



7 September 2011

The Chairman
Environmental Protection Authority

By Email: submissions@epa.wa.gov.au

Dear Sir,

Roe Highway Extension: Public Environmental Review

The Wetlands Conservation Society wishes to comment on the PER for the Roe Highway Extension (Roe 8). We have many concerns about this project as outlined below.

- (1) **Severance and Fragmentation:** The proposed highway (freeway) will sever the North Lake/Bibra Lake wetlands, cutting wildlife migration routes and disrupting the hydrology of this vital wildlife habitat.
- (2) **Impact on Migratory Waterbirds:** North and Bibra Lakes are well known waterbird refuges and they provide a habitat for many migratory species, listed under the JAMBA (7 species), CAMBA (8 species) and ROKAMBA (5 species) Agreements. A list of the species that have been observed to use these wetlands is attached. Altogether there are 8 species affected. These birds are likely to abandon these sites if a major freeway such as Roe 8 is constructed through the area.
- (3) **Impact on Endangered Species:** The North Lake Reserve contains four priority listed plant species (jacksonia sericea waldjumi, Dodonaea hackettiana, Cartonema philydroides, Villarsia violifolia) plus rare forms of the following species: Dampiera linearis, Pattersonia occidentalis. Three endangered birds species have also been observed in this area (Carnaby's black cockatoo, Red-tailed black cockatoo, Peregrine Falcon). Carnaby's black cockatoo and the Red-tailed black cockatoo, both inhabit this area and feed on the banksia, marri and jarrah trees that grow in the North and Bibra Lake reserves. The habitat for these endangered species is shrinking due to land clearing for projects such as the Fiona Stanley Hospital and the Jandakot Airport Commercial Development. The North Lake reserve is now the major feeding area for the locally resident flocks of these birds. Recently a red-tailed black cockatoo bred a chick on the Murdoch University campus, adjacent to North Lake. The clearing associated with Roe 8 will destroy vital black cockatoo habitat and degrade the remaining parts of the reserve.
- (4) **Impact on Black Swans:** Black Swans are known to breed on North and Bibra Lakes. I have personally observed up to 12 Swan's nests on North Lake during the breeding season. In drought years the young cygnets walk from one lake to the other as the lakes dry out because they are unable to fly until they are 4 months old. These cygnets are likely to be predated by foxes or killed on the Roe Highway if this road is constructed between North and Bibra Lakes.
- (5) **Impacts on Biodiversity:** The North Lake reserve is extremely diverse and provides a habitat for many plant species and associated animals. The noise, vibration, odour, pollution and light spill will

make this area very unattractive to wildlife. Some will be killed trying to cross this wide road reserve. Nocturnal species will not use an area where night lighting is used. It is a breeding site for many insects, frogs, reptiles and bush birds. More than 220 plant species have been recorded in the North Lake Reserve (Murray 1985) including four listed endangered species (see 3 above). In addition over 120 species of birds have been recorded in the North Lake reserve (Murray 1986). Many of them breed here in the area that is to be resumed for Roe 8. Rainbow bee eaters have been observed to breed on the sand banks surrounding North Lake (Maddeford 2003, p59). The loss of this biodiversity will affect many neighbouring properties and reserves. The proposed offsets cannot compensate for this loss of biodiversity as they will either be too distant or take too long to reach maturity (Maron et al 2010).

- (6) **Hydrological Impacts:** North and Bibra Lakes are already under stress from climate change. Many mature native trees have died in recent months due to low water levels. Building a causeway between the lakes will impede groundwater flow and disrupt the hydrology of Roe Swamp and North Lake. This is discussed in detail in the Syrinx report 92011, p43) and the potential consequences are discussed. The indirect impacts, resulting from this are far more serious than those stated in the PER (syrinx, 2011, pp47-50). The proposed route is clearly not sustainable as it will cause serious, irreversible damage to these valuable wetlands.
- (7) **Acid Sulphate Soils:** This freeway will pass through a known area of high risk for acid sulphate soils. The disturbance of these soils during road construction and the disruption of the groundwater flow by the causeway across the wetlands could lead to acidification of the groundwater and the lakes, with resulting loss of biodiversity. This area has rich biodiversity and high acid sulphate risk and it is irresponsible to propose major earthworks in this complex and delicate site.
- (8) **Greenhouse Impacts:** The greenhouse impacts of this road development have not been properly assessed. The road will bring greenhouse pollution into the area via the heavy traffic expected to use it. In addition there will be a loss of a carbon sink, associated with the clearing. The urban heat island effect will further exacerbate this impact as the hard, dark surfaces and cleared verges will reduce the earth's albedo and absorb far more solar radiation than the original native vegetation would have done. The net result will be local warming of the environment and increased evaporation and water stress on the wetlands and bushland. It is incorrect to assert, as the proponents have done, that this road will reduce greenhouse gas emissions due to greater transport efficiency. We all know that new roads generate more road traffic and that these roads eventually become congested too. Just look at the history of the Kwinana Freeway. The best way to reduce greenhouse emissions is to invest the \$750 million in public transport and improved rail access to the ports, as outlined in the 6-point plan from the Freight Network Review. Due to their faulty reasoning the proponents have not felt it necessary to offer any offsets for their greenhouse emissions.
- (9) **Educational and Recreational Impacts:** The PER understates the educational and recreational values of the North and Bibra Lakes precinct. This is one of the key cultural sites in the south metropolitan area. Bibra Lake is heavily used for picnicking, jogging, walking, bird watching and cycling. North Lake is a very popular bushwalking and bird watching area. The whole precinct functions as a single resource and visitors often cycle or walk around both lakes. The Noongar people also regard this precinct as one of their major cultural and spiritual sites and the proposed road will go right through the centre of their registered mythological site. The Cockburn Wetlands Education Centre is an extremely popular and successful environmental education facility and it is the base for many community groups and the centre of educational activities in the precinct. The construction of Roe 8 between the Lakes will seriously devalue the educational and recreational values of the precinct. The

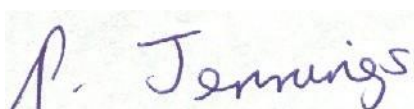
wilderness experience for bushwalkers will be destroyed by the noise of heavy traffic on the Roe Highway. Picnickers will not be able to enjoy their outing to Bibra Lake because of the noise, vibration and odour. The Noongar people will lose one of their most valuable spiritual sites. The hundreds of school children who visit the wetlands centre each year will have a greatly diminished experience. SMC does not acknowledge these obvious impacts and offers no offsets or compensation for them.

- (10) **Offsets Package:** We are very concerned about the proposed offsets package. It clearly does not compensate for the loss of mature wildlife habitat in the Bibra Lake area, nor for the loss of valuable recreational areas in this densely populated part of the Metropolitan Area. No offset has been offered to local residents for the loss of recreational amenity in the Bibra Lake/North Lake area. Bibra Lake is one of the most popular recreational sites in the City of Cockburn and the presence of this freeway, with its associated noise, odour and pollution will surely degrade the values of this valuable parkland. The proposed revegetation of Hope Road Swamp is a pointless, token gesture as this small wetland is very close to the new freeway and it will have very limited habitat value because of the noise, vibration and light spill from the Roe Freeway. One must surely question whether such losses can be justified for a road that will achieve very little in terms of relieving traffic congestion.
- (11) **Offsets for Roadworks:** The WCS has no confidence in the assurances given by MRWA and SMC about revegetation because their record on previous projects is so poor. Roe 7 was poorly managed and a huge number of banksias died in Ken Hurst Park following the roadworks. The roadside revegetation for Roe 7 is quite unsatisfactory and in any case MRWA have a record of widening their freeways every few years and destroying the revegetation work they have done. This is now occurring on the Kwinana Freeway between Leach Highway and Roe Highway. Funds for research and monitoring are welcome but they are not an adequate compensation for the loss of habitat. All they do is document the loss, not replace it. The EPA must seriously question this offsets package as it does nothing for the local area which is likely to be severed and polluted by this unnecessary road.
- (12) **Poor road design:** The proposed road design seems to have been determined primarily by minimising the economic and political costs of the project. Ecological and hydrological considerations seem to have been given very little attention. The proposed route deviates from the MRS alignment and impacts the Beeliar Regional Park and the area that is interim listed on the Register of the National Estate. The Syrinx Consultants report (2011) details the serious hydrological impacts of the proposed design and suggests that a bridge structure over the wetlands would be preferable, but this was apparently ignored because of the cost.
- (13) **Traffic Congestion:** It is apparent that the Roe Highway Extension will provide very little relief from traffic congestion even according to SMC's own figures. Figures 2.2 – 2.7 on page 29 of the PER show that there is no significant reduction in traffic congestion as a result of this road. In fact, these figures show that building Roe Highway Extension will actually make the congestion worse at the intersections of Stock Road with Phoenix Road and South Street. This begs the question of how this expensive road can be justified when it provides so little benefit for transport at such great cost to the taxpayers and the environment.
- (14) **Unsustainable Proposal:** For the reasons given above, we believe that this project is unsustainable. There are serious environmental and recreational impacts that are not mitigated or compensated in any significant way by the proposals. The proponents have not honoured their promise to find a sustainable solution to the transport needs of the southern metropolitan area. The 6-point plan proposed by the Freight Network review (2002) is much more sustainable as it involves a win for transport and preserves the social and environmental amenity of the Beeliar wetlands. The WCS ques-

tions whether this proposal offers any net benefit to society. The economic cost of this project is much higher than the 6-point plan and it offers fewer benefits.

We are aware that the EPA has previously considered the Roe 8 proposal on at least 3 occasions (System Six Green Book 1980, System Six Red Book 1983, Strategic Review 2003). On each of these occasions the EPA concluded that Roe Highway would have a very damaging effect on the Beeliar Wetlands and the EPA suggested to Government that it find a different transport solution. We believe that the 6-point plan (DPI 2002) is this solution and that building Roe 8 between the wetlands cannot be justified on economic, social or environmental grounds. It is simply not the best solution on any of these criteria. We support the EPA's previous assessments and believe that this project is unsustainable, as the EPA predicted in 2003. We therefore request that you reject the current proposal for Roe Highway Extension.

Yours faithfully,



Philip Jennings
President

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References

Department for Planning and Infrastructure (2002) *Metropolitan Freight Network Strategy*

Environmental Protection Authority (2003) *Environmental Values Associated with the Alignment of the Roe Highway Stage 8*, EPA Bulletin 1088, Perth, WA.

Maddeford W (2003) *North Lake Birds*, Swanyarra publishers

Maron M, Dunn PK, McAlpine CA, Apan A (2010) *Can Offsets Really Compensate for Habitat Removal?* J Appl Ecology **47**, 348-355.

Murray, F (ed) (1986) *Draft North Lake Management Plan*, Murdoch University.

Syrinx Environmental P/L (2011) *Wetland Ecology Investigations*, Part 4, SMC

Migratory Birds Observed at North Lake 1985 – 2011

| Bird | Treaty | Observer |
|------------------------|--------|----------|
| Cattle Egret | J,C | P,G |
| White Egret | J,C | M,P,G,S |
| Red-necked Stint | J,C,K | M,S |
| Sharp-tailed Sandpiper | J,C,K | M,P |
| Black-tailed Godwit | J,C,K | M,S |
| Greenshank | J,C,K | M,S |
| Common Sandpiper | J,C,K | M,P,S |
| Glossy Ibis | C | M,G,S |

Nationally Listed Migratory Species Observed at North Lake

| Bird | Observer |
|----------------------------------|-----------------|
| Rainbow Bee-eater | M,P,S |
| Carnaby's Black Cockatoo | P,G,S |
| Red-tailed Black Cockatoo | G,S |
| Peregrine Falcon | M |

List of Observers

M=Lynton Maddeford 2003

G=Norm Godfrey 2001

P=Barbara Porter 1985

S=Marion Shaw 2009