



Office of Water

4 April 2011

Mr Daniel Cavallo
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Attention: Ben Eveleigh

Our ref : ER21461
Your ref: MP10_0190

Dear Mr Cavallo

MP10_0190 – Wet 'n' Wild Reservoir Road, Prospect – Environmental Assessment

I refer to your letter of 7 March 2011 seeking comment from the NSW Office of Water (NOW) on the Environmental Assessment (EA) for the above project proposal. I apologise for the delay in responding.

The NOW's comments on the EA are provided in Attachment A.

Contact Details:

If you require further information please contact Janne Grose on (02) 4729 8262 at the Penrith office.

Yours sincerely

Mark Mignanelli
Manager Major Projects and Assessment

NSW Office of Water Comments

Wet 'n' Wild Reservoir Rd, Prospect – Environmental Assessment

Water licensing requirements

The NSW Office of Water (NOW) is concerned that this major project proposal has not previously been referred to the NOW for comment. The NOW considers it is important that water licensing issues associated with this major project are resolved prior to approval being granted.

The NOW notes the site has a small roof area and high water use and irrigation water will be taken from the reuse pond (see Sections 4 and 4.1 of the Water Cycle Management Plan, Appendix B, page 19). It is also noted that approximately 95% of the annual irrigation demand (21 ML/year) of the theme park will be supplied from re-use of the collected stormwater stored in the wetland ponds (see Section 2.5, Appendix I, page 8). The proposal needs to demonstrate it can achieve this proposed water supply before approval is granted.

As the proposal includes water management structures, the proponent needs to provide the following details to the NOW to assist the NOW in its assessment of water licensing related issues:

- any existing structure/s (date of construction, location, purpose, size and capacity, the legal status/approval for existing structure/s).
- any proposal to change the purpose of existing structure/s.
- if any remedial work is required to maintain the integrity of the existing structure/s.
- the purpose, location and design specifications for any proposed structure/s.
- size and storage capacity of the structure/s.
- calculation of the Maximum Harvestable Right Dam Capacity (MHRDC).
- if the structure/s is affected by flood flows.
- any proposal for shared use, rights and entitlement of the structure/s.
- if the proposed development has the potential to bisect the structure/s.

The site is subject to the Farm Dams Policy. The proposed annual irrigation demand of 21ML/year is well in excess of the harvestable right for the site. The NOW's Farm Dams Assessment Guide provides details on Harvestable Rights and the calculation of the Maximum Harvestable Right Dam capacity (MHRDC). Dams capturing up to the harvestable right capacity are not required to be licensed. Harvestable Right dams can be located on hillsides, gullies and minor watercourses that do not have permanently flowing waters and which are first and second order watercourses in accordance with the Strahler system of stream ordering. The Strahler system of stream ordering of watercourses is based on 1:25 000 scale topographic maps. Please refer to:
http://www.water.nsw.gov.au/ArticleDocuments/35/trade_farmdams_do_you_need_licence.pdf.aspx.

The Harvestable Right gives landholders the right to capture and use for any purpose 10 % of the average annual runoff from their property. The Harvestable Right has been defined in terms of an equivalent dam capacity called the Maximum Harvestable Right Dam Capacity (MHRDC). The MHRDC is determined by the area of the property (in hectares) and a site-specific run-off factor.

The MHRDC includes the capacity of all existing dams on the property that do not have a current surface water licence. The location and estimated capacity of every dam must be shown. Any capacity of the total of all the dams on the property greater than the MHRDC may require a licence.

There are exemptions for dams related to the Harvestable Right. These include:

- Dams to control or prevent soil erosion;
- Dams to contain effluent and sediment;
- Flood detention basins;
- Dams built for environmental reasons (eg aesthetics, nutrient control, wildlife etc); and
- Dams which don't harvest runoff (eg. turkeys nest dams, ring tanks).

These exemptions are only applicable to the end use of the dam, even if the initial use is one of the above.

Please contact Mr Wayne Connors for water licensing queries on phone: 9895 7194 or after the 22 April on phone: 8838 7531.

Groundwater

The NOW notes groundwater extraction is not proposed as part of the project proposal (Section 4.11 of the EA, page 49). Groundwater in this area is saline and the prospects of using groundwater as a water supply are poor in this area. Groundwater would not be suitable as a water supply source for irrigation.

It is noted the proposed stormwater detention pond would be lined with impervious membrane to eliminate infiltration to groundwater (page 49). The NOW supports this safeguard measure, particularly as the Water Cycle Management Plan states "*the adjacent high risk and known areas of salinity make it clear that designs must not lift groundwater levels and bring increased salinity to topsoils*" (see Section 1.2.1, Appendix B, page 4).

The NOW notes that the proposed elevated water slides will be supported on deep foundations (see Section 4.3.2, Appendix N, Page 16). It is recommended the foundations consist of a material that is resistant to aggressive groundwater.

Blacktown Creek

The Environmental Assessment (EA) reports indicate that Blacktown Creek runs through the site. It is noted that Section 2.2 of the Water Cycle Management Plan (Appendix B) indicates that "*the Blacktown Creek is shown on topographical maps of the area as originating on the site and flowing off site at this location. On inspection of the site the creek is ephemeral and essentially a grassy swale with no defined bed and banks*". The NSW Office of Water (NOW) has reviewed aerial photography of the site and agrees with

the Water Cycle Management Plan that at this location the creek is a grassy swale and is not watercourse as defined under the Water Management Act.

The EA notes a significant portion of CPW is located within the natural drainage line and low point of the site where it is proposed to locate a stormwater detention pond and water treatment wetland for the theme park. The NOW recommends advice be obtained from the DECCW in relation to the proposed removal of CPW.

End Attachment A
4 April 2011