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cc <hazen.cleary@water.wa.gov.au>, "MANTLE Nigel"
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bcc
Subject FW: Manjimup Power Plant - Water Related Issues
Project 25642

History:  This message has been forwarded.

Cormac

Thank you for arranging further supplementary advice on water management at the proposed biomass power plant at Palings Rd Manjimup in response to our letter to the Department of Environment and Conservation of 5th March and our emailed comments of 4th April.

I have read through the submission by Queensland Laboratory received on 17th April which contained further advice on:

1. Water balance and stormwater management controls proposed.
2. Water quality and discharge criteria.
3. Conceptual amended site layout diagrams.

My comments are as follows:

1. The water balance takes rainfall data from the Bureau of Meteorology for Manjimup for the comparatively dry period 1974 to 2008 and assesses the probability that contaminated water can be contained onsite during the statistical wettest year in ten with allowance made for a 24 hour maximal storm event using "Australian Rainfall and Runoff" methodology. We have not checked the calculations for accuracy and a monthly water balance table was not provided demonstrating the anticipated likely rise and fall of water levels in the retention dams.

It is probable that occasional discharges will occur from this site if a succession of rainfall events occurs in winter that exceed evaporation and the capacity of the plant to utilise collected stormwater. A factor of safety against discharge has not been offered, contingency options are not presented and hence the assumption has been made that the proponent will need to provide the means to treat runoff to match receiving waterway quality criteria. This should be benchmarked on the basis of the seasonal quality of runoff from local state forest and the sustainable water quality for established users of East Brook. At a future time if a public drinking water source is constructed on the Warren River, any site discharge should be compatible with conventional water treatment processes employed by a water services provider to meet the requirements of the "Australian Drinking Water Guidelines".

The data provided on water treatment methodologies is presently vague in their ability to effectively control pH, oxygen consuming substances, organic residuals, nutrients, metals, turbidity (apart from gross solids) and no definitive site layout has been determined.

The concepts presented for site containment of ash and diesel fuel are considered acceptable.

The following matters referred to in our correspondence are unresolved:

A. The range of alternate sites that were assessed to ensure that the risk to sensitive environmental values was minimised. From our point of view the location of a new power station in a likely future drinking water source area is undesirable.

B. Demonstrated ability to dispose of solid waste matter generated on the

site.

C. Clarity on present water values and dependencies in East Brook notionally within 5 km downstream of the proposed development site.

D. What controls will be in place around the perimeter of site infrastructure to contain turbid runoff while ensuring fire protection is in place e.g. retention of under-storey/groundcover or equivalent surface treatment.

Our assessment is that the proponent has the technical capability to manage water resource quality issues at this site, however should the EPA recommend this project as acceptable, stringent conditions should be set and commitments obtained from the proponent that adequate water quality protection measures will be installed to protect present water values and a future drinking water source on the Warren River (if the power station is to have an operational life beyond 25 years).

Regards

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