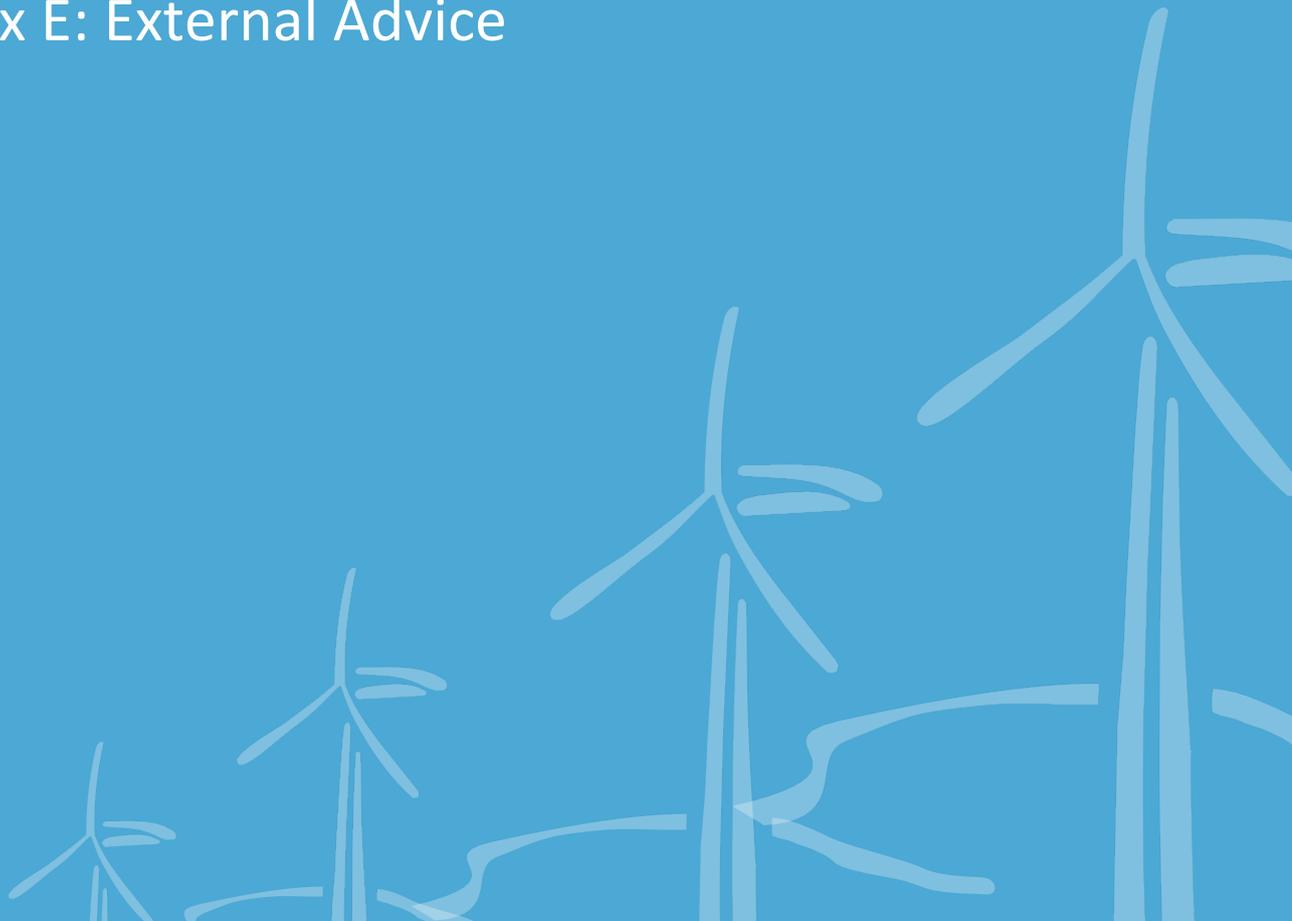


Golden Plains Wind Farm

Application to Amend Planning Permit PA1700266

Appendix E: External Advice



Golden Plains Wind Farm

Appendix E.1: Odonata advice on BMCP Conditions





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Samuel Marwood
CEO Odonata Foundation
sam@odonata.org.au
0408 356 042

Minister for Planning
C/- Department of Environment, Land, Water and Planning
8 Nicholson St
Melbourne, Vic, 3000

Dear Minister,

Re: Amendment to Planning Permit PA1700266

Odonata is a not-for-profit entity supporting biodiversity impact solutions. We create, support, nurture and empower businesses and entrepreneurs to move towards a more environmentally sustainable world. Our knowledge, trust and reputation have led to strategic collaborations with universities, businesses and NGOs. Odonata recently played the lead role in the delivery of the Dundonnell Wind Farm's Brolga Compensation Plan (BCP).

Since mid-2019, Odonata Foundation has worked closely with Golden Plains Wind Farm Management Pty Ltd (GPWFM) to develop and deliver the Brolga Monitoring and Compensation Plan (BMCP) for the Golden Plains Wind Farm ('the Project'). To date, Odonata's involvement has included critical review of the BMCP delivery model, wetland investigations and strategic advice on lessons learned through delivery of the Dundonnell BCP. Odonata will lead delivery of the GPWF BMCP and will ultimately be responsible for ensuring the Plan's success in providing enhanced breeding opportunities for the Victorian Brolga population.

The Planning Permit for the GPWF includes conditions 51 and 52 in relation to the BMCP. Of particular note are conditions 51e, 51f and 51g:

51. (The BMCP must):

e. specify the locations of historical and potential Brolga breeding wetlands that will be enhanced ('enhancement site')

f. include evidence of landholder agreements to participate in the breeding site enhancement project for its duration that will run with the land for the life of the project

g. include methods of enhancement appropriate to each enhancement site such as restoration of the natural flooding regime and controlled grazing or stock removal.

Similar conditions were placed on the original version of the Planning Permit for the Dundonnell Wind Farm and were subsequently amended to facilitate an improved delivery model for the Plan. The amendments allowed the Proponent to undertake more lengthy, detailed and rigorous site investigations which are critical in positioning the program for success.

The Dundonnell BCP was the first project of its kind and through reflecting on lessons learned, Odonata has identified a number of improvements which we believe will enhance the targeting and efficacy of environmental outcomes, reduce long-term uncertainty surrounding the ultimate meeting of 25 year permit conditions and provide a more streamlined pathway for approval and delivery for all parties.

Odonata recommends the following amendments to conditions 51e, 51f and 51g of the GPWF Planning Permit:

51. *(The BMCP must):*

e. include the principles for the selection of Brolga breeding wetlands that will be enhanced ('enhancement sites').

f. (Deleted)

g. include methods of enhancement which will be assessed at each enhancement site.

Add two new conditions:

- Prior to the commencement of works at each enhancement site, a signed copy of the Delivery Agreement/Agreements for the breeding site enhancement program must be submitted to the Responsible Authority.*
- Agreements for the breeding site enhancement program must extend for the duration of the life of the Wind Energy Facility.*

These recommended amendments will facilitate an improved site investigation and selection process, which will in turn yield higher-quality wetland enhancement sites. Identifying and selecting the highest quality sites will position the program for success in meeting its target of 'zero net impact' on the Victorian Brolga population.

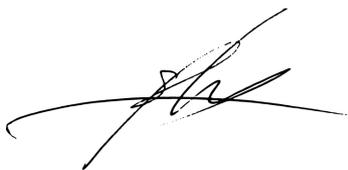
To supplement Odonata's own expertise, we have engaged independent wetland experts to aid the development of our advice for GPWFM. Our further advice, provided in the document below, has been developed with substantial input from Nature Glenelg Trust (NGT), a science-based non-government charitable organisation have an impressive history of delivering highly successful wetland restoration programs in western Victoria. At our request, NGT developed what we consider to be a model wetland restoration program for Brolga, entitled "*Best-practice 25 year wetland restoration program to support Brolga recruitment in Victoria*" ('the best-practice program'), which we have utilised extensively to assesses the existing conditions of the Permit and to identify additional areas for improvement.

This advice is intended to enable the implementation of the of the best-practice program via the BMCP, while concurrently minimising the nature and extent of permit condition amendments.

We have begun feasibility testing of our recommendations which, combined with our experience with Dundonnell, gives us high confidence in the proposed approach to delivering the best possible outcomes for Brolga recruitment and conservation over the life of the project.

I am happy to chat any time about the information contained in the attachment below, about our experience with Dundonnell and the best-practice program.

Yours Sincerely



Sam Marwood
CEO Odonata

Recommended Amendments to the planning permit number PA1700266

1 Wetland Enhancement Program Principles

The best-practice program identifies five key factors that influence the success of wetland enhancement programs:

- i. Implementation timeframes
- ii. Geographic scope
- iii. Site numbers
- iv. Landholder engagement
- v. Resourcing

Implementation Timeframes

Most on-ground environmental programs are, by nature of the finance that resources them, delivered over a 1 or 2 year period which in turn limits the amount and type of planning, preparation and consultation that can occur prior to actual 'on the ground' work commencing.

Wetland restoration programs are inherently complex, and short implementation timeframes can force wetland restoration outcomes against a fixed deadline that can lead to perverse outcomes such as:

- overlooking key site information and history which takes time to assemble, review and analyse;
- compromising landholder relationships, which require time to build (and do not respond well to being forced to work to arbitrary deadlines);
- funding of works at sub-optimal sites due to haste in securing sites; and
- distorting the cost of site access (in doing so, inadvertently increasing the cost of all future wetland restoration activities irrespective of how they are funded in the future).

In contrast, a program delivered over 25 years has an inherent advantage in that such short-term, artificially imposed timing constraints need not apply. Relaxing the usual timing constraints benefits how the program can be designed and delivered by:

- ensuring that a wide range of sites are assessed and reviewed;
- increasing the probability of identifying highly suitable sites more likely to support Brolga breeding;
- leaving open the possibility of including additional high priority sites that may emerge unexpectedly;
- identifying additional sites (perhaps not being specifically suitable for Brolga) that can be retained as candidates for future restoration through other enhancement projects; and
- ensuring that the program has the ability to access and restore additional (contingency) sites in the future, should it be necessary to restore additional wetlands to achieve 25 year targets for Brolga recruitment.

A 25-year program would proceed in phases across four key tasks, described in more detail in Section 3.

- Task 1: Program initiation and early planning, ahead of commencement.
- Task 2: Active program implementation (Years 1 to 5)
- Task 3: Site monitoring and management (ongoing from farmer sign-up to end of program)
- Task 4: Review and reporting (Annually for first two years and then every five years throughout, or as required by program)

Of note, the 'Active Program Implementation' is deliberately extended across five years which removes artificial timing constraints and allows the proper assessment of site conditions including restoration trials (if required) to test suitability of sites. The flexible implementation period also allows sites to be secured on a progressive basis as and when their suitability is confirmed.

Geographic Scope

A 25-year program can greatly benefit from adopting an inclusive, non-reductionist and ongoing approach to site selection which can be achieved by implementing dual strategies:

1. **Actively target key areas with a higher probability of success** by using broad desktop analysis to identify target landscapes that contain clusters of modified wetlands in proximity to known broлга breeding or flocking areas. Enhanced wetlands in such areas are more likely to be discovered and utilised by broлга pairs for future breeding, and this early analysis also allows the program to geographically target early community engagement and communications to generate interest in the program.
2. **Not exclude other potential sites that emerge during the program.** The program should leave open the possibility for securing suitable sites as and when they emerge, anywhere in the Broлга breeding range in western Victoria. Remembering that the landscape is littered with literally thousands of drained wetlands, it would be unwise to limit site selection using an inflexible set of geographic boundaries or arbitrary rules.

Odonata have conducted some high level spatial analysis to identify target landscapes across western Victoria. We have been able to identify potential target landscapes, each containing 10-20 potentially suitable wetlands which can be investigated in more detail during the early stages of the program.

Site Numbers

While a minimum number of wetlands must be restored as part of the program to meet permit expectations, we recommended that the total number of sites which can be assessed and included in preliminary site restoration feasibility testing are not limited. The benefits of this approach include:

- Increasing the probability of identifying highly suitable sites that are more likely to support broлга breeding;
- Leaving open the opportunity to include high priority sites that may emerge unexpectedly;
- The identification of additional sites that may be suitable for restoration in the future through other programs; and
- Ensuring the program has the ability to access and restore additional (contingency) sites in the future should it be necessary to restore additional wetlands to achieve the program's goals for Broлга recruitment.

Landholder Engagement

Consistent with the previous principles, it is important that the program is equipped with the widest range of potential tools for engaging with landholders, as their needs, expectations and support requirements vary greatly. This could range from the provision of restoration services at no cost, through to incentive payments, land purchase or any combination of these or other tools. Having fixed rules or methods for landholder engagement removes the program’s ability to tailor an agreement to the landholder’s needs, potentially limiting access to the widest range of sites.

Resourcing

Odonata understands GPWFM’s commitment to the site enhancement program, and this will ensure the Delivery Partner is independently resourced and sufficiently empowered to deliver the program to a high standard.

2 The ‘5+20’ program model

The program delivery model discussed in this advice assumes an extended and careful site investigation and selection phase that extends across the first 5 years of the 25-year program.

The table below compares the risks and benefits of the ‘5+20’ program model against the traditional rapid site selection model adopted for permit offsetting processes that typically require up-front site selection.

	5+20 program model	Rapid site selection model
Timeframe for site selection	Extended period of up to 5 years	Short and targeted site selection (6-12 months). There are many circumstances out of the control of the delivery agency which increase the risk of timelines extending further.
Cost for site access	Is usually minimised by: <ol style="list-style-type: none"> 1. removing the time pressure and urgency for landholders to sign up. 2. increasing the pool of potential sites that have been assessed. 3. building trust and getting to know the individual circumstances of each landholder, including time to educate them about the value of wetlands and wetland restoration. 	Is likely to be higher, unless pre-negotiated or the owner is already highly motivated, because: <ol style="list-style-type: none"> 1. urgency to sign up creates pressure on project managers and inadvertently creates a negotiation power imbalance in favour of the landholder. 2. less time means fewer sites will be assessed and available, reducing choice. 3. there has been no opportunity to build trust and/or educate, which is vitally important for projects with an NGO delivery model.
Advantages	<ul style="list-style-type: none"> • Capacity over time to assess and select from a much larger number of sites over a wider geographic area (a ‘wide-cast of the net’). • Ability to undertake restoration trial works to assess likely outcomes and build landholder relationships, before fully committing (try before you buy). • Flexibility, lack of urgency and open-ended outcomes to benefit the site enables genuine relationships and mutually benefit. 	<ul style="list-style-type: none"> • If suitable sites are found and landholders agree, site selection phase can be delivered quickly.



	5+20 program model	Rapid site selection model
	<ul style="list-style-type: none"> Given lower site access costs, more investment can go into on-ground outcomes (e.g. security of tenure, habitat management, monitoring, restoration works and protection activities). 	
Disadvantages	<ul style="list-style-type: none"> Site selection phase takes longer 	<ul style="list-style-type: none"> The nature of the conversation with the landholder is dictated by the timeframe from the outset, which distorts the conversation, the options that can be discussed and everything that follows. Money also needs to be spoken about very early, which inflates expectations. This often makes the approach to the landholder seem mercenary and commercially (rather than environmental outcome) driven. Higher landholder rejection rate – i.e. fewer sites will be assessed because the time required to build trust is not available, and the nature of the approach will put many people off.
Secondary benefits	<ul style="list-style-type: none"> Sites that are surplus to requirements can be either secured as “insurance sites” to increase the probability of meeting targets or, if not considered suitable for broilga, directed towards other current or future wetland restoration projects. In this way, the program will result in significant positive spin-offs that extend beyond its formal outputs or milestones, as it creates a pathway for additional positive wetland outcomes. 	
Risks		<ul style="list-style-type: none"> Rapid site selection increases the likelihood of poorer quality sites being selected, which in turn risks not meeting long-term program targets. Sites for wetland restoration are often valuable land, improved for other purposes. Convincing people to embark on the restoration journey takes time that is not available under this method.



**When does this model work best?
When is this model unsuitable?**

It works best in most circumstances when dealing with conservative landholders who place a high importance on personal relationships and trust, but especially when trying to meet complex ecological requirements or outcomes.

Having to meet a minimum set target for broilga recruitment is very difficult to guarantee, so we need to implement a method that increases the probability of successfully identifying and securing the very best sites. This means increasing choice through genuine and sincere communication with landholders to encourage participation, without giving false expectations or hope. Having alternative pathways available for sites that are not selected but still worthy of restoration is a major advantage.

In summary, it is well suited to complex ecological projects that are able to be delivered over longer timeframes, to account for the fact that biodiversity responses take time, are unpredictable, usually not linear, and subject to long-term bio-climatic trends.

This method works best when able to build on previous work and existing relationships (i.e. the groundwork has been done), but not when starting from scratch.

It is well suited to projects that have simple milestones or requirements (e.g. surrogate measures such as number of sites, length of fencing, measure of area treated), not sophisticated ecological outcomes with inherent uncertainty and a higher degree of difficulty to achieve (such as attracting broilga to breed and successfully recruit).

In summary, it is best suited to projects with tight timeframes and very simple outputs or milestones.

3 Planning Permit Conditions

Odonata has reviewed conditions 51 and 52 of the Permit in the context of the best-practice program and has identified the following amendments that will maximise the effectiveness of the site enhancement program, thus delivering the best possible outcome for the Victorian broлга population.

Current Permit Condition	Comment	Suggested Amendments
51. a) (The BMCP must) be implemented for the life of the Project.	No change recommended.	N/A
51. b) (The BMCP must) identify the location of potentially at-risk Brolga breeding, migration and flocking activities.	No change recommended.	N/A
51. c) (The BMCP must) include recommendations in relation to a mortality rate which would trigger the requirement for responsive mitigation measures to be undertaken by the operator.	No change recommended.	N/A
51. d) (The BMCP must) specify who is accountable for implementing the plan and the monitoring required under the plan	No change recommended.	N/A
51. e) (The BMCP must) specify the locations of historical and potential Brolga breeding wetlands that will be enhanced ('enhancement site')	Under the best-practice program, sites will be investigated and secured gradually over the first five years of the program, not prior to endorsement of the BMCP.	(The BMCP must) include the principles for the selection of potential Brolga breeding wetlands that will be enhanced ('enhancement sites').
51. f) (The BMCP must) include evidence of landholder agreements to participate in the breeding site enhancement project for its duration that will run with the land for the life of the project	<p>The BMCP should focus on setting the program up for success by establishing a framework for the site investigation and selection process, rather than encouraging the proponent to select sites that are 'quick' or 'easy' simply for the purpose of having the BMCP endorsed.</p> <p>Odonata submits that this approach will maximise the effectiveness of the site enhancement program by allowing sufficient time to undertake detailed investigations of a larger number of potential sites before selecting only the most appropriate sites for inclusion in the program. See Section 1 for further information.</p>	Delete condition and insert two new conditions. See below.
51. g) (The BMCP must) include methods of enhancement appropriate to each enhancement	Odonata recommends identifying the range of potential enhancement activities that will	(The BMCP must) include methods of enhancement which will be



Current Permit Condition	Comment	Suggested Amendments
site such as restoration of the natural flooding regime and controlled grazing or stock removal	be tailored to each enhancement site, as each site is selected.	assessed at each enhancement site.
51. h) (The BMCP must include) where appropriate, a program of appropriate fox baiting leading up to each breeding season	No change recommended.	N/A
51. i) (The BMCP must include) five-yearly performance targets for each enhancement site and the program as a whole, consistent with the outcomes of the Population Viability Assessment included in the Golden Plains Wind Farm EES, the zero-net impact objective (to be amended every five years depending on outcomes), and the data and recommendations in the plan	No change recommended.	N/A
51. j) (The BMCP must include) monitoring and reporting requirements, including public reporting after 1 year, 2 years, 5 years, 10 years, 15 years, 20 years and 25 years from when the plan is approved, on whether the plan is expected to achieve the 25-year zero net impact objective.	No change recommended.	N/A
N/A	Insert two new conditions.	<ul style="list-style-type: none"> • Prior to the commencement of works at each enhancement site, a signed copy of the Delivery Agreement/Agreements for the breeding site enhancement program must be submitted to the Responsible Authority. • Agreements for the breeding site enhancement program must extend for the duration of the life of the Wind Energy Facility.
52. Implementation of the Brolga Monitoring and Compensation Plan must commence before the development starts. Implementation must be to the satisfaction of the responsible authority in consultation with DELWP Environment Portfolio.	No change recommended. Odonata understands and recommends that formal engagement of the Delivery Partner and commencement of initial investigations into target areas/sites constitutes 'implementation' of the BMCP.	N/A



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4 Recommendations for BMCP

To ensure the BMCP reflects the intent of the amended permit conditions, Odonata recommends inclusion of the following in the BMCP.

Principles for Site Selection

Essential Criteria

The site:

1. is within the current brolga breeding range in western Victoria, and is adjacent, nearby or situated on a flight path to wetlands where brolga are still regularly sighted;
2. has clear evidence of modification through previous artificial drainage and the ability to reverse that artificial drainage without negatively impacting on neighbouring landholders, unless those neighbours also provide their specific consent;
3. has reliable water availability (i.e. not materially compromised as a result of upstream catchment and/or groundwater changes since artificial drainage occurred); and,
4. is owned by a party who, as a result of negotiations, is ultimately willing to directly participate in (or make their site available through an alternative mechanism) to the wetland restoration program for its duration.

Desirable Criteria

The site:

1. consists of either a large single wetland with diverse habitats, or multiple wetlands of different depths and character that can be restored;
2. has landowner commitment to be actively managed for conservation in perpetuity, over and above the duration of the Program;
3. is part of a larger wetland complex;
4. is adjacent to Protected Areas on public or private land, and/or would improve wetland condition across multiple sites or tenures.

Suggested Methods of Enhancement to be investigated at each site

- Earthworks to back-fill drains, re-established breached banks or build levies to protect neighbouring properties from inundation;
- Fencing to restrict or regulate grazing by livestock, to a standard, type and set-back that is suitable for Brolga;
- Revegetation and weed control (ongoing on an as-needed basis);
- Pest/vermin control (as-needed).

5 Conclusion

The Golden Plains Wind Farm BMCP has the potential to not only generate positive outcomes for the Victoria brolga population, but to also improve broader wetland values in western Victoria.

The proposed minor amendments to the Project's planning permit will allow the program to be delivered in accordance with industry best-practice and in a way that will maximise the program's positive impacts. Further, the proposed site investigation methodology has the potential to deliver additional benefit, by identifying and/or trialling additional site restoration opportunities for subsequent wetland enhancement programs that may be delivered and completed by other programs in the future.

Odonata submits that this program has a unique opportunity to learn from experiences to date, and provide an updated example of a best-practice 25-year wetland enhancement program, providing a template for the delivery of similar programs in the future.

Odonata strongly supports GPWFM's application to amend the Project's planning permit in accordance with Section 4 of this advice and is available to provide further support if required.

Golden Plains Wind Farm

Appendix E.2: CCMA advice on Surface Water Conditions



CMA Reference No: CCMA-F-2020-00204
Document No: 2
Planning Permit No: PA1700266
File No.: STP/02-0003
Date: 04 March 2020

Mr Michael Juttner
Manager Renewables
Department of Environment Land Water & Planning (DELWP)
8 Nicholson Street
East Melbourne Vic 3002

michael.juttner@delwp.vic.gov.au

Dear Michael

CMA Reference Number: CCMA-F-2020-00204
Re: Planning Permit Condition Query – Golden Plains Windfarm
Location Street: Colac-Ballararat Road Rokewood Vic 3330

The Corangamite Catchment Management Authority have met with West Wind Energy to discuss the planning permit conditions (Ref: PA1700266) set by the Authority.

As part of the discussions, West Wind Energy had a query regarding Condition No. 68 – *Access routes are to be designed to maintain access to turbines and associated infrastructure with flood depths below 300mm during construction and maintenance operations.*

They were unsure as to which sized flood event the condition related to. Although the Corangamite CMA did not write Condition 68, our understanding is that it should read:

*'Access routes are to be designed to maintain access to turbines and associated infrastructure with **1% Annual Exceedence Probability (AEP)** flood depths below 300mm during construction and maintenance operations.'*

This would be in line with the *Flood Safety Criteria for Vehicles in Australian Rainfall and Runoff Revision Project 10 (April 2010 & February 2011) Safety Criteria.*

Should you have any queries, please do not hesitate to contact Senior Floodplain Officer, Penny Reed, on 1800 002 262 or floodinfo@ccma.vic.gov.au. To assist the CMA in handling any enquiries please quote **CCMA-F-2020-00204** in your correspondence with us.

Yours sincerely,



Dr Geoff Taylor
Floodplain Statutory Manager

Cc: simonc@w-wind.com.au

The information contained in this correspondence is subject to the disclaimers and definitions attached.

Definitions and Disclaimers

1. The area referred to in this letter as the 'proposed development location' is the land parcel(s) that, according to the Authority's assessment, most closely represent(s) the location identified by the applicant. The identification of the 'proposed development location' on the Authority's GIS has been done in good faith and in accordance with the information given to the Authority by the applicant(s) and/or Council.
2. While every endeavour has been made by the Authority to identify the proposed development location on its GIS using VicMap Parcel and Address data, the Authority accepts no responsibility for or makes no warranty with regard to the accuracy or naming of this proposed development location according to its official land title description.
3. **AEP** as Annual Exceedance Probability – is the likelihood of occurrence of a flood of given size or larger occurring in any one year. AEP is expressed as a percentage (%) risk and may be expressed as the reciprocal of ARI (Average Recurrence Interval).

Please note that the 1% probability flood is not the probable maximum flood (PMF). There is always a possibility that a flood larger in height and extent than the 1% probability flood may occur in the future.

4. **AHD** as Australian Height Datum - is the adopted national height datum that generally relates to height above mean sea level. Elevation is in metres.
5. **ARI** as Average Recurrence Interval - is the likelihood of occurrence, expressed in terms of the long-term average number of years, between flood events as large as or larger than the design flood event. For example, floods with a discharge as large as or larger than the 100 year ARI flood will occur on average once every 100 years.
6. **LIDAR (Light Detection And Ranging)** is an optical remote sensing technology which measures the height of the ground surface using pulses from a laser. LIDAR can be used to create a topographical map of the land and highly detailed and accurate models of the land surface.
7. No warranty is made as to the accuracy or liability of any studies, estimates, calculations, opinions, conclusions, recommendations (which may change without notice) or other information contained in this letter and, to the maximum extent permitted by law, the Authority disclaims all liability and responsibility for any direct or indirect loss or damage which may be suffered by any recipient or other person through relying on anything contained in or omitted from this letter.
8. This letter has been prepared for the sole use by the party to whom it is addressed and no responsibility is accepted by the Authority with regard to any third party use of the whole or of any part of its contents. Neither the whole nor any part of this letter or any reference thereto may be included in any document, circular or statement without the Authority's written approval of the form and context in which it would appear.
9. The flood information provided represents the best estimates based on currently available information. This information is subject to change as new information becomes available and as further studies are carried out.

References

1. Guidelines for Development in Flood-prone areas. Melbourne Water 2007.
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2. Australian Rainfall and Runoff Revision Project 10 – Appropriate Safety Criteria for People April 2010.
http://www.arr.org.au/wp-content/uploads/2013/Projects/ARR_Project_10_Stage1_report_Final.pdf
3. Australian Rainfall and Runoff Revision Project 10 – Appropriate Safety Criteria for Vehicles February 2011.
http://www.arr.org.au/wp-content/uploads/2013/Projects/ARR_Project_10_Stage2_Report_Final.pdf

