



Our Ref: PC/Q09074

13th December 2009

John Hooper
Broad Construction Pty Ltd
Level 3, 50 McDougall St
Milton QLD 4064

Ballina office
105 Tamar Street
PO Box 1465
Ballina NSW 2478
Phone: (02) 6686 3858
Fax: (02) 6681 1659
E-mail: ballina@jwarren.com.au

Brisbane Office
Suite 28 Cathedral Village
115 Wickham Street
Fortitude Valley QLD 4006
Phone: (07) 3257 2703
Fax: (07) 3257 2708
E-mail: brisbane@jwarren.com.au

Sunshine Coast Office
Phone: (07) 5437 0277
Fax: (07) 5437 0922
E-mail: sunshine@jwarren.com.au

Dear John,

RE: Status of adjacent wetlands - Bellbird Park State School

James Warren and Associates have been engaged by Broad Construction to provide an assessment of a mapped wetland occurring adjacent to the future Bellbird Park State School. The school site is comprised of two land parcels, being Lots 601 and 602 on SP218965 and is located on Brittain's Road, Bellbird Park.

The Bellbird Park State School development aims to comply with the requirements of the Green Building Council of Australia. In order to achieve this, a Wetland Management Plan must be prepared where the development site contains or is situated directly adjacent to a wetland. The EPA Referrable Areas Wetland mapping shows wetlands occurring within 100m to the east of the Subject land. James Warren and Associates visited the site on December 3rd, 2009 to complete an assessment of the wetland area and verify the EPA mapping.

The area in which the wetland is mapped was found to contain a waterway (Woogaroo Creek) flowing in a south-north direction. A moderate density of mature native trees was present, including Queensland blue gum (*Eucalyptus tereticornis*), Gum topped box (*Eucalyptus moluccana*) and Grey ironbark (*Eucalyptus siderophloia*). The waterway and its banks were found to be supporting riparian vegetation including (in addition to the previously mentioned species) Broad-leaved apple (*Angophora subvelutina*), Brisbane golden wattle (*Acacia fimbriata*), Swamp box (*Lophostemon suaveolens*) and Black wattle (*Acacia concurrens*). Heavy infestations of Chinese elm (*Celtis sinensis*) were also present.

Outside of the waterway, the remainder of the mapped wetland area was found to be strongly dominated by invasive pasture grasses (eg. Rhodes grass (*Chloris gayana*), Pidgeon grass (*Setaria sphacelata*), and African love grass (*Eragrostis curvula*). Other common agricultural weeds, such as Lantana (*Lantana camara*), Purple top (*Verbena bonariensis*) and Balloon cotton bush (*Gomphocarpus physocarpus*) were also prevalent. No hydrophytic

species were observed outside of the waterway bed. A dirt roadway also passes through the mapped wetland area and crosses Woogaroo Creek.

James Warren and Associates are of the opinion that the mapped wetland area does not represent a functional wetland due to heavy weed infestations and the absence of hydrophytic species. The area is more accurately described as a waterway with distinct banks. The implementation of a Stormwater Management Plan will adequately control the quality of runoff coming from the Subject site and prevent any potential negative impacts on Woogaroo Creek. It is therefore considered that a Wetland Management Plan is not necessary in this situation. In addition, the provision of a vegetated riparian buffer zone on the school site is unlikely to be effective, given the presence of third party land and weed infestations between the Subject site and Woogaroo Creek.

Please do not hesitate to contact us if you wish to discuss further.

Yours faithfully,

JAMES WARREN & ASSOCIATES PTY. LTD.

Per:

A handwritten signature in black ink, appearing to read 'J Warren', is written over a faint, light-colored rectangular stamp or watermark.

James Warren
MANAGING DIRECTOR