



agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

National Strategic Environmental Assessment for Aquaculture Development in South Africa

1st Expert Reference Group Meeting
Tuesday, 7 June 2016

CSIR
our future through science

Agenda

<u>TIME</u>	<u>ACTIVITY/PRESENTATION</u>	<u>PRESENTER</u>
12:30 – 13:00	Lunch	
13:00 – 13:10	Welcome	DAFF: Asanda Njobeni
13:10 – 13:30	Background and need for Aquaculture SEA	DEA: Dee Fischer
13:30 – 13:40	Introduction to the Aquaculture SEA	CSIR: Paul Lochner
13:40 – 14:15	Approach to the SEA Discussion	CSIR: Lizande Kellerman
14:15 – 14:45	Scope and prioritisation Discussion	CSIR: Lizande Kellerman
14:45 – 15:00	Tea and coffee	
15:00 – 15:20	Stakeholder consultation Discussion	CSIR: Lizande Kellerman
15:20 – 15:55	Outputs of the SEA Discussion	CSIR: Lizande Kellerman
15:55 – 16:00	Way forward and closure	DEA: Simon Moganetsi



**agriculture,
forestry & fisheries**

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

CSIR
our future through science

Background & need for Aquaculture SEA



- Aquaculture – the breeding, rearing & harvesting of plants & animals in salt or fresh water – is the fastest-growing food production sector in the world.
- Aquaculture is one of the priority focus areas of Operation Phakisa, launched by national government in 2014.
- The goal of  **OPERATION PHAKISA** is to unlock the economic potential of South Africa's oceans.
planning | implementation | growth
- Aquaculture industry in SA is hampered by challenges e.g. financial constraints, complex over-regulation of legislative requirements, limited skills, insufficient development, etc.
- Need to improve, integrate & streamline legislation to reduce complexity and to incentivise environmentally sustainable aquaculture.



**agriculture,
forestry & fisheries**

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

CSIR
our future through science

Introduction to the Aquaculture SEA



- DEA in collaboration with DAFF has commissioned CSIR to undertake a Strategic Environmental Assessment (SEA) to prioritise and incentivise sustainable aquaculture in SA.
- Best practice in SEA should satisfy these international principles:
 - Be a mandated, unbiased process conducted in a transparent manner to be legitimate in the eyes of both the public and decision-makers
 - Consider all the salient issues and legitimate concerns that are relevant to decision-makers and other stakeholders
 - Be conducted by suitable experts and in accordance with standards of scientific rigor and technical adequacy in order to have credibility.
- No fixed recipe for SEA → customise to be “fit for purpose”.
- SEA is often conducted to bridge the gap between national policies or programs and project level decision-making.



agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

CSIR

our future through science

Approach to the Aquaculture SEA



The goal is to promote and support the growth of the aquaculture industry in South Africa:

- a) through identifying suitable areas where environmentally sustainable aquaculture development can be prioritised and incentivised; and
- b) by providing a streamlined and integrated management and legislative framework to reduce compliance complexities & improve decision-making processes.



agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

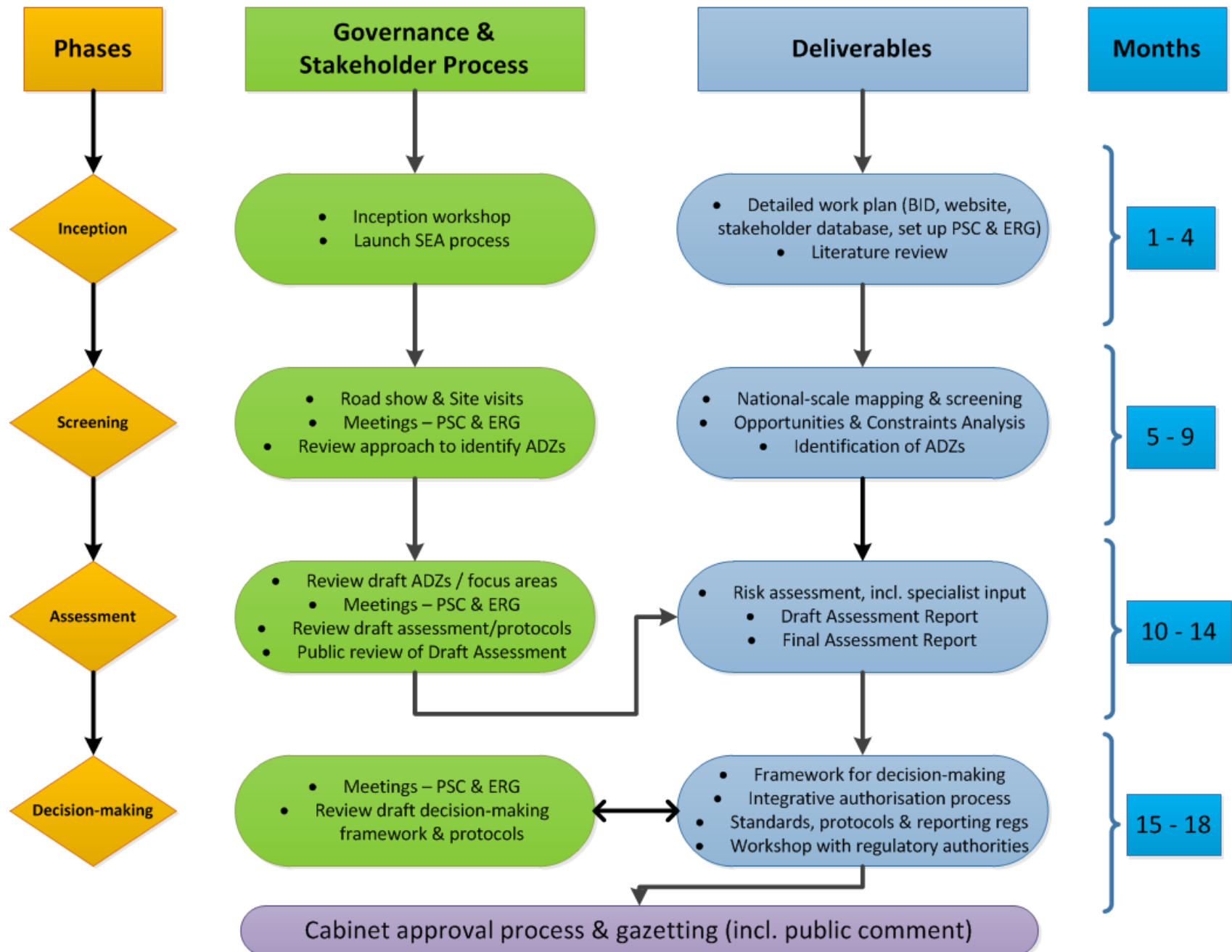


environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

CSIR
our future through science

Approach to Aquaculture SEA



Key objectives of the Aquaculture SEA



- To create an **enabling environment and incentivise sustainable aquaculture** development by:
 - reducing the need for environmental authorisations by use of instruments such as accepted “**norms and standards**”.
 - **streamlining and integrating** the applicable permits and authorisations from national, provincial and local authorities in order to promote efficient decision-making.



agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

CSIR
our future through science

Key legislation governing aquaculture in SA



Administration of the Sector

Environmental Impacts & Permitting

Impacts of Aquaculture on the Environment

Impacts of the Environment on Aquaculture

Product Safety and Quality

Animal Health and Disease Control

Importation of Inputs



**agriculture,
forestry & fisheries**

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

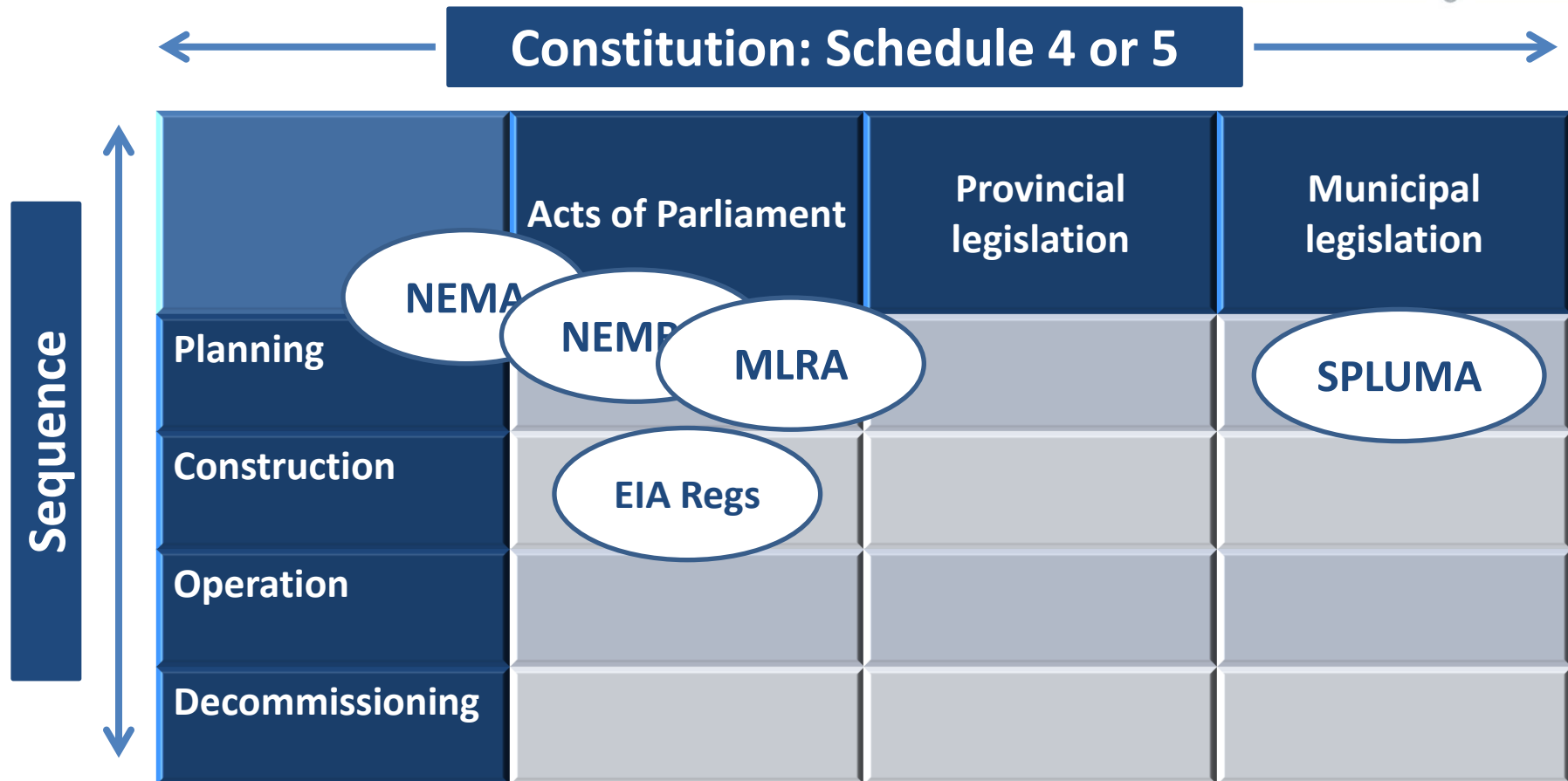


environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

CSIR
our future through science

Approach to Legislative Framework



agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

CSIR
our future through science

Summary of national legislation

Department of Environmental Affairs

DEA

- National Environmental Management Act, 107 of 1998
- Environmental Impact Assessment Regulations, 2010
- National Environmental Management: Biodiversity Act, 10 of 2004
- Draft Alien and Invasive Species Regulations, GN 347 Of 3 April 2009
- Threatened or Protected Species Regulations, GNR.152 of 23 February 2007 (TOPS regulations)
- National Environmental Management: Protected Areas Act, 57 of 2003
- National Environmental Management: Integrated Coastal Management Act, 24 of 2008
- Sea-Shore Act, 21 of 1935
- Sea Birds and Seals Protection Act, 46 of 1973
- National Environment Management: Waste Act, 59 of 2008

Department of Agriculture Forestry and Fisheries

DAFF

- Marine Living Resources Act 18 of 1998
- Marine Living Resources Regulations, 1998
- Genetically Modified Organisms Act, 15 of 1997
- Subdivision of Agricultural Land Act, 70 of 1970
- Animal Diseases Act, 35 of 1984
- Fertilizer, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 36 of 1947
- Animal Improvement Act, 62 of 1998
- Agricultural Products Standards Act, 119 of 1990
- Agricultural Pests Act 36, of 1983
- Animal Protection Act, 71 of 1962

Department of Water Affairs

DWA

- National Water Act 36 of 1998

Department of Trade and Industry

DTI

- Consumer Protection Act No.68 of 2008
- CPA Regulations (GNR 293 of 1 April 2011)
- Standards Act, 8 of 2008
- National Regulator for Compulsory Specifications Act, 5 of 2008
- International Trade Administration Act, 71 of 2002 / The African Customs Union Agreement
- Customs and Excise Act, 91 of 1964
- Broad-Based Black Economic Empowerment Act, 53 of 2003

Department of Health

DOH

- Medicines and Related Substances Act, 101 of 1965
- Foodstuffs, Cosmetics and Disinfectants Act, 54 of 1972
- Health Act, 61 of 2003

Department of Transport

DOT

- Perishable Products Export Control Act, 1983

Department of Labour

DOL

- Occupational Health and Safety Act, 85 of 1993
- Basic Conditions of Employment Act, 75 of 1997
- Labour Relations Act, 66 of 1995
- Employment Equity Act, 55 of 1998

Companies and Intellectual Property Commission/ Department of Justice

CIPC/DOJ

- Companies Act, 71 of 2008
- Trust Property Control Act, 57 of 1988
- Co-operatives Act, 14 of 2005

Department of Public Works

DPW

- State Land Disposal Act 48 of 1961



agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

CSIR
our future through science

Key objectives of the Aquaculture SEA



- To assess & integrate the best available spatial information to identify **focus areas** or **aquaculture development zones** (ADZs) with the following characteristics:
 - highest **commercial potential** for aquaculture (i.e. in terms of technical and operational requirements);
 - highest **social need** (i.e. need for development & job creation); and
 - lowest **environmental sensitivity** (i.e. fewest environmental risks or constraints).



agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

CSIR
our future through science

Aquaculture SEA Project Team



DEA	DAFF	CSIR
Project Leader: Dee Fischer	Project Leader: Asanda Njobeni	Project Leader: Paul Lochner
Project Manager: Simon Moganetsi	Project Manager: Fatima Daya	Project Manager: Lizande Kellerman
Project Administrator: Mpho Moilwa	Project Officer: Michelle Pretorius	Project Officer: Karabo Mashabela



agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

CSIR

our future through science

Aquaculture species for SEA



Marine

Abalone
Finfish
Mussels
Oysters
Prawns
Seaweed

Fresh-water

African
sharp-tooth
catfish
Brown trout
Rainbow trout
Mozambique
Tilapia
Nile Tilapia
Marron
Red claw crayfish



agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



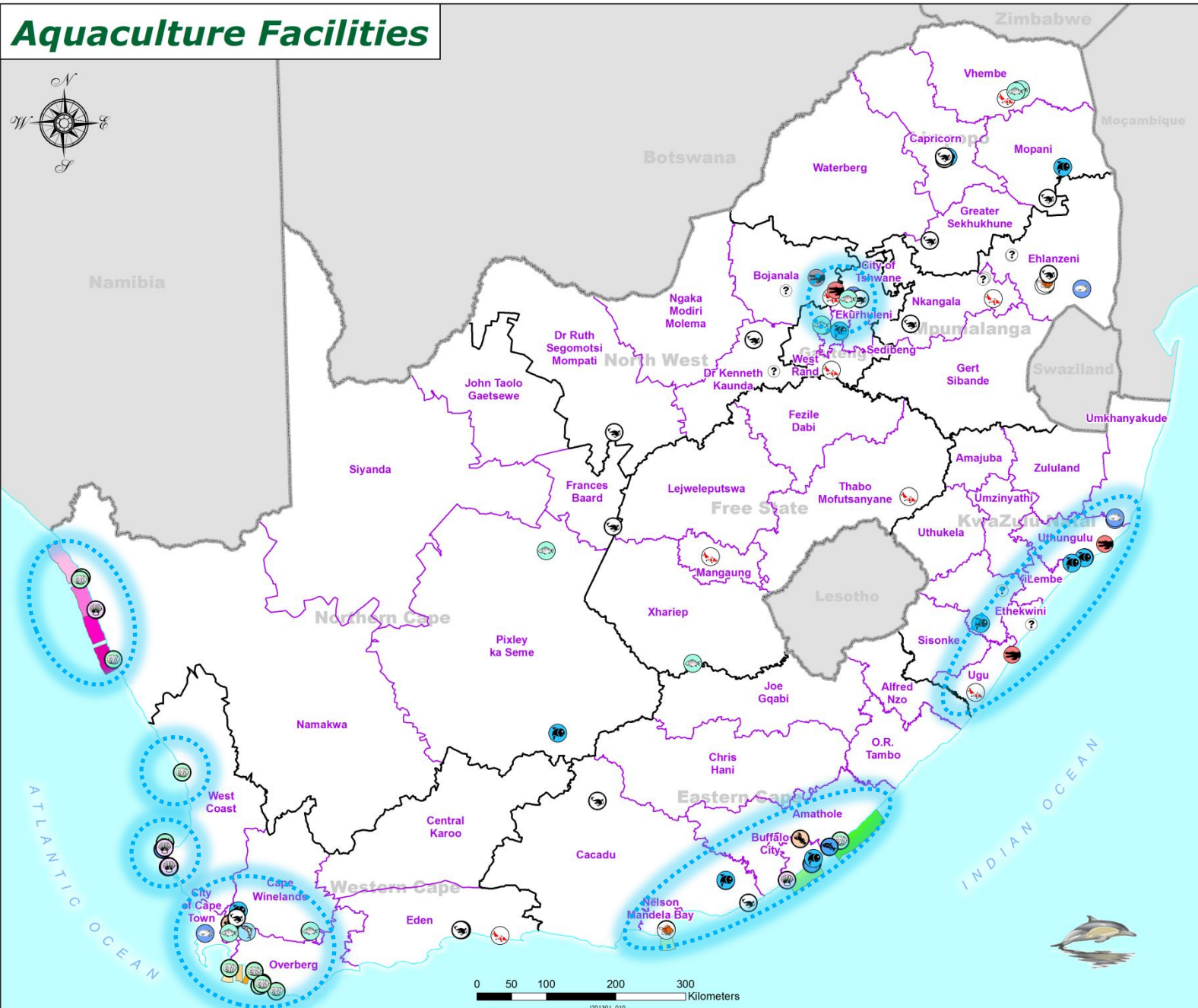
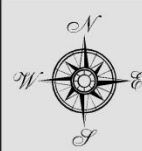
environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

CSIR
our future through science

Marine (salt water) species

Aquaculture Facilities



Aquaculture Facilities

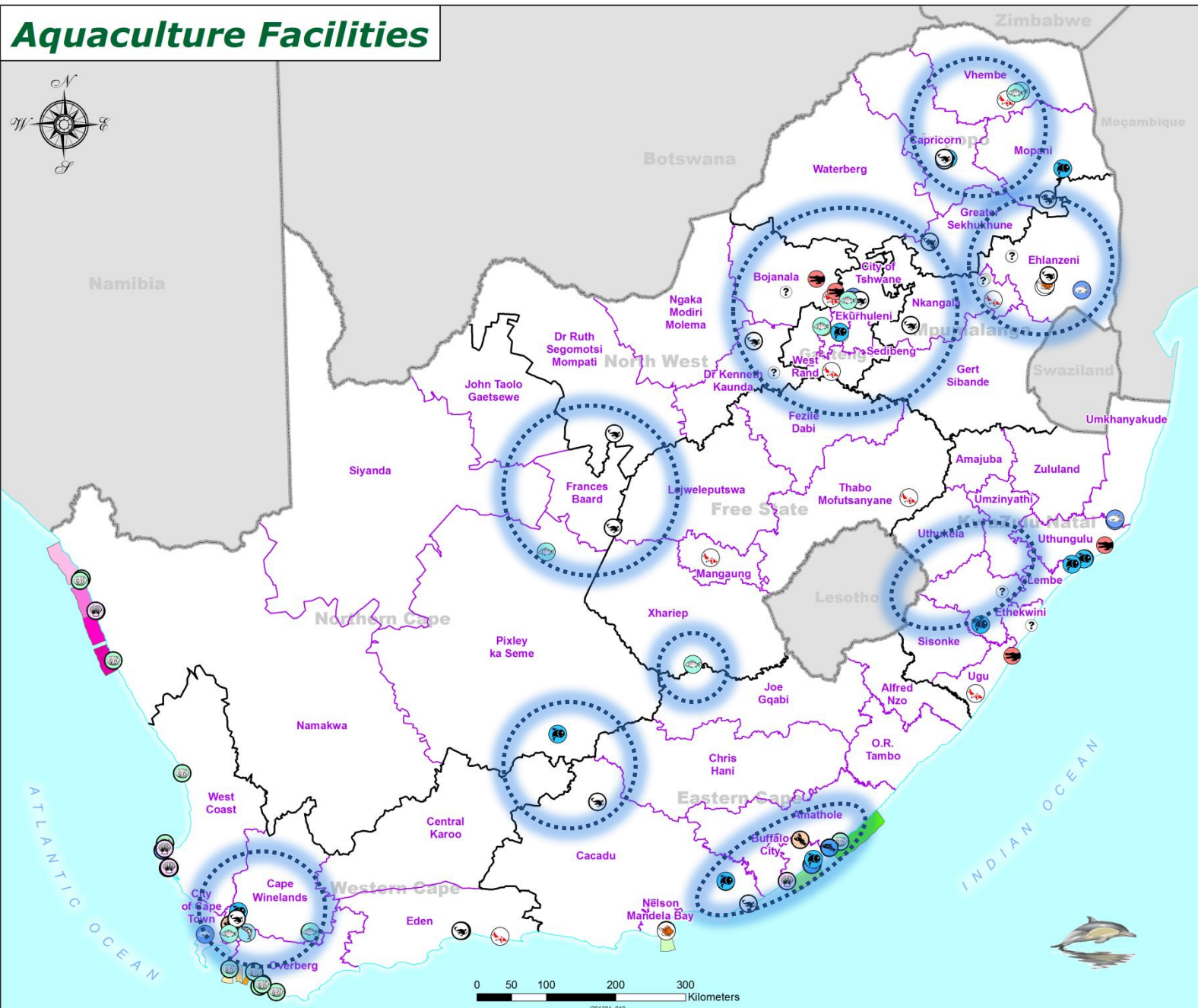
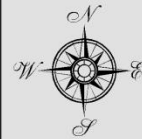
- Abalone (17)
- Marine Finfish (6)
- Mussel Farms (5)
- Oyster Farms (8)
- Carp (8)
- Catfish (16)
- Crocodiles (6)
- Goldfish (6)
- Koi (12)
- Marron Crayfish (2)
- Ornamentals (16)
- Prawns (2)
- Salmon (1)
- Tilapia (18)
- Unknown Species (17)

- International Boundaries
- Provincial Boundaries
- Coastline
- District Municipalities



Freshwater species

Aquaculture Facilities



Aquaculture Facilities

- Abalone (17)
- Marine Finfish (6)
- Mussel Farms (5)
- Oyster Farms (8)
- Carp (8)
- Catfish (16)
- Crocodiles (6)
- Goldfish (6)
- Koi (12)
- Marron Crayfish (2)
- Ornamentals (16)
- Prawns (2)
- Salmon (1)
- Tilapia (18)
- Unknown Species (17)

- International Boundaries
- Provincial Boundaries
- Coastline
- District Municipalities



Stakeholder Consultation



- Consultation is undertaken to facilitate buy-in and commitment from the different key role players, including:
 - Relevant government departments and organs of state;
 - Key stakeholders (e.g. aquaculture industry, academia and NGOs); and
 - The general public.
- The successful and sustainable growth of aquaculture in South Africa depends on effective coordination between these parties in order to reduce barriers to the development of this industry.
- Consultation through e.g. newspaper adverts, BID, website, online media releases, roadshow, focus group meetings, sector meetings, conferences, etc.



agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

CSIR

our future through science

Project Steering Committee (PSC)



The PSC comprises authorities with a legislated decision-making mandate for aquaculture development in SA.

The PSC consists of representatives from:

- DEA (Environmental Programmes, Oceans and Coasts, etc.)
- DAFF (Operation Phakisa, Aquaculture & Economic Development, etc.)
- Dept. of Mineral Resources (DMR)
- Dept. of Public Enterprises (DPE)
- Dept. of Public Works (DPW)
- Dept. of Rural Development and Land Reform (DRDLR)
- Dept. of Trade and Industry (Dti)
- Dept. of Water and Sanitation (DWS)
- Dept. of Science and Technology (DST)
- Transnet National Port Authority (TNPA)
- Representatives from the nine provinces.



agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

CSIR
our future through science

Main purpose of the PSC



- To inform, guide and monitor the implementation of the SEA process;
- To coordinate the mandates of all organs of state in an integrated manner;
- To facilitate sustainable development and ensure legal compliance; and
- To facilitate discussion on the outcomes of the SEA so that they may be adopted and implemented by government.



agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

CSIR
our future through science

Expert Reference Group (ERG)



The ERG comprises representatives of the following:

- South African Aquaculture Industry Associations
- Directorates from the DEA Oceans and Coasts & DEA Environmental Programmes
- DAFF Fisheries Branch
- Department of Water and Sanitation (DWS)
- South African National Biodiversity Institute (SANBI)
- South African Institute for Aquatic Biodiversity (SAIAB)
- Agricultural Research Council (ARC)
- Provincial representatives (e.g. from nature conservation & planning departments)
- NGOs e.g. WWF South Africa, etc.
- Relevant research bodies and academia.



agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

CSIR
our future through science

Main purpose of the ERG



- The **purpose of the ERG** is to:
 - provide technical knowledge and expert insights from a range of sectors; and
 - to ensure that the important issues are identified and addressed in a balanced and scientific manner.
- The ERG's inputs will inform the approach to the SEA tasks and they will review draft outcomes from the SEA.



agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

CSIR
our future through science

Outputs of the Aquaculture SEA



- Aquaculture development zones (ADZs) or focus areas/suitable habitats in South Africa.
- Environmental compliance framework (standards) for streamlined & integrated decision-making to reduce (or limit) the need for permitting & authorisations.
- Environmental screening & risk assessment for aquaculture in SA that can be continuously updated & maintained by DEA & DAFF.
- Generic Environmental Management Plan (EMP) for the management of aquaculture activities in South Africa.



agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

CSIR

our future through science

Way forward & closure



- Minutes of this meeting will be circulated to all ERG members for review and comments.
- The draft schematic legislative framework (as discussed today) will also be circulated to all ERG members for review and to provide additional inputs.
- Feedback provided from the ERG members will be discussed at the next ERG meeting scheduled during November 2016 (date to be confirmed).
- Acknowledgements & meeting closure.



agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

CSIR
our future through science

Thank you

Website: www.aquasea.csir.co.za

E-mail: aquasea@csir.co.za



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



**agriculture,
forestry & fisheries**

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

CSIR

our future through science