

**Belinda Scott**

---

**From:** Stanley Rees <stan.rees@crownland.nsw.gov.au>  
**Sent:** Friday, 21 November 2014 10:32 AM  
**To:** Belinda Scott  
**Cc:** Paul Layt  
**Subject:** Re: Water Intake & Pipeline - Nepean River for Penrith Lakes Scheme

Belinda

Apologies for not getting back sooner, but further to the comments made previously, I provide 2 additional points 7. & 8. below for consideration as practical.

7. Figure 8.4 for a 10 year Average Recurrence Interval shows relatively high peak velocities of 4-5 metre per/second in the vicinity of the proposed intake structure.

This section of the river is on the outside of a natural meander, and it is likely that the bed and bank profile of the river at this locality may alter during flood events.

Hence, the intake structure and supporting infrastructure need to be sufficiently robust to withstand such events over the long term .

8. It is noted in Appendix E - Concept Sketches (e.g. weir 3) that it is proposed for weirs and inlet/outlet structures are to be constructed using reno mattresses and/or rip rap. Given that reno mattresses are effectively heavy wire baskets, with a definite life span, there would need to be an enduring inspection and maintenance program for such structures during the life of the scheme, to ensure that the structures are stable. Further, adjoining natural river banks and/or constructed soil banks may also be affected if structures are damaged and require additional protection from water flows of high volume and/or velocity.

Regards

**Stan Rees** I Natural Resources Management Project Officer I Crown Lands  
**NSW Trade & Investment**

Level 2, 2-10 Valentine Avenue, Parramatta 2150 I PO Box 2185 Dangar NSW 2309  
T: 9842 8327 I E: [stan.rees@crownland.nsw.gov.au](mailto:stan.rees@crownland.nsw.gov.au)

**Stan Rees** I Natural Resources Management Project Officer I Crown Lands  
**NSW Trade & Investment**

Level 2, 2-10 Valentine Avenue, Parramatta 2150 I PO Box 2185 Dangar NSW 2309  
T: 9842 8327 I E: [stan.rees@crownland.nsw.gov.au](mailto:stan.rees@crownland.nsw.gov.au)