PORT GEOGRAPHE PROJECT — MINISTERIAL CONDITIONS

5979. Hon Paul Llewellyn to the Parliamentary Secretary representing the Minister for the Environment

I refer to the Ministerial Conditions attached to the Port Geographe project, and I ask —

(1) Who is monitoring groundwater in the project area?

(2) How often do they report?

(3) To whom do they report?

(4) What groundwater quality parameters are measured?

(5) What trigger levels are prescribed to them?

(6) Have any groundwater quality monitoring results exceeded prescribed trigger levels?

(7) If yes to (6) —

  (a) what dates have groundwater quality results exceeded prescribed trigger levels;

  (b) what were the trigger levels that were exceeded; and

  (c) what action was taken when trigger levels were exceeded?

(8) Has the project area been tested for risks from acid sulphate soils?

(9) If no to (8), why not?

(10) If yes to (8), what were the results of the tests?

(11) Is there any evidence to suggest that construction dewatering has led to —

  (a) the acidification of groundwater;

  (b) the release of metals into the groundwater; and

  (c) the release of sulphates into the groundwater?

(12) Have mineral sands been found in the project area?

(13) If yes to (12) —

  (a) what levels of pyrite do they contain; and

  (b) is there evidence to suggest that pyritic mineral sands have been exposed to oxygen in the project area?

(14) If yes to (13)(b), what would be the consequences of the exposure of pyritic mineral sands to oxygen in the project area?

(15) Has any evidence been found of seepage of contaminated water beyond the project boundary?

(16) If yes to (15) —

  (a) what is the nature of this seepage; and

  (b) what investigations will be conducted to determine whether this will have significant impacts on the Ramsar listed Vasse-Wonnerup Estuary?

Hon SALLY TALBOT replied:

(1) The developer's environmental consultant.

(2) Monthly.

(3) The Departments of Environment and Conservation (DEC), and Water (DoW).

(4) Monitoring parameters include groundwater elevation, field pH, total acidity and total alkalinity, conductivity and total dissolved solids, sulphate and chloride, dissolved and total aluminium, iron and manganese.

(5) Trigger levels are based on agreed background water quality levels taken from various groundwater monitoring wells over a period of time.

(6) Yes.

(7) (a) Exceedances were noted during active dewatering periods between June and September 2007.

(b) The trigger levels exceeded were total iron, aluminium and manganese.

(c) The developer's environmental consultant was advised by DEC and DoW to re-evaluate and revise its dewatering strategy to reduce the groundwater impact.

(8) Yes.

(9) Not applicable.

(10) Results from the investigation prior to the current development recorded substantial iron sulfides in the soil matrix, ranging between 0.1%S and 1.7S. However, excess acid neutralising capacity of the soil materials was also recorded.

(11) (a) The environmental consultant's monitoring data recorded no evidence of groundwater acidification.

(b) The environmental consultant's monitoring data recorded elevated total iron, aluminium and manganese in the groundwater.

(c) The environmental consultant's monitoring data recorded higher sulphate concentrations in some bores nearer to the marine environment.

(12) No specific investigations have been undertaken of mineral sands in the project area. However, low levels of mineral sands are known to occur in coastal sandy sediments in the south-west of WA.

(13) (a) See the answer to (10).

(b) The presence of a significant amount of iron and aluminium in the groundwater indicates that pyritic minerals sands have been exposed to oxygen in the project area.

(14) This could cause environmental harm if the natural groundwater containing these minerals flowed into the adjacent Vasse-Wonnerup Estuary.

(15) Yes.

(16) (a) The seepage is primarily iron enriched groundwater.

(b) DEC has required the developer undertake a comprehensive review of the existing water quality data using a person with considerable experience and expertise in sediment and geochemical processes to assess potential impacts of the groundwater.