



**Department of
Primary Industries**



OUT12/9536

22 MAY 2012

Ms Diane Sarkies
NSW Department of Planning and Infrastructure
GPO Box 39
Sydney NSW 2001
Email: diane.sarkies@planning.nsw.gov.au



Dear Diane

**Re: North West Rail Link - Notice of Exhibition
Staged State Significant Infrastructure Modification (MP 06-0157)
State Significant Infrastructure Application - Major Civil Construction Works (SSI-5100)**

Reference is made to your letter dated 3 April 2012 inviting comment on the proposal and seeking advice on recommended conditions of approval, in reference to the Environmental Impact Statement currently on public exhibition.

Your letter was to the attention of Fisheries NSW, an agency within the Department of Primary Industries (DPI); and Mineral Resources, an agency now within the broader NSW Trade and Investment department. It is noted that a separate referral was made to the NSW Office of Water which is now an agency within DPI.

This letter provides the advices of Fisheries NSW, as well as relevant advice from Agriculture NSW and Crown Lands which are also part of DPI. There are no implications for forestry land or operations, also part of DPI responsibilities.

The advices authorised by NSW Trade and Investment (Resources and Energy) will be separately forwarded. Whilst noting the referral of this matter to NSW Trade and Investment (Resources and Energy), also raised for your consideration is the possibility of a wider referral to NSW Trade and Investment.

Fisheries matters

Fisheries NSW is responsible for the conservation and protection of fish stocks and key fish habitats within NSW. Several waterways designated as key fish habitat will be affected by works associated with this project, including Devlins Creek, Cattai Creek, Strangers Creek, Caddies Creek and Second Ponds Creek.

Fisheries NSW commends the mitigation measures planned for this proposal, including erosion and sediment control, management of ground water release into waterways, fish friendly waterway crossings and structures and rehabilitation of riparian vegetation.

The proposed riparian buffer zone widths indicated in Technical Paper 5b are appropriate and it is recommended that all eroded portions of waterways in these zones are rehabilitated and stabilised appropriately. Ongoing maintenance of the rehabilitated sites is recommended to ensure stabilisation is successful and weeds are controlled.

Erosion and sediment control measures should be installed prior to any earth works or construction according to best practice. It is highly important that these measures are maintained in operational order during all stages of development until sedimentation risk is reduced through vegetative ground cover. In addition to the planned continual monitoring for operational effectiveness it is also recommended that further mitigation measures be installed where needed. Furthermore, weed species should be removed from cleared vegetation that is planned to be mulched and used for sediment and erosion control to avoid their potential spread through the riparian zone.

Temporary waterway crossings within key fish habitat should be piped to avoid blocking fish passage and specific sediment and erosion controls should be implemented where required to ensure that no additional sediment or harmful run off enters the waterways from these. Any temporary structures should be removed as soon as possible after construction and the area should be restored through rehabilitation. Furthermore, while it is noted that design of waterway crossings will be undertaken in accordance with the relevant Fisheries NSW guidelines (http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0003/202692/Fish-friendly-waterway-crossings-Policy-and-guidelines.pdf), it is preferred that footings and other related structures of the viaducts are not constructed within the waterway, and preferably outside the riparian buffer zone.

Surface water quality monitoring upstream and downstream of construction sites before and during the works, as well as after rainfall events is commended. It is recommended that if detrimental conditions are recorded that the source is identified and appropriate mitigation measures are employed.

Should you require further information regarding aquatic habitat please contact Carla Ganassin at carla.ganassin@dpi.nsw.gov.au or (02) 9527 8552.

Agriculture matters

The proposed development at Castle Hill Showground should enable the Hawkesbury Harvest Farmers Market to operate during and post construction.

Other considerations for development that uses agricultural land are set out in the Departments' Guideline: *Infrastructure Proposals on Rural lands* - available on the DPI website; <http://www.dpi.nsw.gov.au/environment/landuse-planning/agriculture/infrastructure-proposals>.

Office of Water matters

The NSW Office of Water has no objection to the proposal. The following comments are provided for consideration in the final assessment, with recommended conditions of approval in Attachment A should the project be approved.

Watercourses and Riparian Land

The design, construction and operation of the project must be undertaken in a manner which ensures no more than minimal harm to water sources within the project area.

The Office of Water supports the application of the Riparian Corridor Management Study (RCMS) methodology to assess the environmental value of watercourses potentially affected by the project. Surface works should be designed so as to minimise impacts on riparian areas, being the applicable Core Riparian Zone and Vegetated Buffer width (riparian buffer) relevant to the RCMS category of the reach as identified in the Riparian Assessment Report.

Permanent works, such as station footprints or car parks, should be located outside the defined riparian buffer. Works which must unavoidably be located within the riparian buffer, such as viaduct or bridge sections, should be designed and constructed so as to maintain or improve the hydrologic, geomorphic and ecological integrity of the waterway.

Wherever possible, temporary works, including construction footprints, laydown areas, haul roads and water management works such as sediment basins, should be located outside the defined riparian buffer. Works must be designed to minimise potential impacts and all impacted riparian areas must be rehabilitated upon completion of works so as to maintain or improve the hydrologic, geomorphic and ecological integrity of the waterways.

All works taking place in, on or under waterfront land, as defined in the Water Management Act 2000, are considered controlled activities. While State Significant Infrastructure projects are exempt from the requirement to obtain and hold approvals for controlled activities (section 115ZG of the Environmental Planning and Assessment Act 1979), such activities should be conducted in accordance with the Office of Water's Guidelines for Controlled Activities.

A Surface Water Management Plan should be developed which incorporates monitoring, impact trigger definition and response actions for all watercourses potentially impacted by the project, including those proposed to be under-bored during tunnel construction.

Groundwater

It is unclear from the EIS whether the underground stations and tunnels would be designed and constructed as drained/unlined or undrained/lined structures, with numerous references throughout to both options. This should be clarified so as to enable full assessment of the groundwater impacts of the project. The Office of Water's preference is for the underground works to be lined so as to minimise long-term dewatering requirements and mitigate potential impacts on the groundwater resource.

Expected dewatering requirements for the project need to be quantified and the proposed licensing arrangements outlined. The project is located within the Sydney Basin Central Groundwater Source under the Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources. The rules contained within the plan may have implications for the design of project components, for example, access licence management rules proposed to commence in year seven of the plan, which limit the extraction of water from works within forty metres of unregulated water sources dependent upon flows within the water source, may have implications for the design of bored tunnel components.

The EIS also proposes the potential extraction of groundwater for use during the construction phase of the project. Details regarding required volumes and the proposed extraction regime should be provided to enable assessment of licensing requirements.

A water access licence with sufficient share component to cover expected volumes is required for all works which extract water, whether for dewatering or use within the project, prior to the works commencing. All opportunities for reuse of water should be explored to minimise extraction and disposal of groundwater.

A Groundwater Management Plan should be developed which outlines proposed extraction, use and disposal of groundwater and which incorporates monitoring, impact trigger definition and response actions for all groundwater sources potentially impacted by the project.

Should you require further information please contact Rohan Macdonald, Planning and Assessment Coordinator on (02) 4904 2642 at the Newcastle office.

Crown land matters

Any construction within the bed of any watercourse, being Crown land, will require an appropriate tenure under the *Crown Lands Act 1989*.

It is noted that the proponent, Transport for NSW, has been in discussion with Crown Lands in respect to acquisition of Crown land at Castle Hill and the existence of Aboriginal Land Claims.

Contact should be made with Paul Layt, Group Leader Natural Resource and Property Services, in respect to these matters, via email Paul.Layt@lands.nsw.gov.au or on (02) 8836 5328.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Anquetil', with a large, stylized initial 'A'.

Phil Anquetil
Executive Director, Business Services

**North West Rail Link - NSW Office of Water Recommended Conditions of Approval
Staged State Significant Infrastructure Modification (MP 06_0157)
State Significant Infrastructure Application - Major Civil Construction Works (SSI-5100)**

1. Surface works must be designed to minimise potential impacts to waterways and riparian areas and all impacted areas must be rehabilitated so as to maintain or improve the hydrologic, geomorphic and ecological integrity of the waterways.
2. All works taking place in, on or under waterfront land, as defined in the *Water Management Act 2000*, should be conducted in accordance with the NSW Office of Water's Guidelines for Controlled Activities.
3. A water access licence with sufficient share component to cover expected volumes is required for all works which extract water prior to the works commencing. Such extraction must be in accordance with any relevant rules established under the *Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources*.
4. A *Surface Water Management Plan* should be developed to the satisfaction of the NSW Office of Water which outlines measures to mitigate potential impacts to surface water sources and incorporates monitoring, impact trigger definition and response actions for all watercourses potentially impacted by the project.
5. A *Groundwater Management Plan* should be developed to the satisfaction of the NSW Office of Water which outlines proposed extraction, use and disposal of groundwater and measures to mitigate potential impacts to groundwater sources, and incorporates monitoring, impact trigger definition and response actions for all groundwater sources potentially impacted by the project.