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Department :
Economic Development, Tourism and
Environmental Affairs

PROVINCE OF KWAZULU-NATAL

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Reference: Q/2015/32/Mkham(3)
Date: 20 December 2016
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cc. Department of Environmental Affairs;

Attention : **Mr. Mpho Monyai; Email Address: MMonyai@environment.gov.za**
: **Ms. Olivia Letlalo; Email Address: OLetlalo@environment.gov.za**

Dear Sir

RE: Q/2015/32/Mkham(3): DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT FOR THE PROPOSED ISUNDU 765/400 KV SUB-STATION AND TURN-IN TRANSMISSION LINES (DEA REF:14/12/16/3/3/2/745) LOCATED WITHIN THE MKHAMBATHINI MUNICIPALITY.

The draft Environmental Impact Assessment Report (dEIAR) prepared by ACER (Africa) Environmental Consultants (dated October 2016) for the above-mentioned application was received by the Department of Economic Development, Tourism and Environmental Affairs (herein referred to as "the KZN Department") on 01 November 2016 for comment. Following a review of the report and associated specialist reports the following comments and recommendations are provided:

1. As this is a 2010 EIA application the key stakeholders and Interested and Affected Parties should be afforded a 30 day comment period not 21 days and organs of state a 40 comment period not a 30 days. Comments provided after the expected timeframes must also be assessed in order to satisfy the requirements of Regulations 54 to 57 of NEMA EIA Regulations, 2010.
2. AMAFA (letter dated 14 March 2016) has no objection to the proposed development and requested compliance with the requirements of the National Heritage Resources Act and the KwaZulu-Natal Heritage Resources Act and this must be adhered to.
3. Whilst Ezemvelo KZN Wildlife (letter dated 7 April 2016) is satisfied that potential impacts on wetlands and vegetation and impacts on faunal habitat and vulnerable fauna species have been identified and

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that the specialist studies to address biodiversity issues were commissioned, it is the KZN Department's view that the proposed mitigation measure to relocate the African Bird of Prey Sanctuary and Raptor Rescue Centre (ABOPS) is impractical at present and that the dEIAR lacks clarity on the potential relocation sites or offset sites to compensate for the loss of these features.

4. The draft Environmental Management Programme (EMPr) (prepared by ACER (Africa) Environmental Management Consultants and dated February 2016) for the pre-construction, construction, operational and decommissioning phases of this project provides mitigation pertaining to the proposed development including noise control and air quality; health and safety management; visual and aesthetic impacts; disturbance to neighbouring landowners and service providers; protection of sensitive habitats and heritage resources; soil management; stormwater management; alien invasive species control and management; water use; access and traffic related impacts; However, the EMPr requires specific measures in terms of offsets for wetland areas and the ABOPS relocation. It is strongly recommended that the wetland and/or biodiversity offsets are resolved within the EIA process as a separate plan and not merely incorporated as recommendations in the EMPr.
5. **Phase 1 Heritage Impact Assessment, prepared by eThembeni Cultural Heritage, dated August 2015** identified three old farm buildings with landscape features of Mayibuye Game reserve and little paleontological significance in the geology (Dwyka group) and the recommendations of the study must be adhered to.
6. **Aquatic and Riparian Ecosystem Specialist report (prepared by GroundTruth Water, Wetlands and Environmental, dated 23 November 2015)** identified tributaries of the Msunduze, Mpushini and uMshwathi Rivers and found evidence of alien vegetation, dumping, riparian clearing, erosion and hydrological modification. The study recommended a 10m buffer on A Section Channels and a 20m buffer on B section channel and rehabilitation and erosion control measures to achieve a no net loss of riparian vegetation and this must be adhered to.
7. **Electro Magnetic Fields (EMF) Specialist report (prepared by Dr. R. Wolhuter and Dr. J.P. Holtzhausen, dated September 2015)** found no direct link between EMF exposure and disease, excluding a weak indication of low magnetic field exposure and childhood leukaemia. The electromagnetic interference caused by corona on the lines could negatively affect tracking of APOPS raptors if lost during flight displays. It was recommended that more sophisticated receivers be utilised to minimise the effects of corona interference. It is unclear whether there will be no tracking interference as this is largely dependent on physical location of birds and handlers, relative to the power line.
8. **Fauna Specialist Report (prepared by GroundTruth Water, Wetlands and Environmental, dated 15 September 2015)** identified a high level of site of disturbance with certain areas that have the potential to support fauna that are of conservation concern viz. Natal Leaf-folding Frogs and Spotted Shovel-nosed Frogs are expected to occur in and around small wetlands. The recommendation to conduct an Amphibian study between October and February and for appropriate buffers to be established around all watercourses should be implemented.

9. **Assessment of the Anticipated Hydrological and Geohydrological Conditions for the Proposed Isundu 765/400 Kv sub-Station and Turn-In Transmission Lines, prepared by Engeolab, dated December 2015.** The report confirmed that the site is located within the U20J catchment with the 100m buffers falling within the substation layout and that water from the surface impoundment is not suitable for human consumption, whilst ground water quality is classified as Category C (moderately modified) and as having low recharge and thus having low risk of ground pollution. Recommendations made in respect of bunding, spillages and refueling during construction must be adhered to.
10. **Hydrological Assessment, prepared by GCS Environmental Consultants, dated May 2016** confirmed that continuous monitoring is required around the site to determine seasonal variations and the establishment of baseline data and the need for a channel to be installed around the perimeter of the substation which must be adhered to.
11. **A Noise Impact specialist report (prepared by Jongens Keet Associates, dated 13 October 2015)** found that the main sources of noise in the area are road traffic, quarries, aircraft over flight and the iDube cart track and identified the ABOPS, the Natal Zoological Gardens and Lion Park and Rainbow chickens as noise sensitive receptors. Due to the uncertainty on how blasting noise or dust may affect the chicken farming operation, the EAP has recommended that a test blast be conducted at an appropriate time prior to construction commencing at a suitable location on the site to confirm that the blast design is effective and that noise predications are accurate. Accordingly, a Blast design and noise monitoring programme must be compiled with SANS 10103; Noise Regulation Control Regulations; and, the findings of the test blast to be used as main guidelines.
12. **Avifaunal Specialist Report, prepared by Wild Skies Ecological Services and dated October 2015** identified the ABOPS as the most sensitive receptor for the project and indicated that large electrical substations and overhead transmission lines are not a compatible land use with the bird of prey conservation efforts. ABOPS is a unique activity in this sector and the role it plays is cannot be easily replaced by other facilities. The Department views the relocation of the ABOPS as impracticable at present. The centre is currently nominated to establish a captive breeding Programme for the Bearded Vulture which is a critically endangered species and the subject of a Government Gazetted Biodiversity Plan. The relocation has the potential to disrupt the Programme and result in the species becoming extinct which is of Provincial and National importance. The dEIAR lacks clarity on the potential relocation sites to compensate for the loss of this centre and the KZN Department strongly urges direct consultation with the APOPS on this matter and further investigation into the impact of the breeding Programme.
13. **The Social impact Assessment, prepared by Acer Africa, dated September 2015** did not identify any fatal flaws and indicated that the aesthetic nature of the area will be transformed. Issues that were assessed included criminal activity, employment and nuisance and disturbance and recommendations were provided in that local labor be sourced as far as possible, measures to prevent nuisance disturbances such as noise, light dust and fire should be put in place and that access to private land must be restricted to deter criminal activity.

14. **Veterinary Specialist Report (prepared by Dr. R Horne, dated 1 October 2015)** found that nearest farm is approximately 450m from the development and that proposed development is likely to affect the Rainbow Chickens operations in respect of light, noise and vibration, air quality/dust and biosecurity. Recommendations in respect of downward facing lighting, dust limitation measures and biosecurity managerial methods were provided.
15. The **Air Quality Impact Specialist Report, prepared by L.W Burger, dated November 2015** indicated that the construction activities could have a potential negative effect on the nearby chicken farms with particulate matter (specifically the inhalable fractions) being identified as the most significant. An environmental risk assessment for all construction activities and materials likely to cause pollution must be compiled.
16. According to the **Tourism and Economic Development specialist report (prepared by Urban-Econ Development, dated 05 August 2015)** the Isundu sub station is not in line with the current spatial development and land use plans of the Mkhambathini Local Municipality, and will have negative impact on the property value of Mayibuye Game Reserve. However, economic growth, development, and diversification is required to stimulate the local economy, create jobs, and improve the standard of living for the Mkhambathini Municipality. The review of economic baseline data revealed that the local Mkhambathini economy is struggling and requires investments to stimulate its growth and development. The study recognized that the APOPS is at risk and recommended that further investigation and consultation is required. The need and desirability of the project has far reaching consequences for the Province and country at large and with the Mkhambathini Municipality requiring investment to stimulate growth and development, the report concluded that the substation and turn-in transmission lines should be approved for development on the condition that the appropriate mitigation measures are implemented.
17. Acer Africa Environmental Consultants compiled a **Vegetation and Wetland Specialist report (dated September 2015)** which found that for both substation layout alternatives, dams and riparian areas will be directly affected by construction. The transmission line layout 2 is preferred due to the lower impacts anticipated on indigenous woody vegetation and predominance of degraded vegetation as it and is along an existing linear development. The recommendations include regular visual assessments, translocation of plants, soil erosion, riparian/wetland rehabilitation. Some of these aspects do not appear to be detailed in the EMPr with specific reference to wetland loss.
18. The **Visual Impact Assessment Report, prepared by Environmental Planning, dated September 2016** concluded that the visual impacts on the road and access points of adjacent planned and existing tourism attractions is likely to be high and is likely to compromise any ongoing operation. It is possible to mitigate for the majority of visual impacts associated with the preferred layout option 2 to low levels depending on the acquiring of long term land control of areas adjacent to the northern edge of the P447 for screen planting. Key mitigation measures include careful design and operation of lighting in order to minimise impacts on nearby operations such as Rainbow Chickens and the ABOPS, through use of infra-red security lighting and cameras, breaking lighting circuits up to ensure that only the necessary areas are lit and ensure that lighting is turned off when not needed.

19. A **Blast Impact Assessment for Environmental impact for the proposed Isundu 765/400 Kv Sub-Station and Turn-In Transmission Lines** was prepared (compiled by Blast Management and Consulting, dated 26 June 2016) and indicated that ground vibration, rock fly and noise are some of the aspects that could occur as a result from blasting operations. The location of Rainbow Chickens towards the west and, the APOPS further west of the project area is of concern even though the levels of ground vibrations expected at the nearest structures showed levels to be within normal accepted norms and standards. Mitigation measures include a test blast as per design along with various monitoring requirements.
20. Whilst various specialist studies have been commissioned to address the impacts associated with the project, the KZN Department remains concerned that due to the constraints and limitations posed by the environment; impacts on sensitive or threatened ecosystems and species will be unavoidable and cannot be mitigated. In order to address the residual impacts associated with the potential loss of wetlands, and/or biodiversity, a Biodiversity and Wetland Offsets Report will be required. This report must:-
- clearly identify the expected residual impacts associated with the development;
 - establish the norms and standards and objectives that are to be used in calculating appropriate areas of offset for the residual loss;
 - identify suitable sites that may be used to offset the residual loss;
 - include ground truthing and evaluation of candidate offset sites to determine potential gains through rehabilitation and/ or averted risk;
 - determine a suite of offset sites required to address the desired outcomes;
 - include detailed offset plans with identified budgets, responsibilities and timeframes to achieve the identified offsets (this must tie in with the Cost Benefit analysis for the route alternatives); and,
 - must take cognizance of international best practice in biodiversity and wetland offsets and recognized offset principles; namely 'no net loss' with respect to species composition, habitat structure, ecosystem function and people's use and cultural values associated with that biodiversity or wetland area.

In this regard, it is strongly suggested that the Biodiversity and Wetland Offsets Report is reviewed by the Biodiversity Section of the National Department.

21. Additionally, the proposed relocation of the ABOPS is not viewed as a reasonable measure at present and considering the Bearded Vulture breeding Programme currently being undertaken at the facility, the relocation of the centre has the potential to impact negatively on a critically endangered species which is the subject of a governed Gazetted Biodiversity Plan and may have relevance at a Provincial and National level of influence.

22. It should be noted that the proposed project is in close proximity to the Mayibuye Game Reserve and a NEMPAA viz. the Mpushini Protected Environment. Rainbow Chickens appealed a development which was upheld by the Provincial MEC and this compatibility of land use must be comprehensively addressed.
23. The KZN Department (EDTEA) awaits the final EIAR which incorporates the above aspects for review and comment and recommends a key authority meeting with the applicant/ EAP and EKZNW as well as a site inspection to allow for an informed decision to be made on this application

Should you have any queries or wish to discuss the points raised above, please do not hesitate to contact our offices. The delay in responding to you on this application is regretted.

Yours sincerely



For: Head of Department

Department of Economic Development, Tourism and Environmental Affairs