



Department of Primary Industries

OUT13/4160

28 FEB 2013

Mr Alexander Scott
Infrastructure Assessments -Water
NSW Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Alexander.Scott@planning.nsw.gov.au

Dear Mr Scott,

**Chaffey Dam augmentation and safety upgrade (SSI-5039)
Response to exhibition of Environmental Impact Statement**

I refer to your letter of 11 December 2012 requesting advice from the Department of Primary Industries (DPI) in respect to the above matter, and to the referral by email of additional drawings on 23 January 2013.

Fisheries NSW comment

Fisheries NSW advise the comments detailed in Attachment A.

For further information please contact Matthew Gordos, Senior Conservation Manager (Tamworth office) on 6626 1395, or at: matthew.gordos@dpi.nsw.gov.au.

NSW Office of Water comment

The NSW Office of Water advise the comments recommended conditions should the application be approved, detailed in Attachment B.

For further information please contact Mark Simons, A/Manager, Major Projects and Mine Assessments (Newcastle office) on 4904 2572, or at: Mark.Simons@water.nsw.gov.au.

Crown Lands comment

The proposals have direct impact on the Bowling Alley Point Recreation Area, a Crown reserve. Crown Lands advise:

- (i) Crown Lands is agreeable to the proposal to relocate the facilities contained within the reserve, including boat ramp, picnic tables and chairs, barbeques, toilet facilities and camping areas.
- (ii) it is noted that the State Water Corporation, as the proponent, is to engage a consultant to prepare a Recreation Continuance Plan for Bowling Alley Point. The preparation of this Plan and the future planning of the recreation ground generally should be noted in the assessment of this application and included as a condition should the proposal be approved.

NSW Department of Primary Industries
Level 6, 201 Elizabeth Street, Sydney NSW 2000
PO Box K220, Haymarket NSW 1240

Tel: 02 8289 3999 Fax: 02 9286 3208 www.dpi.nsw.gov.au ABN: 72 189 919 072

- (iii) it should also be recorded that the Bowling Alley Point Recreation Area is important to the local economies of the villages of Woolomin, Nundle and the city of Tamworth. A reduction in the capacity of the campground may negatively impact the businesses within these areas. The proposed Recreation Continuance Plan should ensure that the standard of the current facilities is maintained.

For further information please contact Leanne Dunstan, Senior Natural Resource Management Officer (Tamworth office) on 6764 5146, or at: leanne.dunstan@lands.nsw.gov.au.

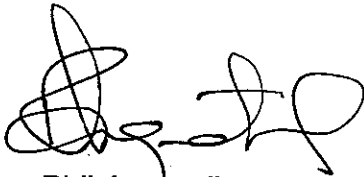
Other advices

There are no agricultural or forestry issues.

For further information in relation to forestry matters please contact Jude Parr, Land Administration Officer (Wauchope office) on 6586 9718, or at: judep@sf.nsw.gov.au.

For further information in relation to agriculture matters please contact Andrew Scott, Resource Management Officer (Tamworth office) on 6763 1142, or at: andrew.scott@industry.nsw.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Phil Anquetil', with a stylized, cursive script.

Phil Anquetil
Executive Director Business Services

Attachment A

Chaffey Dam augmentation and safety upgrade (SSI-5039) Response to exhibition of Environmental Impact Statement (EIS) Comment by Fisheries NSW

Fisheries NSW is responsible for ensuring that fish stocks are conserved and that there is "no net loss" of key fish habitats upon which they depend. To achieve this, Fisheries NSW assesses activities in accordance with the objectives of the *Fisheries Management Act 1994*, the aquatic habitat protection and threatened species conservation provisions in Parts 7 and 7A of the Act, and the associated *Policy and Guidelines for Aquatic Habitat Management and Fish Conservation*. In addition Fisheries NSW is responsible for ensuring the sustainable management of commercial fishing and quality recreational fishing opportunities within NSW.

General Comment

The primary potential impacts of the proposed project on aquatic biodiversity and health are changes to the Peel River flow regimes, cold water pollution, loss of upstream lotic habitat, and decreased water quality through pollution. Fisheries NSW has reviewed the EIS and believes that it adequately addresses these issues with regards to potential impacts on soil, water, and biodiversity, provided the comments below are incorporated into the final assessment of the application.

Specific Comments

- Fisheries NSW notes that two of the proposed borrow areas for core material located downstream of Chaffey Dam are within close proximity (less than 30m) to the Peel River. Fisheries NSW recommends that material taken from borrow areas be limited to land located above the 1:20 flood level and at a distance greater than 30 m from the waterway and requests confirmation that the borrow pits will be backfilled with suitable material to natural bed levels and subsequently revegetated. The justification for this recommendation is to limit future erosion and scouring during high flow events and to limit the potential for channel realignment.
- Referring to Page 67 of the EIS (listing stakeholder consultations), it should be noted that Fisheries NSW provided advice to the Department of Planning and Infrastructure on the adequacy of the draft EIS, by letter dated 23rd November 2012.
- Cold Water Pollution (CWP) has a significant negative impact upon downstream aquatic environments of large dams. Fisheries NSW supports the recommendations of the NSW CWP Interagency Group (2012) to meet the requirements of the *Water Management Act 2000* in regards to CWP releases from Chaffey Dam (p. 157). Monitoring of water temperatures downstream of Chaffey Dam relative to nearby control tributaries is requested in order to determine the extent of CWP with regards to temperature depression and the distance downstream CWP extends. The extent of water quality / temperature monitoring should be detailed in a monitoring plan for review by respective agencies including Fisheries NSW and NSW Office of Water. Selective withdrawal of water from the hypolimnion should be discouraged where possible.
- The proposed waterway crossing designs at Bowling Alley Point Bridge, Hydes Creek Bridge, and Silver Gully should be provided to Fisheries NSW for assessment. Bridges proposed for Hydes Creek and Bowling Alley Point are consistent with the waterway classifications as presented within the EIS.
- Fisheries NSW should be afforded the opportunity to review the draft Construction Environmental Management Plan prior to finalisation.

- Removal of large woody debris (LWD) is listed as a Key Threatening Process within NSW. Fisheries NSW should be notified a minimum of 3 days prior to any removal of LWD. Fisheries NSW supports the LWD mitigation measures listed on p. 173 of the EIS.
- Fisheries NSW supports the EIS recommendations for revegetation of riparian zones above the FSL where possible. Fisheries NSW recommends that where stock are present, riparian plantings be protected by fencing.
- Fisheries NSW welcomes the development of a Water Release Management Plan and operational plan for the use of the Environmental Contingency Allowance and requests that it be consulted regarding the process.
- Fisheries NSW supports the review of the Chaffey Dam Variable Offtake Management Protocol and requests that it be consulted during the process.
- The proposed mitigation measures in Section 8.13 Hazards and Risks should indicate that fuels, lubricants, and chemicals should be stored no closer than 30 m to waterways and be adequately bunded at all times.

End Attachment A

Attachment B

Chaffey Dam augmentation and safety upgrade (SSI-5039) Response to exhibition of Environmental Impact Statement (EIS) Comment and recommended conditions by NSW Office of Water

1. Growth in Use

The EIS suggests the project will decrease the percentage of time that Tamworth may experience water restrictions, and increase the probability of water allocations for General Security users. Both of these actions could trigger a growth-in-use response strategy within the Peel River system under the rules established by the *Water Sharing Plan for the Peel Valley Regulated, Unregulated, Alluvium and Fractured Rock Water Sources 2010* (Peel WSP) and within the Namoi River system under the rules established in the *Water Sharing Plan for Upper Namoi and Lower Namoi Regulated River Water Sources 2003* (Namoi WSP). This would require either:

- the introduction of a growth-in-use response strategy within the Peel System;
- the introduction of a growth-in-use response strategy in the combined Namoi/Peel system; or
- a reduction in flow volumes reaching the Namoi Regulated River system, resulting in a reduction in reliability of supply for users in this system.

Both the Peel WSP and the Namoi WSP contain a growth-in-use response strategy. Both of these plans are constrained by a Long Term Average Annual Extraction Limit (LTAAEL), which was established to meet NSW's commitment to compliance with the Murray Darling Basin Cap. In the case of the Peel Valley, the LTAAEL corresponds to the use of water under 2007/2008 levels of development; while for the Upper and Lower Namoi systems, the 1999/2000 levels of development are used to determine the LTAAEL. Both plans recognise that the current level of water use by the City of Tamworth for urban water supply may increase. To ensure compliance with the LTAAEL for each plan, any growth in use by the City of Tamworth will result in a corresponding reduction in water allocations for other users, with 95% of this impact being borne by water users in the Upper and Lower Namoi, and 5% being borne by water users in the Peel.

The impacts on these users are not quantified in the EIS, but Tamworth City Council holds 16,400ML/yr of entitlement, and its average annual use is about 5000ML. This means that growth within the urban water entitlement of up to 11,000ML is possible. This amount of growth could result in an impact on Supplementary Water Access Licences in the Lower Namoi of approximately 9%, and an impact on general security water use in the Peel Regulated system of approximately 8% of the current average use.

2. Construction Phase Water Allocation Impacts

The EIS suggests that a 2 metre drawdown may be required during the project construction.

First, such a drawdown is not written into the provisions of the Peel WSP. Therefore, to operate the storage in a manner inconsistent with the provisions of the WSP may require the plan to be suspended. NOW is seeking legal advice on this issue.

Second, this drawdown may result in a decrease in availability of water to downstream users, depending on subsequent dam filling and spilling cycles.

Given these two reasons, the Office of Water is concerned that this action may trigger compensation under the Peel WSP, and the consequences of this action have not been adequately explored within the EIS. The EIS suggests that this drawdown may commence in May 2014. To ensure the allocated water can be delivered, the Office of Water would be required

to take into account this release in making allocation announcements at the start of the 2013/2014 water year, and the storage would still be drawn down at the commencement of the 2014/2015 water year. As a result significant restrictions for General Security Licence Holders (reductions in allocation of up to 28%) may be expected for a period of at least two years. Although Chaffey Dam is considered to have reliable inflows, there still exists a risk that climatic conditions may result in an extended period of storage drawdown, with water allocations being reduced until the next storage spill.

The Office of Water recommends that further information regarding the risk to users as well as a detailed consultation with water users within the Peel System be undertaken prior to commencement of this part of the project. In addition, it is recommended that alternatives to requiring a two metre drawdown, including engineering solutions (such as a coffer dam around the spillway) and reducing the drawdown (and hence time to prepare in the event of a significant rainfall event). Finally, consideration should be given to requiring a bond to cover the likelihood of any compensation claims.

3. Upstream Inundation Impacts

The likelihood of increased algal blooms, as a result of breakdown of organic matter during the submergence and infilling stage, and the potential for impact on water supply for the City of Tamworth and for downstream environments has been discussed in the EIS. Consideration should be given to a regular sampling program for algal blooms. Algal management downstream should also be addressed through appropriate offtake levels and operational protocols.

The EIS discusses the loss of riparian zone vegetation as a result of the project. The Office of Water recommends a condition requiring a plan for the establishment of new riparian zone vegetation above the new full supply level for the storage.

4. Recommended Conditions for any approval

1. Prior to commencement, the proponent should consult with licence holders within the Peel Valley regarding the requirement for drawdown of the storage during construction. This consultation should clearly explain:
 - the need for the drawdown of water, including other options available
 - the likely reductions in water availability as a result of the drawdown
 - the length of time such reductions in availability are likely to occur
 - the risk of ongoing drought following the drawdown, and likelihood of ongoing impacts on water availability.Following consultation, the proponent should seek agreement from affected licence holders that they accept the potential for drawdown impact and waive future claims for compensation as a result of the drawdown impacts.
2. Algal management procedures associated with the storage should be reviewed and updated to deal with the additional capacity of the storage and changes to the storage offtake. These procedures should include:
 - a water quality sampling strategy, including monthly sampling throughout the year, increasing to fortnightly sampling during summer
 - an increase in sampling frequency to weekly if a "red alert" level is detected for blue green algae
 - a strategy for management of downstream water quality, through the use of the variable offtake structure. The strategy should address both water temperature and water quality management
3. Prior to commencement, a plan should be developed to re-establish riparian zone vegetation, to replace that submerged by the augmentation