

## RISK ASSESSMENT



### a) Information regarding the relevant species:

(i) The taxonomy of the species, including its class, order, family, genus, scientific name, scientific synonyms and common names of the species.

The Nile tilapia (***Oreochromis niloticus***) is a freshwater fish species in the **Cichlids family** (family Cichlidae) of order.

(ii) The source or place of origin of the species including the area, the type of facility and environmental parameters where species are kept.

The Nile tilapia is a species of tilapia, a cichlid fish native to Africa from Egypt south to east and central Africa, and as far west as Gambia. It is also native to Israel, and numerous introduced populations exist outside its natural range. Tilapia are mainly freshwater fish inhabiting shallow streams, ponds, rivers, and lakes, and less commonly found living in brackish water. Historically, they have been of major importance in artisanal fishing in Africa, and they are of increasing importance in Recirculating aquaculture systems (RAS) aquaculture and aquaponics.

### b) Information regarding the restricted activity in respect of which permit is sought to include:

(i) The nature of the restricted activity.

Recirculating aquaculture systems are used in home aquaria and for fish production where water exchange is limited and the use of biofiltration is required to reduce ammonia toxicity. Other types of filtration and environmental control are often also necessary to maintain clean water and provide a suitable habitat for fish. The main benefit of RAS is the ability to reduce the need for fresh, clean water while still maintaining a healthy environment for fish. To be operated economically commercially.

(ii) The reason for the restricted activity.

To obtain knowledge and experience of the trade in order to be a key Role Player in the upliftment of community through education, employment, positive social development and ultimately provide a good source of food to the underprivileged.

(iii) The location and GPS coordinates where the restricted activity is to be carried out.

(iv) The number and where applicable the gender of the species.

Approximately 1000 fingerlings all with between 95-100% males

(v) The intended destination of the specimens if they are to be translocated

To be supplied to townships and underdeveloped communities through a reputable health and safety compliant fisheries at an affordable price to all.

**c) The possible impact of the species on the biodiversity and sustainable use of natural resources of:**

(i) The area (Province and district) in which the restricted activity is to be carried out and

The initial intent of the application is to create and master production from home in cape town western cape through optimal growth of the species while maintaining a clean and healthy environment for the fish. The area will be contained against all external forces that could influence the cross breeding, contamination of natural ecosystems and biodiversity. Water contained when disposing of the minimal will be done physically on plants away from any external or natural streams where waste will act as fertilizer.

(ii) In any area elsewhere in the Republic.

Ultimately to set up in each part of the Republic or provinces close to underprivileged areas on vacant land.

**d) Any Measures proposed in order to manage the risks.**

- Strict adherences to procedures and work ethics of producing, containing , maintaining, cleaning and managing production by any and all involved.
- Health and safety is of utmost importance so all approved to approach the RAS systems will have to clean themselves first for biosecurity reasons.
- Anyone not approved through thorough investigation will not be allowed close to any of the RAS systems.
- Regular checks will be performed of the water to ensure optimum quality and thus keeping the fish in optimum health.
- Anything and all things disposed of will be done in a controlled environment to alleviate any cross contamination to any other biodiversity organisms.