



**Department of Water Affairs and Forestry**



**Environmental Impact Assessment Consultant**

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**REVIEW AND SUBMISSION OF AN ENVIRONMENTAL IMPACT  
ASSESSMENT FOR THE PROPOSED RAISING OF THE HAZELMERE DAM**

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**PUBLIC MEETING  
MINUTES**

**16 July 2007**

Canelands Country Club, Verulam  
**18h00**

**ATTENDANCE:**

Refer to register contained at end for a comprehensive list and contact details for the Interested and affected parties (I&APs) that attended the public open day and public meeting. The following names are those individuals with comments or questions volunteered during the public meeting:

Nicky Naidoo (Nemai)	NN - Chairman
Johann Geringer (DWAF)	JG
Ciaran Chidley (Nemai)	CC
Brian Dalton (Nemai)	BD – Minutes
Allimuthu Perumal (I&AP)	AP
Christy Subrayen (I&AP)	CS
Wayne Holland (I&AP)	WH

**AGENDA:**

1. **WELCOME AND INTRODUCTION** – Nemai Consulting
2. **PROJECT BACKGROUND AND MOTIVATION** – DWAF, Mr. J.J. Geringer
3. **EIA PROCESS** – Nemai Consulting
4. **PROJECT IMPACTS** – Nemai Consulting
5. **PROJECT MITIGATIONS** – Nemai Consulting
6. **FORUM DISCUSSION – QUESTIONS/COMMENTS**
7. **CONCLUSION**

**MINUTES:****1. WELCOME AND INTRODUCTION**

NN welcomed all present to the public meeting for the proposed raising of Hazelmere Dam. Attendees were asked to sign the register and ensure all details were legible and correct.

**2. PROJECT BACKGROUND AND MOTIVATION**

Project background was provided by JG. The presentation has been included as an appendix for referral. The presentation can be broadly summarised as follows:

1. History
  - 1.1. Sedimentation
  - 1.2. Feasibility Study
  - 1.3. EIA 2003
  - 1.4. Water Conservation and Demand Management 2004
  - 1.5. EIA Review 2007
2. Need for the Project
  - 2.1. Loss of Storage
  - 2.2. Loss of Yield
  - 2.3. Increased Water Demand
  - 2.4. Shortage of Supply
  - 2.5. Interventions
3. Historic Growth Demand
  - 3.1. Timings to Meet Demand
4. Project Description
  - 4.1. Raising with Radial Gates
    - 4.1.1. Little Concrete Work
    - 4.1.2. Mechanical Installation
    - 4.1.3. Site Office
    - 4.1.4. Standby generator
5. Dam Safety Aspects Covered
  - 5.1. Engineering Features
6. Infrastructure Associated with the Dam

- 6.1. Pipeline to Hazelmere Waste Water Treatment Works
- 6.2. Upgrade from 42Mgl/day to 90Mgl/day
- 6.3. Increase pumping capacity
- 6.4. Link to La Mercy
7. Tariff Impact due to Raising
  - 7.1. None
8. Alternatives
  - 8.1. Desilting
  - 8.2. Desalination
  - 8.3. Groundwater options
  - 8.4. Effluent recharge
  - 8.5. Water Conservation and Demand Management Interventions
9. Mitigation

## **1. EIA PROCESS; PROJECT IMPACTS; AND PROJECT MITIGATIONS**

CC gave background to the environmental process to date and described the impacts and mitigations for the proposed raising of Hazelmere Dam. This presentation as been included as an appendix for referral.

## **6. FORUM DISCUSSION – QUESTIONS/COMMENTS**

NN then opened the floor to general discussion, comments and questions from all present. It was stipulated that all comments would be included into the EIR for submission and this included comments submitted via the comment form provided after the public meeting. [*For ease of reference, questions and answers have been sectioned off. Additional comments and post meeting notes have been contained in square brackets and italicised.*]

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AP had a number of concerns as follows:

1. AP was concerned regarding the increased level of the Hazelmere Dam;
2. The sustainability of such a development due to the short-term benefit;
3. Water demand issues where Jojo's could be installed to greatly reduce water demands locally;
4. AP questioned the accuracy of the faunal specialist study commenting that there would be loss to habitat and reptiles, particularly on the Cottonlands site; and
5. AP mentioned that the State has built this dam and therefore it is the States responsibility to ensure that these facilities [*referring to Msinsi Holdings*] are not lost. Comment was made regarding the benefit these were to the communities.

JG responded by referring to a graph illustrating the long-term water needs for the North Coast Region. JG then placed the Hazelmere Dam raising in context. Other schemes will still be needed to meet the rising demand experienced in this region. For example, a well at Stanger has been considered as a ground water option but

this is the only alternative of this nature feasible for the types of volumes required. These are normally reserved as a last option due to the cost of such alternatives. JG agreed that there is an increasing need to consider these alternatives in conjunction with other large schemes. JG explained that water demand management options are being implemented and are the responsibility of the local municipalities. Such measures have been successfully implemented by eThekweni Municipality for example. Additional considerations are the long lead times for the development of these alternatives and particularly the Mvoti Scheme. These types of considerations for the raising of Hazelmere Dam are not as problematic.

CC then addressed the specialist study issue and reconfirmed that all aspects of biodiversity had been considered by the specialist. No red data species were found within this area and a rescue operation was deemed unnecessary due to the areas and terrain to be inundated.

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CS explained that he lives a little way downstream of Hazelmere Dam in Brindhavan Civic and was concerned for the dam integrity and potential for downstream flooding.

JG explained that floods were dependant on peak volumes experienced as well as the recurrence. The stability of the spillway during construction considered both these flood peaks as well as the volumes. JG explained that should this dam fail it would be a catastrophic event and would therefore be avoided in its design. The radial gates will allow water volumes out to maintain levels until an extreme flood is experienced. The flood of 1987 was not a 1:100 as way of example. All the major dams have a flood warning system.

CS asked if gates were to be erected onto the dam wall and also questioned whether it was necessary to lose the heritage contained within the archaeological site.

JG explained that Hazelmere Dam is to be raised by means of radial gates and referred to a slide illustrating exactly where this would be and then to a cross section showing the operation. JG explained that these gates as well as the original dam wall were designed for this event and were therefore strong enough to handle overtopping in extreme events.

CC referred to a comment earlier in the day regarding cracks in the dam to clarify that this was in fact not the case and that this dam wall was massively stable.

CC then addressed the issue of the Iron Age Site by explain that these types of sites are more commonly found in the KwaZulu-Natal region and therefore did not present a major archaeological find according to the specialist study. An expert had therefore discovered it and had studied it. The site [HZM1] was not deemed necessary to protect but a second phase excavation would need to be conducted

to liberate any artefacts for museum purposes.

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WH commented that a reserve determination had been completed and submitted to DWAF. The outcome of this study was that this system [*the Mdloti catchment system on which Hazelmere Dam is located*] is a stressed system therefore it is important that all the impacts are carefully considered. WH highlighted that no EIA was conducted previously for the construction of Hazelmere Dam. The dam had effectively reduced the sediment travelling downstream to the beaches and this ultimately impacted tourism due to the lack of management. WH wanted to know what was being done to revive the system or was the dam wall to be raised and then just left. WH stressed that ecotourism was moving northwards and impacts on these systems had important impacts on this. WH also referred to the cost of the research and actual raising of Hazelmere Dam and with this being a short-term option, couldn't a long-term scheme be implemented to meet demand with the correct impacts.

JG responded by first referring to graph illustrating demand projections for the North Coast Region. Particular reference was made to the timing for the next available scheme to augment water supply which could only occur in 2028. JG indicated that previous demand curves had been drastically wrong due to increased development in this area where previously implementing the Mvoti scheme in 2028 would have met water demand, now was insufficient. This raising was therefore an important interim measure to meet current demands quickly. This previously formed part of a longer-term strategy to meet demands but were caught by economic development.

JG explained that other alternatives had been considered, for example desalination for sea-water, however due to timing involved in the development and costs these were not feasible.

JG also explained that sand does migrate along the coast line to recharge beaches. JG agreed that sediment is trapped by the dam but the dam will spill often.

JG stated that the raising of Hazelmere Dam was the cheapest economic intervention. Previous expenditure was in the region of R20 million but this had grown to R50-R60 million due to escalation. Part of this procedure required investigation and has always been the intention of DWAF to thoroughly investigate options and alternatives. JG contented that a specific strategy was required.

WH asked if there will be specific strategies implemented as there are currently impacts on the estuary due to the dam, such as sluicing of allowance for downstream use [*Reserve*].

JG stated that a strategy will be formulated to augment this need. Treated effluent

will be added to increase this supply but is a longer term option. Inter basin transfers are another option to augment this. JG also referred to the Rapid determination for the stream and estuary in 2001 where various variables were investigated. The assessment concluded that the river was in a good condition and gave recommendations.

CC explained that these would be available on the website <http://www.hazalmeredameia.co.za>

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AP referred back to an earlier issue regarding fauna and the impacts on bird species in particular. AP explained that the dam has impacted the river by reducing fish available for birds as a food source and therefore had impacted these populations. Therefore it was important to address the revitalisation of the river. Additionally, the raising of Hazelmere Dam and the loss to Msinsi holdings was unacceptable and presented valuable recreational space. Were the communities who utilised this going to be compensated?

JG explained that the Msinsi Holdings land belongs to the State and that this had been leased with the understanding that the dam would be raised (the dam was built with this intention) and therefore would use the land until such time as the dam would be raised. The Reserve is governed by the National Water Act and therefore has to be provided. This will be up to the Minister to determine. DWAF has always aimed at achieving/satisfying the three legs of the environment, namely social, economic, and ecological. DWAF will therefore be dedicated to implementing the Reserve and formulating a strategy to achieve this. Will endeavour to integrate the in-flow requirements (IFR) for the Mdloti catchment. DWAF has a strategy for the provision of Jojos but the participation for the communities is not there. JG commented that DWAF is fully supportive of these initiatives and agrees with AP.

CC commented that the broader environmental principle is correct and longer term initiatives will have to be strategized. At this point though, it is not possible to meet demand and the Reserve and this would only worsen if the dam is not raised.

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## **7. CONCLUSION**

NN asked where suitable places where to leave the EIR for review. After a short discussion it was decided that the EIR would be available for comment at the following places:

1. Msinsi Holdings
2. Verulam Library
3. Canelands Library
4. Umdloti Library
5. Councillors Office

## 6. Oakford Priory

NN concluded by thanking everybody for their attendance, time, and feedback. It was reiterated that all these comments would form part of the EIR. Therefore it was important for any further questions to be captured on a comment form and returned to Nemai Consulting as soon as possible.

JG also thanked everybody for their attendance and commented that DWAF desires to comply with every legal aspect and ultimately benefit the environment.

**Closed for tea and coffee**

**ATTENDANCE REGISTER:**

No	Name	Address	Telephone	Fax	Email
1	Andile	House 88; Hazelmere	084 481 2818	032 533 7188	-
2	Pat Reddy	PO Box 1018	031 336 2759	031 305 9915	reddyp@dwaf.gov.za
3	Hillary Vickers	PO Box 710; Umdloti Beach; 4350	031 568 1671	031 568 1671	vickht@iafrica.com
4	Meeressa Pillay	PO Box 1018	031 336 2723	031 305 9927	pillaym@dwaf.gov.za
5	Norman Ward	PO Box 1018	031 336 2737	031 305 9927	wardn@dwaf.gov.za
6	Allimuthu Perumal	PO Box 44; Tongaat	032 533 3059	032 533 1591	-
7	Navin Dixon	Dixon Centre – Oakford	082 665 0319	032 541 0114	navin@dixonholdings.co.za
8	Johann Geringer	DWAF, Pta	012 336 8332	012 336 7399	ibc@dwaf.gov.za
9	FW Mdletshe	Cottonland	072 414 9732	-	-
10	I Nehore	Hazelmere	082 344 8435	-	nehorei@durban.gov.za
11	Chocks Arunajallam	47 Honey Suckle Rd; Verulam	082 302 1925	082 302 1925	chocks@telkomsa.net
12	D Sevelall	PO Box 549; Verulam; 4340	084 205 8544	032 533 2607	-
13	Vasu Moodley	PO Box 1175; Verulam; 4340	083 787 4747	-	vasu@telkomsa.net
14	Christy Subrayen	Brindhavan Civic	083 793 7938	032 945 3171	-
15	Nathi Miya	Cottonlands; Verulam	083 592 8207	032 533 7188	-
16	Wayne Holland	PO Box 31; Umdloti Beach; 4350	031 568 1839	031 568 1839	sealodge@iafrica.com
17	Nonhlanhla Dlomo	Hazelmere	072 4056 050	-	-

18	Shisa Ndawonde	Hazelmere	072 307 2680	-	-
19	Allen Buthelezi	Hazelmere	-	-	-
20	Philip Ngcobo	Hazelmere	-	-	-
21	R Lala	300 Sunford Dr; Phoenix	084 882 7932	032 533 6142	-
22	N Mgobhozi	PO Box 1882; Verulam; 4340	082 213 0680	032 532 3645	mgobhozi@sedbn.kzntl.gov.za
23	B Juggernath	C/O: Peter Chengan; Oakford Priory	-	032 541 0127	-
24	Bongani Mkhize	P/Bag X1020; Hillcrest; 3650	082 416 8007	031 765 7704	Bongani.mkhize@msinsi.co.za
25	Rakesh Ramnarain	Suite 3; 12 Groom Str; Verulam; 4340	072 230 5014	086 512 9507	ramn@telkomsa.net
26	Barend Welgemoed	PO Box 21084; Verulam; 4340	082 844 5846	-	-
27	John Cameron	241 Old Howick Rd; PMB	082 779 7665	033 343 1784	-
28	Kevin Meier	PO Box 9; PMB	082 454 5686	033 3411 281	Kevin.meier@umgeni.co.za
29	S Gillham	Po Box 9; PMB	033 341 1576	033 341 1218	Steve.gillham@umgeni.co.za
30	S Xaba	28 Westdale Rd; Reservoir Hills	073 920 4464	031 262 8222	dada@dpsa.co.za
31	Sr. Odila	Oakford Priory; PO Verulam; 4340	032 541 0097	032 541 0099	Thepriory@cybertrade.co.za
32	Sr. Brokamp	Oakford Priory; PO Verulam; 4340	032 541 0097	032 541 0099	Thepriory@cybertrade.co.za
33	Peter Chengan	Oakford Priory; PO Verulam; 4340	032 541 0988	032 541 0099	Thepriory@cybertrade.co.za

34	Sydney Voleyi	Msinsi; Hazelmere	082 483 1975	-	-
35	D Dold	100 Brad Rd; Dbn	031 201 3126	031 201 9525	conservation@wessakzn.org.za
36	R vd Merwe	92 Bank Terrace; Dbn	031 261 1009	-	206515815@ukzn.ac.za
37	C Schwegman	Box 343; Pennington; 4184	039 975 2147	-	afromatz@telkomsa.net
38	Kevin Hegter	PO Box 34; New Germany	082 709 7816	031 705 1451	Kevin@hegter.com
39	Bill Pfaff	PO Box 1038; Dbn; 4000	031 311 8783	031 311 8549	billpf@dmws.durban.gov.za
40	Lin Gravelot- Blondin	PO Box 1018	031 336 2711	031 305 9915	gravel@dwaf.gov.za

**APPENDICES:**

Appendix One: Background to the proposed raising of Hazelmere Dam. Presentation by JJ Geringer at the public meeting held at Canelands Country Club, Verulam 16 July 2007.

Appendix Two: Hazelmere Dam Raising: Environmental Process. Presented by C Chidley at the public meeting held at Canelands Country Club, Verulam 16 July 2007.

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**NOTE**

**THESE TWO APPENDICES HAVE BEEN REMOVED FROM THE WEB  
VERSION OF THE MINUTES DUE TO SIZE CONSTRAINTS.**

**THE COMPLETE VERSION OF THE MINUTES WILL BE INCLUDED IN THE  
ENVIRONMENTAL IMPACT REPORT**

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