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To/Art: Hennie Grobler **From:** Christine
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Tel: 082 808 6102 **Date:** 26-10-09

Datum:

Re: Goedkeuring: EA Gariep Fish Hatchery **CC:**



the dteea

The Department of
Tourism, Environmental and Economic Affairs
FREE STATE PROVINCE

FAX COVER SHEET

ROOM NO **138**

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SUBJECT	
EA – Gariep Fish Hatchery	
MESSAGE	
-	

ENVIRONMENTAL IMPACT MANAGEMENT

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Decision

The Department is satisfied, on the basis of information available to it that, subject to compliance with the conditions of this environmental authorisation, the applicant should be authorised to undertake the activity specified below.

Details regarding the basis on which the Department reached this decision are set out in Annexure 1.

Activities authorised

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) and Regulation Notice 385, and 386 passed pursuant thereto, the Department hereby authorises –

Department of Agriculture

With the following contact details –

Mr. Hennie Grobler
Cnr. of Aliwal and Elizabeth Street
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Tel: 051-506 1463
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To undertake the following activity –

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Upgrading of the existing Gariep Fish Hatchery at Gariep Dam, and will include:

1. Construction of an Agricultural Technology Demonstration Centre with specialist housing, breeding rooms, storerooms, boiler room and support facilities.

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The center will focus on the core technologies of African Catfish, Tilapia farming and fry breeding, and includes research, demonstration, promotion and training of freshwater farming technology.

The Agricultural Technology Demonstration Centre will entail the following design and layout principles:

- Infrastructure –
- Agricultural technology demonstration centre:
 - This building will include an office building, laboratory, meeting rooms, training rooms and exhibition space.
 - The center (1 062 m²) will be a multi-function building located to the east of the fish hatchery. The demonstration centre will be double storey with a height of 11.55m.
 - All air conditioned rooms in the demonstration center and specialist housing facilities will be installed with split type air-conditioners. The total electrical load of the air-conditioners will be 150kw.
- Specialist housing facilities:
 - The housing facilities of the specialists will be located in the vicinity of the demonstration centre and will have a footprint area of 292m² with a height of 8.3m.
 - The design of the housing facilities will be uniform to that of the demonstration centre.
- Breeding Room:
 - The proposed footprint area of the breeding room is 1 008m². The building will be supplied with 32 culture tanks (2.5m diameter) and 24 small culture tanks (2m diameter) – water body of 320m³.
 - Fuel from the proposed 30 000l diesel tank will be used to keep the hot water boiler operational as a heating source (the boiler will be placed in the boiler room) as the water in the tanks need to be maintained at a certain temperature with the right oxygen content.

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- Oxygen will be supplied by a blower, directly blowing air into the water of the ponds; six blowers will be installed with an electrical load of 1,1kV each.
- **Store Room:**
 - The store room will be a mono-level brick/concrete building with a footprint area of 101,7m²
- **Boiler Room:**
 - The boiler room will be a single story brick-concrete structure with a footprint area of 78,12m².
 - The hot water boiler, with a capacity of 2 ton, to be installed includes:
 - Boiler body,
 - Circulating pump,
 - Controlling tank,
 - Controlling pressure water supply equipment,
 - Oil storage tank,
 - Daily oil tank,
 - Oil pump,
 - Hose and water softening tank.
- **Diesel Tank:**
 - A 30 000l above ground diesel tank will be installed in the vicinity of the boiler room,
 - The tank will be installed within a impenetrable bund wall area that will be constructed according to SANS 10089-1 standards, being able to accommodate 110% of the tanks volume,
 - A scheduled maintenance plan will be in operation for annual preventative maintenance on all diesel storage infrastructures.
- **Water Infrastructure and supply:**
 - Water supply for this project is composed of two parts:

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1. Water supply for living and experiment,
Water supply for the demonstration centre building and specialist housing will be received from the existing water pipeline. A water tank (100 000 litre) will be installed at an elevated area near the buildings and filled from the existing 750 000 litre reinforced concrete reservoir.
2. Water supply for outdoor fish ponds,
As the outdoor fish ponds and water inlet and outlet channels will only be upgraded, the capacity of the water need will not increased.
Production water is currently, and will in future be, bought from the Department of Water Affairs and Forestry and channelled via a pipeline from the Xhariep Dam to the fish hatchery.
Water is presently stored in a reservoir, connected to a holding dam (northeast of the site) from where it is channelled to the fish culture ponds until it flows out into one of the two biological stabilization ponds on the south-western side of the site.

- Sewerage water will be disposed of by means of a septic tank that will be connected to the existing municipal sewerage system.
- Road Infrastructure:
 - The main entrance to the site is located to the northeast with the main road leading directly to the existing breeding room,
 - The existing roads of the site will be used to provide access to all buildings and infrastructure,
 - The surface of the roads and parking areas will be covered with gravel.
- Electricity Infrastructure:
 - The proposed project will receive power from the existing electricity infrastructure at the site. The site is currently supplied with hydro power generated from the Xhariep Dam,
 - All lamps and bulbs to be installed should be energy-saving.

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Which is listed under Regulations Notice 386 activity number 1(i), 7 and 16 described as:

GN R386 - 1(i), "The construction of facilities or infrastructure, including associated structures or infrastructure for, aquaculture production, including mariculture and algae farms, with a product throughput of 10 000 kilograms or more per year";
 - 7, "The above ground storage of a dangerous good, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic meters but less than 1 000 cubic meters at any one location or site";
 - 16, "The transformation of undeveloped, vacant or derelict land to - (b) residential, mixed, retail, commercial, industrial or institutional use where such development does not constitute infill and where the total area to be transformed is bigger than 1 hectare.",
 hereinafter referred to as the activities.

The activity is situated at the existing Xhariep Fish Hatchery, on Portion 1 and 3 of the farm Waschbank 274, Gariep, hereinafter referred to as the property/site.

The granting of this environmental authorisation is subject to the conditions set out below.

Conditions

Scope of authorisation

- 1.1 Authorisation of the activity is subject to the conditions contained in this document, which conditions form part of the environmental authorisation and are binding on the holder of the authorisation.
- 1.2 The holder of the authorisation shall be responsible for ensuring compliance with the conditions by any person acting on his or her behalf, including but not limited to, an agent, sub-contractor, employee or person rendering a service to the holder of the authorisation.
- 1.3 The authorised activity may only be carried out at the property/site indicated above.

Ministry of Environment
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The Department of
Tourism, Environment and Economic Affairs
FREE STATE PROVINCE

Environmental Authorisation

**Authorisation register
number:** *EMB/11, 7, 16/08/267*

Holder of authorisation: *Department of Agriculture*

Activity and location: *Establishment of a South
African Technology
Demonstration Centre,
Xhariep District, Free State*

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