

Potential impacts of the proposed Northgate development (Roodepan area, Kimberley) on the flamingos and other waterbirds of Kamfers Dam

ADDENDUM (19 February 2008)

USE OF GREATER FLAMINGO EXAMPLES IN THE SPECIALIST REPORT

Responses of wildlife to disturbance are complex and can vary between species and, within species, between sites and between individuals. However, Greater and Lesser Flamingos are similar in terms of breeding biology as well as in terms of the breeding sites that they use in southern Africa (both species breed at Etosha Pan, Lake Natron and Sua Pan). Because of these similarities, and because of the lack of relevant information on Lesser Flamingos, examples of Greater Flamingos were provided in the report.

For clarification, the European examples on p. 12 of the report (Fangassier lagoon, Cagliari and Fuente de Piedra) all refer to the Greater Flamingo, *P. rubber*. Both Greater and Lesser Flamingos occur at Walvis Bay.

CRÈCHING LESSER FLAMINGO CHICKS AT KAMFERS DAM

Lesser Flamingo chicks characteristically congregate near the nesting area in large groups, beginning six days after hatching. By the age of one week, the chicks can run well and aggregate into huge crèches that may later move several kilometres away from the nesting site. At breeding sites at saline lakes and salt pans, chicks may walk tens of kilometres to escape unfavourable conditions. Fledging takes place at 70 to 90 days of age.

The Kamfers Dam breeding site is unusual for the species and it is thus difficult to predict how the chicks will behave once crèching begins. If the water quality and level at Kamfers Dam are adequate, and if there is sufficient food for the adult flamingos, the chicks may not attempt large-scale movements. If they do, a wall to the west of the dam will stop movement in that direction and chicks may instead move towards the danger of the railway line in the east or south. Even if no large-scale movements occur, the crèching chicks will be highly mobile for a period of two to three months and may cluster close to the eastern boundary of Roodepan. This may require that high-intensity construction activities near this boundary are curtailed during the period of crèching. An environmental consultant monitoring construction will be able to make recommendations in this regard. Note also that there may be a second wave of breeding following on from the first, and that flamingos that are part of the former are likely to be especially sensitive to disturbance.

ADDITIONAL MITIGATION MEASURES

The first successful breeding attempt by Lesser Flamingos at Kamfers Dam greatly enhances the conservation value of the dam. This, in combination with the uncertainty inherent in predicting the impacts of the development on the breeding success of the birds, recommends a precautionary approach to development. Additional recommended mitigation measures are:

- ✍ The construction of the barrier wall should take place in winter, when the flamingos are not breeding. Any breach in the wall that allows pets or humans to cross it in the direction of the dam is likely to be disastrous for the flamingos, thus maintenance of the wall is essential.
- ✍ Blasting activities should take place in winter, and alternative techniques (such as that mentioned in the initial specialist report) should be employed to minimise noise, dust and vibration. The use of such techniques is important even if blasting takes place outside the flamingo breeding season, so that disturbance to non-breeding flamingos at the site is reduced, reducing the risk of site abandonment.
- ✍ Advice should be taken from an environmental consultant regarding temporary curtailment of construction activities near the eastern boundary of Roodepan if the chicks form crèches nearby.

LITERATURE SOURCES

Berry, H.H. 1972. Flamingo breeding on the Etosha Pan, South West Africa, during 1971. *Madoqua* 5 (1): 5-31.

Hockey, P.A.R., Dean, W.R.J. & Ryan, P.G. 2005. *Birds of Southern Africa*, VIIth Ed. The Trustees of the John Voelcher Bird Book Fund, Cape Town.

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