

User assessment survey of a shallow freshwater lake, Zeekoevlei, Cape Town, with particular emphasis on water quality

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Abstract

The main purpose of the study was to ascertain the extent of use, and use patterns of Zeekoevlei and the users' perception of water quality. In terms of expressed demand, it was established that respondents' recreational activity range was extensive. Respondents participated in active and passive recreation activities: boardsailing (14%), relaxing (24%), braaiing (35%) and picnicking (19%) were the most important activities. The major group of respondents (37%) recorded proximity to home as their principal reason for visiting Zeekoevlei. Less than one half of respondents (45%) classified Zeekoevlei as a clean water vlei. Those who felt the converse to be true objected to the smell (60%), the colour (50%) and the appearance (49%) of the water body. The user population of Zeekoevlei based their assessment of the water quality state of the vlei primarily on olfactory and aesthetic qualities. The perceptions and assessment of users toward water quality in this study are compared to studies conducted at Hartbeespoort Dam and Zandvlei. The majority of respondents recognised that the management and administration of Zeekoevlei is a costly operation and 69% of all respondents expressed a willingness to pay an entry fee should facilities and water quality be improved. This shows some commitment on the part of users towards shouldering the financial costs of improved water quality in Zeekoevlei.

Introduction

With increasing demands being placed upon the limited water resources of South Africa (Department of Water Affairs, 1986; 1991) and upon the financial resources of those organisations funding development and implementation of pollution control technologies (De Wet, 1985; Dutkiewicz, 1985; Huntley, 1987; Department of Water Affairs and Forestry, 1991), it is important that the manifold uses of water bodies are wisely managed.

One important use fulfilled by many of South Africa's water bodies is recreation. Recreational management of lakes and dams requires a knowledge of the users' perceptions and behaviour in response to a variety of water quality conditions.

The purpose of this paper, therefore, is to investigate the perceptions of the public to water quality in a freshwater vlei, Zeekoevlei, in the south-western Cape and to compare these results with other similar studies.

Methods

Study area and sample universe

The area sampled is shown in Fig. 1 and included Zeekoevlei water and its surroundings. The sample unit (users of Zeekoevlei) was defined as those persons who either actively or passively used the vlei for contact and/or non-contact recreation. Users included young and old, men and women. The users of Zeekoevlei constituted an indeterminate universe. Only actual users were interviewed (including local residents) and, hence, no account was taken of potential users.

Since no similar study had been undertaken previously at Zeekoevlei, the survey adopted an exploratory approach. The

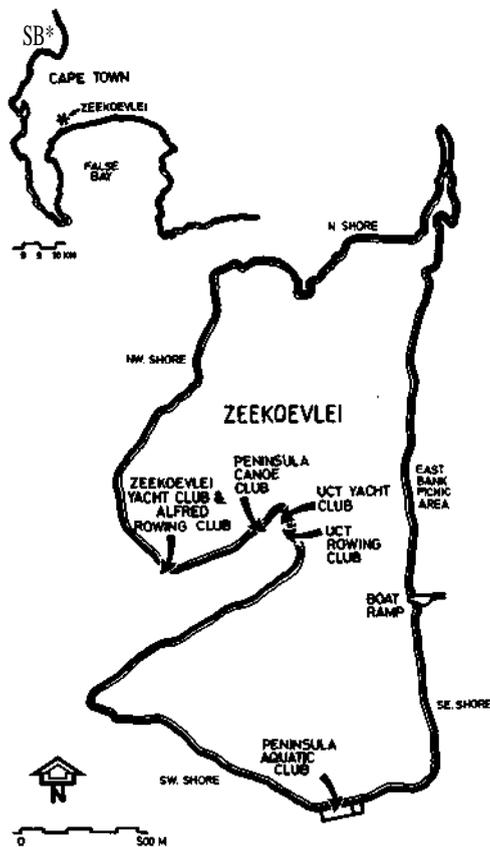


Figure 1
Map of Zeekoevlei showing the user zones surveyed

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