Appendix B-6
Independent Opinion on the potential disease risk of the proposed upgrades (to both humans and animals) at the Hans Hoheisen Wildlife Research Station

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Wildlife Veterinarian
May 2013

Summary Statement:

Based on my own experience working with wildlife and disease, laboratory and boma and field research I believe the Hans Hoheisen Research Facility is situated in an area of South Africa where there will be minimal risk associated with expansion and possible associated disease risk to humans and animals. If basic risk mitigation precautions are taken then all projects should be manageable within the confines of the existing and upgraded parts of the facility.

Introduction:

The intention of the Hans Hoheisen Facility is to act as a satellite research and project management base for research on wildlife diseases and related livestock interface issues. The facility is completely enclosed by an electric fence and the surrounding land use is under conservation management – bordered to the north and west by the Timbavati Game Reserve and to the east and south by the Kruger National Park.

The entire area falls within the Foot and Mouth Disease Infected Zone and movement of samples and animals are controlled within the ambit of the Animal Diseases Act. The facility is therefore ideally placed to be used as a base to do research on controlled diseases, which include foot & mouth disease, corridor disease, brucellosis, anthrax and bovine tuberculosis to name a few. The principle of having animals in the facility that cannot be moved out of the area unless released as healthy animals into the surrounding parks, does make it a safe place to do this research without much risk (with the correct risk mitigation steps).

Table outlining major risks and possible risk mitigation steps to be taken

Disease risk	Impact	Likelihood	Risk Score	Mitigation
Infectious diseases spreading from facility	4	2	8	Control of samples, facility bio-security, project separation, bio sanity, proper management of waste, proper standard operating procedure for feeding and handling of animals in facilities. Projects that deal with highly infectious diseases must be in isolated facilities with separate staff with proper biosecurity (including clothes and washing facilities). Proper incinerator to destroy infected animal parts and materials.

Zoonotic escape from disease projects	5	2	10	As above. Projects dealing with potential zoonotic diseases need to be managed with caution, proper education of staff, especially staff feeding animals in the project
Sample security	3	3	6	Samples need to be managed with best practice applied. Necessary permits and lab biosecurity is crucial to ensure samples do not become a source of disease transmission. Disease regulations applicable to sample movement and security must be adhered to
Introduction of disease into facility	3	3	9	Staff working in facility will require health checks, especially staff feeding and handling animals, visitor contact with animals need to be restricted and screened. Electric fencing surrounding facility needs to be maintained and checked daily. Any stray animal into the facility needs to be removed. Biosecurity of facilities and project bomas is critical to avoid introduction of disease via stray animals
Animals in projects escaping from facility	2	2	4	Impact will be greater if animals escape that have been infected for disease study. Proper biosecurity of facilities, proper protocols for feeding and managing animals in bomas/cages.
Public image	3	3	9	Proper project registration, Animal use and care approval of projects, good biosecurity, clean and well maintained facilities with clear handling and feeding operating procedures for animals in facilities. Well managed visitor access to projects. Publications produced as soon as possible during and after projects completed.
Management relevance of research and facilities	5	3	15	Critical to develop and implement projects that are relevant and have been discussed within the science-management context. With this approach any risks will be identified and approached constructively. Research objectives and priorities will be needed to help guide project registration and importance.
Veterinary laws & other relevant legislation	4	3	12	All disease research needs to take place within the context of animal disease laws and occupation health and safety requirements. The project registration process, operating procedures and partners with relevant research projects will help mitigate legal issues that may arise when doing research on diseases, especially controlled and zoonotic diseases. State veterinary involvement with controlled diseases

Lab and chemical security	3	3	9	Labs need to be managed according to relevant lab activities – infectious disease samples with potential high risk of transmission – labs equipped with correct laminar and bio flow units, proper emergency and access procedures. Chemicals need to be transported, stored and handled as per proper requirements and level of toxicity. Washing facilities for rinsing off spilt chemicals must be in place. Proper disposal of chemical and lab by-products must be in line with ecological and bio sanity standards

Impact: 1-5 (1 low and 5 high)
Likelihood: 1-5 (1 low and 5 high)
Risk scores: Impact x likelihood – higher score indicates risk mitigation needs to be thoroughly established

Discussion:

The facility is managed by the Faculty of Vet Sciences as part of the University of Pretoria. Staff involved with research projects related to disease must have a basic understanding of disease transmission and risk management. The location of the facility in a controlled disease zone places the facility in an ideal position to conduct relevant disease research with minimal risk of disease spill over and human infection. If managed effectively with the suggested mitigating factors mentioned in the table above then disease risks will be low.

What is critical is the proper biosecurity of the facility, which encompasses proper electrified fence around the facility, maintained and checked daily (already in place), proper entrance controls and procedures, operating procedures for feeding and handling animals (which needs to be specific for project and understanding of zoonotic risk). Lab management requires the same focus on occupational health and safety hazards and procedures, chemical handling and storing and waste management associated with lab procedures and chemicals. Management of animal waste from holding facilities pose the biggest risk of infections escaping the facility so waste management from holding facilities must be very well managed and disposed of in an adequate and safe manner. A key component of this facility will be a good incinerator that can handle reasonable volumes of infected animal material for proper disposal.

Final statement:

In my professional opinion the project is being managed by experienced staff from the University of Pretoria, Faculty of Vet Sciences so basic understanding of disease risk management is inherent with the project. The potential disease risk will be limited for the project expansion if the required mitigation steps are taken (many are already in place).

Signed

Dr Markus Hofmeyr (BVSc)

environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

DETAILS OF SPECIALIST AND DECLARATION OF INTEREST

	(For official use only)
File Reference Number:	*14/12/16/3/3/3/48*
NEAS Reference Number:	*DEA/EIA/0001347/2012*
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010

PROJECT TITLE

PROPOSED UPGRADE OF THE HANS HOHEISEN WILDLIFE RESEARCH STATION, MPUMALANGA

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4.2 The specialist appointed in terms of the Regulations_

I, **Markus S Hofmeyr** , declare that --

General declaration:

- I act as the independent specialist in this application
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- all the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 71 and is punishable in terms of section 24F of the Act.

Signature of the specialist:

Private consultant

Name of company (if applicable):

16 July 2013

Date: