

16 Jul 2019

Our reference: 18255

Your reference:

The Directors

Great River NSW Pty Ltd  
Level 1  
2 Barrack Street  
Sydney NSW 2000

Dear Sirs

#### PROPOSED FILL, PENRITH LAKES INDUSTRIAL SUBDIVISION

I refer to our drawing number C2029 Revision 1 under project number 18255C (attached). This drawing shows depth of fill contours, which have been produced by comparing the proposed design surface of the 2013 -2015 two year plan to the surveyed natural surface.

This is to confirm that the total quantity of fill represented by this plan is 572,539 metric tonnes, which has been calculated by multiplying the raw volume of 260,245 cubic metres by a placed, compacted density of 2.2 tonnes per cubic metre.

Having regard for the area of fill to be placed (27.06 ha), we propose that the approved quantum of fill be rounded up to 800,000 tonnes comprising:

572,593 t	raw calculated fill
119,064 t	0.2m allowance for survey inaccuracy over 27.06ha at 2.2t / ha
108,343 t	additional allowance to allow for subgrade settlement and general contingency
800,000 t	Total

We expect the above to take around 3 years depending on availability of fill.

Should you have any questions in regard to the above, please contact me on 0402457028 or by email at stuart@gca.net.au

Yours sincerely,

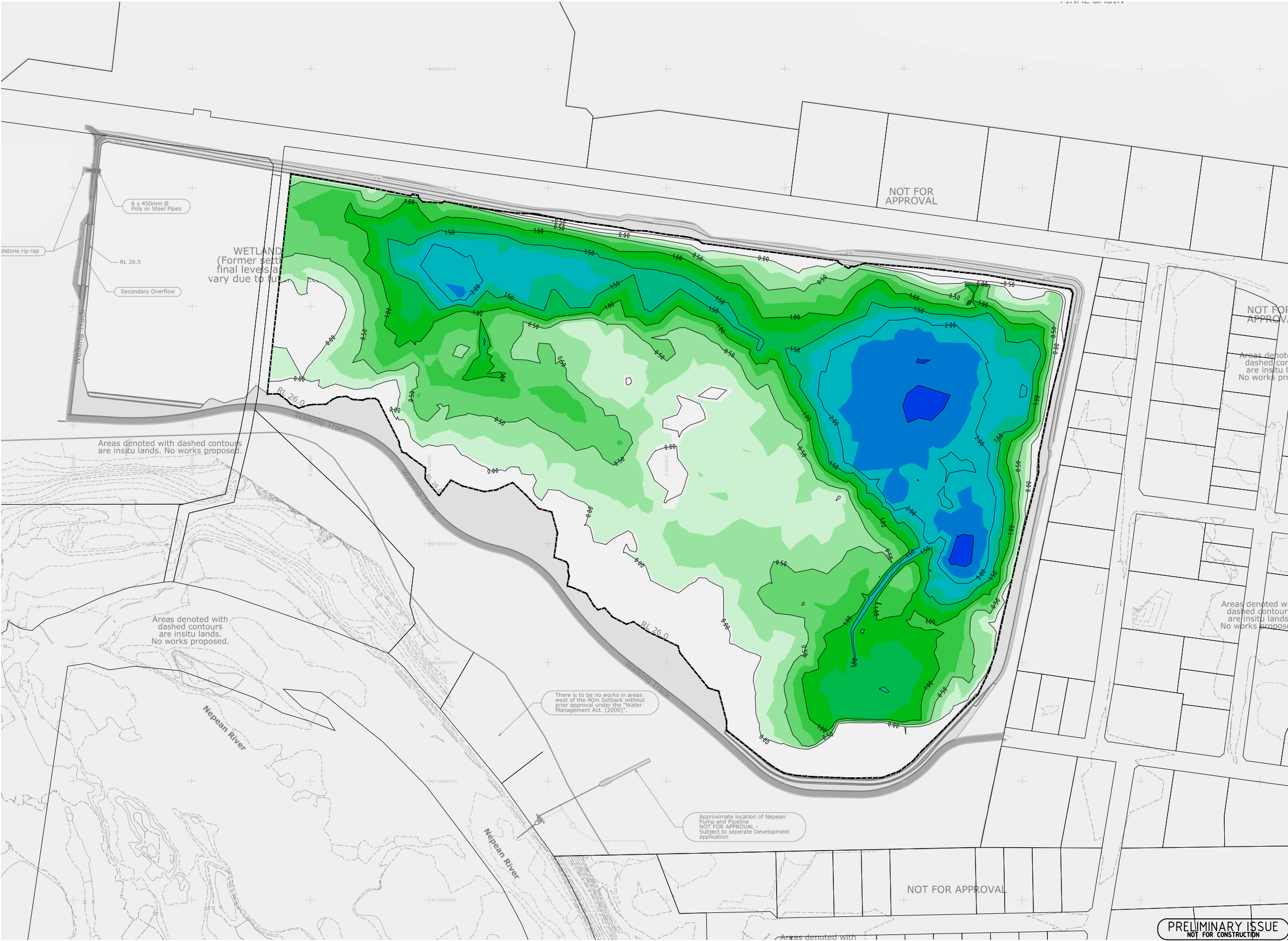
A handwritten signature in black ink, appearing to be 'Stuart Holle', enclosed within a circular stamp.

Stuart Holle  
*Principal Civil Engineer*  
GCA Engineering Solutions

FILL DEPTH LEGEND				
LOWER		UPPER		COLOUR
-3.00	to	0.00	m	
0.00	to	0.025	m	
0.025	to	0.25	m	
0.25	to	0.50	m	
0.50	to	0.75	m	
0.75	to	1.00	m	
1.00	to	1.25	m	
1.25	to	1.50	m	
1.50	to	1.75	m	
1.75	to	2.00	m	
2.00	to	2.25	m	
2.25	to	2.50	m	
2.50	to	2.75	m	
2.75	to	3.00	m	
3.00	to	300	m	

APPROXIMATE FILL VOLUME TO RL26.00:

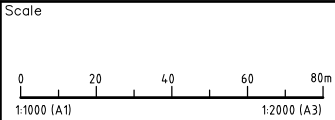
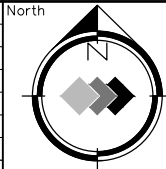
FILL = 260 000 m³



1	ORIGINAL ISSUE	AS	AS	04.07.19	
Amendment	Description	Drawn	App'd	Date	

PLOT DATE: 16/07/2019 2:59:31 PM

CAD FILE: Q:\18\18255 Penrith Lakes Industrial\02\_CAD\AutoCAD\Civil\2000 Civil Plan EW\18255 C2090 r1.dwg



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Designed AS	Cad Reference 18255 C2090 r1
Scale 1:2000	A1 SHEET
Project Approval IAN HILL (B.E) Consulting Civil Engineer	

Client
Approximate location of Nepean Pump and Pipelines NOT FOR APPROVAL - Subject to separate Development application

**GCA**  
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PO BOX 3337, THORNTON NSW 2322  
PHONE: (02) 4964 1811

PENRITH LAKES EMPLOYMENT LAND		Project No 18255C
PLDC TWO YEAR PLAN		Drawing No C2090
FILL VOLUME		Revision 1