

UTOPIA NATURE RESORT ENVIRONMENTAL MANAGEMENT PLAN

PART 1: BACKGROUND REPORT

November 2013 (Final DRAFT)



Member of the Buffelspoort Valley Conservancy



INTRODUCTION:

Utopia is a unique private nature resort about 100 km from Johannesburg and Pretoria, on the lower northern slopes of the Magaliesberg Mountains in South Africa's North West Province.

Brief history of Utopia and motivation for this plan:

Utopia was developed as a pleasure resort in the late 1960s and early 1970s with approximately 800 units proposed, although fortunately only 123 thatch and stone A-frame chalets were ever built mainly due to economic constraints. Utopia was converted to a share block scheme in the 1980s with private owners but still allowing public access for camping, day visitors and chalet letting.

In 2001 various proposals for expansion were mooted; these included conference accommodation consisting of 20 hotel-type units on the existing bowling green, the supply of underground electricity to units, and the building of 60 new chalets. To assess the feasibility of this an Initial Environmental Review was commissioned. The findings of this review were that any major changes in land use or expansion of facilities would be a listed activity in terms of the then-relevant environmental legislation and would require authorisation from the Northwest Department of Environment. This authorisation would require the preparation of an Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) by an independent consultant; which would be very costly. The report also highlighted some environmental concerns relating to the management of Utopia, mainly around alien vegetation and the disposal of household waste on the site – which have fortunately been rectified since then. The one area of concern that has not been actively addressed is the issues relating to the impact of Utopia on the water quality of the streams and ground water in the area (this will be addressed later). The report also recommended that an EMP be prepared to assist in the management of Utopia. The then-board and shareholder body elected not to pursue this matter further.

In 2003 the share block was converted to a sectional title scheme, although still allowing public access. In 2010 the body corporate elected to close the resort and stop public access, ending Utopia's 40-year history as a public resort. It was also elected to explore the option of converting Utopia into a nature reserve; although this did not prove feasible it indicates a general movement towards more conservation and nature-orientated vision for Utopia. In 2011 it was decided to once again allow private letting of units through an approved letting agent.

Utopia today is a peaceful weekend retreat with about 10% of the residents being permanent. Utopia, however, faces many issues both regional, such as the crime rate and general economic downturn, and site-specific, such as the cost of maintaining the

property and conflicting desires of owners. In an attempt to address these and develop a common vision for a way forward the Utopia Board and management developed a discussion document titled “Utopia – The Way Forward” in early 2012. This has created a forum for feedback and has resulted in responses from a number of Utopia’s owners. Many thanks must go to all the Utopians who have made an effort to comment on the discussion document.

In light of this increasing environmental awareness of Utopians and general uncertainty regarding the future of Utopia, the Board of Trustees elected to voluntarily develop an EMP (Environmental Management Plan). The aim of this plan is to take the findings of the basic environmental assessment and the suggestions and views of the Utopian owners that have come out of the discussion document, and develop a working plan to help inform the future budgets and the day-to-day management of Utopia.

In order to save costs this plan has been prepared in-house utilising the considerable expertise of the various owners, staff and friends of Utopia. We have strived to ensure that the information provided is as accurate and objective as possible; however, we will welcome any comments, corrections or further inputs. While it may be best practice to employ an independent consultant to carry out a review and planning process of this nature, it would not be possible due to the costs involved. There is also no legal requirement to appoint an independent consultant (Environmental Practitioner – in terms of the National Environmental Management Act 1998) as this exercise is being carried out purely for internal planning and management purposes.

The format for this management plan is based on the format proposed by the National Association of Conservancies of South Africa (<http://www.nacsa.org.za.htm>) and as adapted to fit in with the general format for Utopia management plans as decided by the board in November 2013 . It is in the form of three books as follows:

- Book 1: Data and background information
- Book 2: Strategy (to be reviewed every 3 or 5 years)
- Book 3: Management plan (to be reviewed annually – or as needs be)

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List of acronyms

ECA:	Environment Conservation Act of 1989
EIA:	Environmental impact assessment
EMF:	Environmental management framework
MCSA:	Mountain Club of South Africa
MPA:	Magaliesberg Protection Association
MPE:	Magaliesberg Protected Environment
NEMA:	The National Environmental Management Act (Act 107 of 1998)
NEMPA:	National Environmental Management: Protected Areas Act (Act 57 of 2003)
NWDACERD:	Northwest Department of Agriculture, Conservation, Environment and Rural Development
NW:	North West Province
TPA:	Transvaal Provincial Administration
WITS:	University of the Witwatersrand

1. PART 1- BACKGROUND INFORMATION AND DATA

1.1. Administrative Background

1.1.1. Utopia Nature Resort Area Information

1.1.1.1. Name:

The site is known as Utopia Private Nature Resort, a private sectional title residential scheme with 123 built units as well as 9 stands in the Utopia Trust and 6 other privately owned stands (still in the share block scheme) which have not been developed. This is a potential total of 138 units.

1.1.1.2. Dominant veld type:

The dominant veld type for the northern slope of the Magaliesberg including the site is "Sourish mixed bush veld" in terms of Ackcock's Veld Types of Southern Africa.

1.1.1.3. Utopia Nature Resort area in hectares

Utopia is 115,7217 ha in extent with approximately 5.5 ha making up the 138 developed and potentially developable 400m² exclusive use areas. Another approximately 10 ha is taken up with the central complex, tennis courts, playground, pools, campsite, staff accommodation, compound, roads, etc.

1.1.2. Details of the Utopia Nature Resort Management

Utopia is managed by the sectional title scheme board of trustees which is made up of Utopia owners elected by the body corporate on an annual basis. The board is assisted by an Administrative Manager and Site Manager and 8 to 10 permanent labour staff. Security is outsourced. Additional temporary labour is sourced when the need arises.

1.1.3. Utopia Nature Resort Locality Data

1.1.3.1. Coordinates :

25 49' 25.58"S and 27 28'40.80"E

1.1.3.2. Locus

Utopia is located on Portion 3 of the farm Grootfontien 346 JQ.

1.1.3.3. Magisterial District:

Utopia is in the Rustenburg Magisterial district

1.1.3.4. Regional Services Council Rustenburg

1.1.3.5. Province North West Province

1.1.3.6. **Maps:** To follow (need to get ortho photo maps (1:10 000) and Aerial photos from map services – don't have in PTA need to get from CT)

Andries compiling Google map which we can use.

Detailed 1:50 000 maps indicating coordinates, cadastral information, topography and boundaries of the site.

In addition to the Site Map it is also beneficial to have a regional map illustrating the site location in relation to relevant towns and other protected areas.

In their most extensive and most useful format, maps will provide information on the following: topography, geology, soils, vegetation, slope, drainages, conservancy zonation, wildlife distribution, soil erosion systems, road systems etc.

1.1.4. **Utopia Legal Status**

Utopia is authorised as a resort and currently has no legal conservation status. Utopia is, however, an active member of the Buffelspoort Valley Conservancy. The Utopia Sectional Title Scheme is registered as N.SS879/2003. Certain units and vacant stands are still part of the Share Block Scheme; this, however, is in the process of being wound up.

In 2010 the Utopia Body Corporate elected to investigate obtaining nature reserve status for Utopia. A conservation committee was established and some investigative work done; however, it became evident that obtaining full 'private nature reserve' status for Utopia would not be feasible. It was decided that Utopia should still strive to become more nature-orientated and more sustainable in its management. To this end it was proposed that an environmental management plan be drawn up.

The Magaliesberg as a whole is declared a Protected Environment in terms of the National Environmental Management; Protected Areas Act 2003 and Utopia's southern boundary is adjacent to this protected area. Part of Utopia also falls within the Protected Environment's 2km buffer area. The Magaliesberg Environmental Management Framework and Plan promulgated by North West Province in 2009 applies to the whole Magaliesberg area including Utopia. This plan amongst other things determines the types of land use acceptable in the area.

North West Province in conjunction with the Finnish government is currently preparing an application to UNESCO to have the Magaliesberg area proclaimed a biosphere reserve. This will also impact Utopia as the

site falls within this area (see <http://www.magaliesberg-unesco.co.za> for more information).

In 2001 a legal register was compiled to ensure that Utopia was complying with all the necessary legal requirements. This formed part of the initial environmental assessment done then. Since then the environmental legislation in South Africa has seen significant changes. The most significant for Utopia being:

- The promulgation of The National Environmental Management Act, 1998 (107 of 1998) (NEMA) regulations
 - Government Notice: R 543, 544, 545 and 546 of 2010: 18 June 2010. [Corrected by “Correction Notice 1” of 30 July 2010, GN No. R. 660, and “Correction Notice 2” of 10 December 2010, GN No. R. 1159]
- National Environmental Management: Waste Act, 2008 (Act 59 of 2008)
 - Government Notice 718 of 2009: List of Waste Management Activities that have, or are likely to have, a detrimental effect on the Environment. 3 July 2009.
 - Government Notice 718 of 2010: National waste information regulations 23 July 2010.
- National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004)
 - Government Notice 248 of 2010: List of activities which result in atmospheric emissions which have or may have significant detrimental effect on the environment, including health, social conditions, economic conditions, ecological conditions or cultural heritage. 31 March 2010.
- National Environmental Management: Biodiversity Act
- National Water Act, 1998 (36 of 1998) and relevant regulations

1.2. Natural Resource Information

Natural resource information consists of the ecological background and conservation information for the site. For the purposes of this report a literature and internet survey has been conducted in conjunction with on-site observations and personal knowledge of Utopian owners, staff members and friends. Detailed site inspections and field-based studies have not been conducted by experts in the various fields. Much of the information used is regional and applies to the Magaliesberg as a whole not specifically to the Utopia site. Any further input or corrections will be welcomed.

The information below has had to be kept as brief as possible; for further detail and an in-depth description of the natural environment of the Magaliesberg please refer to the book “The Magaliesberg” by Vincent Carruthers which has been referred to extensively throughout this section.

1.2.1. Ecological Background

1.2.1.1. *Geology & geomorphology*

The Magaliesberg mountain range is one of the oldest mountain ranges in the world and has a fascinating history from a geological perspective. Evidence of this history can be seen in the geology of Utopia today.

The Magaliesberg mountain range is made up of layers of sedimentary paving that tilt up from the flat bushveld on the northern side. The upmost layer of quartzite rests on a layer of shale. At the summit of the slope it terminates abruptly in steep cliffs on the southern side of the Magaliesberg (Carruthers, 6). Utopia is located at the base of this slope on the northern side of the mountain.

The Utopia property is L shaped with a tributary to the Sterkstroom stream cutting through the short arm of the L on the north western portion of the site; this then joins the Sterkstroom stream to form the southern boundary. The Tonquani stream forms the entire length of the eastern boundary of the site. There is a raised Seynite Dyke (igneous intrusions of molten magma) running perpendicular to the mountain range along the western border of the site culminating in the area between the two streams. The typical rocks of this ridge can be seen at Jantjie se Randjie. The two rivers join at the outside corner of the L and drain towards the Buffelspoort Dam. The Sterkstroom Stream is apparently the largest stream with its source in the Magaliesberg (Carruthers, 385).

The rocks found on Utopia are characterised by the granular sugary texture of re-crystallised quartzite which was exposed to the heat of the bushveld igneous complex there are also many rocks displaying characteristic ripple marks, reminders of a time when these deposits were beach sand on the shores of a large inland sea.

Along the Tonquani River there are some areas with cliffs similar to the much larger cliffs on the sides of the Tonquani kloof to the south of the site. These characteristic kloofs were formed when streams washed away the less resilient igneous rock leaving only the hard quartzite exposed.

1.2.1.2. *Soils*

The soils on the lower Northern slopes of the Magaliesberg are moderately deep (Carruthers, 40). This soil is sandy and permeable as a result of the high Quartzite and feld spar content it supports good plant growth including some substantial trees and shrubs, as can be seen on the Utopia property. The soil structure in this area is, however, more susceptible to erosion than on the southern slopes of the mountain (Carruthers, 41). Generally the erosion is prevented by grass and tree cover as well as the abundant rocks on the surface. Where this cover has been removed or damaged by overgrazing, fire or bush clearing dongas or sheet erosion soon develop. (This is often evident around chalets especially when the ground cover is disturbed by building work or on the dirt roads). Erosion however is not a significant issue on the site.

There are also areas along the streams where sedimentary soils are deeper supporting growth of larger trees. In a number of places deposits of soil are evident such as at the old borrow pit site, near the children's play ground, where a large colony of White Fronted Bee-eaters nest.

1.2.1.3. *Hydrology*

As indicated above there are two streams on the site both are strong flowing although flow rates vary depending on the season. The Tonquani River through Utopia apparently ran dry in 1986 but has not run dry since then. Flow rates on both streams have appeared to have increased since an alien vegetation control program has been in place.

There is a dam on the tributary to the Sterkstroom stream just below which is the main water off-take for Utopia's drinking water. From this point water is pumped to a number of reservoirs and then gravity fed to the units. Utopia has a water use permit for the dam and extraction point)

There is also a borehole near the dam. This is not used at present as pumping the water is expensive and flow rates of the Sterkstroom have been adequate. The depth of this borehole is unknown. It was last used regularly approximately 20 years ago.

There is a Department of Water Affairs (DWA) weir on the Tonquani River near Unit 66 where water is taken off in asbestos pipes for use by the "Sterkwater Farming Community Irrigation

Scheme” further downstream. Excess water is then returned to the stream a couple of hundred metres below the weir. The flow of the stream in general is not affected but in dry seasons the flow between unit 66 and 62 is stopped and this lowers the level of the rock pools there. The pipes are visually intrusive. A substantial road has recently been cleared on the eastern side of the river to give access to the collection point.

The water quality is generally perceived as fairly good. The last test results on file in the Utopia office are dated 2009. The fecal ecoli and total ecoli levels in the dam exceeded the South African National Standard (SANS) 241 Drinking Water Specifications; however, the water coming from the tap met all necessary standards. Water quality should be tested regularly. Utopia should also test the water in both rivers as it enters and leaves the site so it can be established to what extent water quality deteriorates over the site.

The units all utilise independent septic tanks with french drains / soak-aways constructed from the local rock for the overflows. Care needs to be taken that these do not affect the water quality especially in cases where these septic tanks are located in close proximity to the rivers. Water quality in the area has been identified as a major threat in the Magaliesberg Environmental Management Framework (page 9). The Sterkstroom and its tributaries are, however, identified as one of the few rivers in the area with particularly good water quality. It needs to be kept that way.

The geology underlying the site is cross-cut by sills and dykes which are connected in a maze of passages through which magma once flowed. It is these bodies of water which charge the Tonquani stream, for example, and maintain its perennial flow. It is currently not known what the depth is of these sills or springs below the surface and the effects that the septic tanks may have on this water quality. This is potentially problematic as waste water released higher up the slope can seep into the sills and create a problem further to the north.

There are also a number of perennial springs on the site. One comes up near the children’s swimming pool especially in very wet seasons. There are also a number of small perennial streams on the site such as the one running past Unit 69 and down to the Tonquani stream near unit 62.

Water Use licences: National Water Act, 1998 (36 of 1998) and relevant regulations

The National Water Act requires water users to register and obtain licences for the use of water; the intention of this is to allow the water resources of the country to be sustainably managed through long term planning. Registration also allows water use charges to be levied in terms of the Act.

Section 21 lists the various water uses, these include:

- (a) taking water from a water resource;
- (b) storing water;
- (c) impeding or diverting the flow of water in a watercourse;
- (d) engaging in a stream flow reduction activity contemplated in section 36;
- (e) engaging in a controlled activity identified as such in section 37(1) or declared under section 38(1);
- (f) discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit;
- (g) disposing of waste in a manner which may detrimentally impact on a water resource;
- (h) disposing in any manner of water which contains waste from, or which has been heated in, any industrial or power generation process;
- (i) altering the bed, banks, course or characteristics of a watercourse;
- (j) removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people; and
- (k) using water for recreational purposes.

Section 39 of the Act, however, provides for the granting of General Authorisations, if a water use meets the requirements of a general authorisation no individual licence is required but the water user should register with the Department of Water Affairs.

In summary the general authorisation covers the following:

- Water users using less than 50m³ drawn from surface water per day.
- Water users using less than 10m³ drawn from ground water a day.
- The storage of less than 10 000m³ of water on a property.
- Some specific geographic areas are also excluded from the general exemption these include inter alia portions of the Vaal and Orange Rivers as well as some of their tributaries (Buffels and Riet Rivers).

The disposal of waste water: In addition to the above the disposal of waste water is also identified as a water use which may require a licence (see section 21 (e), (f), (g) and (h) above).

The irrigation of land with waste water and or any other release of waste water or water that has been heated in an industrial process will require a water use licence. The water will have to be cooled to the ambient water temperature as part of the process before it can be released.

1.2.1.4. *Veld types & vegetation description:*

Most of the Magaliesberg ridge system is identified as “Sour Bush Veld” in terms of the Ackocks veld types of Southern Africa with the more level areas along the N4 motorway to the North of the Magaliesberg being identified as “Sourish mixed bush veld”. Most of the Utopia site is what can be classified as a “boekenhout sour veld” or “Moot Plains Bushveld” and “Gold reef mountain bush veld” as identified Situational Analysis: Magaliesberg Biosphere Management Plan Page 142) The Moot Plains Bushveld vegetation type is listed as Vulnerable in the 2004 NSBA. There are also areas of mixed open wood land and thickets in the southern portion of the site. There is typical riverine vegetation along the rivers and a wetland area surrounding the dam.

Sour Bush Veld is characterised by a mixture of different grasses and other plants According to Carruthers (page, 87) there are over a hundred species of grass in the Magaliesberg. These include rooigras (*Themeda triandra*) which is a palatable sweet grass and generally seen as an indicator of good veld health and spear grass (*heteropgon contortus*) which although it is usually mixed with other grasses tends to be dominant in areas with poor veld health. Also associated with good veld condition is common thatch grass (*Hyparrhenia hirta*) (Carruthers 88) the soft young grass is good for grazing but the long hard stems are of no use to game, and form a significant fire risk if permitted to accumulate.

The grassland areas of Utopia are dominated by a mix of species with many flowering plants growing amongst the grasses, many of these are interesting in that they flower before the spring rains while most of the grass species are still dormant. According to Mr. Kevin Gill, the number of pre rain flowering species at Utopia has decreased due mainly to the veld becoming moribund due to a lack of a burning regime. Most of these species require fire to assist with germination or to allow them to compete with the grass species.

There are also individual trees scattered in the grassy areas such as the as Transvaal Beech or Bokkenhout (*Faurea saligna*) and the Common Sugar bush (*Protea caffra*), Wild syringa (*Burkea africana*), Magalies plane (*Ochna pretoriensis*), Peeling plane [Lekkerbreek] (*Ochna pulchra*) and the Common wild pear (*Dombeya rotundifolia*) amongst others.

1.2.1.5. Indigenous vegetation lists

Below is a list of currently and historically occurring indigenous vegetation species, and a list of current and alien vegetation species.

Table 1: Indigenous trees: in the Magaliesberg

National number	Scientific name	Common name	Comments
1	<i>Cyathea dregei</i>	Tree fern	In the kloofs
29.5	<i>Aloe marlothii</i>	Mountain aloe	
	<i>Aloe mutabilis</i> (= <i>arborescens</i> ?)	Cliff aloe	
36	<i>Salix mucronata</i>	Cape willow	
38	<i>Myrica serrata</i>	Lance-leaf waxberry	
39*	<i>Celtis africana</i>	White stinkwood	
48*	<i>Ficus thonningii</i>	Common wild fig	
55	<i>Ficus ingens</i>	Red-leaved rock fig	
60	<i>Ficus cordata</i> subsp. <i>salicifolia</i>	Wonderboom fig	
63	<i>Ficus abutilifolia</i>	Large-leaved rock fig	
70	<i>Obetia tenax</i>	Mountain nettle	
71	<i>Pouzolzia mixta</i>	Soap nettle	
75*	<i>Faurea saligna</i>	Transvaal beech [Boekenhout]	
87*	<i>Protea caffra</i>	Common sugarbush	
89	<i>Protea gaguedi</i>	African sugarbush	
98.2	<i>Protea welwitschii</i>	Honey-scented sugarbush	
100	<i>Osyris lanceolata</i>	Transvaal sumach	
103	<i>Ximenia caffra</i>	Large sourplum	
122	<i>Boscia albitrunca</i>	Shepherd's tree	
133*	<i>Maerua caffra</i>	Bush-cherry	
139*	<i>Pittosporum viridiflorum</i>	Kasuur	
145	<i>Leucosidea sericea</i>	Old wood [Ouhout]	
147	<i>Prunus africana</i>	Red stinkwood	
160	<i>Acacia ataxacantha</i>	Flame thorn	
162*	<i>Acacia caffra</i>	Common hook-thorn	
172*	<i>Acacia karroo</i>	Sweet thorn	
179	<i>Acacia nilotica</i>	Scented thorn	
183*	<i>Acacia robusta</i>	Splendid thorn	
188	<i>Acacia tortilis</i>	Umbrella thorn	
190	<i>Dichrostachys cinerea</i>	Sickle bush	
193	<i>Elephantorrhiza burkei</i>	Sumach bean	
197	<i>Burkea africana</i>	Wild syringa	
215	<i>Peltophorum africanum</i>	Weeping wattle	
226	<i>Mundulea sericea</i>	Cork bush	
245	<i>Erythrina lysistemon</i>	Common coral tree	

253	* <i>Zanthoxylum capense</i>	Small knobwood	
256	<i>Calodendrum capense</i>	Cape chestnut	
261	<i>Vepris undulata</i>	White ironwood	
303	<i>Securidaca longepedunculata</i>	Violet tree	
325	<i>Bridelia mollis</i>	Velvet sweetberry	
328	<i>Croton gratissimus</i>	Lavender fever berry	
335.1	<i>Acalypha glabrata</i>	Forest false-nettle	
341	<i>Spirostachys africana</i>	Tamboti	
346	<i>Euphorbia cooperi</i>	Transvaal candelabra tree	
351	<i>Euphorbia ingens</i>	Common tree euphorbia [Naboom]	
360	<i>Sclerocarya birrea</i>	Marula	
362	<i>Lannea discolor</i>	Live-long	
375	<i>Ozoroa paniculosa</i>	Common resin tree	
386	* <i>Rhus lancea</i>	Karee	
387	* <i>Rhus leptodictya</i>	Mountain karee	
	<i>Rhus magaliesmontana</i>	Magaliesberg rhus	
392	* <i>Rhus pyroides</i>	Common wild currant	
397	<i>Ilex mitis</i>	Cape holly	
399	* <i>Maytenus heterophylla</i>	Common spike-thorn	
	* <i>Maytenus polyacantha</i>	Kraal spike-thorn	
403	* <i>Maytenus undata</i>	Koko tree	
405	* <i>Pterocelastrus echinatus</i>	White candlewood	
411	* <i>Cassine burkeana</i>	Transvaal kooboo-berry	
420	<i>Cassinopsis ilicifolia</i>	Lemon thorn	
422	<i>Apodytes dimidiata</i>	White pear	
433	* <i>Pappea capensis</i>	Jacket plum	
437	* <i>Dodonaea angustifolia</i>	Cape sand olive	
447	* <i>Ziziphus mucronata</i>	Buffalo thorn	
450	<i>Berchemia zeyheri</i>	Red ivory	
452	<i>Rhamnus prinoides</i>	Dogwood [Blinkblaar]	
453.2	<i>Phyllica paniculata</i>	Common hardleaf	
459.1	* <i>Grewia flava</i>	Wild raisin	
462	<i>Grewia monticola</i>	Silver raisin	
463	* <i>Grewia occidentalis</i>	Cross berry	
471	* <i>Dombeya rotundifolia</i>	Common wild pear	
480	<i>Ochna holstii</i>	Red ironwood	
480.2	<i>Ochna pretoriensis</i>	Magalies plane	
483	<i>Ochna pulchra</i>	Peeling plane [Lekkerbreek]	
494	* <i>Kiggelaria africana</i>	Wild peach	
498	* <i>Scolopia zeyheri</i>	Thorn pear	
511	<i>Dovyalis zeyheri</i>	Wild apricot	
514	* <i>Olinia emarginata</i>	Transvaal hard pear	
532	* <i>Combretum apiculatum</i>	Hairy red bushwillow	
536	* <i>Combretum erythrophyllum</i>	River bushwillow	
537	* <i>Combretum molle</i>	Velvety bushwillow	
546	* <i>Combretum zeyheri</i>	Large-fruited bushwillow	
551	<i>Terminalia sericea</i>	Silver cluster-leaf	
563	* <i>Cussonia paniculata</i>	Mountain cabbage tree	
564.3	<i>Cussonia transvaalensis</i>	Transvaal cabbage tree	
568	* <i>Heteromorpha trifoliata</i>	Parsley tree	
577.1	* <i>Myrsine africana</i>	Cape myrtle	
577.2	<i>Myrsine pillansii</i>	Large Cape myrtle	
581	* <i>Englerophytum magaliesmontanum</i>	Transvaal milkplum [Stamvrug]	
585	<i>Mimusops zeyheri</i>	Transvaal red milkwood [Moepal]	
594	* <i>Euclea crispa</i>	Karoo guarri	

597.2	<i>Euclea natalensis</i>	Natal guarri	
601	<i>Euclea undulata</i>	Small-leaved guarri	
605.1	* <i>Diospyros lycioides</i>	Karoo bluebush	
611	* <i>Diospyros whyteana</i>	Bladder nut	
615	<i>Chionanthus foveolata</i>	Common pock ironwood	
617	* <i>Olea europaea</i> subsp. <i>africana</i>	Wild olive	
618	* <i>Olea capensis</i>	Bushveld ironwood	
623	<i>Strychnos cocculoides</i>	Corky monkey orange	
628	<i>Strychnos pungens</i>	Spine-leaved orange	
631	<i>Strychnos usambarensis</i>	Blue bitterberry	
633	* <i>Nuxia congesta</i>	Wild elder	
636	* <i>Buddleja saligna</i>	False olive	
637	* <i>Buddleja salviifolia</i>	Sagewood	
639	* <i>Acokanthera oppositifolia</i>	Common poisonbush	
640.1	<i>Carissa bispinosa</i>	Num-num	
647	<i>Rauvolfia caffra</i>	Quinine tree	
657	* <i>Ehretia rigida</i>	Puzzle bush	
666	<i>Vitex zeyheri</i>	Silver pipe-stem tree	
667	<i>Clerodendrum globrum</i>	Resin leaf	
	<i>Tetradenia brevispicata</i>	Ginger bush	
669.4	<i>Solanum giganteum</i>	Healing-leaf tree	
670	* <i>Halleria lucida</i>	Tree fuchsia	
693	* <i>Rothmannia capensis</i>	Wild gardenia	
699	<i>Tricalysia lanceolata</i>	Bastard forest coffee	
702	* <i>Vangueria infausta</i>	Wild medlar	
703	* <i>Tapiphyllum parvifolium</i>	Mountain medlar	
709.1	<i>Canthium suberosum</i>	Corky turkey-berry	
710	<i>Canthium mundianum</i>	Rock alder	
713	* <i>Psydrax livida</i>	Bushveld rock alder	
714.1	* <i>Pachystigma macrocalyx</i>	Crowned medlar	
716	* <i>Pavetta gardeniifolia</i>	Common bride's bush	
722	<i>Pavetta zeyheri</i>	Small-leaved bride's bush	
730	<i>Brachylaena rotundata</i>	Mountain silver oak	
733	* <i>Tarchonanthus camphoratus</i>	Camphor bush	
	* <i>Rhus rigida</i>	Rock currant	
410	* <i>Cassine aethiopica</i>	Kooboo-berry	
	* <i>Rhoicissus tridentata</i>	Bushman's grape	
	* <i>Diospyros austro-africana</i>	Firesticks star-apple	
	* <i>Ancyclobotrys capensis</i>	Wild apricot	
660	* <i>Vitax harveyana</i>	Three-finger vitax [probably a misidentification of <i>V. zeyheri</i>]	
706	* <i>Canthium gilfillanii</i>	Velvet rock alder	

“Checklist of Trees in the Magaliesberg”

Acknowledgements: The Johannesburg hiking club website. Lists #1 and #3 from Carruthers, V, “The Magaliesberg”, 1990, pp81-3; nomenclature updated to 1997 from Retief & Herman in Strelitzia #6, National Botanic Institute, 1997. Carruthers' based his list on one compiled by P. Venter and J. Anderson and published by the Magaliesberg Protection Association in the Proposal for a Plan towards the Preservation of the Magaliesberg as a Natural Area. 'National numbers' for invasive aliens from von Breitenbach, National List of Introduced Trees, 1984.

1.2.1.6. Alien vegetation lists

In terms of the Conservation of Agricultural resources Act 1983 (43 of 1983) Regulation 15 certain alien plants have been

declared as weeds or invasive plants. They are divided into 3 categories:

- Category 1 (worst weeds which need to be removed),
- Category 2 (plants with commercial value which may be grown with permits) and,
- Category 3 plants (which can be problematic, new growth must be prevented but existing plants can remain as long as they are not within 30m of the 1:50 year flood line).
- A list of those plants which are not listed aliens but which are still problematic in Utopia is also included.

Table 2: Category 1 Declared weeds and invader plants found at Utopia:

	Scientific Name	Common name	Comments
1.	<i>Ageratina adenophora</i> (Spreng.)	Crofton weed (Weed)	Along the rivers. Present and very problematic in the whole magaliesberg area. Needs to be manually removed regularly. Specifically problematic from Unit 85 upstream.
2.	<i>Arundo donax</i> L.	Giant reed, Spanish reed (weed)	Could be present in the river. Found downstream of the Utopia property at Buffelspoort
3.	<i>Bryophyllum delagoense</i> (Eckl.)	Chandelier plant.(weed)	Present. Needs to be manually removed especially problematic near Unit 63 and around the Office block.
4.	<i>Camptoclinium macrocephalum</i> (Less) DC.	Pom pom weed. (Weed)	Present, scattered through the veld. Fairly well controlled
5.	<i>Catharanthus roseus</i>	Madagascar periwinkle	These are fairly widespread at Utopia. Endangered in home range in Madagascar
6.	<i>Cereus jamacaru</i>	DC. Queen of the Night.(Weed)	present
7.	<i>Convolvulus arvensis</i> L.	Field bindweed, Wild morning glory. (Weed)	Possibly present along river
8.	<i>Datura ferox</i> L.	Large thorn apple. (Weed)	In disturbed areas
9.	Lantana- all seedbearing forms	Lantana, Tickberry, Cherry pie (Weed)	Present – both yellow and red and purple/pink flowers. There is an indigenous ground cover belonging to this family(purple)
10.	<i>Macfadyena unguis-cati</i> (L.)	Cat's claw creeper (Weed)	Present in the wooded areas especially around the staff houses
11.	<i>Myriophyllum aquaticum</i> (Vell.) Verdc.	Parrot's feather (Weed)	Present in the dam. Of concern as it can affect the rest of the river and Buffelspoort dam.
12.	<i>Nerium oleander</i> L.	Oleander (Weed) (Excluding sterile, double-flowered cultivars)	Present in some chalet gardens

13.	<i>Opuntia ficus-indica</i> (L.) Mill.	Mission or Sweet prickly pear (Weed) (Excluding spineless cactus pear cultivars and selections)	Present
14.	<i>Opuntia stricta</i> (Haw.)	Haw. Pest pear of Australia Weed	Present
15.	<i>Rubus cuneifolius</i> Pursh and hybrid <i>R. x proteus</i> C.H.Stirt.	American bramble (Weed)	Present in the river area
16.	<i>Solanum mauritianum</i> Scop.	Bugweed (Weed)	Present especially along river courses. Must not be confused with indigenous species. Thorns on stem of indigenous one.
17.	<i>Tecoma stans</i> (L.) Kunth	Yellow bells (Weed)	Present especially in unit gardens. A number of well-established trees exist
18.	<i>Thevetia peruviana</i> (Pers.)	K.Schum. Yellow oleander (Weed)	Possibly present in some gardens
19.	<i>Tithonia diversifolia</i> (Hemsl.) A.Gray	Mexican sunflower (Weed)	Present elsewhere in magaliesberg on road sides near Buffelspoort
20.	<i>Tithonia rotundifolia</i> (Mill.) S.F.Blake	Red sunflower(Weed)	As above
21.	<i>Xanthium spinasum</i> L.	Spiny cocklebur (Weed)	Possibly in disturbed areas
22.	<i>Xanthium strumarium</i> L	Large cocklebur(Weed)	As above

Table 3: Category 2: Declared weeds and invader plants found at Utopia:

	Scientific Name	Common name	Comments
1.	<i>Acacia meamsii</i> De Wild.	Black wattle (Invader)	Present in the old borrow pit areas especially near the MCSA pedestrian gate on the Southern side of Utopia.
2.	<i>Accacia dealbata</i> Link	Silver Wattle (Invader)	Present. Particularly between main complex and compound and near unit 11
3.	<i>Agave sisalana</i> Perrine	Sisal (Invader)	Some individual plants present near 105 , 107, 68, 52 and 49 (amongst others) – toxic to skin
4.	<i>Salix babylonica</i> L.	Weeping willow (Invader) (Not to be confused with indigenous species)	Present along the rivers
5.	<i>Psidium guajava</i> L. and hybrids	Guava Invader	Present along river near northern boundary. Care must be taken to ensure they do not spread.

Table 4: Category 3: Declared weeds and invader plants found at Utopia

	Scientific Name	Common name	Comments
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1.	<i>Ipomoea purpurea</i> (L.) Roth	Morning glory (Invader)	I suspect they are some in the riverine forest areas Near unit 84
2.	<i>Jacaranda mimosifolia</i> D.Don a	Jacarand (Invader) (Excluding sterile cultivar "Alba")	Present, many of the most prominent ones along the road have been removed. Must ensure existing trees do not spread – especially with in 30m of the 1;50yr flood line
3.	<i>Ligustrum vulgare</i> L	Common privet Invader	I am not sure which privet they are but there are privets around some of the chalets – see unit 51
4.	<i>Melia azedarach</i> L. Syringa,	Persian lilac (Invader)	Trees throughout Utopia. Must ensure existing trees do not spread – especially with in 30m of the 1;50yr flood line
5.	<i>Nephrolepis exaltata</i> (L.) Schott	Sword fern Invader (Excluding cultivars)	Present at some chalets
6.	<i>Plectranthus comosus</i> Sims	'Abyssinian' coleus (Invader)	Around some units – see unit 47
7.	<i>Tipuana tipu</i> (Benth.) Kuntze	Tipu tree (Invader)	Present – around chalets one at unit 57

Table 5: Other problem plants at Utopia – not listed but could be problematic if left to spread.

	Scientific Name	Common name	Comments
1.	<i>Hypoestes phyllostachya</i>	Polka-dot plant or nosey neighbour (because of spreading tendancys)	Can be very invasive. There is a significant invasion of these along the river path below unit 105 – probably spread from a garden.
2.	<i>Adenocalymna (Adenocalymma) comosum, Bignonia comosa</i> Family: Bignoniaceae	Yellow Trumpet Vine	I suspect this is the creeper around Units 84 and 85. Type of Begonia from South America (can be very invasive) Yellow flower)
3.	<i>Zinnia peruviana,</i>	Peruvian Zinnia	This is an annual flowering plant in the family Asteraceae – it appears to be spreading especially around Unit 63
4.	<i>Setcreasea</i>	<i>Purple Heart Wandering Jew</i>	Not listed but has invasive habit (hence the common name). Found in unit gardens and the bee eater nesting area.
5.	<i>Kikuyu grass</i>	<i>Exotic</i>	Not listed but can be problematic especially in wetter areas such as along the river. Especially in the area between units 66 and 74 on the Tonquani river and around the campsite and swimming pool area.
6.	<i>Tagetes</i>	<i>Kakie boss</i>	Not listed but can be problem in disturbed areas – It is a pioneer plant and tends to die back as the veld health improves

7.	<i>Pteridium Aquilinum</i>	Brakken fern	Can be fire hazard when it is dry (Indigenous) tends to grow in damp areas after a fire. Toxic
8.	<i>Bidens pilosa</i>	Black jacks	Not listed but can be problem in disturbed areas – It is a pioneer plant and tends to die back as the veld health improves
9.	<i>Bougainville – various hybrids</i>	Bougainville	Must be confined to units exclusive use areas
10.	<i>Pulmaria</i>	<i>Frangi pangi (exotic – South Central America, New Zealand)</i>	Could be problematic if they spread into the river areas. Must be controlled and planting of new ones not encouraged <i>Trees by the playground and a number of units– related to oleander irritant sap</i>
11.	<i>Bamboo</i>	<i>1,450 species – cant determine which one this is, but has running (invasive) not clumping habit.</i>	All along the river – unit 105, 107.85, 84, 67, 68. Have been removed in the past but need to be controlled care must be taken not to damage indigenous plants.

1.2.1.7. Vertebrate list

Table 6: Indigenous Mammals (Need input from Clive)

	Scientific Name	Common name	Comments
1.	<i>Proteles cristatus</i>	Aardwolf	Rare
2.	<i>Papio ursinus griseipes</i> Pocock,	Gray-footed Chacma Baboon	
3.	??	Bats	(what kind do we have) Schreiber's long fingered bat?)
4.	<i>Canis mesomelas</i>	Black-backed jackal,	
5.	<i>Tragelaphus scriptus</i>	Bush buck	
6.	<i>Potamochoerus porcus</i>	Bush pigs	?? Aparently extinct in Magaliesberg (Carruthers? – Tash)
7.	<i>Aonyx capensis</i>	Cape clawless otter	Present along the rivers
8.	<i>Felis caracal</i>	Caracal (Rooikat)	
9.	<i>Sylvicapra grimmia</i>	Common duiker	

10.	<i>Procavia capensis</i>	Dassies or rock rabbit <i>Hyrax</i>	Present at Jainties se raintjie
11.	<i>Mellivora capensis</i>	Honey badger	Vulnerable, has been observed on the Tonquani property to the south of the site.
12.	<i>Genetta tigrina</i>	Large-spotted genet or Cape genet	Generally restricted to the southern Cape but has apparently been seen at Utopia
13.	<i>Genetta genetta</i>	Small-spotted genet	Present on the site in the more wooded areas
14.	<i>Panthera pardus</i>	Leopard	Rare has occasionally been seen at utopia. Probably lives up on the mountain but has a large home range
15.	<i>Galago moholi</i>	Lesser bush baby	
16.	<i>Cryptomys hottentotus</i>	Common Mole rats	
17.	<i>hystrix africaeausustralis</i>	Porcupine (cape porcupine)	
18.		Red Rock rats	
19.	<i>Lepus saxatilis</i>	Scrub hare	
20.		Slender mongoose	
21.	(<i>Ictonyx striatus</i>)	Striped polecat	
22.		Three striped field mouse	
23.	<i>Paraxerus cepapi</i>	Tree squirrel,	
24.		Vaal reedbuck (or is it the mountain?)	
25.	<i>Cercopithecus aethiops</i>	Vervet monkey,	
26.	<i>Phacochoerus aethiopicus</i>	Warthog	
27.	<i>Cynictis penicillata</i>	Yellow mongoose	
28.	<i>Galerella sanguinea</i>	Slender mongoose	

29.		shrews	
30.	<i>Hyaena brunnea</i>	Brown hyena	Rare
31.	<i>Atelerix frontalis</i>	South African hedgehog	Rare
32.	<i>Suncus infinitesimus</i>	Least dwarf shrew	Indeterminate
33.	<i>Ourebia ourebi</i>	Oribi	Vulnerable
34.	<i>Atilax paludinosus</i>	Water mongoose	

Table 7: Alien mammals

	Scientific Name	Common name	Comments
1.		Domestic cat	Have been very problematic in the past killing numbers of birds and rodents
2.		Domestic dogs	Are not permitted on Utopia with the exception of a few dogs with permits and working dogs for security purposes.
3.		House rat? Have they been seen?	

Table 8: Indigenous Reptiles and Snakes and fish

	Scientific Name	Common name	Comments
1.	<i>Kinixys belliana</i>	Savannah Hinged tortoise	Do we have ?
2.	<i>Geochelone pardalis</i>	Leopard Tortoise	Present at Utopia – not common in magaliesberg but can be found at base of northern slope – very vulnerable to poaching and uncontrolled fires
3.	<i>Varanus niloticus</i>	Water monitor/ leguaan	Present on the site, seen in the river
4.	<i>Cordylus vittifer</i>	Transvaal girdled lizard	We have one in the roof of our chalet
5.	<i>Agama atra</i>	Rock agama	present
6.	<i>Agama atricollis</i>	Tree agama	A family live by the children's pools – males have a striking blue head in the breeding season

7.		Skinks	present
8.		Scorpions?	Which ones do we have?
9.		Crabs	Which ones do we have?
10.		Tilapia – other fish?	
11.		Southern African Rock python	
12.		Rinkhals	
13.		Snouted cobra	
14.		Puff adder	
15.	<i>Lamprophis fuliginosus</i>	Brown House snake	Sometimes found in chalets (harmless!)
16.		Mamba	
17.		Water snake	
18.		Grass snake	
19.		Frogs – river frog	
20.		Red toad	

Table 9: Exotic reptiles and snakes

	Scientific Name	Common name	Comments
1.	<i>None know on the site</i>		

Table 10: Utopia bird list

BIRD NAME	BIRD NAME	BIRD NAME	BIRD NAME
Apalis, Barthroated	Cisticola, Lazy	Eagle, Brown snake	Guineafowl, Helmeted
Avocet	Cisticola, Levallant's	Eagle, Martial	Gull, Greyheaded
Babbler, Arrowmarked	Cisticola, Rattling	Eagle, Wahlberg's	Gymnogene
Barbet, Blackcollared	Cisticola, Wailing	Egret, Cattle	Hamerkop
Barbet, Crested	Coot, Redknobbed	Egret, Little	Harrier, African marsh

Barbet, Pied	Cormorant, Reed	Egret, Yellowbilled	Hawk, Bat
Barbet, Yellowfronted tinker	Cormorant, Whitebreasted	Eremomela, Burntnecked	Hawk, Cuckoo
Bateleur	Coucal, Burchell's	Eremomela, Greencapped	Heron, Blackcrowned night
Batis, Chinspot	Crane, Black	Eremomela, Yellowbilled	Heron, Blackheaded
Bee-eater, European	Crane, Blue	Falcon, Lanner	Heron, Greater White
Bee-eater, Little	Crombek, Longbilled	Falcon, Peregrine	Heron, Greenbacked
Bee-eater, Swallowtailed	Crow, Black	Finch, Cuckoo	Heron, Grey
Bee-eater, Whitefronted	Crow, Pied	Finch, Cutthroat	Heron, Purple
Bishop, Golden	Cuckoo, African	Finch, Melba	Heron, Squacco
Bishop, Red	Cuckoo, Black	Finch, Quail	Honeyguide, Greater
Bokmakierie	Cuckoo, Diederick	Finch, Redheaded	Honeyguide, Lesser
Boubou, Southern	Cuckoo, Jacobin	Finch, Scalyfeathered	Honeyguide, Sharpbilled
Brubru	Cuckoo, Klaas's	Firefinch, Bluebilled	Hoopoe
Bulbul, Blackeyed	Cuckoo, Redchested	Firefinch, Jameson's	Hornbill, Grey
Bunting, Gape	Cuckoo, Striped	Firefinch, Redbilled	Hornbill, Yellowbilled
Bunting, Goldenbreasted	Cuckooshrike, Black	Flycatcher, Black	Ibis, Hadeda
Bunting, Rock	Dabchick	Flycatcher, Fairy	Ibis, Sacred
Buzzard, Ateppe	Darter	Flycatcher, Fiscal	Kestrel, Greater
Buzzard, Honey	Dikkop, Spotted	Flycatcher, Marico	Kestrel, Lesser
Buzzard, Jackal	Dove, Cape turtle	Flycatcher, Pallid	Kestrel, Rock
Canary, Blackthroated	Dove, Greenspotted	Flycatcher, Paradise	Kingfisher, Brownhooded
Canary, Streakyheaded	Dove, Laughing	Flycatcher, Spotted	Kingfisher, Giant
Canary, Whitethroated	Dove, Namaqua	Francolin, Coqui	Kingfisher, Halfcollared
Canary, Yellow	Dove, Redeyed	Francolin, Crested	Kingfisher, Malachite
Canary, Yelloweyed	Drongo, Forktailed	Francolin, Natal	Kingfisher, Pied
Chat, Anteating	Duck, African black	Francolin, Redwing	Kingfisher, Pygmy
Chat, Familiar	Duck, Knobbilled	Francolin, Swainson's	Kingfisher, Striped
Chat, Mocking	Duck, Whitefaced	Gallinule, Purple	Kingfisher, Woodland
Chat, Mountain	Duck, Yellowbilled	Goose, Egyptian	Kite, Blackshouldered
Chat, Stone	Eagle, African fish	Goshawk, Gabar	Kite, Yellowbilled
Cisticola, Ayres'	Eagle, African hawk	Goshawk, Little banded	Korhaan, Black
Cisticola, Could	Eagle, Ayres'	Grassbird	Korhaan, Redcrested
Cisticola, Desert	Eagle, Black	Grebe, Greater crested	Lark, Clapper
Cisticola, Fantailed	Eagle, Bleackbreasted snake	Greenshank	Lark, Flappet
BIRD NAME	BIRD NAME	BIRD NAME	BIRD NAME
Lark, Longbilled	Plover, Wattled	Stint, Little	Warbler, Cape reed
Lark, Redcapped	Pochard, Southern	Stork, Abdim's	Warbler, Garden
Lark, Rufousnaped	Prinia, Blackchested	Stork, Black	Warbler, Icterine
Lark, Sabota	Prinia, Tawnyflanked	Stork, Marabou	Warbler, Willow
Longclaw, Orangethroated	Puffback	Stork, White	Waxbill, Blackcheeked
Lourie, Grey	Quail, Common	Stork, Yellowbilled	Waxbill, Blue
Mannikin, Bronze	Quail, Kurrichane button-	Sunbird, Black	Waxbill, Common
Martin, Banded	Quelea, Redbilled	Sunbird, Greater doublecollared	Waxbill, Orangebreasted
Martin, Brownthroated	Robin, Cape	Sunbird, Malachite	Waxbill, Swee
Martin, House		Sunbird, Marico	Waxbill, Violeteared
Martin, Rock	Robin, Kalahari	Sunbird, Whitebellied	Weaver, Cape
Moorhen	Robin, Whitebrowed	Swallow, European	Weaver, Masked
Mousebird, Redfaced	Robin, Whitethroated	Swallow, Greater striped	Weaver, Redbilled

			buffalo
Mousebird, Speckled	Roller, Lilacbreasted	Swallow, Pearlbreasted	Weaver, Redheaded
Mousebird, Whitebacked	Roller, Purple	Swallow, Redbreasted	Weaver, Spottedbacked
Neddicky	Ruff	Swallow, South African cliff	Weaver, Whitebrowed sparrow
Nightjar, European	Sandpiper, Common	Swallow, Whitethroated	White-eye, Cape
Nightjar, Fierynecked	Sandpiper, Curlew	Swift, Alpine	Whitethroat
Nightjar, Freckled	Sandpiper, Marsh	Swift, Black	Whydah, Paradise
Nightjar, Rufouscheeked	Sandpiper, Wood	Swift, Horus	Whydah, Pintailed
Oriole, Blackheaded	Secretary bird	Swift, Little	Widow, Longtailed
Oriole, European goldem	Shrike, Crimsonbreasted	Swift, Palm	Widow, Redcollared
Owl, Barn	Shrike, Fiscal	Swift, Whiterumped	Widow, Whitewinged
Owl, Pearlspotted	Shrike, Greyheaded bush	Tchagra, Blackcrowned	Widowfinch, Black
Owl, Scops	Shrike, Orangebreasted bush	Tchagra, Threestreaked	Widowfinch, Steelblue
Owl, Spotted eagle	Shrike, Redbacked	Teal, Redbilled	Woodhoopoe, Redbilled
Owl, Whitefaced	Shrike, White helmet	Thrush, Cape rock	Woodhoopoe, Scimitarbilled
Owl, Wood	Sparrow, Cape	Thrush, Groundscraper	Woodpecker, Bearded
Pigeon, Rameron	Sparrow, Greyheaded	Thrush, Kurrichane	Woodpecker, Bennett's
Pigeon, Rock	Sparrow, House	Thrush, Olive	Woodpecker, Cardinal
Pipit, Bushveld	Sparrow, Yellowthroated	Thrush, Shorttoed rock	Woodpecker, Goldentailed
Pipit, Longbilled	Sparrowhawk, Black	Tit, Ashy	Woodpecker, Ground
Pipit, Plainbacked	Sparrowhawk, Little	Tit, Southern Black	Wryneck, Redthroated
Pipit, Richard's	Sparrowhawk, Ovambo	Titbabbler	
Pipit, Striped	Spoonbill, African	Vulture, Cape	
Pipit, Tree	Starling, Burchell's	Wagtail, Cape	
Plover, Blacksmith	Starling, Glossy	Warbler, African marsh	
Plover, Crowned	Starling, Plumcoloured	Warbler, African sedge	
Plover, Threebanded	Starling, Redwinged	Warbler, Barred	

Table 11: Alien Birds

	Scientific Name	Common name	Comments
1.		Indian miner	Problematic as they drive off indigenous birds and can be very aggressive
2.		crow	Others??

1.2.1.8. *Invertebrate list*

Table 12: indigenous invertebrates:

	Scientific Name	Common name	Comments
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1.		Rare chafer beetles??	
2.		Butterflies	

Table 13 Alien invertebrates

	Scientific Name	Common name	Comments
1.	<i>Harmonia axyridis</i>	Harlequin ladybird	Threatens local ladybird species. Present at <i>Utopia</i> . Can be seen hibernating in groups in houses-identified by white facial markings.

1.2.1.9. *Climate Information*

The Magaliesberg mountain range forms a natural barrier between the lower lying warmer Bushveld to the north and the cooler Highveld to the south. The area receives rainfall in summer mainly in the form of thunderstorms, with an average of 650 mm annually. In winter frost occurs frequently in the valleys on the southern side of the mountain, but almost never on the northern slopes. Some frost does occur in the lower lying areas and along the rivers on the Utopia site. The summers can be very hot with temperatures in close to 40° often experienced in summer. The winters are very dry; this can create a fire hazard. Frost is experienced along the river and near the dam.

1.2.1.10. *Paleontological sites*

There are no known paleontological sites on the Utopia property, although the area was no doubt used by early man.

Some Boer war relics have been found on the site including a Martini Henry rifle found near where the reservoirs are today on the main ridge in the centre of the site.

1.2.1.11. **Land-use patterns: Current and historical**

Up until 44 years ago the site was run as a private farm. In 1971 it was developed as a public resort and 123 chalets and various central facilities (office and restaurant) were built as well as tennis courts, putt-putt ground, children's play area, three swimming pools, camp ground, chapel, and ablution facilities.

The 138 chalets and developable sites are spread over the site with the staff compound, workshop and main complex in the central portion of the site. Each chalet has an exclusive use area of 400m² measuring 20m x 20m. In terms of the Utopia building regulations and rules (Utopia Building Code) the maximum footprint of the built portion of the chalet may not exceed 17m x 17m. Owners may not garden or disturb the area outside their exclusive use area. Each new owner is provided with an information pack containing these rules and other information.

Over the years this foot-print has not always been strictly enforced and a number of units have historically exceed this area. In recent times there have also been transgressions in spite of more stringent control of building plans. At the 2012 AGM the body corporate decided to take a stand against these transgressions and the Site manager was instructed to conduct a survey of all the units to establish which exceeded their exclusive use area.

Approximately 80% of the site area is a nature area with hiking trails and relatively undisturbed natural areas.

1.2.1.12. *Fire incidence*

Veld fires are a regular occurrence in the Magaliesberg. These are often started naturally by lightning during summer storms and human negligence in the dry winters. Fires are also necessary to remove the build-up of moribund dead grass; this allows light and air to encourage the growth of other plants such as pre-rain flowers. Periodic burning is necessary to maintain grassland health and encourage species diversity.

A number of chalets have, however, unfortunately been destroyed by fire over the years and in 1996 the main office complex was destroyed by a fire caused by lightning.

Utopia has had an unfortunate spate of fire incidences in the last few years which have resulted in the loss of a number of chalets:

- 2008 four chalets were destroyed by veld fire from a neighbouring property.
- 2009 one chalet burnt down due to a wiring fault. One chalet fire was started by a lightning strike but put out by the owners.
- 2010 one chalet fire started by poorly insulated chimney. Partial damage to chalet.
- 2011 one chalet destroyed by a fire of unknown origin.
- 2013 A catastrophic wild fire spread down from the mountain and burnt 13 units to the ground and damaged a couple of others.

All of the above instances were investigated by Utopia's insurance providers and all have been paid out. With the exception of the 2013 incidence which is still under investigation at the time of drafting this report.

Each chalet is required to have a fire extinguisher in terms of the Utopia insurance policy. All chalet owners have been informed of this in writing. Each thatch chalet also requires a fully functioning lightning conductor. All conductors are serviced and issued a certificate every two years.

There is no state funded fire protection service available in the area. Utopia, however, belongs to the RGKB which has long had a volunteer fire service with equipment which is stored at Sparkling Waters, and which comes to the aid of any local landowner in trouble.

Utopia, also, owns two water bowser trailers that can be towed behind the tractor. These should always kept full and are equipped with pump and hoses (which need to be maintained on a regular basis). They may also be connected to hosepipes and taps at chalets if necessary. A number fire huts are located on the property (north, central and south); these are where possible located close to units that are permanently occupied. They contain beaters and other fire fighting equipment. In 2008/9 The water infrastructure was upgraded to allow better pressure for fire fighting and specific hydrants installed to allow rapid filling of the bowser. All staff at Utopia are given fire training. (when how often by whom?)

Grass is cut around the chalets and fire breaks are cut and burnt in accordance with the Veld and Forest Fire 1998 Act. The Site manager is responsible to ensure this happens.

1.2.1.13. *Important ecological processes*

This typically includes pollination processes and important pollinating agents, presence of nutrient traps such as marshes, vleis, etc; important water sources; important bird/mammal /insect breeding habitats.

1.2.2. Conservation Information

This section gives more information regarding the nature conservation significance of the site. Typically, rare, endangered and threatened plant and animal species are described, threatened habitats are described,

and the current land use in the conservancy as well as the area surrounding the conservancy is described. Some examples of conservation information which should be compiled for the conservancy follows below. Compilation of this information may well form part of the conservancy management objectives and goals.

1.2.2.1. Nature Conservation Significance of Biota

Biota are the animal or plant life of a particular region. The Biota of the Magaliesberg as a whole are of Conservation significance as described earlier. The habitats found on the Utopia site add to the area as a whole.

1.2.2.2. Red Data Book species on the site

There are a number of plant, vertebrate and invertebrate species found in the Magaliesberg, a significant proportion of these are endemic to the Magaliesberg (such as the *Aloe peglerae*). While the 115 ha of Utopia are probably not immediately critical to the viability of any of these species the accumulative loss of habitat is a great threat. Thus every effort must be made to conserve the known habitats of all these species.

Plant species: There are a number of red data plant species listed for the Magaliesberg area. Quite a few of these can be found at Utopia some of the most prominent are listed below. Mr Kevin Gill a keen botanist and Utopian, is in the process of publishing a book on the wildflowers of the Magaliesberg together with Andry Engelbrecht. Many of the photographs of flowers in the book were taken at Utopia.

	Scientific Name	Common name	Comments
1.	<i>Alo peglerae</i>	Turks cap aloe	Found on the site. Endemic to the Magaliesberg ridge. Endangered due to restricted habitat
2.	<i>Ceropegia deciduas subsp pretoriensis</i>		Status VU D1+2
3.	<i>Cleome conrathii</i>		NT D2
4.	<i>Delosperma gautengense</i>		VU D2
5.	<i>Delosperma leendertziae</i>		NT B1ab(iii)+2ab(iii)
6.	<i>Delosperma purpureum</i>		EN B1ab(iii)+2ab(iii)

7.	<i>Frithia pulcra</i>		Rare – found on the quartzite out crops in the magaliesberg. May occur on Utopia ridge but not confirmed.
8.	<i>Riocreuxia burchellii</i> <i>K.Schum.</i>		Only recorded sitting by Kevin Gill, who has much experience and many years of searching for plants in the magaliesberg area, was at Utopia (status Low Concern)
9.	<i>Orbea lutea</i> (N.E.Br.) Bruyns <i>subsp. lutea</i>		Only seen by Kevin Gill at Utopia (status Low Concern)
10.	<i>Dolichos angustifolius</i> Eckl. & Zeyh.		Only seen by Kevin Gill at Utopia (status Low Concern)
11.	<i>Crinum graminicola</i> I.Verd.	Grass Vlei Lily	Only seen by Kevin Gill at Utopia (status Low Concern)
12.	<i>Habenaria tridens</i> Lindl.		Seen by K Gill at Utopia and one other location. (status Low Concern)
13.	<i>Hybanthus enneaspermus</i> (L.) F.Muell. var. <i>enneaspermus</i>	Pink ladies slipper	Naturalised exotic – but rare in this area. Seen by K Gill at Utopia and one other location. (status Low Concern)
14.	<i>Hesperantha coccinea</i> (Bachh. & Harv.) Goldblatt & J.C.Manning	Crimson flag	Pretty red flowers along the streams in summer (status low concern)

1.2.2.3. Special, rare plant communities in the Conservancy

Listing of plant communities which is either naturally limited or which represents remnants of communities with a wider earlier range now lost to land transformation. It is also important to know if there are other equivalent communities outside the conservancy in the bio-physiographic region and in the rest of the biome outside the bio-physiographic region in question.

	Scientific Name	Common name	Comments
1.	<i>Alo peglerae</i>	Turks cap aloe	Found on the site. Endemic to the Magaliesberg ridge. Endangered due to restricted habitat
1.			

1.2.2.4. Populations of non-threatened plant and vertebrate species in the conservancy

The significance of these populations of non-threatened plant and vertebrate species in the conservancy relative to meta populations – i.e. are the conservancy populations vs. the total population

small or large; what is the geographic and genetic variation; is the conservancy population poorly or well represented in the bio-physiographic region and in the rest of the biome outside the bio-physiographic region in question

1.2.2.5. Populations of non-threatened invertebrate species in the conservancy.
Information concerning the overall status of the meta-populations of non-threatened invertebrate species which are found in the conservancy, and if so, which population is the healthiest, the population in the conservancy or the population outside of the conservancy.

1.2.3. Habitats in the Conservancy

1.2.3.1. List of threatened habitats in the conservancy

A list of special or threatened habitats essential for the survival of significant numbers of Red Data Book and other plant or animal taxa present in the Conservancy- typically caves, marshes and wetlands.

	Habitat	importance	Comments
1.	Grassland	Habitat for aloe peglerae amongst other red data species	
2.	<i>Wetland area around the dam</i>		
3.	<i>Riverine area</i>		
4.	<i>Woodland areas</i>		
5.	<i>Rocky ridge area</i>		
6.	<i>Sandy banks</i>	Nesting site for White Fronted Bee-eaters.	

1.2.3.2. Status of threatened habitat listing outside the conservancy
Are there other equivalent threatened habitats outside the conservancy in the bio physiographic region and in the rest of the biome outside the bio-physiographic region in question.

1.2.3.3. Listing of sites of scientific importance or special geological features present in the conservancy.

Listing of sites of scientific importance or special geological features present in the conservancy.

	Geological feature	significance	Comments
1.	<i>The sills associated with the Magalieberg are of importance as they can contribute to significant water pollution</i>	Very	Water quality on the site needs to be monitored.
2.			

1.2.3.4. Listing of all external man-made threats to the maintenance of biodiversity in the conservancy.

Examples are biocide inflow, nutrient inflow due to agricultural fertilization, groundwater changes, artificially induced earth tremors, acid rain, alien plant and animal invaders, deliberately setting of fires outside the conservancy, etc

	External Threat	Significance	Comments
1.	Acid rain from mining activities to the north of the site	Low: Increased mining area over the years has had an impact on the vegetation in the area due to increased pollution.	The impact is incremental and Utopia can do very little to prevent it or manage impacts
2.	Water quality issues relating to the pollution of underground aquifers	Low/High? This is a significant issue as due to the nature of the geology of the area subterranean water can emerge in unexpected areas. Issues such as acid mine drainage or other pollution could affect the aquifers feeding the Sterkstroom or Tonquani river.	Utopia must regularly monitor the water quality to ensure potable water is of an adequate quality
3.	Possible pollution for river from upstream properties (high fecal ecoli count in the dam could possibly come from properties to the south)	High: Could have a potentially detrimental effect on drinking water quality	Utopia must regularly monitor the water quality to ensure potable water is of an adequate quality. Increased nutrient levels in the water could also have a negative impact on the ecology of the site
4.	Possible Climate change/global warming issues: such as increased lightning incidence and later shorter rainy season etc	High: This could be of significance to Utopia and should be accommodated in long term planning	Utopia management must ensure/plan for the following: <ul style="list-style-type: none"> • The dam can handle higher than normal peak flood instances • That units close to the river are safe from flooding • That septic tanks in the flood area are protected • That we have sufficient storage

			<p>capacity for water in times of low rain fall</p> <ul style="list-style-type: none"> • That we have alternative sources of water if the sterkstroom flow volumes drop • The standard of lightning protection for units is as high as possible and maintained
5.	Spread of invasive alien plants from outside the site	<p>Medium:</p> <p>This is potentially an issue especially to the north were there are large numbers of aliens and to the south were specifically Crofton weed seeds are being spread from infestations on the Mountain Sanctuary park property. This undermines the work done at Utopia to manage problem plants.</p>	<p>Neighboring owners should be approached and requested to clear problem plants. This could be facilitated by the Buffelspoort Valley Conservancy</p> <p>This has cost implications for additional staff needed to clear vegetation.</p>
6.	Uncontrolled Fires spreading from surrounding area	<p>High:</p> <p>This is a significant problem and over the years has led to the loss of a number of units. This results in increased insurance risk etc. There is also a liability risk if a fire starts on utopia and spreads to surrounding land.</p>	<p>Utopia must do all it can to ensure we meet all fire standards and should cooperate with surrounding owners to minimize risk. A clear plan needs to be in place to manage fires on our own or surrounding land.</p>
7.	Possible change of land use on surrounding properties impacting on Utopia	<p>High:</p> <p>In appropriate or invasive uses on the surrounding properties could have a very significant impact on Utopia and its property values</p>	<p>Uses permitted in the MPE are listed in the relevant regulations and should be enforced. Utopia can act as a watch dog and alert officials and Ngo's such as the Magaliesberg protection association where transgressions are observed.</p>
8.	Crime from surrounding area impacting on Utopia	<p>Very High;</p>	<p>Needs to be incorporated into our security management plan</p>
9.	Noise pollution from Buffelspoort dam – boats and music	<p>Low</p>	<p>Limited impact at the moment but land use in the area should be monitored and action taken if necessary. Sporting events at the dam are increasing in popularity and could have a significant impact on the whole area.</p>
10.	Current economic climate making sale and retention of units more difficult.	<p>High</p>	<p>Could be combatted to some extent through the more active marketing of Utopia</p>
11.	Surrounding land uses; e.g.: The air strip at MSP, the game auction business and	<p>High</p>	<p>Could impact on the economic value of Utopia as well as the enjoyment of owners and the conservation ethos. Development of surrounding land could also impact on</p>

	possible chalets etc. on surrounding properties.		risk of environmental impacts such as noise, water pollution, fire risk, Crime, spread of alien plants visual impact poaching etc.
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1.2.3.5. *Listing of all internal man-made threats to the maintenance of biodiversity in the conservancy.*

This includes issues like general poor management, uncontrolled alien spread, raised animal densities, increased burning frequency, etc.

	Internal Threats	Significance	Comments
1.	Inadequate control of alien plants	High	Legal implications. Water use implications. Also related to maintaining the “environmental” ethos of Utopia. Of specific relevance due to Utopias proximity to the MPE
2.	Poor veld management and lack of an adequate controlled burning program	High	Affects plant species that require burning – especially pre rain flowering plants. Also increases the risk of a catastrophic wild fire due to elevated amounts of biomass.
3.	Need to ensure adequate fire control precautions are taken	Very high	As above
4.	Possible pollution of water sources by inadequately maintained and poorly located septic tanks	High	Can have cost and health impacts for utopia as our drinking water is sourced from the rivers. Also wider ecological issues related to increased nutrient load in the rivers etc.
5.	Poaching of animals and possibly plants by staff and residents/visitors	High	This has been a significant problem in the past. Staff and guests etch must be trained and clearly briefed as to the rules. Especially visiting staff such as building contractors and rotating security staff.
6.	Failure of owners to maintain units to a pleasing aesthetic standard	Moderate	Could have an impact on the economic value of the whole of Utopia while also impacting on the conservation ethos.
7.	Need to ensure adequate crime prevention mechanisms are in place on the Utopia Site	Very high	A specific security management plan needs to be developed.
8.	Failure of owners to pay levies	High	Impacts on the financial viability of Utopia
9.	The additional costs of the share block scheme	Moderate	Impacts on the financial viability of Utopia

10.	Traditional thatch roofing as an additional fire risk	High	Owners need to be encouraged to convert to safer "Harvey thatch tiles" especially when renovation or replacing fire damaged units.
11.	Use of poisons by residents for managing rodents and insects	Moderate	Can kill predators such as owls and jackals who eat poisoned carcasses. Owners need to be educated and alternatives offered.
12.	Dissatisfied staff	High	Could possibly add to the security issues and also will not perform to sufficient standards.
13.	Pet dogs and cats	low	Hunt and kill local animals and disturb other owners by creating a nuisance. Very few pets with permits remain. Feral animals must be removed.
14.	Impacts of building on the immediate area surrounding chalets	high	needs to be monitored and adequate controls put in place
15.	Waste management	high	The ongoing management of waste at Utopia needs to be monitored the closure/rehabilitation of the remaining dumps on site must also be prioritized

1.2.3.6. Does Utopia form part of a protected area:

Utopia is adjacent to the MPE and Mountain Sanctuary Park and thus forms part of a wider protected area. Being part of a protected area network could to some extent mitigate the effect of long term climate change.

1.2.3.7. Determine the suitability and availability of neighbouring land for future inclusion in the conservancy.

The whole of the Buffelspoort Valley area also falls within the Buffelspoort Valley Conservancy which is very active in the area. Thus most of the surrounding land already falls within a conservancy. If Utopia were to become a conservancy it would operate within the boundaries of the Buffelspoort conservancy.

1.2.3.8. Land-use patterns of neighbouring land.

Land to the East South and West of Utopia is predominantly conservation related. MSP to the West consists of over 1000 ha and is a registered private nature reserve with some private houses, chalets and a camp site. They have also recently developed a chapel and restaurant for hosting events. An airstrip is also being developed which is of particular concern to Utopia.

1.2.3.9. Determine if the conservancy is representative of the ecosystem as it is at present or as it was before it was modified/transformed- i.e. is the conservancy an "island of original vegetation" in a "sea of wheat".

1.3. Social/Cultural information

This section contains the local community information which will give the conservancy management direction for dealing

with community involvement in the early stages of management planning. It is very important to understand the social/cultural conservation significance of the conservancy.

- 1.3.1. Does the conservancy contribute to the (environmental) educational needs of the local and broader communities, how and to what extent?
- 1.3.2. Does the conservancy contribute to the recreational needs of the local and broader communities, how and to what extent?
- 1.3.3. Does the conservancy contribute to the material needs of the local community?
- 1.3.4. Does the conservancy have a cultural value to/for the local community-typically a historical site, religious significance, grazing commonage, source of material needs such as thatching or traditional medicines?
- 1.3.5. Does the conservancy contribute aesthetically to the local community's environment?
- 1.3.6. Does the conservancy contribute to the economic wellbeing of the local community (typically, this could include tourist markets, use of local community facilities by tourists).
- 1.3.7. Were members of the local community inconvenienced in any way by the establishment of the conservancy (typically land loss, loss of communal grazing, loss of source of thatching, loss of traditional medicine source, resettlement, loss of servitude rights).
- 1.3.8. Were inconvenienced members of the local community adequately compensated in practical terms or not?
- 1.3.9. What is and can in future be done to counteract justifiable or unjustifiable feelings of alienation by members of the local community? Are they made aware of the advantages (if any) the conservancy will bring them.
- 1.3.10. If archaeological sites and associated artefacts occur on the conservancy, list the national, regional, and local significance in consultation with the local museum and experts on local culture.
- 1.3.11. If historical buildings and structures occur on the conservancy, list the national, regional, and local significance as monuments in consultation with the National Monuments Council.

REFERENCES:

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