

the study area. The grassland patches are also a favourite foraging area for game birds such as francolins and Helmeted Guineafowl, as well as being hunting habitat for raptors such as African Marsh Harrier, Lanner Falcon, Rock Kestrel (**Figure 6.16**), Lesser Kestrel, Amur Falcon and Black-shouldered kite. Important to this study is that Botha's Lark (Endangered) has been recorded in the quarter degree squares (SABAP1 data) examined, and is a relatively rare grassland species (**Figure 6.17**).



Figure 6.14: Grassland observed in the broader study area.



Figure 6.15: Burnt grasslands observed in the study area.



Figure 6.16: A Rock Kestrel perches, while foraging over grassland in the study area.



Figure 6.17: The Endangered Botha's Lark may occur in grasslands in the study area.

○ *Dams*

Various waterfowl, waders and numerous duck species, may frequent the man-made dams within the study area (**Figure 6.18**). More importantly, Blue Cranes use dams to roost in communally, and Flamingos may use these areas as stop over points while moving between larger water bodies. Various Storks may also frequent these water bodies. One particular Dam (New Denmark Dam) is a Co-ordinated Waterbird Count (CWAC) site, and both Lesser and Greater Flamingos were observed here during the site visit.



Figure 6.18: A typical man-made farm dam, as observed in the study area.

- *Wetlands and Rivers or drainage lines*

In this area species such as Greater Flamingo, Lesser Flamingo, Yellow-billed Stork and Caspian Tern are attracted to water, and therefore may find flowing rivers or streams attractive. Non Red Data species may also occur in these areas for example herons. Rivers in their true form represent important habitat for many species, including Black Stork and a variety of other water birds, while the wooded riparian habitat along a river may provide habitat for various species such as the Hamerkop, African Darter, various cormorants, kingfishers, bee-eaters, robin-chats and numerous smaller species.

According to GIS mapping using data from Mucina & Rutherford (2006), the only river in the study area is the Leeuspruit. 1 in 50 000 maps from the Surveyor General show the presence of the smaller Wolwespruit (which may not always flow) to the east of the existing ash disposal site. Numerous smaller drainage lines, some of which do not always carry water are also present in the broader area. Drainage lines, as well as all of the Rivers/"Spruite" discussed above, may serve as flight paths for several bird species.



Figure 6.19: This drainage line in the study area contained water, which appeared to be dammed by a tar road.

○ *Stands of Alien vegetation:*

Patches of alien trees were observed throughout the study area (**Figure 6.20**), often associated with a farm stead, or along farm roads. These areas will mostly be important to physically smaller bird species. These also provide perching, roosting and nesting habitats for various raptor species and larger birds such as francolins, Guinea fowl, Herons and Hadedda Ibises.



Figure 6.20: A stand of alien trees in the study area.

- **Relevant bird populations**

The relevant bird populations that have been reported by the South African Bird Atlas Projects (1 and 2) can be found below in **Tables 6.6** and **Table 6.7**. It is important to note that these species could have been recorded anywhere in the associated pentad or quarter degree square (QDGS), and not necessarily in the exact study area.

SABAP 2 data was examined for the pentads falling within an 8km radius from Tutuka Power Station, and which had been counted more than once. **Table 6.7** below shows report rates, based on the number of cards submitted, for the Red Data species identified in the four pentads meeting the above criteria. Interestingly, of the 16 red listed species identified in the SABAP 1 data, only 9 species have again been recorded in the SABAP 2 data for the pentads examined. This however, does not necessarily mean that these species do not occur here, or that they have moved from the area post SABAP1, but may merely be due to the low counting effort of the pentads or selective micro habitat counting by the SABAP2 field counters. White Stork, protected through the Bonn Convention, was recorded in both data sets. Botha's Lark was not recorded in pentads examined. An additional red listed species, the African Openbill, was recorded in the SABAP2 data only.

Table 6.6: Red Data species report rates for the two quarter degree squares which cover the study area-SABAP 1 (Harrison et al, 1997)

Species	Cons. status	Report rate (%)	
		2629CD	2629CB
QDGS		2629CD	2629CB
Number of cards submitted		69	55
Total Species		175	175
Botha's Lark	EN	-	2
African Marsh Harrier	VU	-	2
Lesser Kestrel	VU	22	16
Blue Crane	VU	12	7
Southern Bald Ibis	VU	4	-
White-bellied Korhaan	VU	-	4
Yellow-billed Stork	NT	1	-
Secretary Bird	NT	10	9
Greater Flamingo	NT	1	2
Lesser Flamingo	NT	1	-
Black-winged Pratincole	NT	-	4
Pallid Harrier	NT	-	2
Lanner Falcon	NT	6	4
Blue Korhaan	NT	30	20