

J. Wyndham Prince

CONSULTING ENGINEER

GIO Building, Level 1
83 - 85 Henry Street
PENRITH NSW 2750

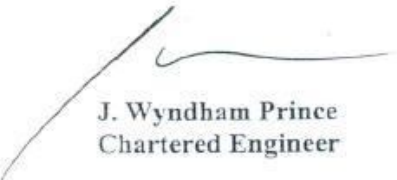
P.O. Box 795, PENRITH NSW 2751
DX 8032 PENRITH
Telephone: (047) 323 366
Fax: (047) 217 638
Email: jwp@pnc.com.au

23 September, 1997

RE: TESTING TUFF TURF SHEAR STRENGTH

Tuff Turf is a product produced by growing grass through a HDPE netting. The netting used is UV Stable (20 years full sun) and had a high shear strength. Flume testing that simulates spillway conditions was carried out at Richmond using a 400 mm flood pump drawn by a 100 hp motor. On a slope of 2.5 to 1 (representing 0.4 m fall per metre) with a flow of 600 litres per second, the pump produced flows ranging in depth from 240 mm to 200 mm.

The product tested had been in place for 7 days and the test lasted 18 hours. Using the lower flow depth of 200 mm gives a shear stress of 784 N/metre sq.



J. Wyndham Prince
Chartered Engineer

CONSULTING CIVIL ENGINEER

J. Wyndham Prince & Associates Pty. Ltd. A.C.N. 002 671 016

Prospect Electricity Building
Cnr. Henry & Station Streets
PENRITH NSW 2750

P.O. Box 795, PENRITH NSW 2751
DX 8032 PENRITH
Telephone: (047) 323 386
Fax: (047) 217 638

JWP;bl
16 June 1993

Walkers Civil Engineers

ATTENTION: Mr. Craig Williams


Re: Tuff Turf Trial - Mt Annan 19/3/1993

A flume was constructed on the batter of a large dam with a slope of 2:1. The flume had been lined with Tuff Turf as supplied by George Barnes of Naturelink Environmental Services.

A 6 inch pump was used to discharge water down the flume. Water flow rates five metres/second was observed.

The pump was operated all day (8 hours) and the Tuff Turf which had been laid eight days prior remained in tact and in place.

Yours faithfully
J. WYNDHAM PRINCE & ASSOCIATES PTY. LTD.


J. WYNDHAM PRINCE
Superintendent

CONSULTING CIVIL ENGINEERS
