net developable land on their property under the PSP and seeks changes to Amendment C234 and the PSP to increase the amount of net developable land as set out in this submission.

My client seeks the opportunity to be heard at any panel hearing convened to consider submissions in relation to Amendment C234 and reserves the right to elaborate and expand on the issues raised in this submission. My client would welcome the opportunity to further discuss the concerns raised with the Victorian Planning Authority and Cardinia Shire Council if this assists in facilitating a mutually acceptable outcome.

Should any other submissions be received in relation to Amendment C234 which affect my clients land, my client expects to be notified of and provided with such submissions so they can make a response to ensure their interests are protected.

Yours faithfully



Phil Walton
XWB Consulting

22 February 2018

[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

Our ref: 5598-01_L1v01.docx

Pakenham East PSP – Preliminary Drainage Advice

Water Technology has been engaged by [REDACTED] in respect of the Cardinia Shire Council Planning Scheme Amendment C234. This planning amendment and associated Precinct Structure Plan (PSP) seeks to rezone land to facilitate residential development areas for approximately 630 hectares of land generally bounded by Deep Creek and Ryan Road to the west, Mount Ararat Road North and South to the east, a line just north of the main Electricity Transmission line from the Latrobe Valley to the North and the Princes Freeway to the south.

Whilst not opposing the future development of this land, [REDACTED] have questioned the extent of the proposed waterway and swale corridor within one of their properties (PSP Property No. 14). As a result, this submission has been prepared to address this question. It considers surface water management implications of the proposed Cardinia Shire Council Planning Scheme Amendment C234, as it relates to the proponent's land along Deep Creek and upstream of the Princes Highway, referred to herein as the Subject Land.

This submission considers the proposed waterway and drainage buffers and vegetation management on the Subject Land.

1 PROPOSED DRAINAGE STRATEGY

1.1 Waterway Corridor

The proposed drainage strategy (Stormy Water Solutions, Dec 2017) for the Pakenham East PSP provides for a 100 m wide corridor along Deep Creek (east bank) within the Subject Land. We understand, based on correspondence from Melbourne Water, that the proposed waterway corridor setback has been determined by flood flows and flood levels within the 1% AEP floodplain.

We consider that the proposed 100 m corridor is not warranted to its full extent, and it may be possible to reduce the extent of the 1% AEP floodplain and therefore, reduce the waterway corridor width requirement. We note that modifications within the proposed waterway corridor have already been suggested however, these are only proposed within the floodplain. I understand that earthworks are proposed within the waterway corridor to build a swale, which will convey local runoff from future development to the east and excess flow from Deep Creek. Whilst we understand that any changes to the Deep Creek channel and adjacent levees may result in loss of native vegetation (which would need to be off-set), it may also provide an opportunity to:

- reinstate a more natural channel and floodplain connectivity;



- improve flood conveyance;
- reduce erosion within Deep Creek in the long-term; and
- maximise the land within the PSP.

The Deep Creek reach within the Subject Land has a Strahler stream order of 2, which has, according to the Melbourne Water Waterway Corridors - Guidelines for greenfield development areas (2013):

- a minimum setback of 20 m from top of bank on both banks; and
- incorporates a 10 m wide vegetated buffer immediately adjacent and parallel to the core riparian zone (10 m wide).

Melbourne Water has advised that the corridor is greater than the above setback to accommodate the entire 1% AEP flood extent. This is a reasonable position to take and is consistent with the guidelines above. However, the Deep Creek waterway and floodplain is highly modified. This is evident from the limited extent of riparian vegetation along the creek (Native Vegetation Precinct Plan, Ecology & Heritage Partners, Dec 2017) and low-lying pasture prevalent across its floodplain (Pakenham East Precinct Landscape Assessment, Hansen, May 2013) and a lack of connectivity between its main channel and floodplain (Deep Creek Corridor Proposals, Stormy Water Solutions, October 2014), as shown in Figure 1-1.

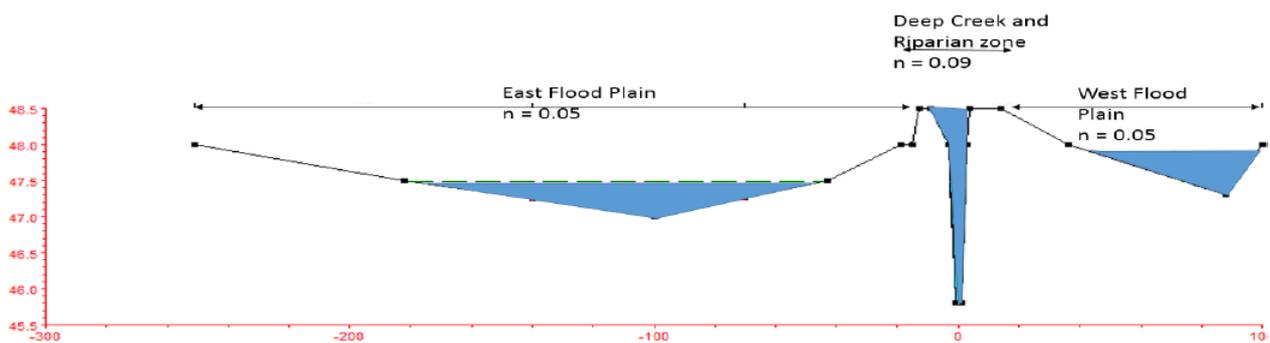


Figure 1-1 – Typical Deep Creek Cross-Section Upstream of Princes Highway (Source: Stormy Water Solutions)

Amendment C51 of the Wyndham Planning Scheme in 2005 addressed a similar issue regarding the waterway corridors in that municipality. The Panel supported the use of the 1% AEP floodplain as a basis for further investigation to assess the extent and nature of the waterway corridor but acknowledged that “a more detailed level of analysis would be required to comprehensively identify environmental values”. In the Panel’s view, “how a waterway might be defined is less important than identifying the values that need to be protected”.

The Planning Hearing Panel for Amendment C51 of the Wyndham Planning Scheme also recognised that “situations may arise where it is appropriate to modify the extent of the 1:100 year floodplain”, provided that the proponent demonstrates that the “environmental values of the waterway will not be compromised”. We consider that past and current agricultural land use have altered the natural values of the floodplain land. As a result, we consider that the riparian buffer width should be dependent on values to be protected as determined from environmental studies.

As currently detailed in the Native Vegetation Precinct Plan (Ecology & Heritage Partners, Dec 2017), the vegetation to be retained within the proposed 100 m corridor is limited to the existing riparian zone. This suggests that the proposed waterway corridor does not need to match the current 1% AEP extent to meet floodplain or environmental management best practice objectives. Importantly, Stormy Water Solutions’ report states that “once flow leaves Deep Creek [...] it cannot re-enter the creek”. Any waterway corridor would need



to be designed to the design peak 1% AEP flood flows in that overbank area. Existing planning controls (i.e. Floodway Overlay) are already in place, ensuring new developments consider overland flows and flooding.

It is considered that a 50 m corridor is likely to be sufficient, as this is what has been allowed for at the downstream end of Deep Creek within the PSP (where 1% AEP flows would be greater than on the Subject Land). It may therefore be possible to reduce the waterway corridor to 50 m, as is currently proposed near Canty Lane. It is noted that a 50 m easement either side of the creek was considered sufficient for the approval of the 1990's low density subdivision located on the western side of Deep Creek downstream of the Princes Highway.

1.1.1 Adopted Modelling Methodology

The width and extent of the corridor has been assessed for the drainage scheme using the one-dimensional version of Hec Ras. I believe that would be additional value in modelling the flooding behaviour of Deep Creek using a two-dimensional (2D) hydrodynamic model. We consider a 2D model is likely to provide a more accurate representation of the hydraulic behaviour of Deep Creek and its floodplain. We also note that:

- Separate Hec Ras models were constructed to assess three reaches of Deep Creek within the PSP. Culvert influence on flood levels was assessed separately, to inform boundary conditions within each model. It is possible to model these reaches in one consolidated hydraulic model. We consider that this would provide a more accurate representation of interactions between the three reaches and influence from culverts;
- Three separate Hec Ras models were built to assess conveyance capacities of the Deep Creek channel and its floodplain. Again, it is possible to model this reach in one consolidated hydraulic model, allowing for lateral weirs to represent the interaction between the floodplain and channel. We consider this approach (or the use of a 2D model package) would provide a more realistic and accurate representation of interactions between the channel and floodplain.
- We interpret that the Hec Ras models were simulated with steady-state flows, with design flow of between 30.7 m³/s and 41.1 m³/s, for the critical 9hr duration 1% AEP design storm. This may over-estimate flows within Deep Creek and the Subject Land as it assumed that the contributing **catchment I** would be fully conveyed within Deep Creek immediately downstream of the western tributary. We note that Deep Creek flows (excluding local contributing catchment I) for the Subject Land were estimated to be 33.8 m³/s in the same hydrological report (Stormy Water Solutions, Oct 2014). Stormwater runoff from **catchment I** (about 6.9 m³/s during the 9 hour event) is likely to be partly captured by the proposed drainage infrastructure under the development scenario and conveyed to the proposed retarding basin immediately upstream of the Princes Highway, effectively part by-passing Deep Creek. Consequently, reduced flows can be expected within Deep Creek and its eastern floodplain on the Subject Land;
- Whilst Hec Ras is still currently used within industry, there are many 2D software packages available that are more appropriate to capture floodplain interactions. Melbourne Water generally recommends 2D models to be used for hydraulic impact assessment. A 2D hydraulic modelling approach would have been readily available in 2014 when the drainage scheme was developed.

1.2 Water Quality Assets

We consider there may be other opportunities to refine the design, so as to ensure optimum yield is achieved, as per the mission statement for efficient use of land within the UGB. As an example, we note that current Net Developable Area on the Subject Land is 57.98% however, fraction impervious was assumed to be 0.6 for the Subject Land and the wider catchment when designing drainage infrastructure. This may therefore over-estimate stormwater runoff from the catchment, as a large portion would be open space and/or part of the waterway corridor and drainage reserve. This, in turn, would reduce the size of the retardation basin and water quality assets proposed within the Subject Land.



Additionally, we note that the entire site is within the Gippsland Plain Bioregion and the vegetation prior to European Settlement has been modelled to have included Swamp Scrub (EVC 53) on the Subject Land. This EVC is generally dominated by Swamp Paperbark *Melaleuca ericifolia*, which has been found to be effective at removing nitrogen and maintaining infiltration capacity of soils (2015 CRC WSC Bio-filtration Guidelines). A targeted planting program, promoting Swamp Paperbark within the waterway corridor and drainage reserves, including around the proposed water quality assets WI-05, may further improve water quality treatment performance within the PSP. If the treatment from these trees was accounted for in the drainage strategy, it may be used to further reduce the size of the water quality assets and/or assist in meeting SEPP Schedule F8 objectives without needing a comparatively over-sized wetland.

It may also be possible to create a series of linear wetlands within the Deep Creek Eastern Floodplain, similar to the proposed swale. These water quality assets would be located within the waterway offset from Deep Creek. The concept design shown in Figure 1-2 could be refined at a later stage, however asset areas (sedimentation basins and constructed wetlands) could exceed areas currently proposed for WI-05. These assets may also:

- create new habitat for Growling Grass Frog;
- assist in meeting SEPP Schedule F8 objectives;
- contribute in the creation of a swampy environment, with plants selected from the local Ecological Vegetation Classes.

Whilst the design may need to comply with Melbourne Water's *Wetland Design Manual* and it would be appropriate to allow for design to be further refined at a later stage. Notwithstanding costs associated with crossing the existing gas mains, we consider this option merits consideration as an alternative to current Drainage Scheme proposals. It would maximise the land within the PSP available for development as the drainage reserve immediately north of Princes Highway would be reduced.



Figure 1-2 – Alternative Water Quality Treatment Train



2 VEGETATION MANAGEMENT

2.1 30 m Conservation Buffer

I understand that a 30 m buffer zone must be provided around all edges of the Deep Creek Conservation Reserve and must exclude buildings but may include roads, paths, nature strips, public open space and drainage infrastructure (R57). As aforementioned, the Planning Hearing Panel for Amendment C51 of the Wyndham Planning Scheme recognised that “situations may arise where it is appropriate to modify the extent of the 1:100 year floodplain”, provided that the proponent demonstrates that the “environmental values of the waterway will not be compromised”. The areas within the proposed 30 m conservation buffer for Pakenham East PSP generally have minimal vegetation to be retained, as shown in the Native Vegetation Precinct Plan (Ecology & Heritage Partners, Dec 2017). This buffer, if in addition to the 100 m water corridor, should be determined and based on existing environmental values.

2.2 Floodplain management

The existing native riparian vegetation along the eastern bank and floodplain of Deep Creek is patchy and in variable health. There are numerous dead trees, both within the ungrazed riparian reserve surrounding Deep Creek Road, and within the adjacent grazed paddocks. The poor tree health is likely to be caused by multiple factors, however, water stress due to lack of overbank flows is considered a likely major contributor to tree decline. More frequent watering is likely to improve the health of trees and associated shrubs and ground cover within this corridor. Whilst there may be an immediate loss of vegetation should significant re-landscaping of the riparian zone take place to reduce the 100 m waterway corridor, this may benefit the health of future floodplain vegetation and reinstate floodplain connectivity.

Floodplain connectivity has been reduced due to deepening and widening of the Deep Creek channel. Connectivity is also often limited by ‘levees’ adjacent to the channel. These levees are presumably mostly the result of spoil from past channel excavation and are typically present along the length of the creek except where the roadway passes close to the channel (Figure 2-1).



Figure 2-1 Absence of levees where roadway is close to the channel of Deep Creek

Alternatively, these locations where the road is close to the channel often have few trees and could be modified/lowered to facilitate the incorporation of offshore wetlands and retarding basins, as suggested in Section 1.2. With appropriate survey and design, it is likely that offtake and return swales could be located where little or no native vegetation would be disturbed.



3 SUMMARY AND CONCLUSION

Having reviewed the exhibited documentation pertaining to the proposed Amendment C234 to the Cardinia Planning Scheme, we consider that a 100 m waterway corridor width on the east side, is not warranted. The main conclusions from our review, described above, are as follows:

- Deep Creek is a highly modified waterway and its floodplains have limited natural values;
- It may be possible to modify the current 1% AEP Deep Creek channel, levees and floodplain to:
 - improve flood conveyance;
 - reduce erosion within Deep Creek in the long-term;
 - maximise the land within the PSP (increase Net Developable Area).
- Any modification to the Deep Creek riparian corridor would need to be supported by a detailed hydraulic study and, possibly, vegetation off-sets;
- A 50 m corridor (on the east side of the creek) is likely to be sufficient, as this is what has been allowed for at the downstream end of Deep Creek within the PSP;
- The retardation and water quality assets WI-05 is likely over-sized given proposed upstream land-use;
- Alternatively, linear wetlands may be constructed within the waterway corridor (instead of WI-05); and
- It may be possible to incorporate offstream wetlands and retarding basins with minimal or no loss of native vegetation.

We trust that the information provided as part of this submission includes sufficient details and supporting evidence. We look forward to working with the Victorian Planning Authority and Melbourne Water to explore the above alternative options and should we require additional two-dimensional (2D) hydrodynamic modelling, we anticipate we would require a minimum of eight weeks to build the model.

Should you have any queries following review of our submission by the Victorian planning Authority, please do not hesitate to contact me on 03 8526 0800 to discuss further.

Yours sincerely

Bertrand Salmi
Senior Engineer

Bertrand.salmi@watertech.com.au

WATER TECHNOLOGY PTY LTD



Cardinia Shire Council Planning Scheme Amendment C234.

I refer to Amendment C234 to the Cardinia Planning Scheme which has been placed on public exhibition in relation to the Pakenham East Precinct. The [REDACTED] would like to make our submission in 3 parts, forming one submission

Part 1 – Submission made by us via XWB Consulting

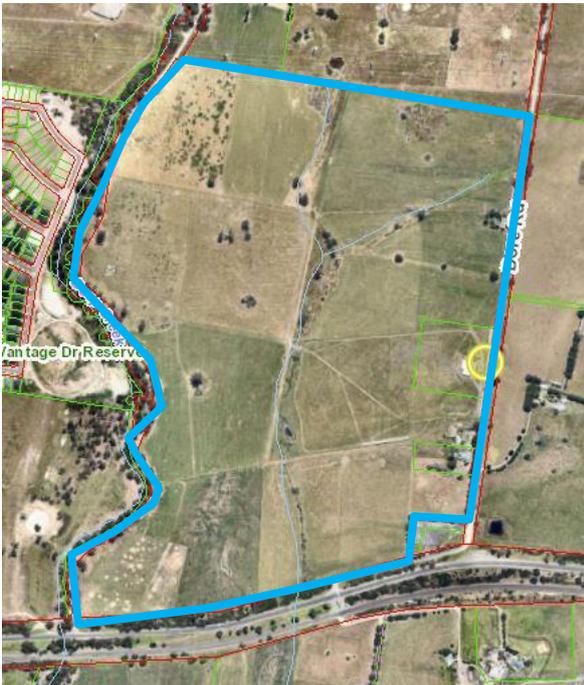
Part 2 – Submission made by us via Water Tech

Part 3 – Submission made by us [REDACTED]

Part 3 Submission made by us via [REDACTED] (Land Owner)

FINAL – 23RD February, 2018

Cardinia Shire Council Planning Scheme Amendment C234.



Property addresses : 45, 55 and 95 Dore Road Pakenham

Property No: 10, 11 and 14 Pak East PSP

The [REDACTED] have owned these parcels of land since 1902.(116 years) We wish to continue to live within the PSP and only want the very best outcomes for our children and our childrens children.

We have raised 12 items(below) that we would like to the VPA to consider prior to making further decisions on the Pakenham East PSP.

Item 1 – NVPP. We would like to **apply to the VPA for an extension of time** to further investigate the Native Vegetation that has been ear marked to be retained. At the time of going on public exhibition a number of "stags to be retained" were no longer standing. An arborist's report is required to assess all of the native vegetation. We request a further 6 weeks to complete this work?

Item 2 –Gateway site has constraint issues when combined with the gas line. - What are the gas infrastructure



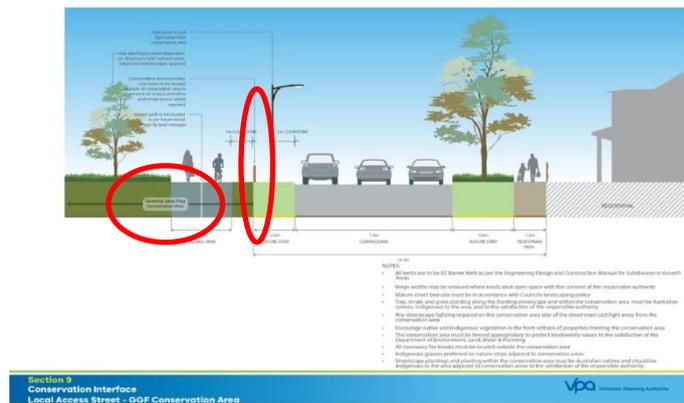
requirements as part of the PSP and what are the impacts on adjacent land uses/usability (particularly the small 'slithers' of land between gas easement and drainage reserves)? We ask the VPA to allow flexibility for a developer, to reach a mutual agreement to design and

construct the gateway site on more than the constrained “Slithers” that have been allowed. We ask the VPA to take this into consideration when considering R3 and its implementation. These constraints will make it difficult for a developer to “Establish an attractive and prominent entry to the precinct”. A reconfiguring of the location/orientation of drainage assets could provide the best land use outcome for the site (alternative orientation of retarding basins as per Water Tech report dated 22nd Feb, 2018).

Item 3 – Section 9 – We assume that this will be deleted?

Section 9 – “Growling Grass Frog conservation area”– Ecology and Partners 2018 report (page 7) states “frogs no longer occur in the study area”

R54 Development within any Conservation Area (other than Conservation AreaLocal) must be in accordance with the relevant Conservation Area Concept Plan (Figure 6 - Deep Creek Conservation Reserve Concept Plan). **R55** Development abutting the Deep Creek Conservation Reserve must be in accordance with the corresponding relevant Interface Cross Section in **Appendix C: Road Cross Sections**, to the satisfaction of the Department of Environment, Land, Water and Planning, and the responsible authority.



Is this another name for the drainage reserve (100m) that runs along deep Creeks eastern bank ?

As Ecology and Partners 2018 report (page 7) states “frogs no longer occur in the study area”, the requirements of R54 and R55 need to be amended as does **Section 9**. If the fence requirement remains within Section 9 then it should be at the full cost of the authority that will manage the said reserve, or added to the

ICP as an ICP funded item, given the land will be “gifted” to the managing authority via the PSP process

We seek clarification of the creek setback requirements: Is this for conservation or flood purposes only?

Item 4 - Setback on Eastern bank to be consistent with Western bank of Deep Creek

Objective 7 states ; Provide a sensitive interface to existing adjoining development, cultural heritage, post contact heritage and conservation areas.



This aerial photo shows the setbacks from Deep Creek to dwellings in the Cardinia Views Estate (western bank of Deep Creek). It’s interesting to note that some lots have a setback of less than 35m from the creek. In order to provide cohesion to the existing adjoining development, the creek setback to lots on the eastern side should be consistent.

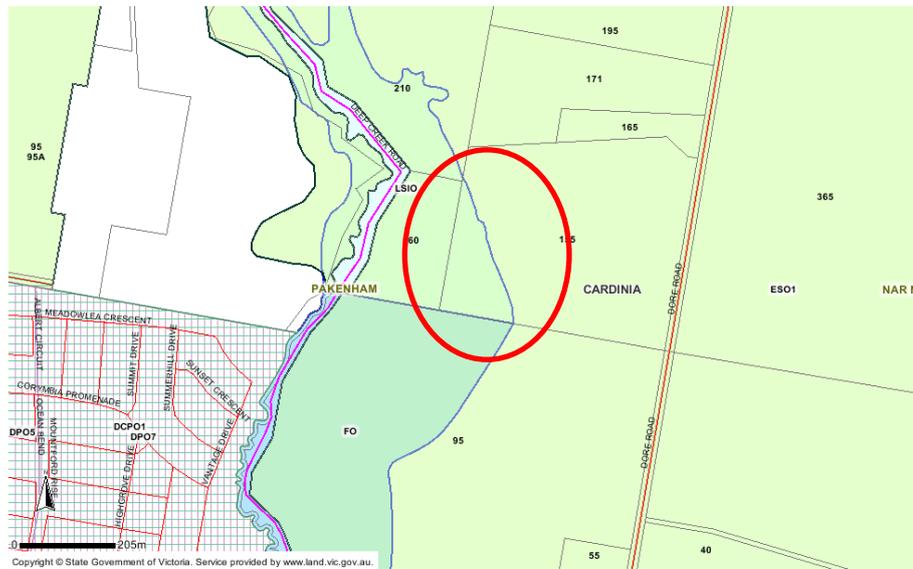
We once again ask the question for clarification of the creek setback requirements: Is this for conservation or drainage purposes?

Item 5 Correction of titles and the NDA

Prop No	Prop Size	areas of Non NDA	NDA	% NDA	PROPERTY ADDRESS	LEGAL ADDRESS
10	0.5	0.06	0.44	87.54%	95 Dore Rd	Lot 1 TP516329
11	0.66	0		100%	45 Dore Rd	Lot 1 PS512523M
14	71.96	0.33,3.01,12.2,3 4.59, 10.08		57.98%	55 Dore Rd	Lot 2 PS512523M
CORRECTION SHOULD READ AS FOLLOWS						
Prop No	Prop Size	areas of Non NDA	NDA	% NDA	PROPERTY ADDRESS	LEGAL ADDRESS
10	2	0	2	100%	55 Dore Road	(Lot 1 PPS815190y)
11	0.658		0.658	100%	45 Dore Rd	Lot 1 PS512523M
14	69.96	0.33,3.01,12.2,3 4.59, 10.08 ,0.06	39.66	56.68%	95 Dore Rd	(Lot 2 PS815190y)
		(.06 should be part of Prop 14)				

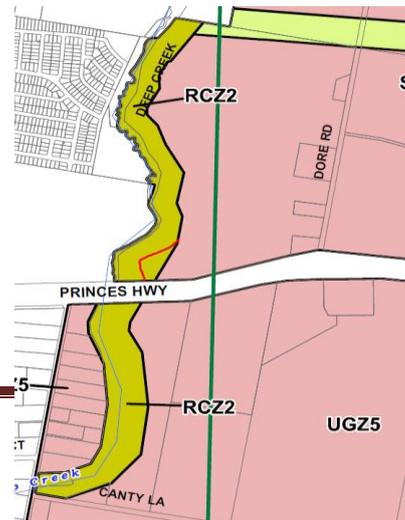
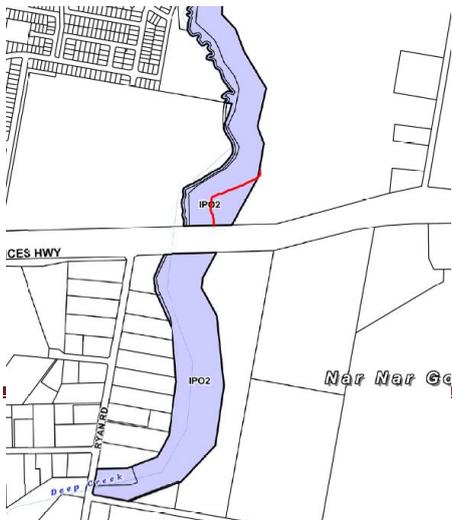
Item 6 – Map and Zone queries

a) Why has the LSIO that affects 155 Dore Rd (Property No 1) been removed? (Fig 1 – Transmission Easement concept)



Having farmed and lived on this parcel of land for 116 years, the [REDACTED] strongly believe that the flood overlay was never correctly mapped. The background reports have some of the overland flow completely incorrect due to topography of our property (in that water cannot run up hill). These errors affect some of the data fed into the models that have been prepared by Stormy Water Solutions.

b) **RCZ2** and **IPO2** do not follow the 100m setback from the creek and need to be correctly aligned or reduced. (see red line)



Can the lines be corrected to follow the correct offset from the Creek?

Item 7 - Submission Funding for Landowners

In order to make the best submission and to try and achieve the best outcome for the PSP, we (landowners) need access to funding. The VPA needs to create a funding scheme using GAIC funds for land owners who cannot fund their own submissions. The funds could be paid back at the point of sale in the future. Expert evidence, peer reviews and planning consultants are not cheap. We estimate an out of pocket expense in the order of \$100,000 to make a reasonable submission and panel representation.

Item 8 Cardinia Council difficulties

This process has been a frustrating exercise, trying to get information out of council (since 2012). 28 days is not adequate time to read and review all of the reports. Since the initial briefing in April 2014 we have been directed to deal with Ben Hawkins, Shelley Bennet, Scott Silbey, Phil Walton, Tamara Lowen & Craig Lyon all of whom no longer work at Cardinia Council. Apart from the one briefing in 2014, there has been little to no correspondence to land owners and no notice was given of the council meeting last year to approve the draft.

A developer in the area was able to obtain a demolition permit for a dwelling that was ear marked to have a heritage overlay as part of this PSP (Refer Pakenham Gazette Jan 2018). This provides further evidence of the fundamental flaws found within Cardinia Council. Land owners, within the PSP are appalled by the recent rumours that the same prominent developer is trying everything to push undesirable or unprofitable infrastructure onto other unsuspecting land owners within the PSP. The planning process should be a transparent process for **all** parties involved, not just those within the funding agreement.

Item 9 - Rates

We request that the VPA make allowances within the PSP for landowners wanting to continue farming and not develop – they should not be disadvantaged by the PSP and the effect it will have on their council rates. The Rates should be capped at current farming rates and only be adjusted when and if a planning permit is issued for a multi lot subdivision. This should be available to any person/s who has owned the land prior to Logical Inclusions 2008.

Item 10 - ICP, GAIC

We ask that the VPA make available to us information on the ICP and its structure when a large area of land will be taken up as an unencumbered sports reserve (SR-01) . After a brief discussion with Ben Hawkins, it would appear that there may be a need to have a valuation carried out on land to be acquired as open space. The point needing to be made here is that development on our land may be at least 6 years away and the value of land will increase over that time. We would like to ask that the VPA allow for any valuations to be carried out at the time of negotiating planning permits and associated S173, rather than at the time of the PSP gazettal. Whilst we have some understanding of both the ICP and GAIC we would like some more detailed information that is specific to our properties?

Item 11 – Drainage Scheme vs Drainage Strategy

Melbourne water has been in contact with us in relation to a Melbourne Water Scheme versus a Melbourne water Strategy. James Hodge of Melbourne Water on the 1st of Feb, 2018 explained that the Melbourne Water team had decided that our property should fall within a scheme, but that there could be a sound argument made for a strategy. James explained that at the time the submissions were due (23rd of Feb, 2018); the costs would not be known for the proposed scheme. This lack of information requires time for further investigation. We ask that the VPA allow negotiations as we are unaware of the benefits of being within the Drainage Scheme vs Drainage Strategy due to Melbourne Waters incomplete calculations.

Item 12 – Size of SR-01 (Sports reserve)

We would like to query if such a large open space reserve is required on our site given the significant reserves on the other side of the creek that will be connected via the pedestrian/cycle bridge (which will improve walkable access from the Pakenham East PSP to existing open space).

In 2016 Beveridge Williams (for Resi Ventures, with the permission of the [REDACTED] submitted a report to council. Part of the report addressed to excessive size of SR-01. Fig 3 – Sports Reserve 1 Concept Plan clearly shows the excessive amount of land not being utilised in the North West corner.

The State Government's Growth Areas Authority (GAA, now the VPA) prepared PSP Guidelines to meet the government's objectives for growth area communities (Precinct Structure Planning Guidelines Part 1 and 2, GAA, 2009). Part 1 of the Guidelines lists objectives while Part 2 provides relevant standards to achieve these objectives for a series of elements including 'Open space and Natural Systems'.

Objective 7 of the Guidelines is:

*"To deliver accessible, integrated and adaptable community infrastructure. Community facilities are **co-located** and integrated to enable shared community use and flexibility in service provision as the precinct evolves."*

This is further defined in the PSP Guidelines - Part 2 section 3.0 Relevant Standards 57 whereby:

*"Hubs of community facilities are co-located with district parks (incorporating ovals) in order to enable sharing and integration **between schools and active recreation space**. See Clause 56,05-2,"*

Furthermore, the **Pakenham East Precinct Structure Plan: Background Report** states;

"The provision of open space within the Precinct that will ensure a network of quality, well distributed, multi-functional and cost effective open spaces that cater for a broad range of users. Where possible, integrate open space with publicly accessible encumbered land."

The Pakenham East PSP identifies the reserve as Sports Reserve 01 at 10.4 hectares.

We have reviewed the overall distribution of active open space throughout the PSP and query why such a large amount of active open space is required in this particular area. It is not co-located with any other community facilities and therefore does not confirm to the objectives of the PSP nor to the state government's PSP Guidelines. An active open space reserve of this size, and isolated from other community facilities, does not contribute to creation of a compact and vibrant community.

In addition, we believe there is opportunity to reduce the size of the reserve and still achieve the desired recreational needs. There is also an opportunity to utilise some of the encumbered 100m creek reserve, particularly for sports field buffers. This would be a cost effective option with a reduction in land purchases required.



Figure 3. Active Open Space layout incorporating the facilities listed in the Draft PSP in an 8.2 Ha reserve.

The **PSP Guidelines - Part 2 Section 4, Element 5, Relevant Standard 55** state that active open space reserves are to be; *"Of an appropriate size, i.e. sufficient to incorporate two football/ cricket ovals, but small enough to enable regular spacing of active open space provision across the precinct. This configuration would generally require at least **eight** hectares.*

The PSP nominates Local Sports Reserve 01 at 10.4 hectares with inclusions to be 2 baseball diamonds, 1 rectangular turf field and 1 rectangular synthetic field. Based on the full size pitches required for soccer (which at 105m x 60m is larger than hockey fields) and Baseball Victoria's guide for baseball field dimensions (@1.1 hectares) the 10.4 hectare reserve will be **excessive** in area. Even accounting for buffers,

car parking, pavilion and other infrastructure there will be an oversupply of land for this reserve. The plan above (Figure 3) illustrates how the reserve could accommodate all proposed recreational facilities and infrastructure in an approximately 8.2 hectare reserve. There is ample space for future expansion of facilities. (See Figure 3).

We ask that the VPA considers a reduction in size of SP-01

Conclusion

We ask that the VPA take all 3 of our submission into consideration and work with us to try to come to an understanding and agreement on the best path forward. Ultimately we support the PSP, on the provision that our NDA is not reduced any further. We would fully support any consideration given to increasing our NDA. We look forward to hearing from you in the near future and once again ask for an extension of time in relation to an NVPP audit. If the VPA can confirm this request it would be greatly appreciated. We trust that all submission made will be available to all land owners to view in the interest of transparency.

With thanks

[Redacted Signature]

Land Owners

[Redacted Address]

PLAN OF SUBDIVISION

EDITION 1

PS 815190 Y

LOCATION OF LAND

PARISH: Nar Nar Goon

TOWNSHIP: ---

SECTION: ---

CROWN ALLOTMENT: 20 (Pt)

CROWN PORTION: ---

TITLE REFERENCE: Vol: 11147 Fol: 647 & Vol: 8239 Fol: 989

LAST PLAN REFERENCE: Lot 2 PS 512523M & Lot 1 TP 516329X

POSTAL ADDRESS: 55 & 95 Dore Road, Pakenham 3810
(at time of subdivision)

MGA CO-ORDINATES: E: 370 500 ZONE: 55
(of approx centre of land N: 5 786 550 GDA 94
in plan)

Council Name: Cardinia Shire Council

Council Reference Number: S17/113
Planning Permit Reference: planning permit not required
SPEAR Reference Number: S108612V

Certification

This plan is certified under section 6 of the Subdivision Act 1988

Statement of Compliance

This is a statement of compliance issued under section 21 of the Subdivision Act 1988

Public Open Space

A requirement for public open space under section 18 of the Subdivision Act 1988 has not been made

Digitally signed by: Simone Norbury for Cardinia Shire Council on 21/09/2017

VESTING OF ROADS AND/OR RESERVES

NOTATIONS

IDENTIFIER	COUNCIL/BODY/PERSON
Nil	Nil

This is a Spear Plan

Lot 2 is not the subject of this Survey.

NOTATIONS

DEPTH LIMITATION: DOES NOT APPLY

SURVEY:

This plan is based on survey.

STAGING:

This is not a staged subdivision.
Planning Permit No.

This survey has been connected to permanent marks No(s).

In Proclaimed Survey Area No.---

EASEMENT INFORMATION

LEGEND: A - Appurtenant Easement E - Encumbering Easement R - Encumbering Easement (Road)

Easement Reference	Purpose	Width (Metres)	Origin	Land Benefited/In Favour Of
E-1	Pipeline	24.38	Inst. D761565	Victorian Pipelines Commission C/T Vol. 8727 Fol. 144
E-2 & E-3	Pipeline	27	C/E K63318	Gas & Fuel Corporation.
E-4 & E-3	Transmission of Electricity	See Plan	Inst. 1107153	S.E.C.V.
E-5	Transmission of Electricity	See Plan	Inst. 2655861	S.E.C.V.
E-6	Gas Supply	See Plan	C/E AC984712H	Origin Energy Resources Limited.
E-7	Powerline	3.50	This Plan	AusNet Electricity Services Pty Ltd

NOBELIUS LAND SURVEYORS



P.O. BOX 461
PAKENHAM 3810
Ph 03 5941 4112
mail@nobelius.com.au

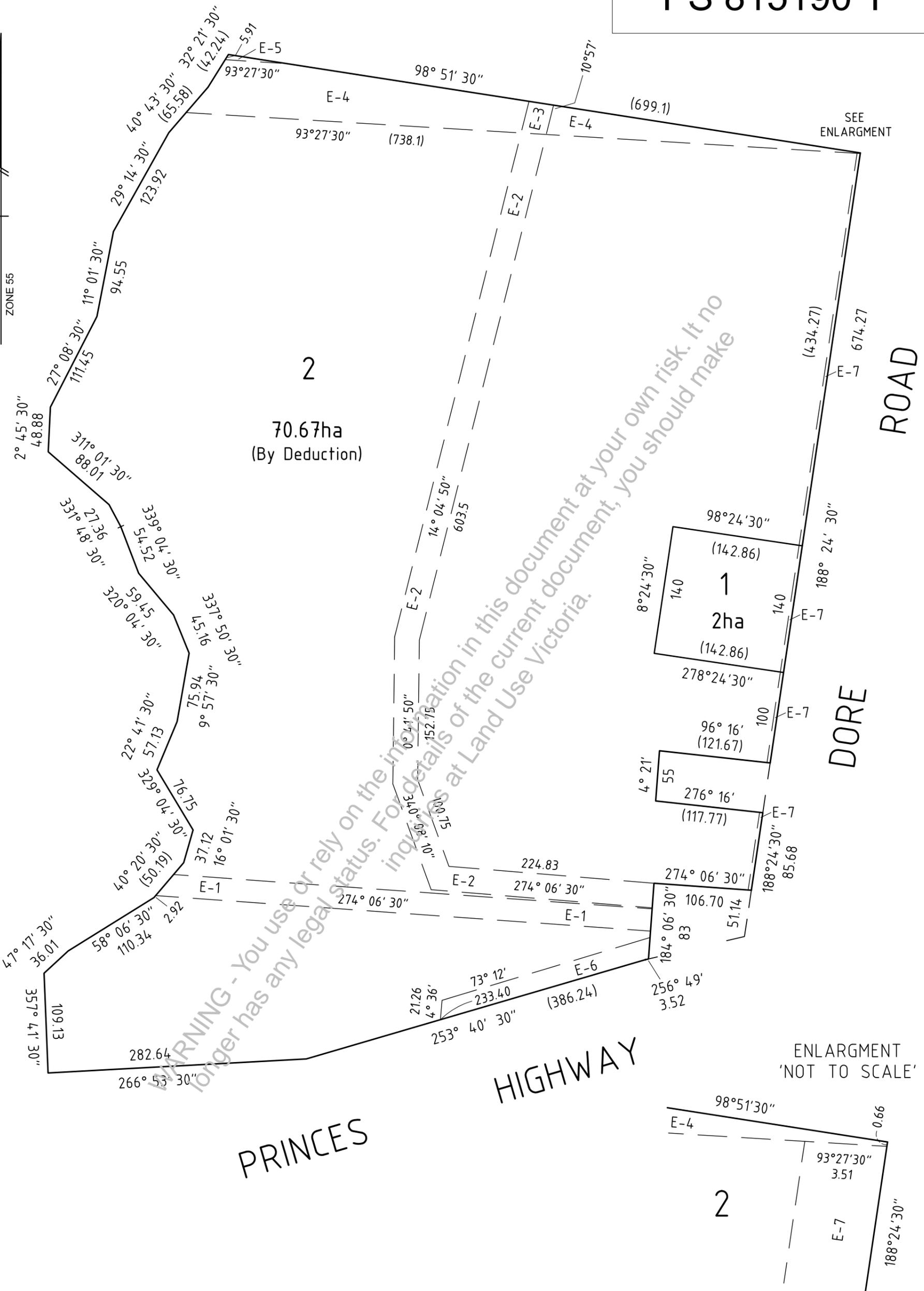
SURVEYORS FILE REF: 15976

Digitally signed by: Benjamin Stephen Nobelius (Nobelius Land Surveyors Pty Ltd),
Surveyor's Plan Version (Version B),
18/09/2017, SPEAR Ref: S108612V

ORIGINAL SHEET
SIZE: A3

SHEET 1 OF 2

Land Use Victoria Plan Registered
09:33 AM
05/12/2017
Assistant Registrar of Titles



PRINCES

HIGHWAY

DORE

ROAD

2
70.67ha
(By Deduction)

2

ENLARGMENT
'NOT TO SCALE'

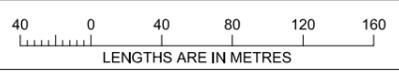
SEE
ENLARGMENT

NOBELIUS LAND SURVEYORS



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SCALE
1:4000



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Surveyor's Plan Version (Version B),
18/09/2017, SPEAR Ref: S108612V

ORIGINAL SHEET
SIZE: A3

SHEET 2

Digitally signed by:
Cardinia Shire Council,
21/09/2017,
SPEAR Ref: S108612V