LAND USE DEVELOPMENT MUNDARING - WASTE MANAGEMENT PROPOSED PRIMARY SCHOOL, STEVENS STREET

EDUCATION DEPARTMENT

Report and Recommendations of the Environmental Protection Authority

Environmental Protection Authority Perth, Western Australia

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1. BACKGROUND

The Environmental Protection Authority is becoming increasingly concerned about nutrients and other contaminants being produced as a result of increasing intensities of human settlements. In particular, nutrient pollution of drainage entering the Swan-Canning estuarine system is a major threat to the biological health of that system.

The effects of nutrient enrichment are well documented. Nutrients, and in particular phosphorus and nitrogen, stimulate nuisance algal growth if excessively available in aquatic systems. Major sources of nutrients include groundwater polluted by septic tank effluent and stormwater drainage from areas utilising synthetic and animal fertilisers. Although the Swan-Canning estuary is well flushed, it shows symptoms of nutrient enrichment and is generally accepted to be eutrophic.

The significance of drainage from the hills catchment in terms of nutrient inputs to the Swan-Canning estuarine system has not been fully investigated, although data collected to date suggest a marked decline in the water quality of streams within catchment areas containing unsewered development. Therefore, the Authority considers waste management (in particular sewage disposal and stormwater drainage) to be a major issue with regard to the future planning and development of the hills areas in the catchment of the Swan-Canning estuarine system.

In regard to the Mundaring municipal district, the Authority is aware of the following proposed developments for which the major environmental concern is waste management:

- . Mundaring Primary School, Pt Loc 1699 Stevens Street;
- . redevelopment of the town centre; and
- . residential development, Pt Loc 1699 Stoneville Road.

In considering the proposed developments, the Authority determined the potential for environmental impact was such that the issue of waste management in Mundaring would require assessment under Part IV of the Environmental Protection Act, 1986, and that the level of assessment would be Notice of Intent.

Details of the proposed Mundaring Primary School have been referred to the Environmental Protection Authority by the State Planning Commission. Because it would not be appropriate to assess the proposed primary school in isolation from the overall issue of waste management in Mundaring, the Authority has agreed to consider the proposal as Stage 1. The level of information provided in the referral was determined to be adequate and was accepted as Stage 1 of the Notice of Intent for land use development in Mundaring (waste management). Subsequent stages will be assessed when details of the proposals are provided.

2. PROPOSAL

The location of the existing Mundaring Primary School on the corner of Stoneville Road and Great Eastern Highway is considered by the Shire of Mundaring to be inappropriate for several reasons, including traffic noise, safety and location of student population.

It has therefore been proposed that the school be relocated to Pt Location 1699 Stevens Street (see Figure 1). The land is currently zoned Rural in the Shire of Mundaring Town Planning Scheme No 1.

The school would be located on a 4 hectare site to be subdivided from Pt Location 1699, and it is proposed sewage disposal be by a septic tank/leach drain system. The site is within the catchment area of Bugle Tree Creek, a tributary of Jane Brook.

Also, it is important to note that the Water Resources Council's discussion paper "A Strategy for Water Allocation in the Perth - Bunbury Region" identifies Jane Brook as a potential water source. The possibility of substantially increased human settlement in the Jane Brook catchment raises both environmental and water resource management issues.

ENVIRONMENTAL ASSESSMENT

The Environmental Protection Authority's main objective in assessing waste management associated with future development of Mundaring is to prevent further nutrient enrichment and degradation of the surface and groundwaters which drain into the Swan-Canning estuarine system.

The Authority has assessed Stage 1 (proposed primary school) and has determined that the proposed method of effluent disposal as described in the Notice of Intent is environmentally unacceptable. Specifically, the Authority is opposed to on-site sewage disposal associated with the proposed primary school.

However, a revised proposal which accommodates the Recommendations in this Report would be environmentally acceptable. That is if the proposal is revised such that sewage would be contained in a system of appropriately located, sealed holding tanks, pumped out regularly and the effluent disposed of at an approved disposal site, the proposal would be environmentally acceptable. Design and location of the system should provide for easy connection to a subsequent reticulated sewerage facility as and when it becomes available in the Mundaring locality.

It should be noted, however, that while environmental concerns could be adequately addressed in a revised proposal, other issues such as public health must be given due consideration prior to any approval being granted.

RECOMMENDATION 1

The Environmental Protection Authority concludes that the proposed method of effluent disposal for the Mundaring Primary School as described in the Notice of Intent is environmentally unacceptable. However, a revised proposal accommodating the Recommendations in this Assessment Report would be environmentally acceptable.

RECOMMENDATION 2

The Environmental Protection Authority recommends that sewage be contained in a system of appropriately designed and located (on advice from the Water Authority of Western Australia) sealed holding tanks. The holding tanks should be pumped out regularly and the effluent disposed of at a disposal site approved by the Department of Health.

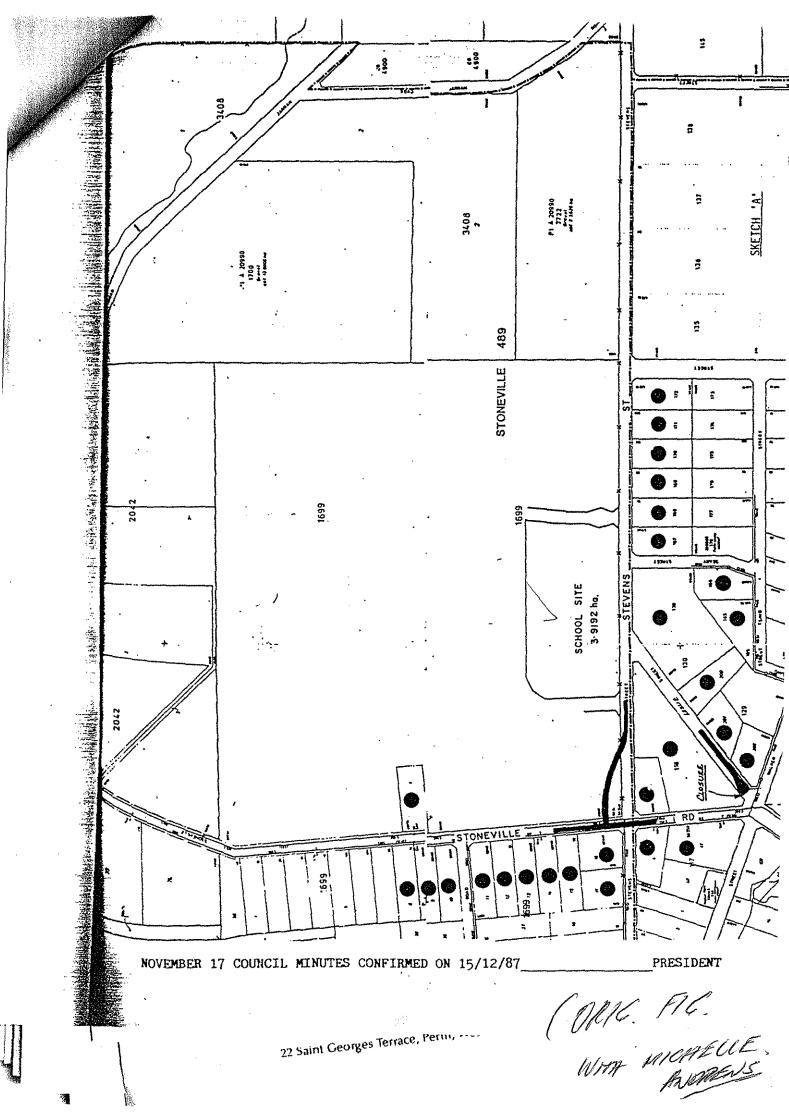


Figure 1. Location of Proposed Mundaring Primary School.