



Waterberg Living Museum
WATERBERG MONITORING & RESEARCH

BACKGROUND

1st August 2019

Prof. Nigel Barker from the University of Pretoria addressed landowners in the Waterberg about the importance of biodiversity research and setting up a long-term research project in the Waterberg. The workshop was held in the Stanley Room of the Waterberg Living Museum and arranged and facilitated by the Waterberg Nature Conservancy.

Outcomes:

- It was decided that the WISE would be the ideal centre / coordinator in the collection and dispersal of research.
- Here and there people made direct contact with Nigel in regards to various research ideas and other things...good response by landowners and stakeholders present.
- However, nothing was structured and coordinated.
- WISE felt the need to call a follow up meeting with Prof. Barker and the WNC. The purpose of the meeting was to introduce the WISE Centre and its plans for a research base, as well as identify the way forward regarding research in the Waterberg.

Follow-up

On the 11th of September 2019, the WISE Centre, University of Pretoria (UP) and the Waterberg Nature Conservancy (WNC) came together for a strategizing session. The compilation and future plans of the Waterberg Living Museum (WLM) and the WISE Centre were introduced. The similar potential outcomes of the workshop and the WISE Centre were highlighted. During the strategizing session clear foundational steps and collaborations between the WISE Centre and the University of Pretoria were set in place. Attendees were: Anton Walker, Clive Walker & Marilize Greyling (WISE), Prof. Nigel Barker (UP) and Robin Taylor & Sue Walker (WNC).

WHAT IS THE WISE CENTRE?

The WISE Centre (Waterberg Institute of Sociology and Ecology) forms the scientific and research leg of the Waterberg Living Museum. The WISE is dedicated to the creation, dissemination and application of knowledge about biodiversity and ecological systems. This knowledge is created through **research and monitoring**, disseminated through teaching and **publications**, applied through the participation in activities relating to **management of natural resources** and through promotion of broader awareness about the importance of ecological relationships to human welfare.

The WISE Centre is currently in the process of setting up a Research Base. The Research Base will consist of: **Accommodation, Field Lab, WABEO (long-term monitoring program)** and a **Coordinated Waterberg Research Program (CWRP)** (Figure 1).

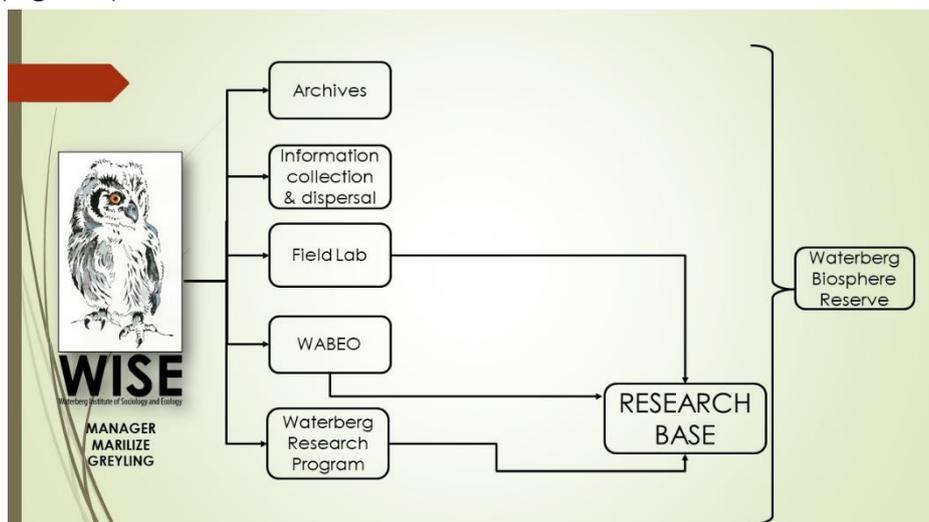


Figure 1: Compilation of the WISE Centre, the scientific & research leg of the WLM.

WABEO

Waterberg Environmental Observation Program

- Substantive long-term monitoring program of the WISE.
- Created in 2007 (Anton Walker)– currently being revised – hope to be rolled out in the beginning of 2020.
- Provide basis for the integration of knowledge arisen from specific types of monitoring in the biosphere reserve and beyond.
- Linked organizations and individuals = better detect, describe & report ecosystem changes.

- Network a cooperative partnership of provincial and municipal government/institutions, academic institutions, organizations, industry, environmental non-government orgs., volunteer community groups, schools & other groups & individuals involved in monitoring.
- Themes:
 - Water & Water Resources
 - Land Use & Land Cover
 - Disturbance Regimes
 - Biodiversity
 - Human Wellbeing

COORDINATED WATERBERG RESEARCH PROGRAM (CWRP)

- Concept formulated on paper – April 2019
- **Purpose:** To promote the sustainable management of the Waterberg.
- **Goal:** To fill in the knowledge gap on the correct sustainable management practices for the Waterberg specifically, to provide knowledge support to landowners to ultimately ensure the conservation of biodiversity and resources of the Waterberg. To form a research coordination body in the Waterberg.
- Will consist of an Advisory Group to help to identify priority research topics.
- Collaborations with Universities and Research Institutes.

WHAT'S NEXT

ESTABLISH LANDOWNER INTEREST

We desire to establish which landowners might be interested participating in/ making their land available for the abovementioned programs. Once a database of interested landowners is compiled, planning in the roll out of both the monitoring and research program can commence (see attached Questionnaire).

- Benefits to participating landowners:
 - Their properties to form part of an important research program, giving the property an extra 'use', which could add to the protection of the property to mitigate any new government land-reform programs.
 - Results with accompanied explanation and application (where applicable) will be shared with the landowner – promoting the possible better management of their properties.
 - Proper ongoing monitoring takes time and resources, and usually a dedicated person on the reserve has to be appointed for the task. With this monitoring program only basic data will be collected by somebody on the reserve, for example rain and temperature. Other variables will be collected by a dedicated WABEO team & researchers. This will spare the landowners time, money and resources and will provide them with valuable information for their farms/ reserves.
 - Data will be used to assist and strengthen the Waterberg District Bioregional Plan (WDBRP). The WDBRP was Gazetted in January this year and is thus a legally binding document for the protection of biodiversity. The WDBRP gives legal direction to the use of different biodiversity areas. Implementing and strengthening the data and information of this document could assist landowners, for example: to counter mining applications on their properties. For more information on the WDBRP please contact the WISE Centre.
 - Anyone can participate in these programs, irrespective of property size or scientific background (or lack thereof).
- Any landowners who are interested in or would like to know more about the long-term monitoring program and the research program, can contact Marilize Greyling at the WISE Centre (contact information provided in the header).



TRAINING FOR BASELINE BOTANICAL COLLECTION

The first project that will be launched is the documentation of plant diversity of the Waterberg. This will entail; the collection of scientific specimens and their subsequent identification. Plant identification and collections form the foundation of all ecological and vegetation management research.

This project will be launched with a training day/ weekend, conducted by staff of the University of Pretoria and possibly SANBI, in Jan/Feb 2020 (date to be confirmed). As this is an activity that anybody can undertake with suitable training ("citizen science") it is open to all interested landowners and managers, even children. The "technology" / equipment required is very basic, making this activity one which can be done without expense. The training day will focus on the correct plant collection and pressing techniques for the purposes of creating a Waterberg Herbarium, as well as adding to the collections in the National Herbarium and University of Pretoria herbarium.

More information and formal invitation with course structure and content will be sent out soon.

CONCLUSION

The successful implementation of these programs will have important implications and benefits to ALL landowners, managers, researchers, government bodies and the community of the Waterberg, and beyond.

If you are situated in the Waterberg Bio-Region and interested for your property to form part of this program please fill in the attached questionnaire and send it to wisecentre@themuseum.org.za.

We are looking forward to positive and productive collaborations, successfully implementing these programs and the positive outcomes thereof.

Yours in conservation:

Marilize Greyling

Manager: WISE Centre



Professor Nigel P. Barker

Head: Department of Plant and Soil Sciences

