Cape Environmental Assessment Practitioners (Pty) Ltd
Reg. No. 2008/004627/07

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1st Floor Eagles View Building
5 Progress Street, George
PO Box 2070, George 6530

COASTAL WATERS DISCHARGE PERMIT APPLICATION FORM

For

AFROFISHING (PTY) LTD

In terms of the

National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended & National Environmental Management:Integrated Coastal Management Act, 2008 (Act 24 of 2008)

Prepared for Applicant: AfroFishing (Pty) Ltd
By: *Cape EAPrac*
Report Reference: MOS373/01
Date: 29 May 2015

APPOINTED ENVIRONMENTAL ASSESSMENT PRACTITIONER:
***Cape EAPrac* Environmental Assessment Practitioners** PO Box 2070 George 6530 Tel: 044-874 0365 Fax: 044-874 0432 Report written & compiled by: **Melissa Mackay** (BTech & ND Nature Conservation), who has eight years' experience as an environmental practitioner.

PURPOSE OF THIS REPORT:
Application for Coastal Waters Discharge Permit

APPLICANT:
AfroFishing (Pty) Ltd

CAPE EAPRAC REFERENCE NO:
MOS373/01

SUBMISSION DATE
29 April 2015

COASTAL WATERS DISCHARGE PERMIT APPLICATION FORM

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National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended &
National Environmental Management:Integrated Coastal Management Act, 2008 (Act 24 of 2008)

AfroFishing (Pty) Ltd

Mossel Bay Harbour

Submitted for:
Stakeholder Review & Comment

Report Issued by:
Cape Environmental Assessment Practitioners

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PO Box 2070
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1 INTRODUCTION

Cape Environmental Assessment Practitioners (*Cape EAPrac*) has been appointed by the applicant **AfroFishing(Pty) Ltd** to complete and submit a Coastal Waters Discharge Permit (CWDP) as required in terms of the National Environmental Management: Integrated Coastal Management Act (NEM:ICMA, Act 24 of 2008). The NEM:ICMA makes provision for the permitting for the discharge of any waste water into the South African coastal waters.

Prior to the NEM:ICMA coming into effect, the disposal of land-derived effluent into the coastal environment through pipelines was controlled and regulated by the then Department of Water Affairs (DWA) under the National Water Act (Act 36 of 1998). With the NEM:ICMA, these regulations are now under the mandate of the Department of Environmental Affairs (DEA) directorate Oceans & Coasts.

Any water containing waste (defined as effluent in terms of the NEM:ICMA) that is disposed of into coastal waters will require a permit or general authorisation.

Effluent is defined as "*any liquid discharged into the coastal environment as waste, and includes any substance dissolved or suspended in the liquid, or liquid which is a different temperature from the body of water into which it is being discharged*".

The thresholds and criteria for substances specific to the NEM:ICMA are currently being workshopped and have not yet been gazetted, thus the criteria and parameters identified in the South African Water Quality Guidelines developed by the DWA are being applied in most cases.

Coastal waters are defined as "*any marine waters that form part of the internal waters or territorial waters or estuary of the Republic of South Africa, as defined in the Maritime Zones Act (Act 15 of 1994) and the NEM:ICMA*".

According to DEA, harbours are also considered to be coastal waters and as such all facilities that discharge into the harbours are required to complete and submit a CWDP to the DEA.

1.1 BACKGROUND

AfroFishing (Pty) Ltd is a sardine cannery located on Quay 1 of the Mossel Bay harbour. The facility commenced operation in August 2007 after undergoing an Environmental Impact Assessment (EIA) and obtaining a Record of Decision (RoD) on 13 June 2006.

The RoD authorised the following:

The activity entails the construction of a sardine cannery at Quay 1 at the Port of Mossel Bay. This includes the construction of an industrial building equipped with processing machinery where sardines will be processed. The processing of the sardines entail inter alia, the removal of heads,

guts and tails of the fish, which will be transported to fishmeal plants on the west coast on a daily basis, to be processed into fishmeal.

The full process entails the pumping of chilled seawater mixed with fish and ice, from the vessel (ship) to the inside of the factory. During pumping, a separating screen will be used to separate the fish (solids) from the seawater. The chilled seawater is to be utilised continuously to off-load the catch, as well as to keep the catch fresh and cold. Eventually, this water will be discharged into the sea next to the quay through a separating screen with mesh not exceeding 1mm, to prevent pieces of broken fish and fish scales ending up in the Mossel Bay harbour[1].

The cutlets, remaining after the removal of those parts destined for the fishmeal plant, will be cooked in an oil-fired atmospheric cooker and drained. Following the cooking and draining process, the cutlets will be sauced by means of a vacuum saucer, sealed by means of a can seaming machine, washed and finally cooked in an autoclave.

See Appendix A for a copy of the EA.

In terms of the EA, the applicant completed two audits post construction of the facility. Some funding was obtained from the Industrial Development Corporation (IDC) for the operation of the facility. One of the conditions of the agreement required twice yearly audits of the EA and the Environmental Management Programme (EMPr). These were undertaken from 2008 to 2014. After the funding period, the applicant continued with the audits on a yearly basis to ensure good governance.

1.2 STUDY SITE

The AfroFishing cannery is located on Quay 1 of the Mossel Bay Harbour in the Southern Cape. The cannery has a long term lease agreement with the National Ports Authority (NPA) for the use of the property for the purposes of processing and canning pelagic fish.

[1] Our emphasis

Figure 1: Mossel Bay harbour with AfroFishing (Google Earth Pro, 2015)

Historically all canning and pelagic fishing operations were concentrated on the West Coast of South Africa, however, the increasing pelagic Total Allowable Catch (TAC) has increased for fleets that fish between Cape Town and Mossel Bay. The decision to base AfroFishing in Mossel Bay was to provide a better product, as previously fish offloaded at this harbour had to be road freighted to the West Coast for processing, increasing the handling and damage sustained by the product.

As stated in the RoD description above, the water and melted ice from the vessels is pumped ashore with the catch, drained and screened (preliminary treatment) and discharged into the harbour. Water and some blood from the initial processing area (removal of heads) is also screened via this drain. The discharge includes small protein solids and some blood. This discharge point is referred to as AF Discharge 1 in the diagram below.

The proponent has since established a pipeline from the current drain to the east of the quay and discharging into the surf zone, adjacent to their sea water abstraction points. The water used at the initial processing area is discharged at this point (referred to as AF Discharge 2 in the diagram below). This includes small protein solids and some blood. This discharge ensures that there is less settlement inside the harbour area.

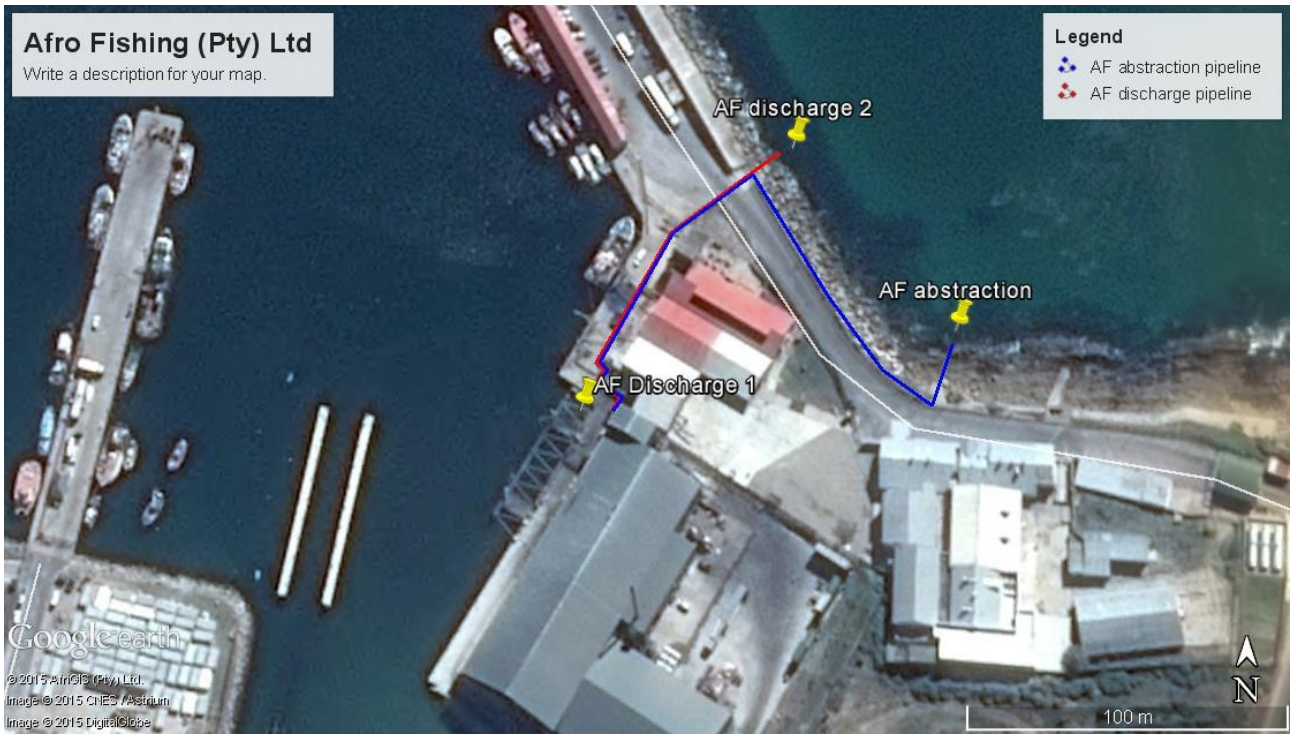


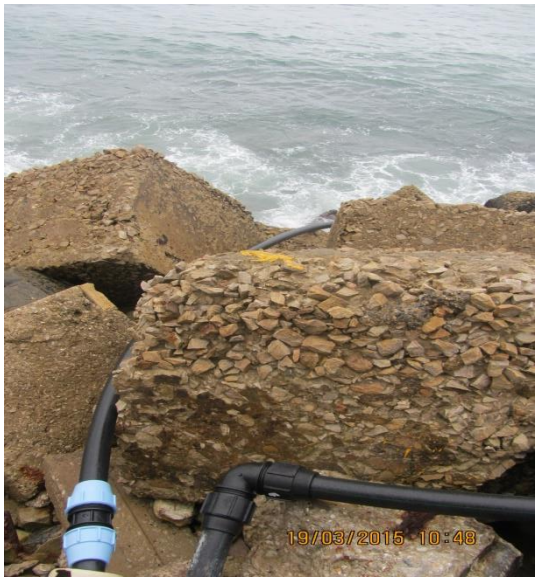
Figure 2: AfroFishing discharge and abstraction points (Google Earth Pro, 2015)

The discharge pipeline is a 75mm UPVC and HDPE (high density polyethylene) pipe, approximately 118m in length and is attached to the walls around the key before going under the road and exiting on the dollosse east of the harbour.

Photo 1: UPVC pipe exiting the building

Photo 2: HDPE pipe attached to quay walls

Photo 3: HDPE discharge pipe left and abstraction on the right



The distance between the discharge and abstraction points is approximately 82m.

Previously AfroFishing had discharged all of their water directly into the harbour. The discharge water contains blood from the damaged fish in the holds and off the initial processing floor, ice water and sea water used for rinsing fish as they move into the processing area. The TNPA approached the applicant to change some of the discharge as it was preferred that this water be discharged into the surf zone to allow for faster dispersal. The sea water and blood from the processing floor is discharged to the sea as it contains more protein material than the ice water and blood from the boat holds.

2 MONITORING

Transnet National Ports Authority of South Africa has commissioned Long-Term Ecological Monitoring Programmes for seven of the eight ports that it operates along the South African coastline. The purpose of the monitoring programme is to track long-term changes in environmental quality in the ports, to determine what management action (if any) is required to improve environmental quality, and to provide a yardstick against which to evaluate the success of management action that may be implemented to improve environmental quality.

The monitoring programme sampling design for each port was originally developed by the South African Environmental Observation Network (SAEON, Elwandle Node). The monitoring programme comprises bi-annual (summer and winter surveys), which differ in the scope of the physical, chemical and biological parameters and media monitored. The summer survey focuses on water quality while the winter survey focuses on water quality, sediment quality, benthic macrofauna community composition and structure, and bioaccumulation of contaminants by mussels.

Water quality in and near the Port of Mossel Bay during the 2013 summer survey was good, and was by some way the best for any port surveyed in the summer of 2013. The most significant impairment was due to elevated faecal indicator bacteria counts at one station in the port. If not for these high bacteria counts then water quality at this station would have been considered excellent.

Anomalies for pH and dissolved oxygen at two stations, and ammonia concentrations that were high relative to other nutrients imply some anthropogenic impairment of water quality in the port. However, the magnitude of impairment was minimal and does not change the conclusion regarding

the water quality classification. The station closes to AfroFishing was classified as good and had no anomalies.

In addition, AfroFishing conducts onsite monitoring of the abstraction water as part of the Hazard analysis and critical control points (HACCP) requirements to ensure that no contaminants are introduced to foodstuffs (sardines in this case) for human consumption. Compliance with Health and Safety Regulations and Food Safety protocols remains a priority and Food Safety Management Systems and the Hazard Analysis Procedures have been implemented. These protocols are designed to ensure that the product is of a high standard and complies with the necessary requirements for consumables.

Auditing of the Environmental Record of Decision (RoD) and the Operational Environmental Management Programme (OEMP) takes place on a yearly basis to ensure that the conditions and recommendations are complied with.

environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

GENERIC APPLICATION FORM FOR A COASTAL WATERS DISCHARGE PERMIT IN TERMS OF SECTION 69 OF THE INTEGRATED COASTAL MANAGEMENT (ICM) ACT, (ACT NO. 24 OF 2008) effective from 01 August 2014

GENERAL INSTRUCTIONS

i. All relevant sections of this Application Form **must** be completed in full.

ii. If an item is "not applicable", please indicate "*N/A*". The use of "not applicable" in the Application Form must be done with circumspection.

iii. Failure to fully complete all required parts of this application form or pay necessary Application Fees (if required) will result in the application being returned.

iv. This Application Form **must** be completed and signed by the applicant. If the application is completed by a third party (such as a consultant or legal representative), the third party's details must further be included.

v. All details of previous approved licenses such as the reference number (s) and the dates of issue as well as expiration dates must be provided.

vi. This Application Form is current as of 1 August 2014. It is the responsibility of the Applicant to ascertain whether subsequent versions of the Application Form have been published or produced by the Department. Note that this Application Form replaces all the previous versions. This updated Application Form must be used.

vii. One hard copy and one electronic copy (CD/DVD/ via E-mail) of this form must be submitted.

viii. The required information must be typed within the spaces provided. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. The space provided extend as each space is filled with typing. A legible font type and size must be used when completing the form. The font size should not be smaller than 10pt (e.g. Arial Narrow). A digital copy of the Application Form is available on request.

ix. No faxed or e-mailed applications will be accepted.

x. Unless protected by law, all information contained in and attached to this Application Form will become public information on receipt by the Department. Upon request, any Interested and Affected Party should be provided with the information contained in and attached to this Application Form.

xi. This Application Form must be submitted to the Department at the postal or physical address given below. Unnecessary delays will be incurred should the application and attached information not be submitted to the correct address.

xii. This Application Form, with all applicable documents **must** be addressed and sent to the Department of Environmental Affairs: Branch Oceans and Coasts to the **Director: Coastal Pollution Management** to:

2nd Floor, East Pier Building, East Pier Road, V & A Waterfront, Cape Town *or*
P.O. Box 52126, V & A Waterfront, 8002

Electronic submissions may also be sent to: cwdp@environment.gov.za

xiii. The proof of payment of the application fee must be attached to this application.

xiv. A copy of this application must be kept for the applicant's record.

xv. The Department's "Draft Generic Assessment Criteria" must be consulted for guidance on how the generic assessment criteria will be used to evaluate your application.

xvi. The Department's ***"Guideline on public participation requirements for Coastal Waters Discharge Permit Application under section 69 of the National Environmental Management Act: Integrated Coastal Management Act 2008 (Act no.24 of 2008)****" must be consulted for guidance when conducting public participation for a CWDP.*

xvii. For information or enquiries, please contact the following officials:
Mr M. Tshikotshi on 021 819 2455 or via E-mail mtshikot@environment.gov.za
Ms N. Baijnath-Pillay on 021 819 2409 or via E-mail nbpillay@environment.gov.za

SPECIFIC INSTRUCTIONS

Who must apply for a Coastal Waters Discharge Permit (CWDP)?

Anyone who discharges or intends to discharge land-derived effluent into the coastal waters of South Africa must apply for a CWDP.

Section 69 (1) of the ICM Act states:

> *"No person may discharge effluent that originates from a source on land into coastal waters except in terms of a general authorisation ... or a coastal waters discharge permit ..."*

Under the ICM Act, **"effluent"** is defined as:

> *(a) Any liquid discharged into the coastal environment as waste, and includes any substance dissolved or suspended in the liquid; or*
>
> *(b) Liquid which is a different temperature from the body of water into which it is being discharged.*

"Waste" is similarly defined in the ICM Act as:

"... any substance, whether or not that substance can be re-used, recycled or recovered –

(i) that is surplus, unwanted, rejected, discharged, abandoned or disposed of;

(ii) that the generator has no further use of, for the purposes of production, reprocessing or consumption; and

(iii) that is discharged or deposited in a manner that may detrimentally impact on the environment."

Sections A, B, and C

I. Section A: To be completed by a private entity.
II. Section B: To be completed by a consultant and acting on behalf of the applicant.
III. Section C: To be completed by organ of state or operating as a parastatal.

- Complete all relevant fields.
- If you are a private individual and have been contracted as a service provider for the purposes of environmental authorisations and monitoring, please complete sections A and B respectively.
- If you are representing an organ of state/government/parastatal and have contracted a service provider for the purposes of environmental authorisations and monitoring, please complete sections B and C respectively.

Application Information

i.

Existing discharge:	✓
~~New Application:~~	
~~Renewal Application:~~	
~~Revision/Amendment of Existing CWDP Permit:~~	

ii. Discharge into which of the following receiving environments:

~~Offshore:~~	
Surf Zone:	✓
~~Estuary:~~	

(For estuary discharges, applications will be processed in consultation with the relevant Department of Water Affairs Office)

SECTION A: APPLICANT INFORMATION (PRIVATE)

Company trading name (if any):	AfroFishing (Pty) Ltd		
Registration no:	1998/016485/07		
Contact person:	Mr Dewald Lourens		
Physical address:	Quay 1, Mossel Bay Harbour		
Postal address:	P.O. Box 2752, Mossel Bay		
Postal code:	6500		
Telephone:	(044) 690 5520	Cell:	082 419 4418
E-mail:	dewald@afrofishing.co.za	Fax:	(044) 690 5525
Website:	http://www.afrofishing.co.za/		

If the applicant is an individual please provide South African identification number or alternatively provide a valid Passport Number
The applicant is a company.

Pipeline owner:	AfroFishing (Pty) Ltd
Contact person:	Mr Dewald Lourens

Postal address:	P.O. Box 2752, Mossel Bay		
Postal code:	6500		
Telephone:	(044) 690 5520	Cell:	082 419 4418
E-mail:	dewald@afrofishing.co.za	Fax:	(044) 690 5525
Website:	http://www.afrofishing.co.za/		

NB: If another company also discharges via this outfall, kindly attach a list of details as requested in all sections of this application form for any such company.

SECTION B: APPLICANT INFORMATION (CONSULTANT)

Consultancy Trading Name: Registration no:	Cape Environmental Assessment Practitioners *Cape EAPrac* 2008/004627/07		
Consultant's name:	Ms Melissa Mackay		
Designation:	Senior Consultant		
Physical address:	First Floor, Eagles View Building, 5 Progress Street, George		
Postal address:	PO Box 2070, George		
Postal code:	6530		
Telephone:	(044) 874 0365	Cell:	071 603 4132
E-mail:	mel@cape-eaprac.co.za	Fax:	(044) 874 0432
Website:	www.cape-eaprac.co.za		

~~SECTION C: APPLICANT INFORMATION (ORGAN OF STATE OR PARASTAL)~~

~~1. Name of District or Local Authority:~~
~~2. Department:~~
~~3. Directorate / Section:~~

~~4. Primary Contact Official:~~			
~~Name & Surname:~~			
~~Designation/Rank:~~			
~~Physical address:~~			
~~Postal code:~~			
~~Telephone:~~		~~Cell:~~	
~~E-mail:~~		~~Fax:~~	
~~Website:~~			

~~5. Secondary Contact official:~~			
~~Name & Surname:~~			
~~Designation/Rank:~~			
~~Physical address:~~			
~~Postal code:~~			
~~Telephone:~~		~~Cell:~~	
~~E-mail:~~		~~Fax:~~	
~~Website:~~			

SECTION D: EFFLUENT GENERATION

1. Provide a brief description of the effluent discharge process that results in the effluent being generated, together with the products, by products and other waste per month. Attach an effluent flow chart

Contracting vessels to AfroFishing use seine net fishing for the pelagic sardine species. The fish is brought on board and placed in the holds with ice and ice water. Once the vessels return to the harbour the fish and ice / ice water are pumped ashore. The large yellow pipes shown in the photo below are those that remove the product from the vessel and the green pipe entering the vessel is refilling the holds with ice / ice water.

No contaminants, chemicals or any other materials other than water and organic fish matter is returned to the harbour.

The fish are separated from the water via conveyor belt and the water which includes scales, blood and solids is drained off and screened by means of large outdoor mesh screens.

The solid material is collected and placed in bins for removal to a local fishmeal processing plant whilst the remaining water is discharged. The water from the loading areas is discharged directly into the harbour.

Photo 4: Screen removing solids from the water

Photo 5: Harbour discharge site

The photo taken of the harbour discharge above was done so prior to the implementation of the second discharge site.

Once the fish enters the factory via conveyor belts, they are sorted and have the heads removed. This area makes use of the abstracted sea water, and the blood and heads are collected in the drain and the solids screened on the dock outside. This water from the factory floor was previously discharged directly into the harbour, but a pipeline has been put in place to transport the discharge water to the east of the quay and discharge into the surf zone.

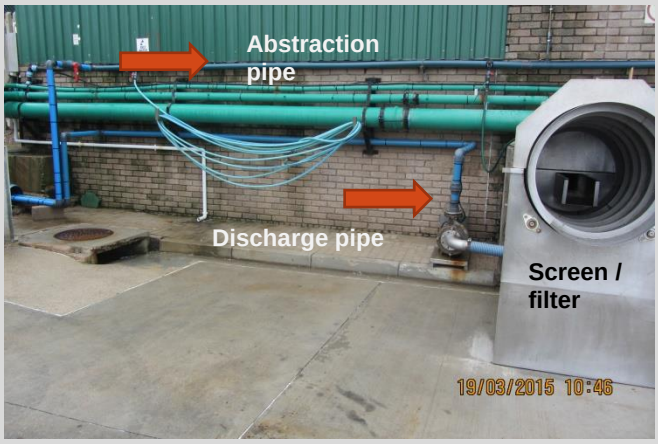
Photo 6: Floor of the initial sorting area from which water is discharged into the surf zone

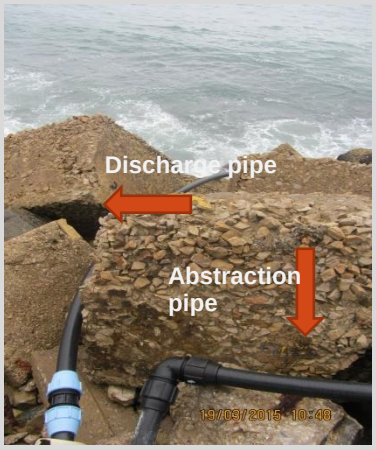
Photo 7: Conveyor belt bringing fish into the factory

The surf zone discharge has been implemented to ensure dispersal of the waste water at a faster rate than inside the harbour. The discharge has not shown any noticeable increase in the biological criteria measurements in the harbour but the applicant and the TNPA preferred that the water be discharged in a more active energy zone.

2. Describe the location of the waste generation points as within the facility, the route to the coast, the discharge point and the structures associated with the activity en route to the discharge point.

The 1st waste generation point is immediately on the quay where the vessels offload their product. From this same point, the water from the factory floor is also screened for solids and is piped via 75mm UPVC and HDPE pipe to the 2nd discharge point approximately 118m east to the surf zone. The offloading effluent water is piped ±6m to the harbour outlet. AF Discharge 2 takes place approximately 82m from the intake pipe. An adjacent pipe abstracts sea water for use in the factory for cleaning purposes. This water is also discharged via the pipeline.





3. In order to further assess the application, please indicate the type of sector generating the effluent. (Make an X in the appropriate box)

~~a. Aquaculture~~	
~~b. Industrial~~	
~~c. Brine or brackish water from desalination~~	
~~d. Cooling water~~	

e. Fish processing effluen	X
~~f. Municipal Effluent~~	
~~g. Hydrostatic pressure testing of tanks and pipes~~	
~~h. Canalised Agricultural runoff~~	
~~i. Stormwater from industrial facilities~~	
~~j. Other (please specify below)~~	

NB: For municipal effluent proposed for coastal discharge, an evaluation in terms of the Water Services Development Plan, in terms of the Water Services Act (Act No. 108 of 1997), must be submitted with regard to water management for the Municipality

SECTION E: ALTERNATIVES AND RATIONALE FOR THE DISCHARGE OF EFFLUENT

1. Do alternatives exist other than to discharge the effluent into the coastal environment?	~~YES~~	**NO**
2. If alternatives to discharge exist, please provide details:		
3. If not, provide a strong motivation for the need and desirability of the effluent discharge into the coastal environment, noting the need to consider the best practicable environmental option for the site:		
The discharge is made up ice, ice water, sea water and organic fish matter that is smaller than the 1mm mesh screens. There are no contaminants, chemicals or other pollutants that may cause environmental degradation. The use of sea water to minimise use of potable municipal water is also an important aspect relating to the discharge in that sea water cannot be discharged on land or into the sewage system. The discharge into the surf zone or harbour is thus the best practicable solution and does not negatively affect the environment.		
4. Provide details of measures that are/will be made for effluent avoidance/prevention, waste minimisation, recycling, etc.		
Once the discharge leaves the vessel and the processing floor, the pre-treatment of the effluent is done by means of screening removes larger solid proteins and thus prevents large organic build up in the harbour / surf zone. All other waste management on site must be undertaken in terms of the Operational Environmental Management Plan (OEMP) that is in place. This includes recycling, waste minimisation and re-use of waste materials.		
5. Has any of the activities in the Listing Notices of the Environmental Impact Assessment Regulations (2010), in terms of Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998), been triggered that will result in the discharge to the coastal environment?	**YES**	~~NO~~
6. If YES, has the abovementioned assessment been conducted?	**YES**	~~NO~~
NOTE: *that a public participation process is required before a CWDP may be authorised. If the answer to question 6 is "NO," please be informed that the CWDP Reference Number as well as the associated documentation pertaining to this application may be used in the public participation process for an Environmental Authorisation to avoid duplication of such a process.*		
7. Environmental Authorisation Reference Number (if YES):	EG12/2/1-AM 18 (5637) Farm Quay 1	

(Attach approved Environmental Authorisation)			
8. Date of commencement of pipeline operation	August 2007		
9. Is an Environmental Authorisation in progress?		~~YES~~	**NO**
The Environmental Authorisation was issued on 13 June 2006. A copy of the EA has been included as Appendix A.			

SECTION F: PUBLIC PARTICIPATION PROCESS

NOTE: *No Public Participation may commence without a CWDP reference number issued by the Department, where clarity will be given on the extent of the public participation required.*

NOTE: *The Applicant must take into account the Department's* ***"Guideline on public participation requirements for Coastal Waters Discharge Permit Application under section 69 of the National Environmental Management Act: Integrated Coastal Management Act 2008 (Act no.24 of 2008)****" when conducting public participation for a CWDP.*

SECTION G: SITE CHARACTERISATION

1. It is required by the applicant to attach to this application:	
1.1. A detailed site map and aerial photograph indicating the following:	
i. Point(s) of discharge	X
ii. Location where effluent is generated on land	X
iii. Effluent monitoring points	X
~~iv. An indication of whether any diffusers have been connected to the pipeline.~~	
None.	
1.2. The total length of the pipeline (from the high water mark to the point of discharge):	
AF Discharge 1 - The discharge pipeline exits the building at approximately 1.5m above the high water mark, has a length of ±6m before entering the harbour. AF Discharge 2 - The discharge pipeline exits the building at approximately 1.5m above the high water mark, has a length of ±118m before entering the surf zone. The length of the pipeline from the high water mark to the point of discharge is approximately 3m at most.	

1.3. The shortest straight line distance from the high water mark to the discharge point:
AF Discharge 1 – Approximately 0m AF Discharge 2 - Approximately 2.5m
1.4. The depth of the discharge point (i.e. the depth at the end of the pipeline):
AF Discharge 1 – At the high water mark in the harbour. AF Discharge 2 - Approximately 1.5m.
1.5. The Erf No:
The facility is located on Quay 1 of the Mossel Bay harbour. The erf number for the entire harbour is Erf 12459 (SG 21 digit: C05100070001245900000)

(Attach relevant supporting documents to this application form)

2. Complete the following mandatory fields:
(Use either Decimal Degrees or Degrees Minutes and Seconds)

2.1. Co ordinates for point/s of discharge (end of pipeline in coastal environment):	
1	34°10'45.84"S 22° 8'56.34"E
2	34°10'43.11"S 22° 8'58.98"E
2.2. The GPS co-ordinates of the point where the coastal outfall pipeline crosses the high water mark:	
1	34°10'45.84"S 22° 8'56.34"E
2	34°10'43.30"S 22° 8'58.59"E
2.3. Co-ordinates for plant/generator of land derived effluent (terrestrial):	
Screen	34°10'46.11"S 22° 8'56.56"E
It must be noted that the effluent tha comes from the vessels docked at the quay and cannot thus be considered land based or land derived effluent. Once it is pumped off the vessel it is not stored or held on land for any time, it is merely screened for solids and pumped to the discharge point. The co-ordinate provided above is that of the screening mechanism on the quay.	

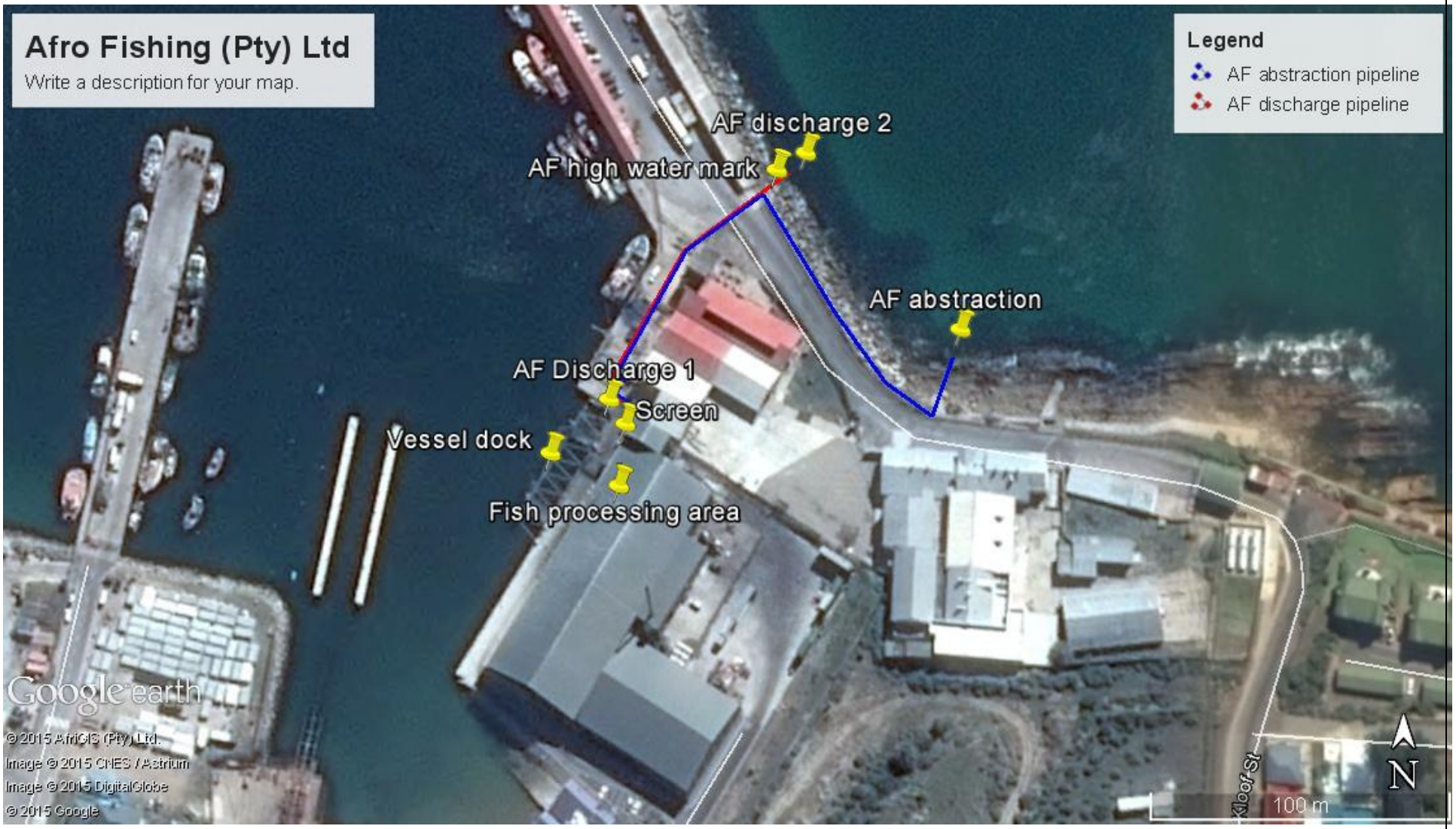


Figure 3: Location plan

Figure 4: CSIR Monitoring Stations

SECTION H: EFFLUENT CHARACTERISATION

1. Complete the following information (refer to the Annex for guidance on completing this section):

Please see Annexure B2 for the results of the abstracted seawater for February 2015 and not that discharged, however given the proximity of the discharge point to the abstraction point it is noticeable that the seawater is considered to be within all the ranges required for use in food production. Note that due to the seasonality of the sardine catch, there may be no average or continual data. However, there have been no concerns raised from any of the monitoring results done since the plant commenced operation.

Quality Variable and unit of measurement	**Average Discharge Concentration per month**	**Maximum Anticipated Discharge Concentration per month**
Coliforms (Colony Forming Units/ml)		
Enteric pathogens e.g. E.coli (Colony Forming Units/ml)		
pH (pH units)		
Temperature (^{o}C)		
Acidity (mg/l)		
~~Alkalinity (mg/l)~~		
~~Aluminium (mg/l)~~		
~~Ammonia (mg/l)~~		
~~Arsenic (mg/l)~~		
~~Barium (mg/l)~~		
~~Boron (mg/l)~~		
~~Bromide (mg/l)~~		
~~Cadmium (mg/l)~~		

Calcium (mg/l)		
Chemical oxygen demand (mg/l)		
Chloride (mg/l)		
Chromium (mg/l)		
Chromium(vi) (mg/l)		
Cobalt (mg/l)		
Quality Variable and unit of measurement	**Average Discharge Concentration/month**	**Maximum Anticipated Discharge Concentration/month**
Copper (mg/l)		
Cyanide (mg/l)		
Fluoride (mg/l)		
Iron (mg/l)		
Lead (mg/l)		
Lithium (mg/l)		
Manganese (mg/l)		
Mercury (mg/l)		
Molybdenum (mg/l)		
Nickel (mg/l)		
Phenol (mg/l)		
Potassium (mg/l)		
Radionuclides (mg/l)		
Salinity		

Soap, oil or grease (mg/l)		
Sodium (mg/l)		
Sulphate (mg/l)		
Tin (mg/l)		
Total dissolved solids (mg/l)		
Total Suspended solids (mg/l)		
Total nitrogen (mg/l)		
Quality Variable and unit of measurement	**Average Discharge Concentration/month**	**Maximum Anticipated Discharge Concentration/month**
Total phosphorus (mg/l)		
Uranium (mg/l)		
Vanadium (mg/l)		
Zinc (mg/l)		

2. Complete the following Monthly discharge pattern (in volume) below and indicate the unit of measurement thereof:

As noted above, the discharge volume is dependent on the seasonality of the catch. When the facility is fully operational, the discharge is pumped at a rate of approximately 60 000lt/ hr. Full capacity could be up to 18 – 24 hours depending on the catch. The season runs roughly from March to November.

Month	**Average**							**Maximum**					
January													
February													
March													

April													
May													
June													
July													
August													
September													
October													
November													
December													
Total/annum													

~~In cubic meters~~ ☐ ~~OR~~

~~% of total~~ ☐ ~~OR~~

Another unit of measurement (please specify) ☐ 60 000lt / hour for the duration of the operational period.

3. Provide a description of any treatment processes applied to the effluent where applicable.
The effluent is screened before being discharged in order to removal solid proteins. There are no contaminants, chemicals or other pollutants in the discharge water.

SECTION I: COMPLIANCE MONITORING AND REPORTING

1. Provide a description of all monitoring points along the effluent stream.
The CSIR is conducting bi-annual monitoring within the port of Mossel Bay. The applicant monitors the quality of the abstraction water in order to confirm that it is fit for use near foodstuff.
2. Provide the frequency of monitoring of the above mentioned monitoring point(s).

The port is monitored on a bi-annual basis. The abstracted seawater is sampled and analysed twice a month.		
3. Provide a detailed description of the type of monitoring, management strategies and maintenance plans implemented for effluent quantity and quality, the receiving environment as well as structural integrity of the pipeline.		
The facility monitors the abstracted seawater on a bi-monthly basis to ensure that the quality is sufficient for foodstuffs intended for human consumption. The abstraction point is located within a short distance of the discharge point and the water quality monitoring has been acceptable to date. The CSIR conducts a bi-annual monitoring of the Mossel Bay harbour at numerous monitoring points. These include water quality samples and sediment grabs. The results indicate that the harbour is in a good condition. The receiving environment for the discharge is a high energy surf zone within which the discharge dissipates very quickly. The longest of the AfroFishing pipelines is a 75mm UPVC and HDPE pipe which can be easily replaced should it become necessary. The integrity is more than sufficient for its purpose.		
4. Provide the historic data on monitoring and compliance for the coastal outfall pipeline. Attach your information to this application form.		
Please refer to Appendices B & G for historical data monitoring and compliance.		
5. Provide a detailed description of maintenance plans in place for recording/monitoring devices, if any.		
The equipment used to conduct the water sampling (CSIR) is mobile and does not remain in situ. The maintenance requirements for these are as per the specifications of the equipment used to conduct sampling. The analysis of the water samples is undertaken at a registered laboratory and it is assumed that their maintenance of devices is done according to the specifications.		
6. Provide a detailed description of maintenance plans in place for treatment facilities, if any.		
None.		
7. Provide a copy of any prior authorisation issued for the coastal discharge by the Department of Water Affairs, including a record of compliance for the last 12 (twelve) months to such an authorisation. Attach your information.		
None.		
8. For existing outfalls, do you have a lease agreement issued in terms of the Sea Shore Act, 1935 (Act No. 21 of 1935) for the pipeline below the high water mark or proof of submission of an application for such a lease agreement to the relevant authority?	~~YES~~	**NO**
9. If YES, attach the proof thereof.		
10. Provide details of the mandatory reporting regime as contained in Annexure 1 (Reporting).		
Monthly water samples from abstraction points;		

Twice yearly monitoring of water quality in the harbour.

SECTION J: CONTINGENCY AND DECOMMISSIONING PLANNING

1. Provide information on pipeline incidences continuous improvement plans contingency plans for effluent discharge and decommissioning plans implemented at or adopted by the facility for the past 12 (twelve) months if available.

None.

SECTION K: SPECIALIST TECHNICAL AND ENGINEERING REQUIREMENTS

1. Provide a detailed report on the following specialist technical and engineering requirements (refer to Annex for more on the generic requirements) if applicable:

1.1 Scope of study area and features

The discharge pipeline is a 75mm UPVC and HDPE (high density polyethylene) pipe, approximately 118m in length and is attached to the walls around the key before going under the road and exiting on the dollosse east of the harbour.

Figure 5: Discharge and abstraction pipelines

Photo 8: UPVC pipes from the screen running along the wall of the facility

Photo 9: HDPE pipes along the quay to the discharge point

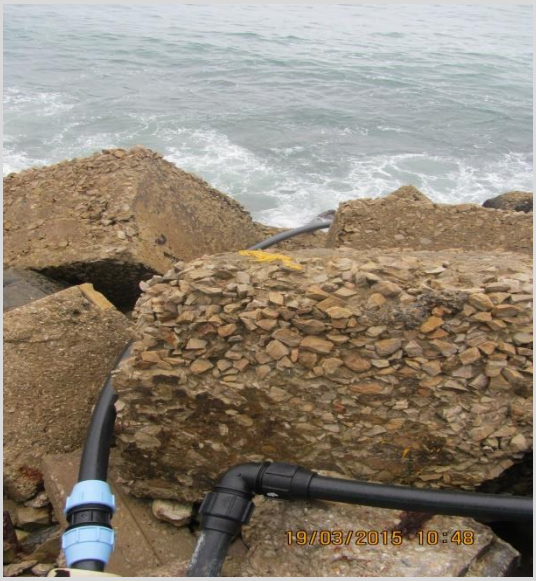


Photo 10: HDPE pipes at the discharge point. Note incoming abstraction pipe.

1.2 Marine ecology
Please see the CSIR / SAEON reports.
1.3 Microbiological Factors
The CSIR / SAEON results that were obtained during the period that the applicant was discharging into the harbor (2007 – 2014) have not shown any negative impacts associated with the discharge related to the activities on site.
1.4 Hydraulic design
None.
1.5 Achievable dilution
The dispersal of the effluent in the surf zone is fast and has not been identified in the abstraction seawater close by
1.6 Sedimentation/re-suspension of solid phase particles
Solids are screened out by means of a 1mm mesh prior to discharge.
1.7 Pipeline construction considerations and structural design (including decommissioning)
The pipeline is a 75mm UPVC and HDPE pipe which provides sufficient capacity for the volume of discharge, is non corrosive and can be easily replaced or removed.
2. Describe any gaps in the above knowledge, any underlying assumptions made and any uncertainties when conducting the above specialist study (ies) in the above mentioned detailed report.

- It is assumed that the information on which this report is based (specialist studies and project information, as well as existing information) is **correct, factual and truthful.**
- The proposed development is **in line** with the statutory planning vision for the area (namely the local Spatial Development Plan), and thus it is assumed that issues such as the cumulative impact of development in terms of character of the area and its resources, have been taken into account during the strategic planning for the area.
- It is assumed that all the relevant **mitigation measures** and agreements specified in existing authorisations are implemented in order to ensure minimal negative impacts and maximum environmental benefits.
- It is assumed that Stakeholders and Interested and Affected Parties notified during the initial public participation process will submit all relevant **comments within the designated 30-days** review and comment period, so that these can included in the Report and timeously submitted to the delegated Authority, the Department Environmental Affairs for consideration.

DECLARATION

I ……, in my personal capacity or duly authorised as …….. (state your capacity) by …….....…… thereto hereby declare that I:

- regard the information contained in this application form and associated documentation submitted to be true and correct, and
- am fully aware of my responsibilities in terms of **Section 69 of the Integrated Coastal Management Act, 2008 (Act No. 24 of 2008);**
- have provided access to all information at my disposal that is relevant to the application;
- will be responsible for the costs incurred in complying with the environmental legislation including but not limited to –
  - costs incurred in connection with the appointment of a specialist/ consultant ;
  - costs incurred in respect of the undertaking of any process required in terms of this application;
  - costs in respect of any fee prescribed by the Minister in respect of this application and the discharge; and
  - the provision of security to ensure compliance with the applicable management and mitigation measures;
- am responsible for complying with the conditions that might be attached to any decision(s) issued by the Department;
- have the ability to implement the applicable management, mitigation and monitoring measures; and
- hereby indemnify, the government of the Republic, the Department of Environmental Affairs and all its officers, agents and employees, from any liability arising out of, inter alia, the content of any report, any procedure or any action for which the applicant or environmental assessment practitioner is responsible.

Please Note: If acting in a representative capacity, a certified copy of the resolution or power of attorney must be attached.

.....(*Signature*) …….....(*Place*)

(yyyy/mm/dd).....(*Date*) …..…….....(*Designation/capacity*)

.....(*Name of company/municipality/organisation*)

	Name and Surname	Address	Signature
Witness 1			

Witness 2			

FINAL Check list (tick the box were applicable)

1. Paid prescribed application fee.....
2. Motivation for the discharge as a BPEO……..……
3. Specialist technical and engineering requirements for assessment (Annexure 1)……
4. Environmental Authorisation and details, if applicable…….…….....
5. Lease agreement issued in terms of the Sea Shore Act, 1935 (Act No. 21 of 1935) for the pipeline below the high water mark or proof of submission of such an application, if applicable……..
6. A copy of the baseline marine impact assessment for the receiving environment surrounding the coastal outfall pipeline…….....
7. A report outlining the impact of the effluent on the coastal receiving environment……
8. Information on any public forum established for the coastal outfall pipeline, including minutes of such meetings if applicable…….……
9. A copy of all comments and responses received and made during the public participation period ….……..
10. A copy of any prior authorisation issued for the coastal discharge by the Department of Water Affairs……
11. Record of compliance for the last 12 (twelve) to the authorisation mentioned above……..……