

# **CEDERBERG LOCAL MUNICIPALITY**



## **SECOND GENERATION COASTAL MANAGEMENT PROGRAMME 2019 - 2024**

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## LIST OF ABBREVIATIONS

<b>CLM</b>	Cederberg Local Municipality
<b>CML</b>	Coastal Management Line
<b>CMP</b>	Coastal Management Programme
<b>CSIR</b>	Council for Scientific and Industrial Research
<b>DAFF</b>	Department of Agriculture, Forestry and Fisheries
<b>DEFF</b>	Department of Environment, Forestry and Fisheries
<b>DEA</b>	Department of Environmental Affairs
<b>DEFF: O+C</b>	Department of Environmental Affairs: Oceans and Coasts
<b>DEADP</b>	Department of Environmental Affairs and Development Planning
<b>DHSWS</b>	Department of Human Settlements, Water and Sanitation
<b>EAF</b>	Estuary Advisory Forum
<b>EFZ</b>	Estuarine Functional Zone
<b>EIA</b>	Environmental Impact Assessment
<b>EMP</b>	Estuarine Management Plan
<b>HWM</b>	High-Water Mark
<b>ICMA</b>	Integrated Coastal Management Act (Act No. 24 of 2008)
<b>IDP</b>	Integrated Development Plan
<b>MCC</b>	Municipal Coastal Committee
<b>MEC</b>	Member of the Executive Council
<b>Min Tech</b>	Ministerial Technical Committee
<b>MLRA</b>	Marine Living Resources Act (Act No. 18 of 1998)
<b>MMP</b>	Mouth Management Plan
<b>MPA</b>	Marine Protected Area
<b>MSA</b>	Municipal Systems Act (Act No. 32 of 2000)
<b>NBA</b>	National Biodiversity Assessment 2012
<b>NCC</b>	National Coastal Committee
<b>NCMP</b>	National Coastal Management Plan (2015)
<b>NEM: BA</b>	National Environmental Management: Biodiversity Act (Act No. 10 of 2004)
<b>NEM: PAA</b>	National Environmental Management: Protected Areas Act (Act No. 57 of 2003)
<b>NEMA</b>	National Environmental Management Act (Act No. 107 of 1998)
<b>NEMP</b>	National Estuary Management Protocol (2013)
<b>NHRA</b>	National Heritage Resources Agency
<b>PCC</b>	Provincial Coastal Committee
<b>PLS</b>	Public Launch Sites
<b>PPP</b>	Public Participation Process
<b>RMA</b>	Relevant Management Authority
<b>SANBI</b>	South African National Biodiversity Institute
<b>SDF</b>	Spatial Development Framework
<b>SEA</b>	Strategic Environmental Assessment
<b>SPLUMA</b>	Spatial Planning and Land Use Management Act (Act No. 16 of 2013)
<b>TNPA</b>	Transnet National Ports Authority
<b>WCDM</b>	West Coast District Municipality
<b>WG8</b>	Working Group 8 (Oceans and Coasts) of Min Tech
<b>CWDP</b>	Coastal Waters Discharge Permit

## GLOSSARY OF TERMS

**“admiralty reserve”** means any strip of land adjoining the inland side of the High-Water Mark which, when the ICM Act took effect, was state land reserved or designated on an official plan, deed of grant, title deed or other document evidencing title or land-use rights as “admiralty reserve”, “government reserve”, “beach reserve, “coastal forest reserve” or other similar reserve;

**“biodiversity”** or **“biological diversity”** has the same meaning ascribed to it as in the Biodiversity Act;

**“blue economy”** means marine-based economic development that leads to improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities;

**“coastal access land”** means land designated as coastal access land in terms of section 18(1), read with section 26, of the ICM Act;

**“coastal activities”** means activities listed or specified in terms of Chapter 5 of the NEMA which take place –

- in the coastal zone; or
- outside the coastal zone but have, or are likely to have, a direct impact on the coastal zone;

**“coastal environment”** means the environment within the coastal zone;

**“coastal management”** includes-

- the regulation, management, protection, conservation and rehabilitation of the coastal environment;
- the regulation and management of the use and development of the coastal zone and coastal resources;
- monitoring and enforcing compliance with laws and policies that regulate human activities within the coastal zone; and
- planning in connection with the activities referred to in paragraphs (a), (b) and (c);

**“coastal management line”** means a line determined by a MEC in accordance with section 25 of the ICM Act in order to demarcate an area within which development will be prohibited or controlled in order to achieve the objectives of the ICM Act.

**“coastal management objective”** means a clearly defined objective established by a coastal management programme for a specific area within the coastal zone which coastal management must be directed at achieving;

**“coastal protected area”** means a protected area that is situated wholly or partially within the coastal zone and that is managed by, or on behalf of, an organ of state, but excludes any part of such a protected area that has been excised from the coastal zone in terms of section 22 of the ICM Act;

**“coastal protection zone”** means the coastal protection zone contemplated in section 16 of the ICM Act;

**“coastal public property”** means coastal public property referred to in section 7 of the ICM Act;

**“coastal resources”** means any part of-

- the cultural heritage of the Republic within the coastal zone, including shell middens and traditional fish traps; or
- the coastal environment that is of actual or potential benefit to humans;

**“coastal waters”** means-

- internal waters, territorial waters, exclusive economic zone and continental shelf of the Republic referred to in sections 3, 4, 7 and 8 of the Maritime Zones Act, 1994 (Act No. 15 of 1994), respectively; and
- an estuary;

**“coastal zone”** means the area comprising coastal public property, the coastal protection zone, coastal access land, coastal protected areas, the seashore and coastal waters, and includes any aspect of the environment on, in, under and above such area;

**“competent authority”** means a competent authority identified in terms of section 24C of the NEMA;

**“cultural heritage”** means any place or object of aesthetic, architectural, historical, scientific, social or spiritual value or significance;

**“development”**, in relation to a place, means any process initiated by a person to change

the use, physical nature or appearance of that place, and includes-

- a) the construction, erection, alteration, demolition or removal of a structure or building;
- b) a process to rezone, subdivide or consolidate land;
- c) changes to the existing or natural topography of the coastal zone; and
- d) the destruction or removal of indigenous or protected vegetation;

**“dynamic coastal processes”** means all natural processes continually reshaping the shoreline and near shore seabed and includes -

- a) wind action;
- b) wave action;
- c) currents;
- d) tidal action; and
- e) river flows;

**“effluent”** means -

- 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;

**“environment”** means “environment” as defined in the NEMA;

**“environmental authorisation”** means an authorisation granted in respect of coastal activities by a competent authority in terms of Chapter 5 of the NEMA;

**“estuary”** means a body of surface water-

- a) that is permanently or periodically open to the sea;
- b) in which a rise and fall of the water level as a result of the tides is measurable at spring tides when the body of surface water is open to the sea; or
- c) in respect of which the salinity is higher than fresh water as a result of the influence of the sea, and where there is a salinity gradient between the tidal reach and the mouth of the body of surface water;

**“Exclusive Economic Zone”** means the Exclusive Economic Zone of the Republic referred to in section 7 of the Maritime Zones Act, 1994 (Act No. 15 of 1994);

**“harbour”** means a harbour proclaimed in

terms of any law and managed by an organ of state;

**“high-water mark”** means the highest line reached by coastal waters, but excluding any line reached as a result of -

- a) exceptional or abnormal weather or sea conditions; or
- b) an estuary being closed to the sea;

**“littoral active zone”** means any land forming part of, or adjacent to, the seashore that is -

- a) unstable and dynamic as a result of natural processes; and
- b) characterised by dunes, beaches, sand bars and other landforms composed of unconsolidated sand, pebbles or other such material which is either unvegetated or only partially vegetated;

**“low-water mark”** means the lowest line to which coastal waters recede during spring tides;

**“MEC”** means the member of the Executive Council of a coastal province who is responsible for the designated provincial lead agency in terms of the ICM Act;

**“municipality”** -

- a) means a metropolitan, district or local municipality established in terms of the Local Government: Municipal Structures Act, 1998 (Act No. 117 of 1998); or
- b) in relation to the implementation of a provision of this Act in an area which falls within both a local municipality and a district municipality, means –
  - i. the district municipality; or
  - ii. the local municipality, if the district municipality, by agreement with the local municipality, has assigned the implementation of that provision in that area of the local municipality;

**“National Estuarine Management Protocol”**

means the national protocol concerning the management of estuaries contemplated in Section 33 of the ICM Act;

**“organ of state”** has the meaning assigned to it in section 239 of the Constitution;

**“pollution”** has the meaning assigned to it in section 1 of the NEMA;

**“port”** means a port as defined in the National Ports Act, 2005 (Act No. 12 of 2005);

**“protected area”** means a protected area referred to in section 9 of the Protected Areas Act, 2003 (Act No. 57 of 2003);

**“Protected Areas Act”** means the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003);

**“provincial lead agency”** means a provincial organ of state designated by the Premier of the province in terms of section 38 of the ICM Act as the lead agency for coastal management in the province;

**“public launch site”** means a site listed by notice in the Gazette in terms of the Management of Public Launch Sites in the Coastal Zone Regulations, 2014, (GN. No R 497 of 27 June 2014) as a site where a vessel may be launched by members of the public in the coastal zone, but excludes a privately used launch site;

**“sea”** means -

- a) the high seas;
- b) all coastal waters; and
- c) land regularly or permanently submerged by seawater, including-
  - i. the bed, subsoil and substrata beneath those waters; and
  - ii. land flooded by seawater which subsequently becomes part of the bed of coastal waters, including the substrata beneath such land;

**“seashore”** subject to section 26 of the ICM Act, means the area between the Low-Water Mark and the High-Water Mark;

**“small scale fishers”** means persons that fish to meet food and basic livelihood needs, or are directly involved in harvesting/processing or marketing of fish, traditionally operate on or near shore fishing grounds, predominantly employ traditional low technology or passive fishing gear, usually undertake single day fishing trips, and are engaged in the sale or barter or are involved in commercial activity.

**“small scale fishing community”** means an established socio-cultural group of persons who are, or historically have been, fishermen and - women, including ancillary workers and their families; have shared aspirations and historical interests or rights in the harvesting, catching or processing of marine living resources; have a history of shared Small Scale fishing activity but, because of forced removals, are not necessarily tied to particular

waters or geographic area; and were or still are operating near or in the seashore or coastal waters where they previously enjoyed access to marine living resources, or continue to exercise their rights in a communal manner in terms of an agreement, custom or law; and who regard themselves as a community;

**“special management area”** means an area declared as such in terms of section 23 of the ICM Act;

**“the Act”** refers to the National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008 and includes any regulation made in terms of this Act);

**“universal access”** a system of access that accommodates the many different needs of people;

**“vessel”** means a waterborne craft of any kind, whether self-propelled or not, but does not include any moored floating structure that is not used as a means of transport by water;

**“waste”** means any substance, whether or not that substance can be re-used, recycled or recovered-

- (a) that is surplus, unwanted, rejected, discarded, abandoned or disposed of;
- (b) that the generator has no further use of, for the purposes of production, reprocessing or consumption; and
- (c) that is discharged or deposited in a manner that may detrimentally impact on the environment;

**“wetland”** means land which is transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is periodically covered with shallow water, and which land in normal circumstances supports or would support vegetation typically adapted to life in saturated soil.

## EXECUTIVE SUMMARY

### INTRODUCTION

The National Environmental Management: Integrated Coastal Management Act (No. 24 of 2008) (ICMA) provides for the integrated management of South Africa's coastline to ensure the sustainable development of the coast. It was developed to promote ecologically-, socially-, and economically sustainable coastal development, as well as to prevent inappropriate development along the coastline. It is also intended to promote public awareness regarding the complexities and sensitivity of the coastal environment, which then promotes active participation in coastal management.

The ICMA highlights the benefits of cooperation and shared management responsibilities and mandates all three spheres of Government to develop Coastal Management Programmes (CMPs). These are policy and/or strategy documents that contain a system of principles and objectives to guide decisions and achieve outcomes relating to the coastal environment. These policy tools consist of three core components: a situational analysis or status quo assessment; a vision, priority and objectives setting component; and, a five-year implementation programme, which includes specific coastal management objectives and implementation strategies for each identified priority area.

The Cederberg Local Municipality (CLM), with support from the West Coast District Municipality (WCDM), has reviewed and updated its 2013 CMP in line with the requirements of the ICMA and in support of the implementation of the National CMP (2015) and the Western Cape CMP (2016). This updated CLM CMP builds on its previous strengths and successes; is informed by stakeholder engagement; and, responds to the requirements of current legal mandates as well as national-, provincial- and municipal policies, strategies and programmes.

### SITUATION ASSESSMENT

The Situation Assessment was structured according to ten themes that were identified during the review of the first-generation CMP as well as the outcomes of stakeholder workshops.

#### **Theme 1: Cooperative Governance**

Cooperative governance is important in the implementation of coastal management objectives and strategies within the WCDM and the CLM. Effective cooperative governance requires:

- the participation of all stakeholders,
- coastal governance and co-responsibility,
- integrated, coordinated decision making,
- planning and development,
- the continued learning and practical implementation of programmes and processes, and
- ensuring compliance with international conventions, protocols and agreements.

It is important that the WCDM and the CLM work closely with the National and Provincial spheres of government to ensure that the municipalities are sufficiently capacitated and financially resourced to implement coastal management strategies.



## ***Theme 2: Facilitation of Coastal Access***

The provision of public access to the coast is clearly addressed in the ICMA. Within the CLM, public access to the coast is not fully compliant with the relevant provisions in the ICMA, due to either a lack of public access or amenities, a lack of awareness regarding the impact of illegal activities on the coastal zone, the poor condition of existing access roads to coastal areas, and the lack of open communication between local communities and authorities with regards to the provision of public access within the coastal zone. Another factor that impacts on the facilitation of coastal access is the alienation of land as a result of aquaculture, mining and residential estates.

The lack of access to the coast could result in the loss of tourism opportunities, which in turn could limit economic benefits to communities. The provision and maintenance of public amenities falls within the mandate of the LMs. However, the WCDM needs to provide assistance to the CLM by assisting with the provision of resources to enable the CLM to promote coastal tourism.

## ***Theme 3: Coastal Planning and Development***

This can be achieved by incorporating appropriate spatial principles into the CLM SDF, defining and establishing urban edges for all urban nodes in the coastal zone and ensuring that climate change adaptation and mitigation measures are included in the planning process.

The integrity of marine and coastal resources is vulnerable to a variety of impacts largely resulting from human activities, such as coastal urban and rural sprawl, uncontrolled and unmonitored development in coastal areas, and development that may pose a threat to eco-tourism through environment degradation.

There will inevitably be impacts due to the increasing development along the CLM coastline. However, in order to preserve the coastline and prevent degradation, it is necessary to incorporate all existing guidelines and frameworks into town and regional planning schemes, and broader spatial planning tools such as SDFs, for with all development along the coastal zone.

## ***Theme 4: Compliance, monitoring and enforcement***

The coastal and marine environments are sensitive and are prone to exploitation and degradation as a result of anthropogenic activities. Various legislation has been developed to protect these coastal and marine resources and need to be effectively implemented and enforced in order to preserve the integrity of these systems.

Illegal activities within the CLM need to be monitored and the relevant coastal and marine legislation needs to be enforced. There are a number of structures that make provision for enabling organs of state to respond to these illegal activities, and the officials who have been mandated to enforce certain legislation need to be more visible in areas that are known to be hotspots for illegal activities. The municipalities also need to build their own capacity in terms of being able to ensure compliance with coastal management objectives.

## ***Theme 5: Estuary Management***

Estuaries are sensitive unique environments and are susceptible to pollution and degradation from sources upstream and the surrounding areas. The CLM does not have a

large number of estuaries along its coastline but and all the estuaries have estuarine management plans that have been developed. It is important that the implementation strategies outlined in these EMPs are actioned in order to preserve their ecological integrity.

### ***Theme 6: Natural Resource Management***

The marine environment includes inshore and offshore reefs, sandy beaches and rocky shores. This area is an extremely valuable asset and resource due to its aesthetic value, ecological and biological diversity and economic potential. However, the integrity of marine resources is vulnerable to a variety of impacts largely resulting from varying levels of human induced pressure. Numerous plant and animal populations (such as abalone, limpets, mussels and lobster and other shellfish, seaweed, bait species, etc.) along the CLM coastline are subject to varying degrees of exploitation for subsistence and non-subsistence purposes, both permitted and un-permitted.

Certain coastal communities along the CLM coastline are dependent on harvesting various marine organisms either for food or to generate an income as well as sand mining. Sand mining and heavy mineral mining takes place in certain areas. Both mining and the harvesting of resources seem to continue unchecked. The DMRE is responsible for checking environmental compliance in the mining sector, and DEFF is responsible for monitoring marine living resource use. The unsustainable use of these resources manner results in over exploitation and degradation of the marine and coastal zones. Both the WCDM and CLM need to engage with national departments to improve natural resource management along the West Coast.

### ***Theme 7: Heritage resource management***

The CLM is home to some of the oldest population groups in southern Africa and as a result, some of the most valuable heritage and cultural assets. These assets highlight the history of the development of the South African people. It is important that these cultural groups, and the heritage and cultural assets that are associated with these groups, are acknowledged and that these important cultural and heritage assets are formally protected to ensure that future generations can better understand and appreciate the rich and diverse heritage of South Africa.

### ***Theme 8: Pollution control and management***

The community needs to become custodians of their environment by supporting the authorities objectives regarding waste management. This can be achieved by reporting pollution events as well as reducing household pollution through adopting a reduce-reuse-recycle culture.

Existing waste management policies and plans need to be updated and better implemented to ensure that the municipalities fulfil their required mandates in terms of waste management; and the municipalities need to continue to support organisations that undertake continual monitoring of environmental conditions within the WCDM.

The CLM has a few processing facilities along the coastline that discharge into the coastal environment. The CLM also supports a number of aquaculture activities that may also contribute to coastal and marine degradation if their management practices become unsustainable. It is important that all discharge and other pollution generating activities within the CLM are properly authorised and that they remain compliant with their authorisation conditions.

There are programmes that are being implemented by National government that afford an opportunity for the municipalities to capacitate themselves on waste management, thereby improving waste management along the coastline. These programmes are currently being underutilised by the CLM, it is their responsibility to ensure that these programmes are being effectively utilised, particularly the Working for the Coast programme.

### ***Theme 9: Socio-economic development***

The CLM coastal economy focusses on harbours, fisheries and processing as well as aquaculture, and it is important that the further development of these industries is achieved are developed in an environmentally sustainable manner. However, it is even more important to ensure that the coastal communities benefit from these activities, and the municipalities need to encourage that private operators to support community benefaction objectives. To assist with this, the CLM should develop a list of community benefaction objectives and targets that the private sector is expected to meet.

Many coastal communities rely on the fisheries industry. Although the municipalities cannot directly control the issuing of rights and permits, they municipalities have a responsibility to support community development. Close partnership with DEFF is essential in ensuring the sustainable of the livelihood of coastal communities that rely on marine resources, and DEFF need to be able to support the more isolated communities who cannot travel long distances to secure their permits.

Renewable energy is a rapidly growing sector in South Africa, and a number of renewable energy projects are being proposed in the WCDM. It is important that the WCDM and the CLM participate in the development of the sector, but they must ensure that the renewable energy projects do not come into conflict with the Municipality's environmental and biodiversity conservation programmes. Active involvement in the EIA process by both the WCDM and CLM is required to ensure this.

### ***Theme 10: Awareness, education, training, capacity building and information***

The CLM coastline has unique biodiversity and has many beaches and rocky shore environments that are in good condition. It is important to conserve and effectively manage this natural heritage through awareness and education of the coastline. This requires the coordination and cooperation of the communities, authorities and private sector.

Municipal officials also need to be able to make informed and environmentally sound decisions with regards to spatial and town planning activities. A wide variety of data is publicly available and there is easy access to up-to-date environmental planning tools that can assist decision-makers. It is important that environmental management officials are adequately capacitated to understand the management aspects and legislative tools that need to be utilised to effectively fulfil their mandates. National and Provincial government understand the need to provide training to municipal officials regarding environmental management, and offer training programmes on an annual basis. The municipalities need to ensure that they are aware of these programmes and need to attend where possible.

In order to secure capacity in the future, it is strongly recommended that the Municipalities utilise internship programmes where graduates are afforded the opportunity to gain valuable work experience within the environmental management context. Engagement with universities and funding organisations (NRF, DOPW, SETA) needs to be undertaken to facilitate this initiative. Municipalities must also assist research institutions in their research objectives by facilitating access to data and potential access to resources.

## VISION, PRIORITIES AND COASTAL MANAGEMENT OBJECTIVES

The vision for the first generation CMP for the CLM has been carried through to the second generation CMP. The vision that was created for the first generation CMP still holds true and still bears relevance to the CLM coastline.

*We, the people of the Cederberg Municipality, celebrate the diversity, richness and uniqueness of our coast and its communities. The coastal environment will be effectively managed to ensure a balance between ecological integrity, sustainable livelihoods and cultural values.*

*The coast will be a safe, clean and healthy asset with equitable access and opportunities for all communities, now and in the future.*

The Situational Analysis (Chapter 3) describes the state of the CLMs coastal ecosystems. The Situational Analysis along with contributions from the stakeholder engagement workshops held in each coastal LM within the WCDM contributed significantly to the assessment of the status of coastal management within the CLM.

The CLM does not have the resources or the capacity to address every coastal issue or challenge with which it is faced. It is also good coastal management practice to focus available resources on those issues that are deemed to be significant and require urgent response and to embark on a "cycle of improvement".

Ten priorities/objectives for coastal management in the WCDM have been identified and, together with the coastal management strategies, have been summarised below.

Coastal Management Priority/Objective	Coastal Management Strategy
1. Improve Cooperative Governance and Clarify Institutional Arrangements	<ul style="list-style-type: none"> <li>- Clarification of institutional arrangements for coastal management and the facilitation of the generation of capacity</li> <li>- The continued implementation and update the Coastal Management Programme</li> <li>- The promotion of cooperative governance through engagement with all relevant coastal stakeholders</li> </ul>
2. The Facilitation of Coastal Access	<ul style="list-style-type: none"> <li>- The implementation of the West Coast District Municipality Coastal Access Audit</li> <li>- Engagement with the Working for the Coast Infrastructure Programmes</li> <li>- Addressing Public Coastal Access Issues through Town Planning and Resource Use Permits</li> <li>- The facilitation of the effective management of Public Launch Sites</li> <li>- Managing recreational and commercial events on beaches</li> <li>- Ensuring Public safety and security</li> </ul>
3. To Ensure that Coastal Planning and Development is Conducted in a Manner that ensures the Protection and Rehabilitation of the Coastal Zone	<ul style="list-style-type: none"> <li>- Incorporation of biodiversity, environmental and climate change policies into town planning processes</li> <li>- Addressing Coastal Erosion within the coastal zone</li> </ul>

Coastal Management Priority/Objective	Coastal Management Strategy
	<ul style="list-style-type: none"> <li>- To address the high percentage of vacant plots and the low occupancy levels of residential dwellings</li> </ul>
<p>4. To Enhance Compliance Monitoring and Enforcement Efforts in the District</p>	<ul style="list-style-type: none"> <li>- Developing Local Authority Environmental Management Inspectorate and Honorary Marine Conservation Capacity</li> <li>- Facilitating and encouraging public reporting of illegal activities</li> <li>- Facilitating the development and enforcement of Municipal by-laws</li> <li>- Addressing the increase in illegal Off-Road Vehicle activity</li> </ul>
<p>5. To Ensure Effective Management of Estuarine Resources in the WCDM</p>	<ul style="list-style-type: none"> <li>- Facilitating the designation of Responsible Managing Authorities (RMA)</li> <li>- Supporting the development of Estuarine Management Plans for smaller estuaries in the WCDM</li> <li>- Facilitating the implementation of Estuarine Management Plans in the District</li> </ul>
<p>6. The Protection, Management and Sustainable Use of Natural Resources</p>	<ul style="list-style-type: none"> <li>- The effective control of invasive alien plants</li> <li>- Cooperative management of Protected Areas</li> <li>- Monitoring mining activities in the coastal zone</li> <li>- Facilitating the coordinated management of Marine Living Resources</li> </ul>
<p>7. To appreciate and conserve the rich heritage and cultural resources that are found within the WCDM.</p>	<ul style="list-style-type: none"> <li>- Acknowledging Khoisan Communities and their Needs</li> <li>- Facilitating the conservation of Heritage Resources</li> </ul>
<p>8. The Effective Management and Control of Pollution in the Coastal Zone</p>	<ul style="list-style-type: none"> <li>- Managing the discharge of effluent, stormwater and other industrial-based pollutants into coastal waters</li> <li>- Continue to plan, install, alter, operate, maintain, repair, replace, protect and monitor municipal WWTWs in coastal towns</li> <li>- To promote the effective management of Air Quality</li> <li>- To ensure the effective management of solid waste in the coastal zone</li> <li>- Encouraging the Reinstatement of the Blue Flag Beach Programme</li> </ul>
<p>9. Ensuring the Socio-Economic Development of Coastal Communities</p>	<ul style="list-style-type: none"> <li>- Promotion of the Small Harbours: Spatial and Economic Development Framework</li> <li>- Development of marine aquaculture within the District</li> <li>- Supporting the Small-Scale Fisheries Industry</li> <li>- The facilitation of coastal tourism development</li> <li>- Preparing for the growth of the renewable energy sector</li> </ul>
<p>10. Developing and Facilitating Awareness, Education, Training, Capacity Building and Information Gathering in the District</p>	<ul style="list-style-type: none"> <li>- Facilitate the training of municipal officials on coastal management and informed decision making</li> <li>- Facilitating public awareness and access to information</li> <li>- Supporting existing education and awareness projects</li> <li>- Supporting research and development and graduate skills development</li> </ul>

## **IMPLEMENTATION AND REVIEW**

Implementation of this CLM CMP is driven by the LM's commitment to the requirements of the various relevant national and provincial drivers (The National Development Plan, NCMP, Operation Phakisa, Western Cape Coastal Management Programme), as well as the MLMs strategic objective of 'ensuring environmental integrity for the West Coast'. These, together with the outcomes of the stakeholder engagement process, form the basis for the CLM CMP priority areas which will enable quantifiable and measurable outcomes.

Monitoring the success of the implementation of this CLM CMP is important and the five-year programme is proposed to be continually reviewed by the WCDM Municipal Coastal Committee (MCC). Indicators identified will be used to measure the success of the proposed strategies. Indicators, and the means of collecting information about them, are anticipated to be refined over time. The recently completed Western Cape State of Coast report will be a useful guide for developing district and local level indicators. The implementation and monitoring of the estuarine management plans will also play an important role in the monitoring of the success of the CLM CMP as many of the priority actions are linked.

Following the adoption of the updated CLM CMP by the CLM, the next review/amendment is required to occur five years after the adoption of this updated MLM CMP, as per the requirements of the ICMA. Review of the progress of implementation will be on-going and interim amendments to the programme may be required and undertaken in consultation with the WCDM MCC.

## **CONCLUSION**

Managing the complex and sensitive environments that make up the coastal zone is a challenge that requires strategic and practical coastal management objective setting followed by the development of definitive and implementable goals, with on-going monitoring of indicators to ensure effective implementation.

This CLM CMP is intended to function as an integrated coastal planning tool to manage the diverse range of activities that occur in the coastal zone, without compromising environmental integrity or economic development. Effective implementation of the priority strategies contained in this CLM CMP should make a significant contribution towards the achievement of ICM in the West Coast as well as the Western Cape as a whole.

# 1 INTRODUCTION

## 1.1 Background

Around the world, the coastline is the most highly populated area, with many major cities being located along the coast. The concentration of the population along the coastline places pressure on coastal resources due to increasing social and economic demands.

Historically, the coast has provided communities with a rich source of resources (such as fish, seaweed, molluscs, etc.) and has therefore resulted in the coast being heavily exploited. As the population along the coastline increases, along with an increase in reliance on coastal resources, the sustainability of these coastal resources has been cast into the spotlight. The sustainability of coastal resources is primarily being threatened by increasing development along the coast, pollution and over exploitation of natural resources. In order for the coastline to be promoted as an asset that can be enjoyed by a variety of users, the current and future sustainability of coastal resources needs to be prioritised.

The Constitution of the Republic of South Africa (1996) has emphasised that the people of South Africa have a right to an environment that is protected for the benefit of both present and future generations. The promulgation of legislation that focuses on the conservation of the environment, and the prevention and management of pollution and ecological degradation has been highlighted within the Constitution. As a result, the National Environmental Management Act (Act No. 107 of 2008) (NEMA) was promulgated in 2008 and amended in 2014. The primary objective of NEMA is to promote an integrated and coordinated approach to the management of the environment through cooperative governance.

In order to establish the statutory requirements for Integrated Coastal Management, the Integrated Coastal Management Act (Act No. 24 of 2008) (ICMA) was promulgated in 2008 and amended in 2014. The ICMA was developed to provide tools to ensure that development within the coastal zone and the use of coastal resources is both socially and economically justifiable. The ICMA also aims to ensure that development in the coastal zone and the use of coastal resources is ecologically sustainable; and that transgressions within the coastal zone are dealt with using appropriate measures.

## 1.2 Defining the Coastal Zone

The ICMA provides a uniform national definition of the coastal zone that clearly outlines the boundaries and spatial aspects of the coastal zone. In order to effectively manage coastal resources, the boundaries of the coastal zone have to be well defined and understood. In terms of the ICMA, the coastal zone is made up of the following:

- coastal waters;
- coastal public property;
- the coastal protection zone;
- coastal access land;
- coastal protected areas; and
- special management areas.

The various features of the coastal zone, their constituents and the responsible authority is detailed in Figure 1 and Table 1.

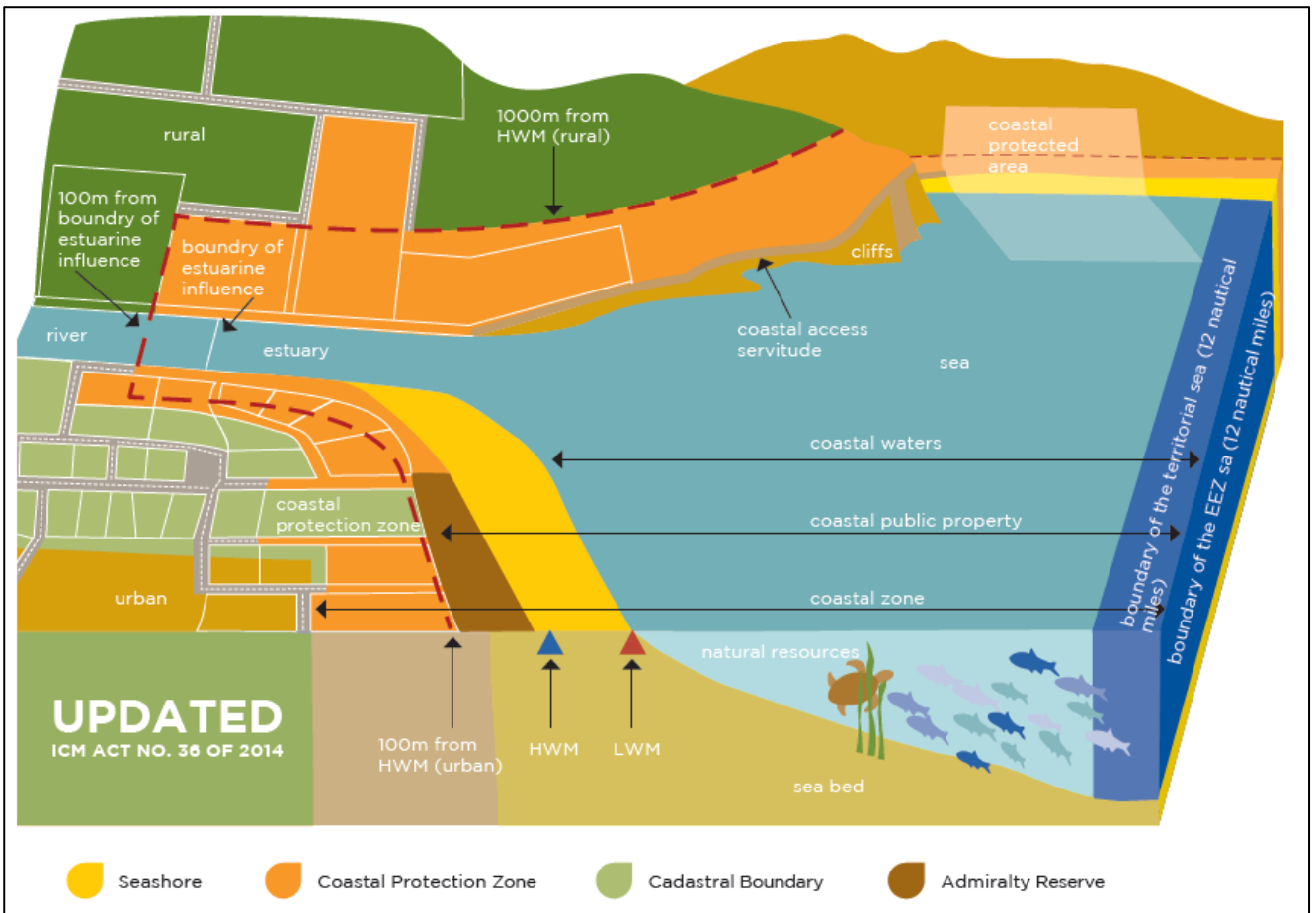


Figure 1: The coastal zone as defined by the ICMA (Western Cape CMP, 2016)

Table 1: Definition of the coastal zone in terms of the ICMA

FEATURE	CONSITUENTS	CHARACTERISTICS	RESPONSIBLE AUTHORITY
<b>Coastal Public Property</b>	<ul style="list-style-type: none"> <li>Coastal waters;</li> <li>Land submerged by coastal waters, including:               <ul style="list-style-type: none"> <li>- Land flooded by coastal waters that subsequently becomes part of the bed of coastal waters; and</li> <li>- The substrate beneath such land;</li> </ul> </li> <li>Any Natural island within coastal waters;</li> <li>The seashore, including:               <ul style="list-style-type: none"> <li>- The seashore of a natural or reclaimed island; and</li> <li>- The seashore of reclaimed land;</li> </ul> </li> <li>Subject to Section 66A, any admiralty reserve owned by the State;</li> <li>Any land owned by the State declared under Section 8 to be coastal public property;</li> <li>Land reclaimed in terms of Section 7C; or</li> </ul>	<ul style="list-style-type: none"> <li>Marks the shift away from resource centered management to a people centered approach; and</li> <li>Aims to improve access to coastal resources, protect sensitive coastal ecosystems and to promote the functioning of natural coastal processes.</li> </ul>	The State, which includes all three spheres of government.



FEATURE	CONSITUENTS	CHARACTERISTICS	RESPONSIBLE AUTHORITY
	<ul style="list-style-type: none"> <li>Any natural resources on or in any coastal public property of a category mentioned above.</li> </ul>		
<b>Coastal Protection Zone</b>	<ul style="list-style-type: none"> <li>Sensitive coastal areas, as defined in the Environment Conservation Act (no. 73 of 1989);</li> <li>Any part of the littoral active zone that is not coastal public property;</li> <li>Any coastal protected area, or part of such an area, that is not coastal public property;</li> <li>A rural land unit that is situated within 1000m of the high water mark (HWM) that is zoned as agricultural or undetermined;</li> <li>Any urban land unit that is completely or partly within 100m of the HWM;</li> <li>Any coastal wetland, lake, lagoon or dam that is situated completely or partially within a land unit situated within 1000m of the HWM that was zoned for agricultural or undetermined use, or is within 100m of the HWM in urban areas;</li> <li>Any part of the seashore that is not coastal public property (including all privately owned land below the HWM);</li> <li>Any Admiralty Reserve that is not coastal public property; and</li> <li>Any land that would be inundated (submerged or covered) by a 1:50 year flood or storm event (this includes flooding caused by both rain storms and rough seas).</li> </ul>	<ul style="list-style-type: none"> <li>To protect the ecological integrity, natural character and the economic, social and aesthetic value of the neighbouring coastal public property;</li> <li>To avoid increasing the effect or severity of natural hazards;</li> <li>To protect people, property and economic activities from the risks and threats that may arise from dynamic coastal processes such as wave and wind erosion, coastal storm surges, flooding and sea-level rise;</li> <li>To maintain natural functioning of the littoral active zone;</li> <li>To maintain the productivity of the coastal zone; and</li> <li>To allow authorities to perform rescue and clean-up operations</li> </ul>	The State, which includes all three spheres of government.
<b>Coastal Access Land</b>	<ul style="list-style-type: none"> <li>Land designated as such in terms of Section 18(1) of the ICMA.</li> </ul>	<ul style="list-style-type: none"> <li>Intention of coastal access land is to ensure that the public can gain access to coastal public property via public access servitudes.</li> </ul>	Municipality, in accordance with Section 29 of the ICMA by notice in the Gazette.
<b>Coastal Waters</b>	<ul style="list-style-type: none"> <li>The internal waters, territorial waters, exclusive economic zone and continental shelf of the Republic referred to in Sections 3, 4, 7 and 8 of the Maritime Zones ACT (No 15 of 1994), respectively, and, an estuary.</li> </ul>	<ul style="list-style-type: none"> <li>Intention is for the State to control activities in coastal waters in the interests of all South African citizens.</li> </ul>	National Government.

FEATURE	CONSITUENTS	CHARACTERISTICS	RESPONSIBLE AUTHORITY
<b>Coastal Protected Areas</b>	<ul style="list-style-type: none"> <li>• A protected area that is situated wholly or partially within the coastal zone and that is managed by, or on behalf of, an organ of state, but excludes any part of such a protected area that has been excised from the coastal zone in terms of Section 22 of the ICMA.</li> </ul>	<ul style="list-style-type: none"> <li>• Coastal protected areas are managed through the Protected Areas Act; and</li> <li>• Intended to augment the coastal protection zone.</li> </ul>	National or Provincial conservation agencies.
<b>Special Management Areas</b>	<ul style="list-style-type: none"> <li>• An area declared as such in terms of Section 23 of the ICMA.</li> </ul>	<ul style="list-style-type: none"> <li>• May prohibit certain activities from taking place within such a management area in order to: <ul style="list-style-type: none"> <li>- Achieve the objectives of a coastal management programme;</li> <li>- Facilitate the management of coastal resources by local communities;</li> <li>- Promote sustainable livelihoods; or</li> <li>- Conserve, protect or enhance coastal ecosystems and biodiversity.</li> </ul> </li> </ul>	National Government (may adopt a manager).
<b>Estuaries</b>	<ul style="list-style-type: none"> <li>• Estuarine Functional Zone (EFZ) as defined in the National Estuaries Layer, available from the South African National Biodiversity Institute's (SANBI) BGIS website (<a href="http://bgis.sanbi.org">http://bgis.sanbi.org</a>)(Government Gazette Notice No. R546, 10 June 2010); and</li> <li>• The EFZ is by default approximated as the 5m topographical contour (i.e. 5m above mean sea level) but should be confirmed by on-site verification, especially in smaller estuaries. The EFZ includes open water area, estuarine habitat (sand and mudflats, rock and plant communities) and floodplain area.</li> </ul>	<ul style="list-style-type: none"> <li>• Estuaries are rich in resources, biodiversity and habitat provision;</li> <li>• They provide the link to the hinterland and the catchment;</li> <li>• Their state is often referred to as the report card for the catchment as a whole;</li> <li>• They require integrated and dedicated management tools; and</li> <li>• Local input in an advisory capacity.</li> </ul>	National, Provincial, Local Government or conservation agencies.

### **1.3 Value of the coast**

South Africa has a coastline that is both ecologically diverse and rich in natural resources. The National Coastal Management Programme of South Africa (2014) (NCMP) identifies South Africa's coastline as a national asset. The West Coast District Municipality's (WCDM) coastline is equally diverse and rich in resources and as a result, many coastal communities depend heavily on these coastal resources for both subsistence needs (food, etc.) and as a source of income (e.g. tourism). The NCMP describes the coastal environment as:

- An economic place where commercial, recreational and subsistence activities take place;
- A social place where people can enjoy themselves and come to relax and find spiritual peace; and
- A biophysical place where land, sea and air meet and interact, and where beaches, sand dunes, rocky headlands and estuaries support a wide range of coastal biodiversity.

The description of the coastal environment, as described by the NCMP is encompassing of the CLMs diverse and resource rich coastline. These aspects of the coastline (economic aspect, social aspect and biophysical aspect) are interlinked, and each aspect needs to be effectively managed to ensure coastal resource sustainability.

The contribution of coastal resources to the South African economy is estimated to be approximately R 57 billion per annum (UNOPS, 2011) where the direct economic benefits of coastal resources in South Africa are approximately 35% of the country's GDP. Within the CLM, the primary direct economic benefits of coastal resources include harbour activities within the Lamberts Bay harbour, small scale fisheries, recreational fishing and coastal tourism. The CLM coastline also provides a valuable source of educational and scientific opportunities that cannot be quantified in monetary value.

### **1.4 Context of Coastal Management Programmes in South Africa**

In terms of the ICMA, CMPs are considered to be an important tool for effective integrated coastal management in South Africa. Section 48 of the ICMA requires that coastal district and local municipalities develop CMPs that are in alignment with both the NCMP and the provincial CMP (Western Cape CMP - 2016). While the NCMP and the provincial CMPs are required to address strategic planning and implementation issues in the coastal zone, whereas municipal CMPs are required to address more operational and more focused planning and implementation issues in the coastal zone.

### **1.5 The Purpose of the Updated Cederberg Local Coastal Management Programme**

The first generation CLM CMP was finalised and adopted in 2013. However, the priorities identified in the first generation CLM CMP, like the coastal zone, are dynamic and must be periodically re-examined to revise strategies. For this reason, Section 48 of the ICMA requires that the CLM review the CMP at least once every five years, and if necessary, amend the CMP.

This CMP serves as the second generation CMP for the CLM. In order to ensure that all the requirements of a CMP as per Section 49 of the ICMA are met, the CMP must –

- a) Be a coherent municipal policy directive for the management of the coastal zone within the jurisdiction of the municipality;

- b) Be consistent with –
- (i) The national and provincial coastal management programmes; and
  - (ii) The national estuarine management protocol.

More specifically, the ICMA (Section 49) states that the updated CLM CMP must include the following components:

- A municipal vision for the management of the coastal zone, including the sustainable use of coastal resources;
- Municipal coastal management objectives;
- Priorities and strategies that achieve the following:
  - Coastal management objectives of the WCDM,
  - Applicable coastal management objectives stipulated within the NCMP and Western Cape CMP,
  - Address the issue of high percentage of vacant plots and the low occupancy levels of residential dwellings,
  - The designation of areas for the purposes of mixed cost housing and taking into account the needs of previously disadvantaged individuals,
  - Addressing coastal erosion and accretion,
  - Strategies to deal with issues pertaining to coastal access,
- Performance indicators to measure progress with the achievement of the objectives.

Section 29 of the ICMA also states that the CLM CMP may include a programme of projected expenditure and investment to be made by the CLM to implement the CMP, and a description of specific areas within the coastal zone that may require special management strategies or estuary management plans.

## **1.6 The Cederberg Local Municipality Coastal Management Programme Development Process**

An integrated approach was adopted for the development of this CLM CMP whereby each of the coastal LMs were engaged separately to form part of the larger WCDM CMP development process. The coastal LMs within the WCDM (see Figure 2) are:

- Swartland;
- Saldanha Bay;
- Bergrivier;
- Cederberg; and
- Matzikama.

The development of the CLM CMP followed the following general process:

- Firstly, an initial framework for coastal management in the CLM was developed, which outlined the key components of an integrated CMP. This formed the structure of the CMP.
- A draft situation analysis of the coastal zone and coastal management along the CLM coastline was prepared.
- Through a series of stakeholder workshops, coastal issues and potential future needs were identified.
- A preliminary list of indicators for coastal management was derived from the issues identified as well as consultation with the existing CLM CMP (2013) and the Western Cape Provincial CMP (2016). This was done in order to monitor the progress of the implementation of the CMP to achieve management objectives.

- Finally, specific coastal management actions for the CLM CMP were identified, from which implementation plans were developed.

## 1.7 Framework of the Second Generation CLM CMP

The framework for the second generation CLM CMP is based on the first-generation CMP, the Western Cape CMP as well as the NCMP. It is important that the second generation CLM CMP aligns closely with the Provincial and National CMP.

The framework aims to provide a holistic and structured guideline as to how to undertake the situation analysis, and to identify coastal issues and future needs:

- The **vision** of the CLM CMP was developed to not only reflect the ecological aspects of the coastal zone but to also reflect its social, economic and cultural aspects.
- The **objectives** of the CLM CMP were formulated in order to achieve the CLM vision for coastal management.
- The **strategies** and **associated actions** in the first generation CLM CMP were grouped into the following themes:
  1. Institutional arrangements;
  2. Natural resource management;
  3. Heritage resource management;
  4. Pollution control and management;
  5. Facilitation of coastal access;
  6. Safety and security;
  7. Socio-economic development; and
  8. Institutional, human and financial resource capacity.

However, after reviewing the first generation CMP, the Provincial CMP and the outcomes of the stakeholder engagement process for the second generation CLM CMP, the need to reorganise the themes became evident. They have been reorganised as follows, and these 10 themes (listed in order of importance) will be carried through into the development of implementation strategies for coastal management in the CLM:

1. **Cooperative governance and institutional arrangements:** This theme has overarching importance for the effective implementation of coastal management objectives and strategies. Effective cooperative governance requires the participation of all public sector agencies and departments with responsibility for coastal management, from national through to local government levels. There is a need for co-responsibility, and integrated and coordinated decision making and planning. In addition, ongoing skills transfer and capacity building, especially related to practical implementation of programmes and processes is required. This will assist in ensuring compliance with international conventions, protocols and agreements.
2. **Facilitation of coastal access:** The ICMA (Section 49) identifies the facilitation of coastal access as a key issues, and this is particularly applicable to the CLM CMP. Emphasis needs to be placed on the promotion and management of access to coastal public property, the promotion and facilitation of equitable access to coastal resources and coastal public property, and the need to meet the objective of ensuring access whilst promoting custodianship and stewardship of the coastal zone.

3. **Coastal planning and development:** Due to the ever-increasing demand for ocean and coastal space, appropriate coastal planning is required to ensure that all forms of development align with ICMA principles. This requires that measures which emphasise local economic development opportunities are put in place. But planning and spatial development must focus on sustainable and equitable development, and the approval process must take this into consideration.
4. **Compliance, monitoring and enforcement:** In order to ensure that coastal management objectives are being implemented and that coastal legislation is being complied with, compliance, monitoring and enforcement strategies need to be developed. Ensuring compliance with applicable coastal legislation requires the promotion of the Environmental Management Inspectorate, including facilitation, training and designation of Environmental Management Inspectors by the WCDM. This will contribute to ensuring that the coastal zone is managed effectively. The selection of indicators and the implementation of monitoring programmes are required in order to assess progress towards achieving the CMP vision and objectives. In order to evaluate the findings of these monitoring programmes, Section 93 of the ICMA requires that State of the Coast Reporting be carried out. State of the Coast Reporting will inform the subsequent reviews of the CLM CMP and future coastal planning processes.
5. **Estuary management:** Although the CLM does not have a high number of estuaries, the estuaries are heavily impacted and of high value. These estuaries require the establishment and implementation of strategies to improve the management and protection of estuarine resources, as well as the need to secure sufficient financial resources to fund and implement the identified actions, research projects, other initiatives and the advisory forums.
6. **Natural resource management:** The effective management of natural resources needs to include the maintenance of ecosystem integrity and health, the assessment and effective management of coastal protected areas, including marine protected areas, as well as the identification and rehabilitation of damaged and degraded coastal ecosystems and habitats.
7. **Heritage resource management:** The CLM coastline has a wealth of heritage resources that require protection and management in order to preserve them for the benefit of future generations. Heritage resource management in the coastal zone is an important aspect of coastal management in the WCDM.
8. **Pollution control and management:** This requires both effective management and effective prevention strategies, with an emphasis on reducing and responding to both land based and marine based sources of pollution in the coastal zone. Ensuring adherence to the waste management hierarchy of reduce, reuse, recycle will help reduce especially solid waste. The effective management of waste within the coastal zone requires cooperation between various departments within the local and district municipalities, provincial and national government departments, as well as coastal communities.
9. **Socio-economic development:** The coastal zone is important to society, and to the economic development of all coastal communities. It is important that the socio-economic environment along the coastline is well managed and supported to ensure that all coastal communities receive the full benefit of the resources that the coastal zone provides. The identification and exploitation of sustainable livelihood opportunities is equally important to capitalise on the benefits offered by the

coastline.

10. **Awareness, education, training, capacity building and information:** These are important actions to implement, as this will help to facilitate the cooperative management of the coastal zone, which is required to successfully implement an *integrated* coastal management strategy. The generation of internal capacity within the CLM, to effectively manage the coast is also vital in ensuring that the objectives and strategies set out in the CMP are implemented. Awareness of the coastal zone among various key stakeholder can be achieved through the facilitation of knowledge production and exchange, the promotion of knowledge sharing of coastal issues, and instilling a sense of ownership of the coastal zone amongst all stakeholders.

## 2 LEGISLATIVE OVERVIEW

Coastal management is an integrated process and as a result the coastline is governed by a number of laws and policies. Due to the complexities of the legislative framework that is applicable to coastal management in South Africa, many legal requirements pertaining to coastal management are either implemented ineffectively or not at all. This section provides a brief description of the relevant legislation, policies and plans that are important to integrate into coastal management activities.

### 2.1 Legislation

#### **The South African Constitution**

Schedule 4b and 5b of the Constitution indicates that the management of the following matters are assigned to local government:

- Beaches and amusement facilities;
- Cleansing;
- Control of public nuisances;
- Local amenities;
- Local sport facilities;
- Local tourism;
- Municipal parks and recreation;
- Municipal planning;
- Municipal roads;
- Noise pollution;
- Pontoons, ferries, jetties, piers and harbours, excluding the regulation of international and national shipping activities and related matters;
- Public places;
- Refuse removal, refuse dumps and solid waste disposal;
- Stormwater management systems in built up areas;
- Traffic and parking; and
- Water and sanitation services limited to potable water supply systems and domestic waste-water and sewage disposal systems.

#### **Local Government: Municipal Systems Act (No. 32 of 2000, as amended by Act No. 44 of 2003).**

The following aspects of this Act relate specifically to coastal management and need to be incorporated into the CLM CMP:

- The creation and adoption of by-laws;
- Chapter 5 provides for Integrated Development Planning (IDP) wherein a municipal CMP can be incorporated. Section 26 states that each Local, Metropolitan and District Municipality is required to develop an IDP, which must reflect a municipality's vision and objectives. The IDP is seen as the primary planning instrument that informs and guides all planning and development in a municipality;
- Section 11(3) highlights the need for municipalities to exercise their legislative authority. The Act states that municipalities must exercise their executive and legislative authority within the constitutional systems of co-operative government envisaged in terms of Section 41 of the Constitution; and
- Section 25 states that: "each municipal council must, within a prescribed period after the start of its election term, adopt a single, inclusive and strategic plan for the



development of the municipality".

**Local Government: Municipal Structures Act (Act No. 117 of 1998, as amended by Act No. 1 of 2003)**

The functions of a District and Local Municipality that relate specifically to coastal management are identified in this Act as:

- (a) Integrated development planning for the Municipality, including a framework for IDPs of all municipalities in the area of the DM;
- (b) Potable water supply systems;
- (c) Domestic waste-water and sewage disposal systems;
- (d) Solid waste disposal sites, as it relates to:
  - (i) The determination of a waste disposal strategy;
  - (ii) The regulation of waste disposal; and
  - (iii) The establishment, operation and control of waste disposal sites, bulk waste transfer facilities and waste disposal facilities for more than one LM in the district;
- (e) Municipal roads, which form an integral part of a road transport system for the area of a DM as a whole;
- (f) Promotion of tourism for the area of the DM;
- (g) Municipal public works relating to any of the above functions or any other function assigned to the DM;
- (h) The receipt, allocation and, if applicable, the distribution of grants made to the DM; and
- (i) The imposition and collection of taxes, levies and duties related to the above functions or as may be assigned to the DM in terms of national legislation.

**National Environmental Management Act (No. 107 of 1998) (NEMA)**

NEMA serves as framework legislation for South Africa because it provides for overarching and generic principles that should inform South Africa's environmental management and governance. NEMA is mainly regarded as a reasonable legislative measure required from State in order to fulfil obligations imposed upon it by the constitutional environmental right to protect the environment through reasonable legislative measures and other measures. Furthermore, NEMA is intended to give effect to the cooperative governance imperative contained in the Constitution.

It is important that the CLM incorporates the sustainable development principles outlined in NEMA into their municipal planning procedures.

**National Environmental Management: Integrated Coastal Management Act (Act No. 28 of 2008) Amended in 2014 (ICMA)**

The ICMA (Amended in 2014) is the key legislative framework that regulates the use of coastal resources. The Objectives of the ICMA include the following:

- Sets out a new and integrated approach to managing the nation's coastal resources in order to promote social equity and to make best economic use of coastal resources, whilst protecting the natural environment. Specifically, the Act seeks to:
  - Provide a legal and administrative framework that will promote cooperative, coordinated and integrated coastal management;
  - Preserve, protect and enhance the status of the coastal environment as the heritage of all;
  - Ensure that coastal resources are managed in the interest of the whole community;

- Ensure that there is equitable access to the opportunities and benefits derived from the coast; and
- Give effect to South Africa's international law obligations.

It is important that the CLM CMP fully aligns with the requirements of the ICMA.

### **NEM ICMA: Dumping at Sea Regulations (2016)**

The Dumping at Sea Regulations have been developed to enable the DEFF to implement Sections 70 and 71 of the ICMA. The Regulations outline the specific requirements that must be met when applying for a dumping permit as well as an emergency dumping permit.

All Dumping at Sea permits are issued by DEFF, but the CLM has a responsibility to report any illegal activities to DEFF to ensure that all dumping at sea activities are properly authorised and monitored.

### **NEM ICMA: Coastal Waters Discharge Permit Regulations (2018)(CWDP)**

The CWDP Regulations aim to provide an administrative framework for the implementation of Section 69 of the ICMA. The ICMA empowers the DEFF to manage the discharge of effluent into coastal waters in a manner that ensures that users of coastal waters are not adversely affected, and that the environmental integrity of the coast is not compromised.

### **National Estuarine Management Protocol (NEMP)**

The ICMA requires that estuaries in South Africa be managed in a co-ordinated manner. As a result, the NEMP was developed to guide the management of estuaries through the development and implementation of individual Estuarine Management Plans (EMPs). The EMPs aim to achieve harmony between ecological processes and human activities while accommodating sustainable estuarine resource utilisation.

However, the role of a municipal RMA was questioned in a recent case where the Supreme Court of Appeal (SCA) handed down judgment in *Abbott v Overstrand Municipality* (99/2015) [2016] ZASCA 68 (20 May 2016). This case resulted in a review of the role of municipalities with regards to the implementation of certain estuarine management actions. The case specifically dealt with whether or not a municipality was under any legal obligation to take measures to prevent the flooding of a residential property that was situated on a floodplain, prompting the question as to whether or not municipalities can exercise an environmental management function in terms of the Constitution (WCSocr, 2019).

In a circular that was circulated to all coastal municipalities on the 30th May 2017, the role of local government in estuary management in terms of the NEMP was clarified. Legal advice was sought and consultation with DEFF was undertaken which resulted in the DEA&DP noting that the findings in the *Abbot vs Overberg* case that the identification of municipalities as RMAs for implementing the NEMP is inconsistent with Section 156(1)(b) of the Constitution and does not comply with section 156(4) of the Constitution. With regards to artificial breaching of estuary mouths, DEA&DP maintain that this remains a local government function on terms of the Constitution and the Disaster Management Act (No. 57 of 2002).

In an effort to address the shortfalls identified in terms of the Constitution and the NEMP, DEFF is in the process of revising the NEMP. However, in the interim, DEA&DP and CapeNature will continue to maintain the lead role in ensuring the coordinated planning,

implementation and management of estuaries in the Western Cape. Section 154(1) of the Constitution places an obligation on the National and Provincial authorities to support and strengthen the capacity of local government to perform their functions. DEA&DP has committed to enter into Implementation Protocols with Municipalities for the implementation of these functions in terms of the Intergovernmental Relations Framework Act (No. 13 of 2005) (WCSocr, 2019).

### **NEM: Environmental Impact Assessment (EIA) Regulation, as amended in 2017**

The EIA Regulations, as amended in 2017, make provision for the protection of the coastal zone by incorporating a number of listed activities that are specifically aimed at protecting the coastline. Any proposed activities listed in the EIA Regulations that relate to the coastal zone may not proceed without undergoing an EIA process and having been issued an Environmental Authorisation.

The National DEFF and Provincial Department of Environmental Affairs and Development Planning (DEA&DP) are the relevant Authorities that are mandated to issue Environmental Authorisations (EAs) as well as to monitor compliance with the conditions of the EAs. However, it is the Municipality's responsibility to ensure that they participate in the EIA process to ensure that municipal planning schemes are taken into consideration. This will prevent conflicts with the Municipality's development goals and objectives.

### **NEM: Control of Use of Vehicles in Coastal Areas Regulations (2014)**

The NEM: Control of Use of vehicles in Coastal Areas Regulations aim to minimise the impact of vehicles driving in the sensitive coastal environment. The Regulations stipulate prohibitions as well as defines permissible uses of vehicles within the coastal area. The Regulations allow for permits to be issued for the use of vehicles in coastal areas.

The DEFF are mandated to issue permits for vehicles in the coastal zone as well as enforcing the Regulations. However, the Municipalities are responsible for reporting any illegal driving activities in the coastal zone to DEFF.

### **NEM: Management of Public Launch Sites in the Coastal Zone Regulations (2014)**

The NEM: Management of Public Launch Sites in the Coastal Zone Regulations provides a formal process when registering new or existing public launch sites. The Regulations provide a framework from which the provincial Department of Environmental Affairs is able to assess and authorise public launch sites.

The CLM has one public launch site at Elands Bay (Old Crayfish Factory) that has been listed in the Provincial Gazette (2015). The CLM has been identified as the management authority responsible for the operation and maintenance of this launch sites.

However, the Management Bodies can request that registered PLS can be delisted or a new PLS can be added to the list. As this list of registered PLS gets updated, the WCDM CMP will also need to be updated accordingly.

### **Marine Living Resources Act (Act No. 18 of 1998) (MLRA)**

The purpose of the MRLA is to provide for the conservation of the marine ecosystems, the long-term sustainable utilisation of marine living resources and the orderly access to the exploitation, utilisation and protection of certain marine living resources; and for these

purposes to provide for the exercise of control over marine living resources in a fair and equitable manner to the benefit of all the citizens of South Africa.

The CLM has a strong small-scale fishing presence and the small-scale fisheries in the district needs to be managed through the MLRA. However, the MLRA does not make provision for local authorities to implement and enforce the Act unless representatives of the local authority are designated as Fisheries Control Officers in terms of Section 9 of the MLRA.

### **National Ports Act (No. 12 of 2005) (NPA)**

The NPA seeks primarily to give effect to the Government's Policy on commercial ports that outlines the role of ports in the South African economy. The largest harbour in the CLM is the Lamberts Bay harbour.

### **National Environmental Management: Protected Areas Act (No. 57 of 2003) (NEM:PAA)**

NEM:PAA mainly provides for the following:

- Declaration of nature reserves and determination of the type of reserve declared;
- Cooperative governance in the declaration and management of nature reserves;
- A system of protected areas in order to manage and conserve biodiversity; and
- Utilization and participation of local communities in the management of protected areas.

A number of protected areas exist within the coastal areas of the CLM. Some of the protected areas that have been proclaimed under the NEM: PAA include:

- Penguin (Bird) Island Nature Reserve Complex;
- Elands bay Dune Reserve; and
- Dassen Coastal Complex Protected Area.

### **National Environmental Management: Biodiversity Act (No. 10 of 2004) (NEM:BA)**

The objectives of the Biodiversity Act include the following:

- Management and conservation of biological diversity;
- Use of biological resources in a sustainable manner;
- Equitable sharing of benefits arising from bio-prospecting; and
- Cooperative governance in biodiversity management and conservation.

The Biodiversity Act requires that the state must manage, conserve and sustain South Africa's biodiversity and its components and genetic resources; and must implement this Act to achieve the progressive realization of those rights.

### **National Environmental Management: Air Quality Act (No. 39 of 2004) (NEM:AQA)**

The purpose of the NEM:AQA is to provide a legislative platform for regulating air quality. This is done by providing reasonable measures for the prevention of pollution and ecological degradation, as well as securing ecologically sustainable development while promoting justifiable economic and social development. The AQA also aims to provide for national norms and standards regulating air quality monitoring, management and control by all spheres of government.

The WCDM and CLM have an Air Quality Management Plan that is currently being updated and the WCDM, together with the CLM, are responsible for implementing the strategies outlined in the Air Quality Management Plan. The WCDM is also responsible for issuing Air Emissions Licenses and monitoring the conditions stipulated in the licenses.

### **National Environmental Management: Waste Management Act (No. 59 of 2008) – (NEM:WMA)**

The NEM:WMA outlines roles and responsibilities of the three spheres of government with respect to waste management within a waste avoidance and minimisation framework. It establishes a national framework for waste management and provides for identification of waste management activities that require licensing. The NEM:WMA sets out measures for the storage, collection, transportation, recovery, re-use, recycling, treatment and disposal of waste and outlines requirements for the licensing of waste management activities.

The WCDM has developed and is implementing Integrated Waste Management Plan.

### **National Water Act (No. 36 of 1998) (NWA)**

The NWA is the legislative framework that guides the development of a number of programmes that aim to understand the state of and effectively manage water resources in South Africa. Examples of programmes and projects include the classification of water resources and setting the Reserve and Resource Quality Objectives (RQOs), the prevention of the pollution of water resources due to land based activities, the authorisation and management of various water use activities as well as the establishment and management of catchment management agencies that management water resources within its water management area.

The water management area within the CLM is the Olifants Berg WMA. A Catchment Management Agency has not yet been established for the Olifants Berg CMA.

### **Conservation of Agricultural Resources Act (No. 43 of 1983) (CARA)**

CARA is the chief statute that deals with agricultural resources. The object of CARA is to provide for the conservation of the natural agricultural resources of South Africa by the maintenance of the production potential of land. In order to maintain production potential of land, CARA provides for the following mechanisms:

- Combating and prevention of erosion and weakening and destruction of water sources;
- Protection of vegetation; and
- Combating of weeds and invader plants.

It is important that the CLM CMP captures the objectives of CARA though the management of coastal erosion as well as the management of alien invasive vegetation within the coastal zone.

### **National Heritage Resources Act (No. 25 of 1999) (NHRA)**

The NHRA governs natural heritage resources and the management thereof. It creates Heritage Authorities, namely the South African Heritage Resource Agency (SAHRA), with the responsibility to protect and manage certain categories of heritage resources. The CLM has a number of heritage resources that are formally protected though the NHRA. In terms of the Act, the local authorities are responsible for managing all Grade III registered heritage

resources. A detailed discussion regarding the heritage resources within the CLM has been provided in the Situational Analysis.

### **Spatial Planning and Land Use Management Act (No. 16 of 2013) (SPLUMA)**

SPLUMA aims to provide a framework for spatial planning and land use management in South Africa and informs the development of Spatial Development Frameworks (SDFs) at Provincial and local government levels. All the Local Municipalities, District Municipalities and Provinces require the development of Spatial Development Frameworks (SDFs) to inform the Integrated Development Plans (IDPs). These SDFs must incorporate all coastal management aspects so ensure that the integrity of the coastline is maintained when development in the coastal zone is proposed.

### **Western Cape Land Use Planning Act (Act No. 3 of 2014) (WCLUPA)**

The WCLUPA provides a legislative framework for effective provincial planning, regional planning and development pertaining to urban and rural development, regulation, support and monitoring of municipal planning and regulation of public places and municipal roads arising from subdivisions. WCLUPA also makes provision for provincial spatial development frameworks as well as provides for minimum standards for, and the efficient coordination of, spatial development frameworks. The WCLUPA also aims to provide for minimum norms and standards for effective municipal development management and regulates provincial development management, the effect of land development on agriculture and to provide for land use planning principles.

The Promulgation of this Act is important for future planning for development in the coastal zone, and the CLM needs to ensure that this legislation is incorporated into the municipal IDP and SDF.

### **Criminal Procedures Act (No. 51 of 1977)**

The Criminal Procedures Act provides the basis for the procedure for the arrest and prosecution of people found to be in contempt of the law. The Criminal Procedures Act needs to be applied when conducting any enforcement activities relating to any of the environmental and coastal legislation.

## **2.2 National and Provincial policies and programmes**

This section lists the various National and Provincial policies and programmes that have informed the development of the CLM CMP:

- National Coastal Management Programme (2015)(NCMP);
- National Estuarine Management Protocol (2013)(NEMP);
- State of Oceans and Coasts around South Africa Report (2014);
- 2<sup>nd</sup> South Africa Environment Outlook (2016);
- Africa Environmental Education and Training Strategy Action Plan (2015);
- White Paper for Sustainable Coastal Development (2000);
- Blue Flag South Africa;
- National Biodiversity Strategy and Action Plan (NBSAP);
- National Climate Change Response Strategy (NCCRS);
- South African Water Quality Guidelines for Coastal Marine Waters (2012, currently being updated);
- National Guideline for the Discharge of Effluent from Land-based Sources into the Marine Environment (2014);

- Policy for the Small-Scale Fisheries Sector in South Africa (2012);
- Western Cape Coastal Management Programme (2016) (WCCMP);
- Western Cape Biodiversity Spatial Plan (2017) (WCBSP);
- Western Cape State of the Coast Report (2019) (WCSocr);
- Western Cape Green Economy Strategic Framework (2017) (WCGESF);
- Western Cape Climate Change Response Strategy (2014) (WCCCRS); and
- Breede-Gouritz Catchment Management Strategy (2017).

### **2.3 West Coast District Municipality policies and programmes**

This section lists the various WCDM policies and programmes that have informed the development of the CLM CMP:

- West Coast District Municipality Integrated Development Framework (2017-2022) (IDP);
- West Coast District Spatial Development Framework (2014) (SDF);
- West Coast District Air Quality Management Plan (currently being reviewed and updated);
- West Coast District Disaster Manager Plan (2015);
- West Coast District Municipality Sea Level Rise & Flood Hazard Risk Assessment;
- Coastal Management/Set Back lines for the West Coast District Municipality;
- West Coast District Climate Change Response Framework (2014);
- Treated Effluent By-law and Amended By-law (2015); and
- Stormwater Management By-law (2005).

### **2.4 Local Municipality policies and programmes**

The following policies, programmes and by-laws for each of the Local Municipalities (LMs) were assessed as part of the CLM CMP development process:

- Cederberg LM IDP;
- Cederberg LM SDF;
- Cederberg LM By-law for the Control of the Seashore and the Sea situated within or adjoining the Area of Jurisdiction of the Municipality of Cederberg;
- Cederberg LM By-law relating to Camping Areas; and
- Cederberg LM By-law relating to Nature Reserves.

### **2.5 Other policies and programmes**

Coastal zone management requires an integrated approach. Therefore, the following policies, programmes and plans that have been developed outside of local government and provincial government levels have also been reviewed as part of the CLM CMP development process:

- Draft Dassen Coastal Complex Protected Area Management Plan (2019–2029).

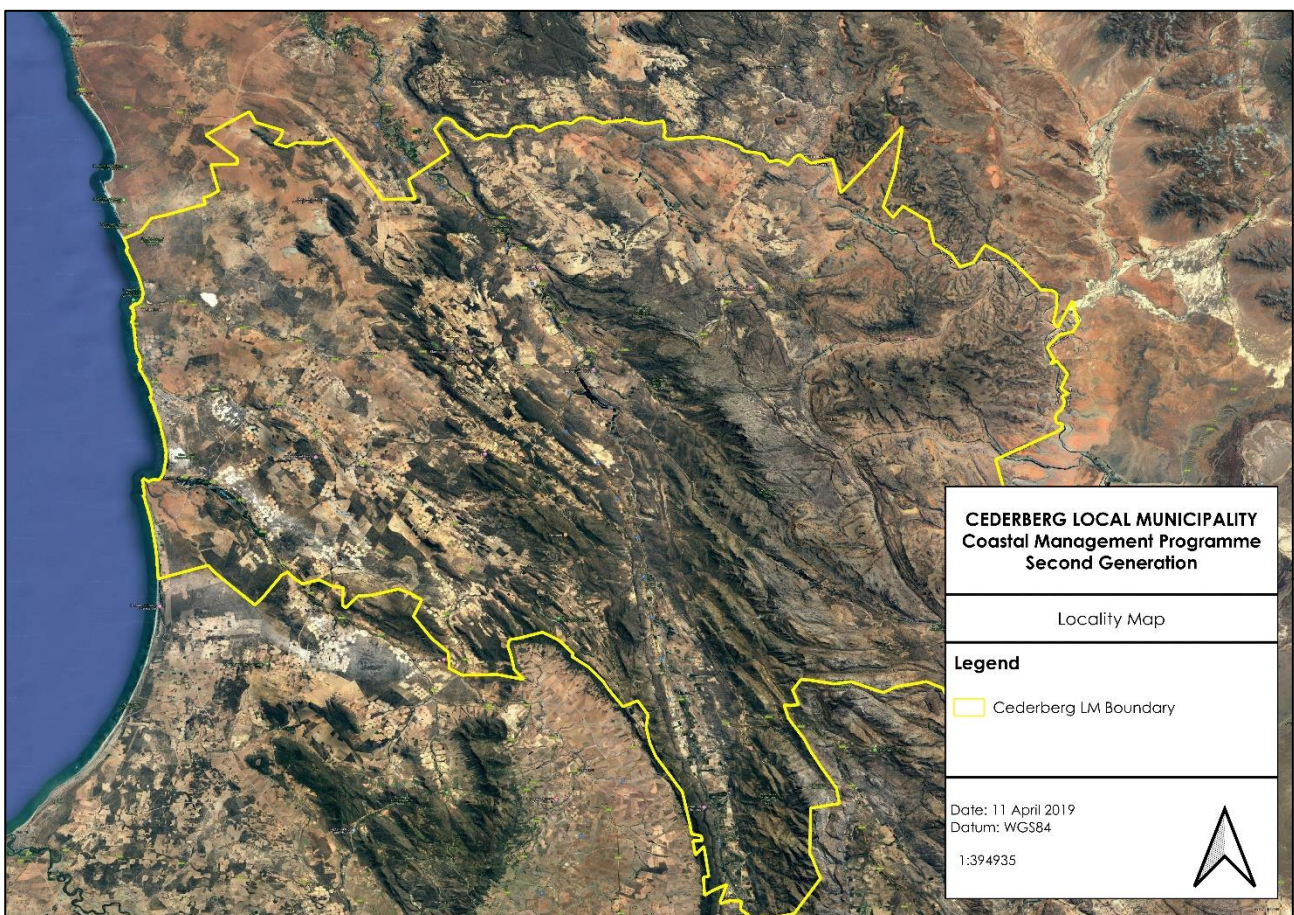
### 3 SITUATION ASSESSMENT

This chapter provides an updated Situation Assessment of the CLM that was developed for the first generation CLM CMP in 2013. A brief outline of the coastal environment and the status of coastal ecosystems along the CLM coastline is provided. The status of coastal management along the CLM coastline has been assessed using the framework for coastal management as set out in Section 1.7. Section 1.7 identifies ten themes that have been identified for this updated CMP and the current status of the CLM coastline has been described according to these ten themes. Current coastal issues and existing responses to address these issues have also been described.

#### 3.1 Locality and extent of the coastline

Cederberg Local Municipality (CLM) is located on the West Coast of the Western Cape Province and forms part of the WCDM. The municipal area is eight thousand square kilometres (8,007 km<sup>2</sup>) in extent, constituting 25.7% of the West Coast District. The CLM area stretches from the Atlantic seaboard on the west to the Cederberg on the east. Figure 2 below indicates the boundaries of the CLM.

A map indicating the municipal boundaries according to the Municipal Demarcation Board is attached in Appendix A.



**Figure 2: Boundaries of the CLM**

An important aspect of coastal management is understanding of the extent of the coastline. According to the Demarcation Board of South Africa, the extent of the CLM coastline is 62km.



## **3.2 Theme 1: Institutional Arrangements and Cooperative Governance**

This theme has overarching importance for the effective implementation of coastal management objectives and strategies. Effective cooperative governance requires the participation of all public sector agencies and departments with responsibility for coastal management, from national through to local government levels. There is a need for co-responsibility, and integrated and coordinated decision making and planning. In addition, ongoing skills transfer and capacity building, especially related to practical implementation of programmes and processes is required. This will assist in ensuring compliance with international conventions, protocols and agreements.

### **3.2.1. Coastal management functions at Provincial, District and Local Level**

At a provincial level, the DEA&DP Coastal Management Unit have several coastal management functions within the MLM. These functions include the following:

- Assisting municipalities with the registering and/or deregistering of PLS;
- Supporting the Municipal Coastal Committee (MCC);
- Facilitating the Provincial Coastal Committee (PCC);
- Supporting estuary management;
- Advisory and support services with regards to the provision of access to the coast;
- Commenting on Environmental Impact Assessment (EIA) applications as well as providing advisory and support services;
- Assistance with the delineation of coastal management lines; and
- Coastal education and awareness.

Effective coastal management efforts are also reliant on a wide range of stakeholders that have an interest in the coast and the management thereof. These stakeholders encompass other government organisations such as, but not limited to:

- Department of Mineral Resources and Energy (DMRE);
- Department of Agriculture, Land Reform and Rural Development (DALRRD);
- Department of Cooperative Governance and Traditional Affairs (CoGTA); and
- Department of Environment, Forestry and Fisheries (DEFF).

Other relevant coastal stakeholders include local government, NGOs and civil society.

Most environmental and coastal aspects within the MLM still falls to the District to manage. The reason for this appears to be that there is still a lack of resources and capacity at LM level to administer environmental and coastal management tasks. This situation does not seem to have changed much since the first-generation CMP was developed.

At WCDM level, there is also limited capacity, resources and knowledge to fulfil their coastal management role. The WCDM has an Environmental Management Unit, which falls within the Administration and Community Services Department. The WCDM only has one designated environmental management officer who is responsible for environmental management in the District. The details of the environmental officer are as follows:

#### **Mr Charles Malherbe**

*Tel:* 022 433 8400

*Email:* [cjmalherbe@wcdm.co.za](mailto:cjmalherbe@wcdm.co.za)

*Physical Address:* 58 Long Street  
Moorreesburg  
7310

Postal Address: PO BOX 242  
Moorreesburg  
7310

However, the effective management of the coastal zone also requires cooperation from numerous units within the WCDMs organisational structure. These include, but are not limited to the following units:

- Tourism;
- Disaster management; and
- Technical services (roads, planning and development and water supply),

At an LM level, the situation still exists where there is often no department specifically assigned with an environmental or coastal management mandate. As a result, there exists a lack of capacity, resources and expertise to effectively manage coastal and environmental matters within the municipal areas. In some municipalities, environmental and coastal management functions have been assigned to individuals in town planning departments. CLM does not have any environmental officers. The following position exists within the organisational structure of the CLM to support coastal zone management (as at May 2019):

- Cederberg - There is no formal Environmental Officer. However, environmental management duties have been assigned to the Community Services Department:  
**Mr AJ Booysen**  
Email: [ajbooysen@cederbergraad.co.za](mailto:ajbooysen@cederbergraad.co.za)  
Tel: 027 432 1112

Local Municipalities are under capacitated to effectively carry out coastal management objectives within their areas of their jurisdiction. It is therefore imperative that the WCDM and Provincial and National Departments provide a supporting role to the local municipalities and to assist and drive coastal management programmes and projects.

### **3.2.2. Co-operative governance**

In terms of the current legislation, such as the Intergovernmental Relations Framework Act (Act 13 of 2005) and the Local Government: Municipal Structures Act (Act 117 of 1998), government departments are obliged to act in a co-operative manner. Co-operative governance can be described as consisting of two main components: 'vertical' and 'lateral' cooperative governance.

- 'Vertical' co-operative governance relies on integration between the coastal management bodies of the Local Municipalities, WCDM and with the Provincial and National authorities. Currently there appears to be some level of co-ordination between the various levels of government with respect to decision-making around issues impacting on the stakeholders and the coastal assets of the WCDM. Key to this has been the establishment of the Municipal Coastal Management Committee;
- 'Lateral' cooperative governance relies on inter-departmental integration, coordination and communication between the WCDM and other governmental departments/parastatals, for example, DEA&DP, DEFF, Cape Nature, DRDLR, DMRE, DEFF, SAPS. To a large extent this seems to be lacking in the province, although there is good lateral cooperation in estuary management.

- 'Lateral' cooperative governance relies on inter-departmental integration, coordination and communication between the WCDM and other governmental departments/parastatals, for example, DEFF&DP, DEFF, Cape Nature, DRDLR, DMRE, DEFF, SAPS. To a large extent this seems to be lacking in the province, although there is good lateral cooperation in estuary management. Other platforms that facilitate "lateral" cooperative governance include the PCC as well as the National Committee (Working Group 8) that specifically deals with coastal management issues in South Africa.

### **3.2.3. Protected Areas**

Co-operative governance is also important with respect to the management of protected areas. SANParks and CapeNature are responsible for the management of many of these conservation areas, but there needs to be cooperation and a focus on the management of the interface with other land uses. It should also be noted that all spheres of Government (National, Provincial, District and Local Municipalities), and traditional authorities, have an obligation to practice Duty of Care on the natural environment in terms of Section 28 of the National Environmental Management Act 1998 (NEMA).

### **3.2.4. WCDM Coastal Committee**

The WCDM has established a Coastal Committee that meets on a quarterly basis. The WCDM Coastal Committee is chaired by Cllr Andre Kruger from Saldanha Bay LM, who was previously the Speaker of the WCDM. A variety of stakeholders are invited and encouraged to attend these meetings. These stakeholders include:

- Representatives from the Department of Environmental Affairs;
- Representatives from the Department of Agriculture, Forestry and Fisheries;
- Representatives from the CapeNature;
- Representatives from the Department of Environmental Affairs and Development Planning;
- Transnet;
- Local municipal officials;
- Residents and rate payers' associations;
- Chairpersons of various Estuary Advisory Forums;
- Local conservancies; and
- Various NGO's.

The WCDM also participates in the Provincial Coastal Committee where priority issues highlighted at the WCDM Coastal Committee meetings are raised at a provincial platform.

**Based on the above as well as feed-back from stakeholders, the future needs in terms of facilitating and improving institutional arrangements and cooperative governance are as follows:**

- The CLM needs to show commitment to the CMP by providing input, resulting in buy-in to the CLM CMP objectives and implementation strategies.
- An improvement in lateral cooperation through closer collaboration between all relevant spheres of government as well as public-private partnerships for effective coastal management.
- Clear mandates for all spheres of government with regards to coastal management needs to be defined. These mandates require funding to enable them to be effectively fulfilled.

### 3.3 Theme 2: Coastal access

Section 49 of the ICMA specifically identifies the facilitation of coastal access as a key component of the CLM CMP. Emphasis needs to be placed on the promotion and management of access to coastal public property, the promotion and facilitation of equitable access to coastal resources and coastal public property, and the need to meet the objective of ensuring access whilst promoting custodianship and stewardship of the coastal zone.

#### **3.3.1. Existing access to the coastline**

The processes required to identify and formalise access points in areas that may not be considered priority areas, as required by the ICMA, is a laborious one. To determine whether coastal access has been appropriately designated in an area or not, the need for coastal access based on the number of people living in the area, the total length of coastline and the number of existing coastal towns and access points located along that length of coastline must be determined.

The WCDM has a population of 52 949 people living within its borders (WCSocr, 2018) and this comprises 0.01% of the total population of the Western Cape (StatsSA, 2016). This means that the CLM is not a highly populated municipality with small sized settlements scattered throughout the region. Along the CLM coastline, there are two towns. Table 2 below provides an indication of the population density and number of coastal towns located within the CLM..

**Table 2: A description of the number of coastal towns and population densities within the CLM**

Local Municipality	Length of coastline	Population (StatsSA, 2016)	Coastal towns
Cederberg	62km	52 949	Lamberts Bay Elands Bay

Physical access to many sections of the CLM coastline is restricted by large tracks of private land, private development and conservation areas, especially further north. There is also limited formalised public road infrastructure that facilitates access to the coastline, with the majority of the road network being informal sand tracks through private land as well as the Transnet service road that runs parallel to the Sishen-Saldanha rail way line. The Transnet service road is not a public road, and users require a permit issued by Transnet.

There is also controversy surrounding the facilitation of access to marine resources and the benefits of those resources could be distributed on a more equitable manner. Due to the isolated nature of the CLM coastline, issues such as ribbon development along the coastline is not a current threat to coastal access. Within the CLM, many of the existing coastal access points are located at the settlements that occur along the coastline.

#### **3.3.1. National and Provincial Coastal Access Strategies**

The National Strategy for the Facilitation of Coastal Access in South Africa was developed in 2014 and it states that the goal of coastal access is “to ensure, protect and manage, in perpetuity, public right of physical access to and along the coastal zone”.

Section 18 of the ICMA requires each metro and district municipality, (unless assigned to local municipalities by agreement) whose area includes coastal public property to, within four years of the commencement of the Act, promulgate a by-law that designates coastal access land in order to secure public access to coastal public property. To date, the CLM

has not achieved this. However, the ICMA does not provide any guidance on how many of what type of access should be provided. The National Strategy, together with the Provincial Coastal Access Strategy, needs to be used as a benchmark, and states the following two objectives:

- Objective 1: Opportunities for public access must be provided at appropriate coastal locations in context of the environmental, financial and social opportunities and constraints.
- Objective 2: Public access must be maintained, managed and monitored to minimize adverse impacts on the environment and public safety, and to resolve incompatible uses.

The National Strategy for the Facilitation of Coastal Access describes the various types of access as follows:

- Existing access to the coast;
  - with facilities provided by the local municipality;
  - informal access provided over private land;
  - may be indicated in zoning schemes of municipality as “public open space” or similar; or
  - Public launch sites (Western Cape public launch sites listed in the provincial gazette (P.N. 193/2015) dated 26 June 2015);
- Seasonal coastal access; i.e. popular camping spots along the coast over festive periods;
- Coastal access land designated under section 18 of the ICMA by a municipality;
- Coastal public property declared under sections 8 and 9 of the ICMA by the national Minister; and
- Private land may be acquired for the purpose of declaring as coastal public property to improve public access by:
  - purchasing the land;
  - exchanging that land; or
  - if no agreement, by expropriation.

The minimum requirements for coastal access so designated is described in section 20 of the ICMA:

- a) signpost entry points to coastal access land;
- b) control the use of, and activities on, that land;
- c) protect and enforce the rights of the public to use that land to gain access to coastal public property;
- d) maintain that land to ensure that the public has access to the relevant coastal public property;
- e) where appropriate and within its available resources, provide facilities that promote access to coastal public property, including parking areas, toilets, boardwalks and other amenities, considering the needs of physically disabled persons;
- f) ensure that the provision and use of coastal access land and associated infrastructure do not cause adverse effects to the environment;
- g) remove any public access servitude that is causing or contributing to adverse effects that the municipality is unable to prevent or to mitigate adequately; and
- h) describe or otherwise indicate all coastal access land in any municipal coastal management programme and in any municipal spatial development framework prepared in terms of the Municipal Systems Act.

### **3.3.2. Western Cape Coastal Management Programme (2016)**

The 2016 Western Cape Coastal Management Programme (WC CMP) identified nine priority areas with accompanying goals and coastal management objectives. The Facilitation of Coastal Access is Priority Area 3 with specific goals and objectives. The Western Cape Government is a key role-player in building commitment and providing guidance and support to municipalities to allow them to effectively implement, maintain and monitor coastal access. This priority area includes ensuring that the public has an equitable and reasonable right of access to the coast and its resources, as well as the appropriate management of such access. Two implementation strategies were highlighted:

1. Develop a Western Cape Coastal Access Strategy and Plan (This strategy proposes to ensure provincial consistency, entrenches the municipal responsibility and supports municipal implementation); and
2. Assist Local Government in implementing the Western Cape Coastal Access Strategy.

To date, the Western Cape Province has developed a draft Coastal Access Strategy and has appointed a service provider to undertake a coastal access audit of existing coastal access points along the WCDM coastline. However, the results of the coastal access audit are not yet available. Once the results do become available, the CLM CMP will need to be updated.

In order to assist the WCDM and the CLM with the implementation of the Provincial Coastal Access Strategy, the WC CMP proposes the following actions:

1. Assist with the inclusion of coastal access land designated by Local Governments in reviewed SDFs;
2. Produce a consolidated report on status of coastal access land designation and management;
3. Develop a framework operational plan for each listed Public Launch Site (PLS); and
4. Monitor the implementation of operational plans for PLS.

To date, the SDFs for the WCDM and CLM have not included coastal access land. This needs to be prioritised once the Coast Access Audit for the WCDM has been completed.

### **3.3.3. Coastal Access Audit for the WCDM**

Section 18 of the ICMA states that each metro and district municipality, (unless assigned to local municipalities by agreement) whose area includes coastal public property, are to promulgate a by-law that designates coastal access land in order to secure public access to coastal public property within four years of the commencement of the ICMA. However, in the Western Cape, none of the Municipalities have undertaken this, including the WCDM.

The 2014 amendments to the ICMA allow the Provincial Member of the Executive Council (MEC), followed by the National Minister, to intervene and designate coastal access land should a municipality fail to do so. However, the Coastal Access Audit for the WCDM will assess existing and historic coastal access land and admiralty reserve, and will include recommendations in respect of land that could be designated as coastal access land.

To date (May, 2019), a desktop assessment and a ground-truthing exercise has been undertaken where these coastal access points were verified. The list of coastal access points for the WCDM are currently being reviewed by DEA&DP and the WCDM and have not yet been made available for public comment. Once the results of the audit have been reviewed by DEA&DP and WCDM, the draft audit will be circulated for public comment. Once the draft audit report has been circulated, a series of stakeholder workshops will be conducted where the finding of the report will be discussed and verified. It is anticipated that the final Coastal Access Audit Report will be available by the end of October 2019. It is important that the outcomes and recommendations of the Coastal Access Audit for the WCDM be incorporated in the CLM CMP and well as the CLM IDP and SDF.

#### **3.3.4. Coastal public amenities**

Many of the beaches and coastal access points along the CLM have public amenities such as parking areas, toilets, braai areas, walkways and rubbish bins and educational signage. The provision and maintenance of these amenities falls to the CLM in terms of their constitutional mandate to manage beaches within their area of jurisdiction.

No detailed assessment of the state of these public amenities within the CLM has been undertaken to date. However, the Coastal Access Audit that is being undertaken for the WCDM will identify areas that require attention by the municipality.

#### **3.3.5. Working for the Coast projects**

Since the 1999/2000 financial year, the DEFF has been implementing programmes aimed at conserving natural assets and protecting the environment. These programmes are called the Environmental Protection and Infrastructure Programmes (EPIP).

The purpose of EPIP is to manage the identification, planning and implementation of programmes that mirror and support the mandate of the DEFF, while creating job opportunities under the banner of the Expanded Public Works Programme (EPWP) using labour intensive methods targeting the unemployed, youth, women, people with disabilities and Small, Medium and Micro-sized Enterprises (SMMEs).

The main goal of the EPIP is to alleviate poverty through a number of interventions that are implemented in communities, to uplift households, especially those headed by women, while empowering beneficiaries to participate in the mainstream economy in a manner that addresses the environmental management challenges facing the country.

The EPIP implements its projects through a number of focus areas that include the following:

- Greening and Open Space Management;
- People & Parks;
- Working for Land;
- Working for the Coast;
- Working on Waste;
- Wildlife Economy; and
- Youth Environmental Service.

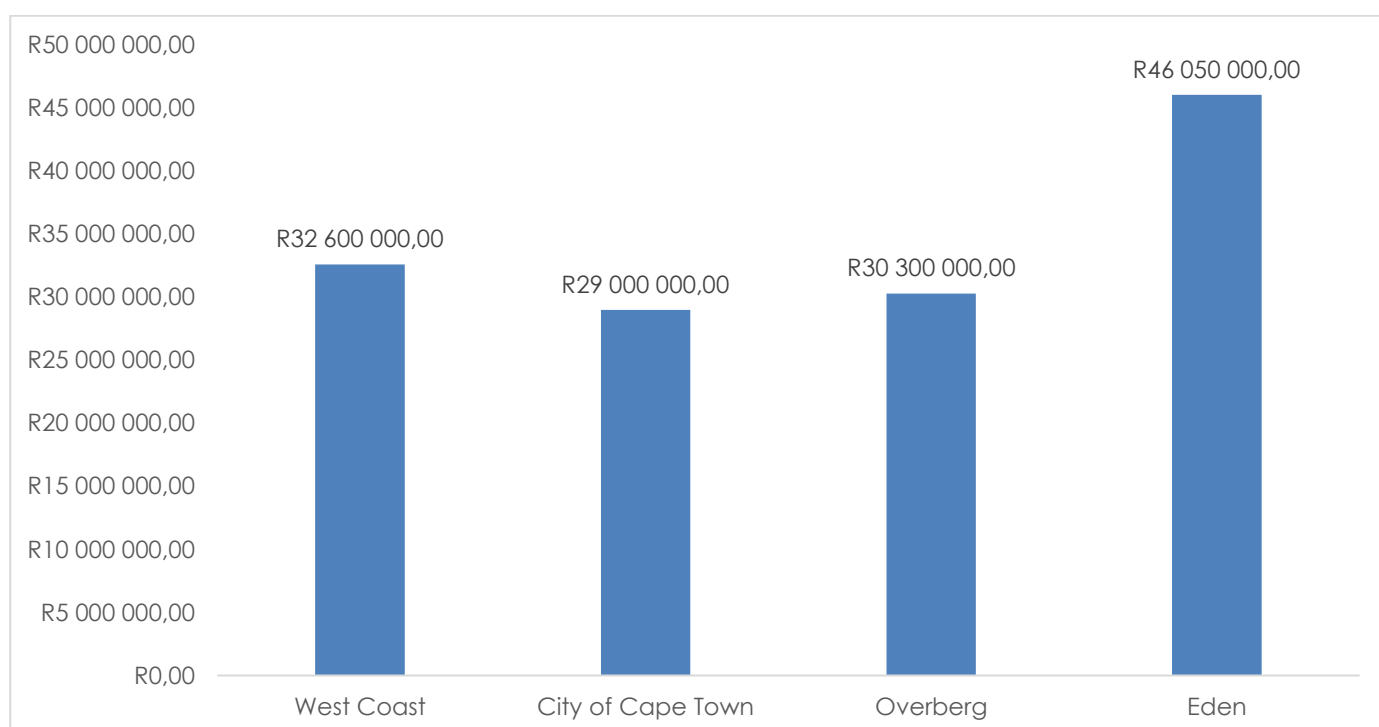
The Working for the Coast (WftC) focus area is the area where the WCDM and its LMs can benefit the most in terms of facilitating coastal management in the district. The WftC focus area is responsible for the implementation of the following in coastal areas:

- Rehabilitation of coastal environment, including but not limited to, dunes, estuaries, etc.;
- Cleaning up of coastlines in general and the beaches in particular;
- Upgrading and maintaining of facilities and infrastructure along the coast; and
- Facilitation of access to the coastline without compromising the environment.

The EPIP funding cycles run over two years and before the next funding cycle, the EPIP conducts information sharing sessions with provincial departments, municipalities and public entities to identify projects for upcoming funding cycles. For the 2018/2019 to 2020/2012 funding cycle, no projects within the CLM were identified.

Figure 3 below provides an indication of the WftC budget that was spend by each DM in the Western Cape during the 2015-2018 cycle (WCSOCR, 2019). The WCDM had the second largest budget allocated in the Province with Eden DM having the largest budget.

While the WCDM endeavours to engage directly with the WftC programme, it is important that the CLM engage with the EPIP at the information sharing sessions so that priority projects can be highlighted and identified for the allocation of funding.



**Figure 3: The WftC budget that was sent be each DM in the Western Cape during the 2015.2018 funding cycle (WCSOCR, 2019).**

### **3.3.6. Public launch sites**

A public launch site (PLS) is a site that has been listed by notice in the Gazette in terms of the Management of Public Launch Sites in the Coastal Zone Regulations 2014 (GN. No R 497 of 27 June 2014). The intention of these regulations is to manage public launch sites in the Coastal Zone as indicated in Section 83(1)(d)(i) and (o) of the ICMA, as amended. Members of the public may only launch a vessel from an official site. A vessel excludes non-motorised waterborne craft which do not require a vehicle or any other equipment to launch into the water.

Previously, the ORV Regulations used an application based system where applicants could submit an application for boat launch site license or exemption to DEA&DP. The new PLS



regulations state that members of the public may only launch vessels from a public launch site. However, if managed PLS are not available, it is likely that many members of the public will continue to use un-listed launch sites, which will have negative ecological impacts in environmentally sensitive areas (Tunley et al., 2010).

Public launch sites are those listed in the Western Cape Provincial Gazette 7410, 26 June 2015. It is illegal to launch vessels from any other launch site, including those that were previously licensed or identified in any launch site audits.

The CLM has one launch site that has been listed in the Provincial Gazette (2015), which is located in Elands Bay. The CLM has been identified as the management authority responsible for the operation and maintenance of the launch sites. It is recommended that illegal use of unregistered launch sites be monitored and the Municipalities must determine whether there is a need to list additional launch sites as a result.

### **3.3.7. Use of vehicles in the coastal zone**

Inadequate control of vehicle use in the coastal zone has led to the degradation of dunes, loss of habitat and natural coastal defences and overall damage of coastal ecosystems. It also poses a threat to the safety of people enjoying coastal recreation.

The regulation of the use of vehicles in the coastal zone is conducted through the Control of Use of Vehicles in the Coastal Zone Regulations (ORV Regulations) that came into effect on the 11th of May 2015.

The ORV regulations prescribe permissible uses that are described as activities in the coastal area that do not require a permit. These permissible uses include the following:

- The use of a vehicle:
  - on a public road;
  - on private land by the owner or with the written permission of the owner or lawful occupier of that land;
  - on a road within a coastal protected area where written permission has been granted by the management authority of that coastal protected area, or provided that such use is authorised in the protected area management plan or integrated management plan compiled by the management authority;
  - within a mining area as defined in section 1 of the Minerals and Petroleum Resources Development Act (No. 28 of 2002)
  - in coastal public property within an operational harbour area that has already been physically modified from its original natural state; or
  - in an emergency in order to safeguard human life or health, property or any aspect of the environment;
- the use of a vehicle within a public launch site or privately used launch site;
- the use by a physically disabled person of an electrically propelled wheelchair that is specifically designed and manufactured for this particular function;
- the use of a vehicle by an employee or agent of an organ of state acting in the course and scope of their employment or mandate, or by any person contracted by an organ of state, for the purposes of performing the public duties of that organ of state mandated by law; or
- the use of a vehicle by members of the National Sea Rescue Institute (NSRI) for the purpose of performing the public duties of that organisation including authorised training exercises.

According to the ORV regulations, the following activities where a vehicle may be required to be operated within the coastal zone will require a permit:

- Carrying out a non-recreational activity in terms of a right, permit or exemption granted under the ICMA, the Marine Living Resources Act (No. 18 of 1998) (MLRA) or the Sea Fishery Act (No. 12 of 1988);
- Conducting scientific research;
- Operating a tourism business;
- Accessing private property provided there is no reasonable alternative access to the property;
- Producing an advertisement, film, still photograph or a television programme;
- Access by a physically disabled person;
- Hosting a fishing competition; or
- The construction or maintenance of infrastructure within the coastal zone as authorised by a law.

The WCDM and the LMs are not mandated to receive and process ORV permits. This responsibility resides with DEFF: O+C, and is seen as a major drawback to achieving effective *integrated* Coastal Zone Management (CZM). However, it is important that the DM and LMs are aware of permitted ORV activities taking place in the coastal zone within their relevant areas, in order to fulfil their mandates with regards to maintenance of beaches. It is assumed that DEFF:O+C do engage with the LMs with regards to permitting ORV activities.

In the CLM, there is an increase in illegal driving of vehicles within the coastal zone and while the WCDM and the LMs do not have a mandate to enforce the ORV regulations, they have a responsibility to report illegal activities to DEFF. Contacts where the public can report illegal activities along the coastal zone need to be made easily available so that members of the public, as well as the municipalities know where to report illegal activities that have been observed.

Since the LMs have a mandate to manage beaches, they also have the ability to physically block off illegal access points. The outcomes of the WCDM coastal access audit will inform the identification of priority areas for coastal access and problem areas can potentially be addressed through the installation of physical barriers.

### **3.3.8. The use of the coastal zone for recreational activities**

The WCDM and the LMs often received requests from the public to undertake various recreational and small-scale commercial activities in the coastal zone, in particular on beaches. Some of these requests include the following:

- Wedding ceremonies;
- Sporting tournaments;
- Corporate functions on beaches;
- Filming on beaches for commercial and advertisement purposes; and
- Photo shoots (non-commercial. I.e. family photo shoots).

The CLM has a mandate to maintain beaches within their respective areas. However, apart from the ORV Regulations, there are no regulations that have been developed that regulate these types of activities in the coastal zone.

Swartland Municipality has developed their own "Policy Guidelines on Filming in the Jurisdictional Area of Swartland Municipality". This policy describes the process to be undertaken to apply for a permit for filming in the coastal zone, and prescribes permitting fees. This policy also clearly outlines the code of conduct and obligations of the applicant in terms of carrying out filming activities in the coastal zone. This policy is very clear in terms of what is expected from the applicant before, during and after filming activities, and serves as a good example of a policy that could be developed for the CLM.

It is suggested that a similar policy be drafted for the CLM. This policy will function as a management tool for the LMs by providing clarity on the process to be followed to address and manage requests for these types of activities within the coastal zone. However, in order to simplify the management of activities in the coastal zone, an "umbrella policy" should be developed that incorporates all the activities that are frequently requested, e.g.: Wedding and other religious and cultural ceremonies, sporting tournaments, corporate functions (team building exercises, functions such as dinners or lunches, etc.), filming and photoshoots. The policy will also prescribe fees that will be required to be paid by the applicant. These fees must then be used to perform the LM function of maintaining the coastal areas within their own respective areas.

However, should a policy of this nature be developed, other gazetted regulations must be taken into consideration when an application is submitted. These include, but are not limited to, the following:

- The ORV Regulations – vehicles entering the coastal zone for setting up, operating and breaking down of events; and
- The EIA Regulations – the temporary installation of dune stabilisation infrastructure, the removal of 5m<sup>3</sup> or more of beach sand, the clearing of 5m<sup>2</sup> of vegetation etc.

If any of the activities listed in the above-mentioned regulations are triggered, the applicant must be referred to the relevant Managing Authority.

In terms of determining the fee structure for this permit, the Municipality will need to follow the process for determining the fee structure prescribed by National Treasury.

### **3.3.9. Facilitation of coastal access through town planning processes**

During the stakeholder workshops, an important issue was raised regarding the municipal approval of plans for new developments along the coast, such as aquaculture facilities, housing developments and mines, that result in access to coastal areas being restricted. While these types of developments may be subject to Environmental Impact Assessments, it is important that the LMs take into consideration and provide comment on all potential impacts of new development proposals, particularly with regards to the impact on public access to the coast. It would be possible for the CLM to include a set of conditions in the town planning approvals to address restricted coastal access should it be deemed as serious impact. It is suggested that the CLM engages more closely with applicants during the town planning approval process in order to address issues such as coastal access in an amenable and practical manner.

**Based on the above as well as feed-back from stakeholders, the future needs in terms of addressing coastal access are as follows:**

- The outcomes and recommendations of the WCDM Coastal Access Audit need to be implemented once the process has been completed.

- The CLM is responsible for maintaining coastal access points and infrastructure, and signage needs to be either developed or upgraded at most of the coastal access points.
- The CLM can use their town planning processes to address coastal access issues related to applications for new developments along the coastline.
- The WftC Programme is an important resource for providing coastal access and funding of infrastructure and must be better utilised by the LMs.
- A coastal access by-law needs to be developed at local level in order to effectively manage coastal access.
- The CLM needs to engage more closely with DEFF with regards to the issuing of permits in terms of the MLRA. Permits are currently issued in areas where there is no public launch sites and no formal access.
- The CLM is responsible for the management and maintenance of Public Launch Sites and if they do not have capacity to fulfil their mandate, a service provider must be appointed.
- Illegal ORVs are an issue and the enforcement of illegal ORVs is a National DEFF mandate. The LMs can potentially construct physical barriers at these sites that will prevent vehicle access. However, it is important that any illegal ORV activities are reported to the DEFF.
- A standardised policy is required for the management of recreational and commercial events taking place on beaches where the roles and responsibilities of the DM and LMs are clearly defined.
- Ensuring the safety and security of the public at beaches is important in terms of promoting beaches as a safe recreational space, as well as tourism destinations. Public safety needs to be improved along all sections along the coastline, particularly around popular coastal resorts and villages.

### **3.4 Theme 3: Coastal Planning and Development**

Due to the ever-increasing demand for ocean and coastal space, appropriate coastal planning is required to ensure that all forms of development are aligned with ICMA and NEMA principles. This requires that measures which emphasise local economic development opportunities and approval procedures are put in place. But planning and spatial development must focus on sustainable and equitable development that also increases resilience to the impacts of climate change.

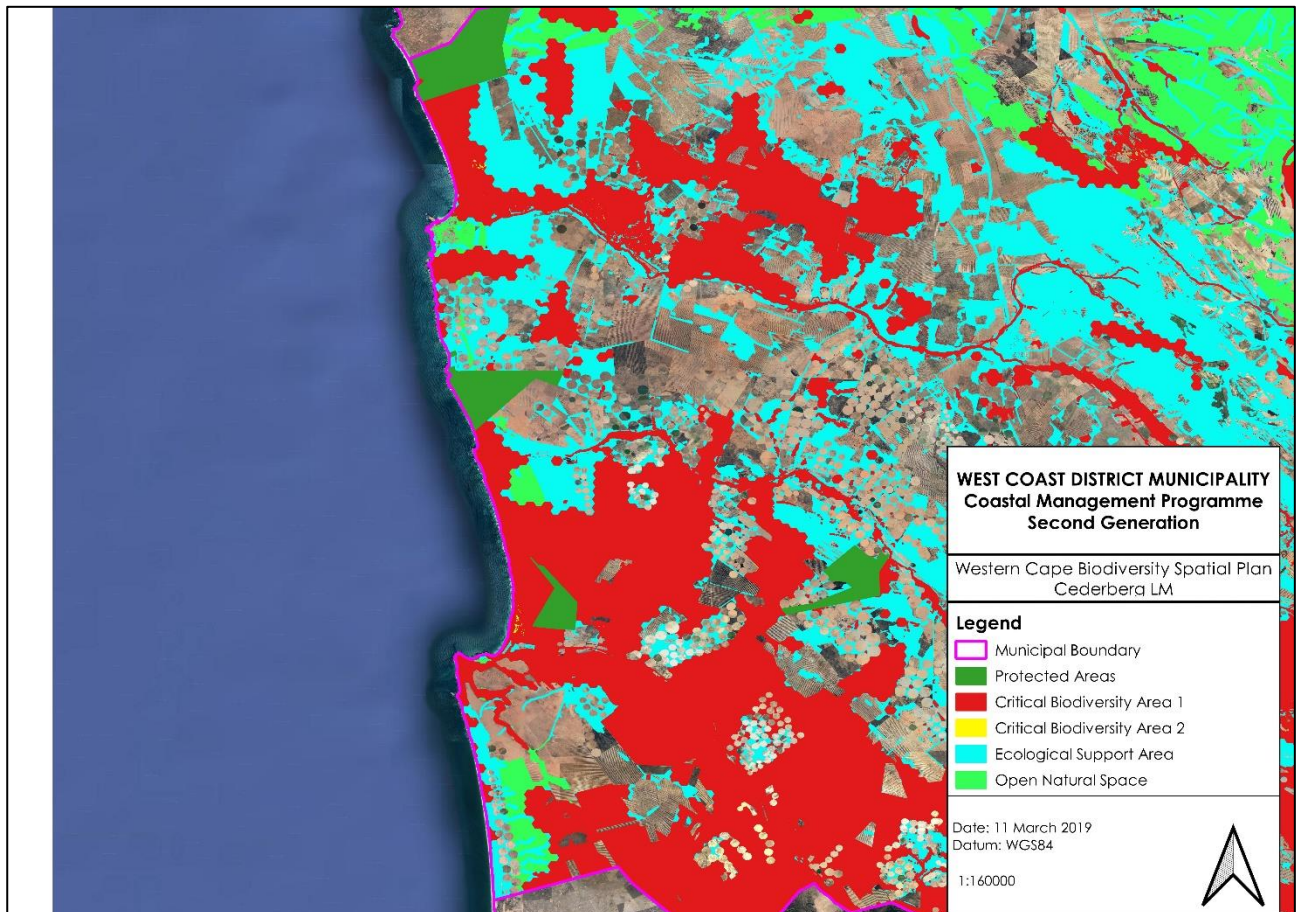
A number of spatial planning tools have been developed that assist decision makers in making informed and sustainable decisions. These spatial planning tools are aligned with the NEMA Principles and ensure that development is conducted in an environmentally responsible manner. This section provides a summary of the existing spatial planning tools that are currently being incorporated into the WCDM and the CLM planning processes. These tools aim to conserve the unique biodiversity of the district as well as to aid in the planning, adaptation and mitigation of climate change related impacts, particularly within the coastal zone.

#### **3.4.1. Western Cape Biodiversity Spatial Plan (2017)**

The Western Cape Biodiversity Spatial Plan (WCBSP) is the product of a systematic biodiversity planning assessment that delineates, on a map (via a Geographic Information System (GIS)), Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs) which require safeguarding to ensure the continued existence and functioning of species and ecosystems, including the delivery of ecosystem services, across terrestrial and freshwater realms. These spatial priorities are used to inform sustainable development in the Western Cape Province, including the WCDM and the LMs.

The CLM IDP (2017-2022) has identified the importance of including CBAs and ESAs into their SDF in order to increase the areas resilience to climate change. The CLM has updated the SDF to include the WCBSP.

Figure 4 below provides a map indicating the spatial extent of the CBAs and ESAs within the CLM. It is evident from this data that the incorporation of the WCBSP into all planning along the entire coastline is critical, as almost half the area is defined as a CBA1<sup>1</sup>, and large stretches fall into CBA2 and ESA<sup>2</sup> categories.



**Figure 7: Critical Biodiversity Areas within the Cederberg LM (WCBSP, 2017)**

### **3.4.3. Coastal Management Lines**

Climate change has been highlighted as a current and future threat to coastal environments and infrastructure. The dynamic nature of coastal zones makes the prediction of sea level changes and calculation of the related risk to coastal communities challenging but essential in the face of the potentially extensive impacts from sea level rise-related storms and storm surges on the coastal zone.

The establishment of Coastal Management Lines (CMLs) are a provincial responsibility, as legislated by the ICMA. CMLs are prescribed boundaries that may limit development in

<sup>1</sup> Critical Biodiversity Areas (CBA) are areas that are required to meet biodiversity targets for species, ecosystems or ecological processes and infrastructure. CBAs are areas of high biodiversity and ecological value and need to be kept in a natural or near-natural state, with no further loss of habitat or species.

<sup>2</sup> Ecological Support Areas (ESA) are Areas that are not essential for meeting biodiversity targets, but that play an important role in supporting the functioning of PAs or CBAs, and are often vital for delivering ecosystem services. ESAs need to be maintained in at least a functional and often natural state, in order to support the purpose for which they were identified, but some limited habitat loss may be acceptable

ecologically sensitive or vulnerable areas, or areas where dynamic natural processes pose a hazard or risk to humans. The ICMA allows CMLs to demarcate areas where authorities can prohibit or restrict the building, alteration or extension of structures that are either entirely or partly seaward of the CML. It is noted that the location of immovable property and the ownership and zonation of vacant land must be taken into consideration when delineating coastal management lines. The ultimate intentions of the CMLs are to:

- protect coastal public property and private property;
- contribute to public safety;
- determine features that should be protected under the coastal protection zone; and
- preserve the aesthetic values of the coastal zone.

To determine the CML, coastal features are considered alongside coastal risk zones, based on observed and available information. In developing a CML the following are considered:

- Environmental buffers required inland from the HWM to maintain a functional coastal ecosystem under future sea level rise scenarios;
- Social buffers required along the coast, for example, allowance for public beach access through and along the coastal frontage, areas which have cultural significance and will need to be preserved from development, or heritage resources and historically sensitive locations that require specific management; and
- Economic requirements for the coast, for example, allowance for new beach facilities that will need to be placed closer than would normally be the case. Economic demands often require a trade-off against environmental aspects at a particular site.

Demarcation of the actual CML is different for developed and undeveloped areas and is a combination of the two around estuaries.

In rural areas, the CML follows the landward boundary of the long-term risk projections. Where necessary, a separate line can be drawn around existing development and development rights within the risk zone in order to recognise the development rights within a 'development island'.

In urban areas, the CML is drawn seaward of properties adjacent to the shoreline with existing development or development rights, as the intention is not to use the coastal management/set-back line to impact on existing development rights.

The CML also extends along estuaries, and in developed areas it is aligned with the lower (water side) boundary of properties with existing development or development rights. In rural areas, the CML runs along the 5m amsl (above mean sea level) contour or along the 1:100 year floodline around estuaries.

Overlay Zones are a universal mechanism for administration of CMLs within the extent of town planning regulations and management in the Western Cape. The overlay zones refer to areas designated as subject to short term (1:20 year), medium term (1:50 year) or long term (1:100 year) risk emanating from coastal processes such as coastal erosion, storm surges, sea level rise and storm wave run-up, based on risk modelling. In rural areas, the risk grading from low to high is not necessary, and hence only a default 'risk' zone is indicated as the entire area between the 0m masl and landward boundary of the low risk (long term risk) zone (Figure 10).

When the CML and coastal management overlay zones are combined, a management scheme along the shore that guides where development should and shouldn't take place (coastal management/set-back line) and how it needs to be undertaken in order to protect property, lives and the integrity of the coast (overlay zones) is produced. Figure 5 below

provides an example of what the final combined management scheme looks like in a developed or urban area in the West Coast District Municipality (WCG 2014). With the CML in place, development can be prevented from encroaching onto coastal public property, whilst the risk-based overlay zones will determine the nature of development in close proximity to the shoreline.



**Figure 5: An example of the combined coastal management line and overlay zones (urban or developed area) in the West Coast District Municipality (WCG, 2014).**

Draft CMLs have been determined for the entire WCDM coastline. However, the Draft CMLs are in the process of being formalised and adopted by the MEC. In the meantime, it is important that the CMLs are incorporated into all municipal zoning schemes and considered in all planning decisions. It is encouraging to note that the CLM has already begun to incorporate the CMLs into their planning processes.

#### **3.4.4. West Coast District Municipality's Climate Change Response Framework (2014)**

Climate change has become a reality in South Africa and is considered to be one of our largest economic and environmental challenges. A lack of resilience to climate change manifestations, and an inability to adapt will increase the susceptibility of human and natural systems to the impacts of climate change. It is anticipated that local government will play an important role in improving climate change resilience through the effective execution of its mandated duties. Local government will be required to plan and respond appropriately if it is to fulfil its objectives of sustainable and equitable service provision, enabling socio-economic development and providing a safe and healthy environment for all.

This WCDM's Climate Change Response Framework was developed in 2014 and is aimed at decision makers and technical personnel from local through to national government, development agencies, NGO's and civil society organisations in order to serve as a guide to improve adaptive capacity within the WCDM. The framework recognises that

responding to, adapting to and mitigating climate change impacts needs to be a coordinated effort between the WCDM and the LMs.

The WCDM Climate Change Response framework identified the following climate change-related risks to the coastal zone:

- Increased coastal erosion and inundation;
- Increased or permanent inundation of infrastructure and utilities;
- Impacts on private and public harbours and boat ramps;
- Increased erosion or deterioration of coastal defences;
- Loss of private property and community assets;
- Loss of beach width; and
- Changes to wetland and estuary ecosystems due to sea level rise, erosion and saline intrusion.

The CLM has infrastructure and settlements located within the coastal zone. Based on sea-level rise scenarios combined with the risk posed by coastal erosion, the majority of the CLMs coastal infrastructure is at risk. This includes the following:

- Recreational facilities;
- Water management infrastructure; and
- Transportation infrastructure such as ports and road networks.

The WCDM Climate Change Response Framework reports that most of the LMs in the WCDM have implemented a reactive approach towards infrastructure management. In order to provide reliable levels of service, municipalities will have to review how they plan, design and manage their infrastructure to incorporate climate change considerations.

**Based on the above as well as feed-back from stakeholders, the future needs in terms of coastal planning and development are as follows:**

- The WCDM and the CLM must ensure that all biodiversity planning tools are incorporated into the Municipal SDFs as well as in town planning approvals.
- Impacts of climate change, such as sea level rise and coastal erosion due to storm surges and inundation, need to be considered prior to approving applications for new development within the coastal zone.
- To address the high percentage of vacant plots and the low occupancy levels of residential dwellings, and to equitably designate zones for the purposes of mixed cost housing and taking into account the needs of previously disadvantaged individuals a key priority would be to rezone certain portions of these areas.
- Coastal Management Lines must be incorporated into the SDFs once they have been approved by the MEC, but must in any event be considered in all coastal plans and proposed coastal developments.

### **3.5 Theme 4: Compliance, monitoring and enforcement**

#### **3.5.1. Environmental Management Inspectorate (EMI)**

EMIs represent the environmental compliance and enforcement capacity in respect of NEMA and Specific Environmental Management Acts as defined in NEMA (SEMAs). There are also officials appointed in terms of provincial legislation and local authority by-laws who also carry out environmental compliance and enforcement functions in terms of that legislation. In many instances, officials may carry both the EMI designation in terms of



national environmental legislation, as well as a separate provincial or municipal designation in respect of ordinances or by-laws.

The following relevant government organisations in the Western Cape have appointed EMIs to carry out environmental compliance and enforcements functions:

- DEFF;
- SANParks;
- DWS;
- SANBI;
- DEA&DP; and
- CapeNature.

DEFF initiated an EMI Local Authority Project in 2011 that aimed to capacitate local authorities by providing them with the relevant mandate to enforce certain environmental issues in terms of Schedules 4 and 5 of the Constitution, by providing the legislative tools to do so. In the 2017-2018 financial year, DEFF reported that 61 local authority EMIs had been designated in the Western Cape, of which two were Air Quality Officers within the WCDM.

In terms of Section 31B and C of NEMA, the Minister of the DEFF and MECs are empowered to designate EMIs at their discretion. The Minister and MECs can further delegate this power to designate EMIs to other organs of state. Examples of this include SANParks and the Head of DEA&DP.

Various grades of EMIs exist that are capacitated to enforce a variety of functions in terms of NEMA, with Grade 1 EMIs holding the greatest amount of power in terms of enforcement. Table 3 below provides a description of the powers that are granted to the different grades of EMIs in terms of enforcing NEMA.

**Table 3: Powers granted to the various grades of EMIs in terms of NEMA**

<b>Grade</b>	<b>Powers that may be conferred in terms of Section 31D(3) of the NEMA</b>
5	Powers in terms of section 31H, section 31I (3) and section 31J of the Act.
4	All the powers given to environmental management inspectors under the Act, except for the power under sections 31H(1)(b), 31H(5), 31I(3) 31J, 31L and 34G(2) of the Act.
3	All the powers given to environmental management inspectors under the Act, except for the power under sections 31H (5) and 31L of the Act.
2	All the powers given to environmental management inspectors under the Act, except for the power under section 31L of the Act.
1	All the powers given to environmental management inspectors under the Act.

To be eligible for EMI designation, an official must complete a relevant training course approved by the Director-General. Currently, DEFF offer an EMI Basic Training Course. DEFF normally host two EMI training courses per year. Officials who wish to undergo the EMI training are required to submit an application form to DEFF, which will be evaluated to ensure that the applicant meets the minimum requirements to attend the course. The organisation who has designated the applicant is responsible for financing the training of the applicant.

### **3.5.2. Fisheries Control Officers**

Fisheries Control Officers (FCOs) are appointed by the DEFF in terms of Chapter 6 of the Marine Living Resources Act (No. 18 of 1998) and are responsible for ensuring that the

provisions of the MRLA are being complied with. The CLM has one fisheries office along the coastline. This fisheries office is located as follows:

Elands Bay                      022 972 1706

Another mechanism that can be used to enforce the MLRA is through the appointment of Honorary Marine Conservation Officers. These Officers are appointed in terms of Section 9 of the MLRA and the position is entirely voluntary. These officers work closely with the FCO and act as they "on-the-ground" eyes and ears of the DEFF compliance directorate. The Officers can be members of the community or employees of the municipality, and do not have to be employed by DEFF.

It is important that the WCMD, CLM and communities engage closely with the local FCOs with regards to reporting illegal activities in terms of the MLRA and that Honorary Marine Conservation Officers be appointed to assist in this role. These illegal activities include, but are not limited to, abalone poaching, suspicious vessels at sea and illegal fishing activities.

### **3.5.3. Air Quality Compliance and Enforcement in the WCDM**

A dedicated air quality management section has been established in the WCDM and has been properly capacitated through the appointment of trained staff, mandated to do compliance monitoring and enforcement. Currently, two WCDM staff members have been trained as EMIs and await final designation. The process of designation of these officials must, however, first be clarified at national and provincial level since municipalities do not have the authority in terms of NEMA to do such designations. It is hoped that an implementation protocol will soon be entered into between the MEC and Council. Until such time as the legal issues regulating the designation of EMIs have been resolved, it is recommended that municipal staff be appointed by the MEC and report to provincial officials. This will create an opportunity for municipal EMIs to gain valuable experience from provincial staff until such time as the legal issues relating to designation by municipalities have been concluded.

Council's Manager: Air Quality and Senior Air Quality Officer have been designated as EMI's by the MEC on 31 July 2014. Compliance and enforcement actions have been implemented at various industries with assistance from DEA&DP as well as DEFF.

**Based on the above as well as feed-back from stakeholders, the future needs in terms of compliance, monitoring and enforcement are as follows:**

- There is a need for EMIs at a local level. One Grade 5 EMI needs to be appointed in the CLM.
- The WCDM EMIs must be continually supported through training and provision of resources.
- Contact details of the relevant EMIs and FCOs in the CLM must be publicly displayed at known infringement sites so that members of the public know who to report illegal activities to.
- The implementation of the CMP must be monitored through the WCDM Coastal Committee.
- SAPS, EMIs and FCOs need to be more visible in coastal areas to deter illegal activities from taking place.
- Municipal by-laws need to be better enforced.

### 3.6 Theme 5: Estuary management

Although the CLM does not have a high number of estuaries, almost all the estuaries in the Municipality are heavily impacted. These estuaries require the establishment and implementation of strategies to improve the management and protection of estuarine resources, as well as the need to secure sufficient financial resources to fund and implement identified actions, research projects, initiatives and advisory forums. This is done through the development of Estuarine Management Plans as per the NEMP.

The updated National Biodiversity Assessment (2019) identifies three estuaries within the CLM. The locality of these estuaries are indicated in Figure 13 below and a brief description of each has been provided in Table 4.



**Figure 6: Estuaries in the WCDM including the Langebaan lagoon (National Biodiversity Assessment, 2012).**

Estuaries are recognised as particularly sensitive and dynamic ecosystems, and as such require a more integrated and holistic approach in the planning and control of activities related to their use and management. As a result, the ICMA, via the prescriptions of the National Estuarine Management Protocol (the Protocol), require Estuarine Management Plans to be prepared for estuaries in order to create informed platforms for efficient and coordinated estuarine management. Table 4 below provides a brief summary of the characteristics of each estuary within the MLM as well as whether an Estuarine Management Plan is being developed or not.

The RMAs for the estuaries in the MLM are currently being identified. The pending amendment to the NEMP has delayed this process due to the roles and responsibilities of

the municipalities with regards to estuary management needing further clarification. This is as a result of the Overberg vs. Abbott judgment that was described in more detail in Section 2.1 of this report.

The Estuary Management Framework and Implementation Strategy project that is being developed by DEA&DP, is in the final stages of completion. The strategy will provide some guidance on how and what kind of management will be implemented in the smaller estuary systems as well as will assist to clarify the roles and responsibilities of the municipalities with regards to the management of the estuaries in the MLM. Discussions and the way forward for EMPs for some of the smaller estuaries that have recently been included in the 2019 NBA will still be discussed with the relevant stakeholders (*Personal communication* Melissa Naiker, DEA&DP).

The management objectives and action plans that require action from the MLM in the current EMPs are provided in Appendix B, and have been included as part of the Implementation Strategy in this CMP.

**Table 4: A summary of the characteristics of each of the estuaries located within the WCDM**

Estuary name	Municipal Area	Biogeographical Region	Estuary Class	Estuary Type	EMP developed?	Unique Characteristics
Jakkalsvlei	Cederberg LM	Cool Temperate	Estuary	Large Temporarily Closed	Yes – The EMP was updated in 2018	<p>Jakkalsvlei estuary and its catchment falls within the very rural, and largely undeveloped areas.</p> <p>It is a relatively small estuary and has an average importance with regards to its biodiversity value.</p> <p>The main form of social dependency associated with the Jakkalsvlei estuary relates to recreational/ aesthetic value from a tourism and landownership perspective. Above the estuary, the Jakkals River is vitally important in terms of regional water supply, particularly for irrigation.</p> <p>While the estuary falls just outside of the Greater Cederberg Biodiversity Corridor, the catchment area of the Jakkals River would benefit from the implementation of the agriculture best practise guidelines produced under the initiative.</p>
Wadrift	Cederberg LM	Cool Temperate	Estuary	Arid Predominantly Closed	EMP currently in draft state	<p>The Wadrift estuary is known as an important site for its rich bird diversity.</p> <p>The Wadrift estuary has not been identified as a national priority estuary in need of formal protection, however, it does fall within the Greater Cederberg Biodiversity Corridor and as a result, some level of sustainable management is required.</p>
Verlorenvlei	Cederberg LM	Cool Temperate	Estuary	Estuarine Lake	Yes, the EMP was updated in 2018	<p>Verlorenvlei is one of the largest estuarine lakes in South Africa but is also one of the country's few coastal freshwater lakes.</p> <p>It predominantly functions as a freshwater system where the mouth is perched and only allows occasional seawater inflow during high spring tides and stormy conditions at sea.</p>

Estuary name	Municipal Area	Biogeographical Region	Estuary Class	Estuary Type	EMP developed?	Unique Characteristics
						<p>Designated as a Ramsar site in 1991, and also identified as an Important Bird Area, Verlorenvlei is regarded as one of the ten most important wetlands for wading birds in the South-Western Cape.</p> <p>It has been listed as one of the estuaries with minimal development and in a good state to be conserved so as to control further developments.</p> <p>Despite the importance of this estuary in South Africa, it has no official conservation status.</p>

An Estuary Advisory Forum (EAF) is a platform that can be established to provide an advisory service to the RMA on issues specific to the management and implementation of the EMP, as well as being the entity that links all stakeholders, which serves to foster stakeholder engagement and to facilitate the implementation of the project plans identified in the EMP. It is envisioned that the broader community is also able to voice concerns and raise issues via the EAF. This includes Ratepayers' Associations, NGO's, community groups, conservancies, etc., as well as representatives from surrounding industry and agriculture.

While the establishment of an EAF for each estuary is no longer a requirement in the 2013 NEMP, the Western Cape Government still supports their establishment and recommends that private entities and non-government organisations continue to play a supporting role in the implementation of the EMPs. While an individual EAF is not necessarily always recommended, the establishment of a regional EAF can be proposed. The EAF should be chaired by the RMA and should aim to meet on a quarterly basis (Jakkalsvlei EMP; DEA&DP, 2018).

The following Estuary Advisory Fora (EAFs) have been established, on which the WCDM are represented:

- Verlorenvlei EAF.

**Based on the above as well as feed-back from stakeholders, the future needs in terms of estuary management are as follows:**

- The RMAs for each of the estuaries need to be officially designated.
- The EMPs need to be implemented and implementation must be monitored through the EAFs and the WCDM Coastal Committee.

### **3.7 Theme 6: Natural resource management**

The effective management of natural resources needs to include the maintenance of ecosystem integrity and health, the assessment and effective management of coastal protected areas, including marine protected areas, as well as the identification and rehabilitation of damaged and degraded coastal ecosystems and habitats.

#### **3.7.1. Vegetation**

The CLM is located within the Cape Floristic Kingdom consisting of the Fynbos Biome, which is predominant towards the south of the region, and the Succulent Karoo Biome, which extends along the north-westerly margin of the region. Both of these biomes have been identified as global biodiversity hotspots with high levels of diversity and endemism for plants and animals. The Succulent Karoo is one of only two semi-arid biodiversity hotspots in the world, and exhibits the highest plant diversity for a semi-arid ecosystem globally. The region contains about 9000 plant species, of which over 6000 are endemic. The diverse soil types and variation in rainfall distribution are key to this diversity. The region also has high animal diversity, including both vertebrates and invertebrates and is especially rich in lizard, amphibian and insect species (WCDM SDF, 2013).

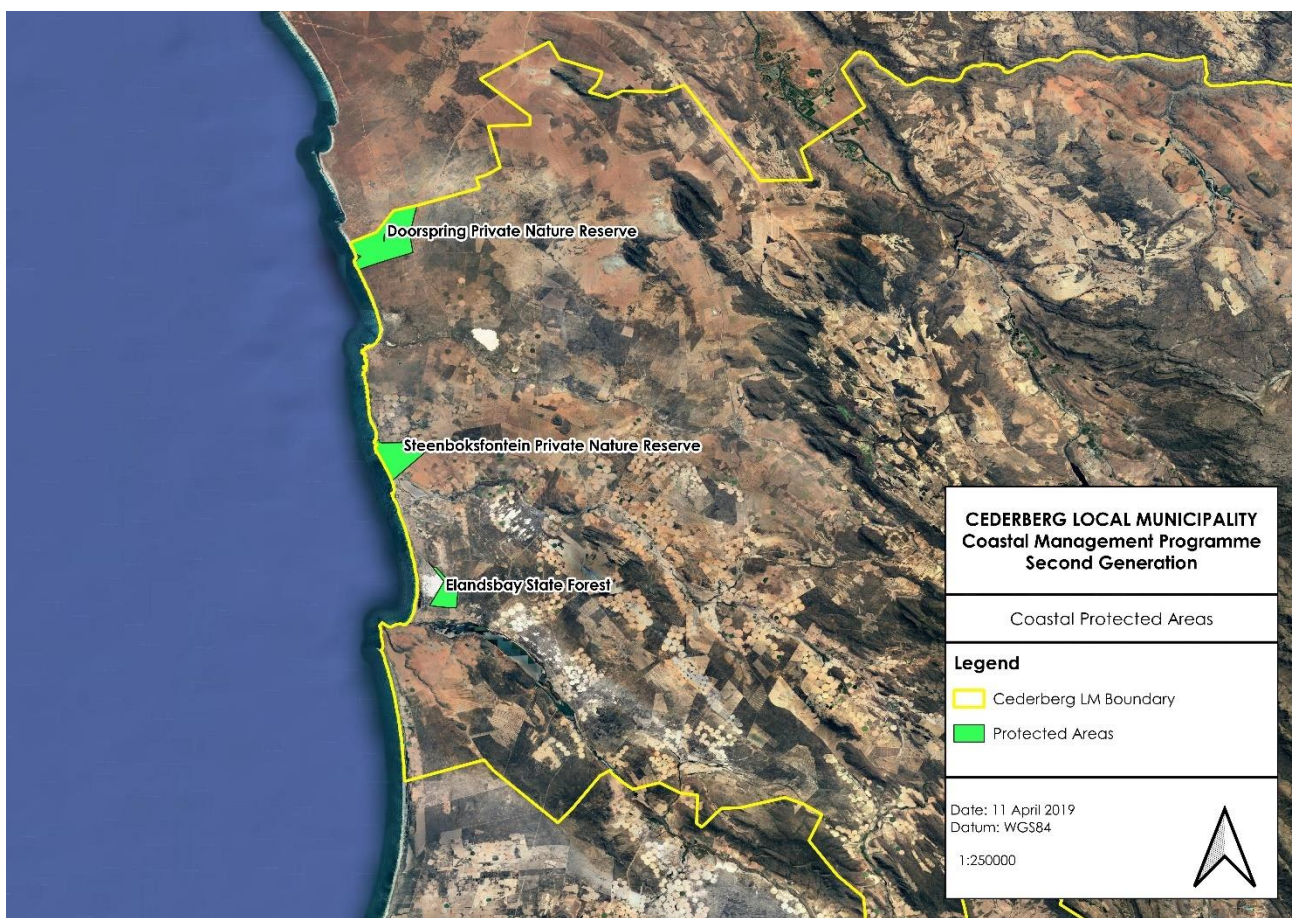
A significant portion of the low-lying vegetation has already been lost due to agricultural activities, and resort and urban settlements have also had a large impact on the biodiversity of coastal regions. Other significant threats to biodiversity within the coastal zone include port land management and invasive alien plant infestation, soil erosion, overgrazing and

inappropriate fire regimes. When practices are unsustainable, land uses such as mining, potato farming and 4x4 trails pose threats to the West Coast's biodiversity (WCDM SDF, 2013)).

### **3.7.3. Formal protected Areas**

There are a number of terrestrial protected areas within the CLM. This protected area network comprises of privately managed protected areas and areas managed by DEFF. Figure 7 below indicates the location of the protected areas located along the coast of the CLM.

It is important that the CLM engage with the private nature reserves to ensure that their spatial planning processes do not conflict with the objectives and management practices of these reserves.



**Figure 7: Formal protected areas within the coastal zone of the WCDM (WCBSP, 2017)**

### **Offshore Marine Protected Areas**

Operation Phakisa, which is a presidential project to fast-track the development of South Africa's Ocean Economy, identified the need to protect off shore ocean habitats within South Africa's Exclusive Economic Zone (EEZ). Through Operation Phakisa, a number of offshore sites were identified as a potential Marine Protected Areas (MPAs) network. MPAs are increasingly being used as a tool for the achievement of biodiversity, fisheries management, tourism and research objectives. This MPA network represents the full spectrum of biodiversity, secures ocean benefits and provides important reference areas to understand and manage change in our oceans (DEA, 2016). It was approved by Cabinet on the 24<sup>th</sup> of October 2018. Figure 8 shows the location of these 20 new MPAs, with the



Benguela Muds and the Cape Canyon MPAs being located offshore of the WCDM coastline.

While the WCDM and the CLM do not have any direct responsibility in terms of management of these offshore MPAs, it does provide an opportunity for the WCDM and the CLM to use these MPAs as an opportunity to educate and inform communities of the importance of the offshore marine environment to the coastal and marine economy.

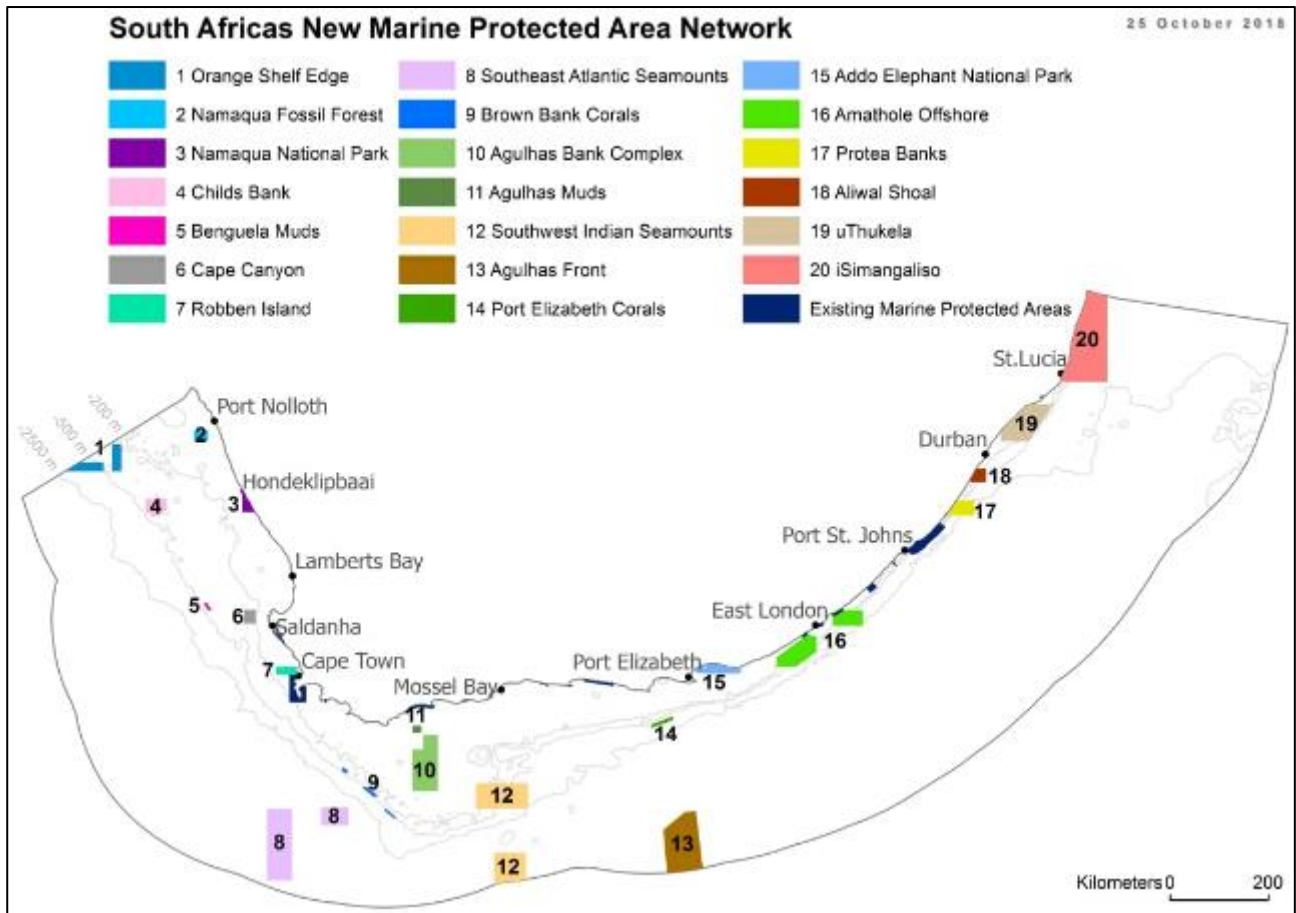


Figure 8: the location of the 20 new MPAs ([www.saambr.org.za/marine-protected-areas-mpas/](http://www.saambr.org.za/marine-protected-areas-mpas/))

### RAMSAR Convention

The Convention on Wetlands, signed in Ramsar, Iran, in 1971, is an intergovernmental treaty which provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. There is one official Ramsar site located within the CLM, namely Verlorenvlei.

The Verlorenvlei Ramsar site was designated in 1988 and is situated approximately 100 km northwest of Cape Town. The Verlorenvlei is one of the largest lakes (and one of the country's few coastal freshwater lakes), with associated scrub, shrubland, dune systems, marshland and reedbeds representing a transition zone between two plant communities. The site is an important feeding area for rare pelicans and fish, for molting and breeding birds, as well as for staging wading birds. During dry periods, large numbers of flamingos gather. The site also supports notable plant species. Water is pumped for irrigation purposes, and the marshland is used for cattle grazing.

## **Provincial Nature Reserves**

A number of provincial nature reserves can be found within the CLM that are managed by CapeNature (Figure 14). The Provincial nature reserves are described below.

### **➤ Lamberts Bay Bird Island Nature Reserve**

Bird Island lies approximately 100 m off the shore of Lambert's Bay in the Cederberg LM. The reserve allows visitors an opportunity to observe the blue-eyed Cape gannet up close. Bird Island is one of only six sites world-wide where Cape gannets breed, and it is the only breeding site easily accessible to the public.

The island, which is almost three hectares in size, is connected to the mainland via a breakwater. It is an important breeding and roosting site for seabirds, particularly Cape gannets and cormorants. Cape fur seals can also be observed on the island.

## **Private Nature Reserves**

A number of private nature reserves are also located within the CLMs coastline and include the following:

- Doorspring (Matzikama and Cederberg LMs); and
- Steenbokfontein (Cederberg LM);

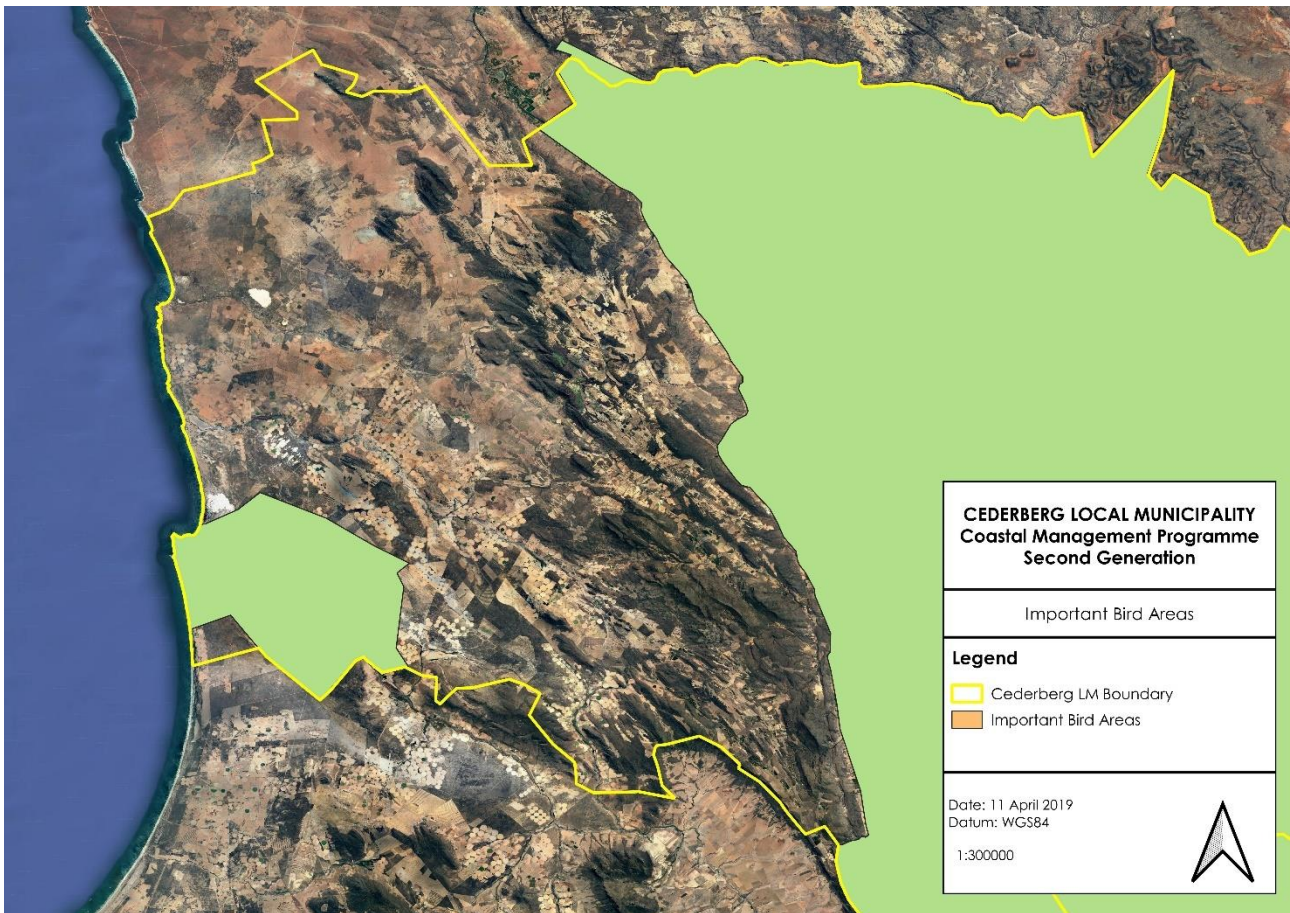
It is important that the CLM engage with the private nature reserves to ensure that their spatial planning processes do not conflict with the objectives and management practices of the private nature reserves.

### **3.7.3. Important Bird Areas**

Important Bird and Biodiversity Areas (IBAs) are sites of international significance for the conservation of the world's birds and other biodiversity. By conserving IBAs, the ecosystem goods and services they provide are protected and, in turn, support a component of the South African economy (such as water management and agriculture).

The CLM has two IBAs located within its boundaries. These IBAs have been indicated in Figure 9 below and include the following areas:

- Verlorenvlei estuary; and
- Cedarberg - Koue Bokkeveld Complex.



**Figure 9: The location of the IBAs in the CLM**

### **3.7.3. Marine resources**

The West Coast is characterised by its cold water upwellings that are nutrient rich waters, which result in the presence of a substantial fishing industry, with approximately 90% of South Africa's fish being caught off the West Coast. This makes the offshore regions of the West Coast one of the world's richest fishing grounds. The CLM falls within the Namaqua Marine Bioregion situated from Cape Columbine northwards.

The Namaqua bioregion is dominated by the cold Benguela Current and is characterized by large-scale intensive upwelling and nutrient rich water. Low oxygen events are a feature of this region. Extensive mud banks are an important characteristic of the Namaqua bioregion. This productive bioregion supports major commercial fisheries including hake trawl and longline fisheries. A significant proportion of the commercial linefish effort occurs within this bioregion (Sink, et al., 2004).

Despite commercial fishing being an important economic along the CLM coastline, there are various factors threatening existing stocks. These factors are derived from anthropogenic activities and include the following:

- Pollution of coastal waters;
- Increased coastal development in sensitive coastal habitats; and
- Over fishing.

While the CLM does not hold responsibility in terms of activities that occur in the inshore and offshore environment, the CLM has an obligation to alert the responsible authorities should any suspicious or illegal activities be observed.

## **Marine mammal strandings**

A number of marine mammals are commonly found along the CLM. These species include southern right whales, humpback whales, Bryde's whales, Heaviside dolphins, dusky dolphins and common dolphins.

Although a relatively rare occurrence, the CLM does occasionally experience strandings of large marine animals. These stranding events require a collective, coordinated and organised response by various authorities and agencies for the effective management of the following scenarios:

- Rescue attempts for live animals;
- Public control and management;
- Volunteer control and management;
- Environmental protection; and
- Carcass removal and disposal.

Currently there is confusion within the local government structures in the WCDM as to whose responsibility it is to respond to these events and the protocol to be followed should stranded marine mammals be reported. The City of Cape Town have developed a "Large Marine Animal Stranding Policy and Protocol" that clearly outlines the roles and responsibilities of the various stakeholders that are required to respond to these stranding events. This policy has been attached in Appendix B. The protocol that has been developed clearly outlines what actions to be taken should a stranded mammal be reported. It is suggested that a stranding policy and protocol be developed for the WCDM that models the policy and protocol that has been developed by the City of Cape Town.

## **Oil and Gas**

Currently, South Africa does not have significant proven oil and gas reserves and produces oil and gas from coal and imported crude oil. Due to abundant coal resources that have been available in South Africa that has allowed the country to produce petroleum and by-products, as well as electricity cheaply from coal, gas is an underutilised resource. However, as coal resources in South Africa are declining and the relative cost of coal-produced electricity and petroleum increases, gas will become a more exploited resource.

Offshore and onshore gas exploration has begun in South Africa with 20 exploration licences having been issued to date (SAOGA, 2017). Figure 10 indicates the exploration rights that have been granted offshore of the CLM coastline. It is important that the WCDM and the LMs are aware of offshore oil and gas exploration activities that are taking place offshore of the West Coast coastline, due to the potential for oil spills and contamination of coastal waters and beaches. Both the WCDM and the CLM have a role to play in managing oil spills along the coastline and these roles and responsibilities are discussed further in Section 3.9.

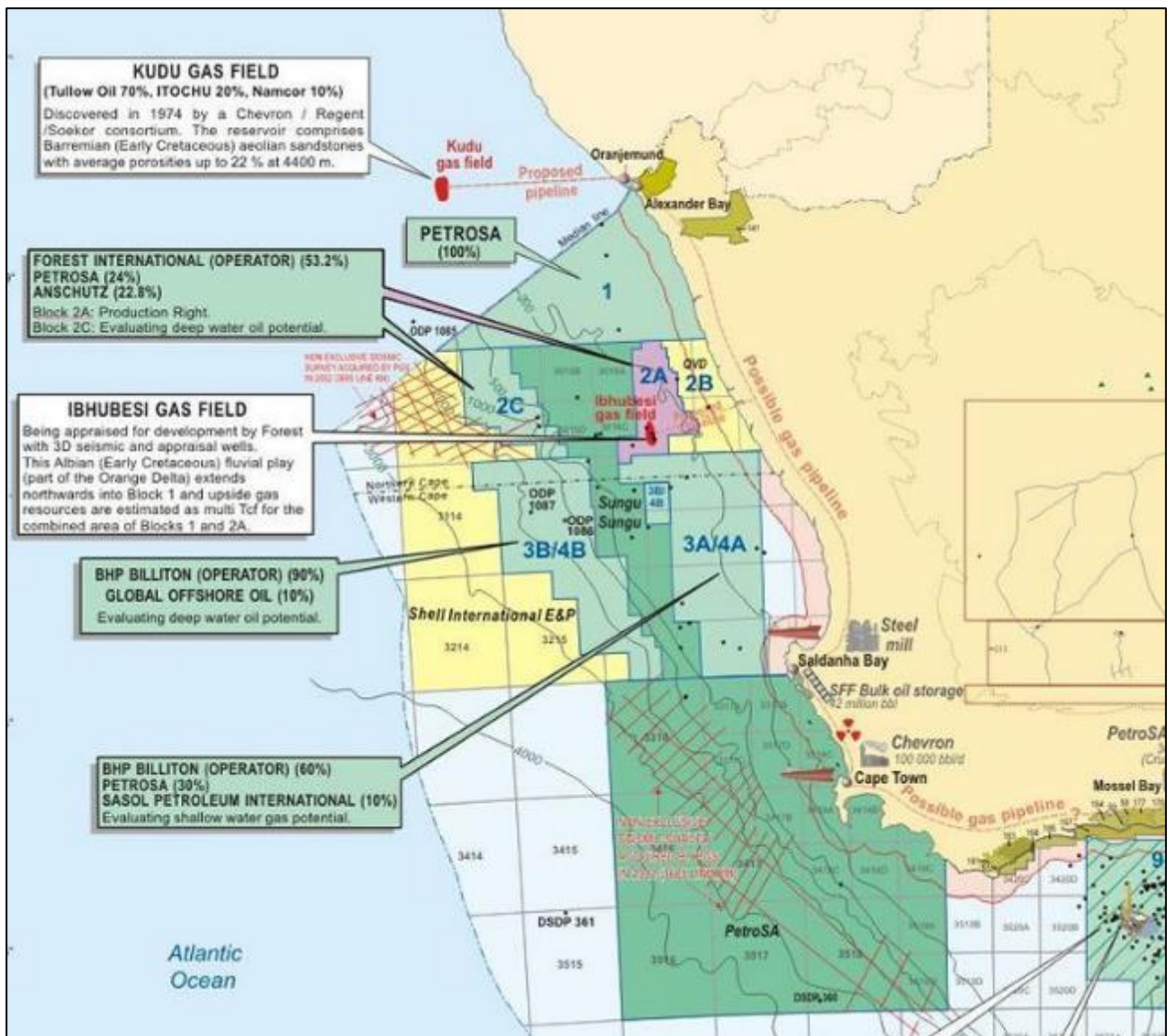


Figure 10: Offshore gas and oil exploration rights that have been granted along the West Coast of South Africa ([www.energy-pedia.com/news/south-africa/bhp-set-to-drill-offshore-south-africa](http://www.energy-pedia.com/news/south-africa/bhp-set-to-drill-offshore-south-africa))

**Strategic Environmental Assessment (SEA) for a phased gas pipeline network and expansion of the electricity grid infrastructure in South Africa**

The Operation Phakisa Offshore Oil and Gas Lab (August 2014) has set a target of achieving 30 exploration wells in the next 10 years in order to exploit the potential of gas reserves in South Africa and contribute to the transition to a low carbon economy. In addition, the need to accelerate the planning for gas to power as part of the Governments Integrated Resource Plan (IRP) and for State Owned Entities to pre-plan for the logical development of gas transmission servitudes within South Africa has been identified. The phased development of an onshore gas pipeline network forms part of the infrastructure that is proposed as an enabler for the offshore oil and gas exploration and has the potential to unlock further possibilities for the growth of the gas industry in South Africa (CSIR, 2018).

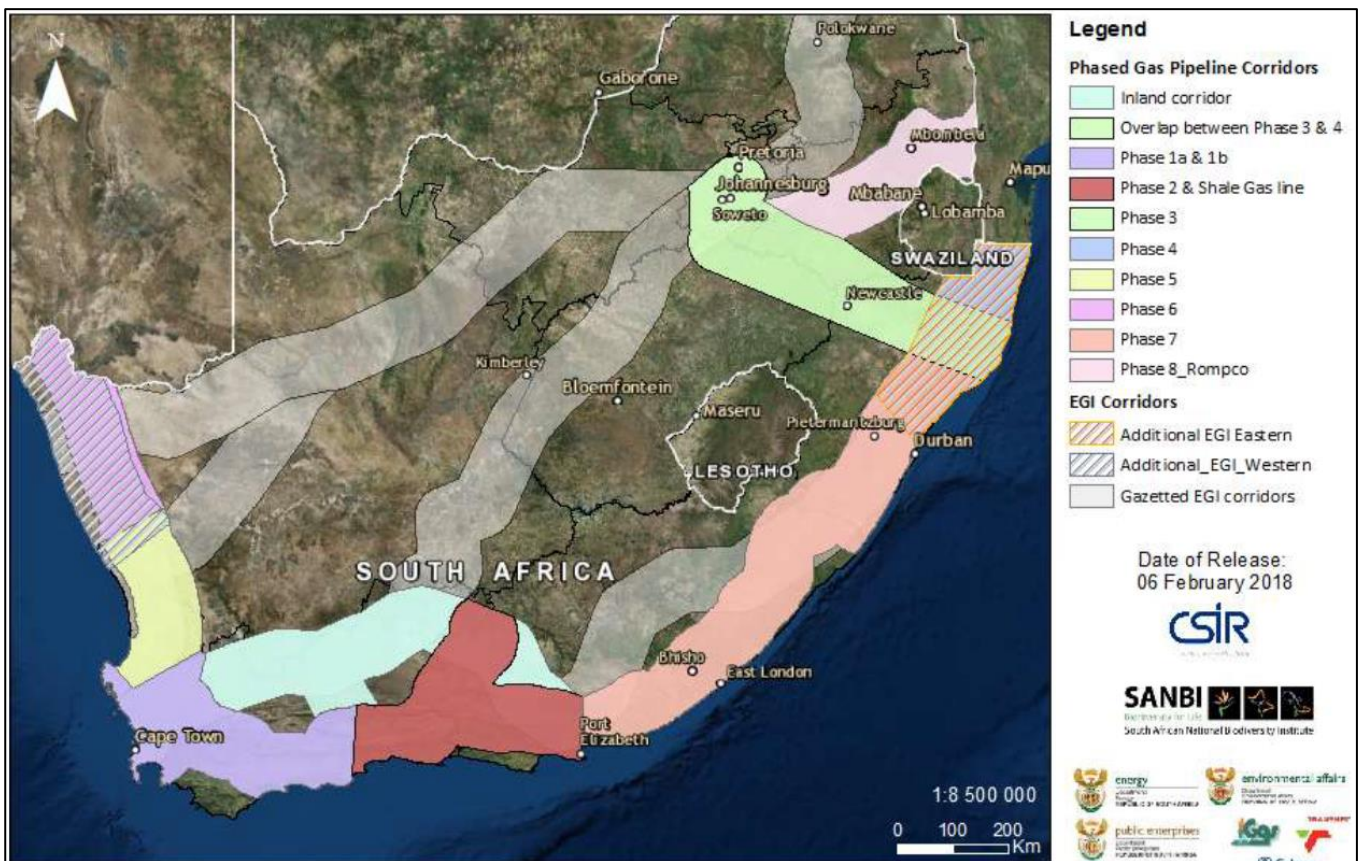
To support the objectives of the Operation Phakisa Oceans Economy Oil and Gas Lab and to ensure that when required, environmental authorisations are not a cause for delay, a Strategic Environmental Assessment has been undertaken.

In April 2017, the Council for Scientific and Industrial Research (CSIR) was appointed to undertake a SEA for a Phased Gas Pipeline Network and for the expansion of the electricity grid infrastructure (EGI) corridors that were assessed as part of a separate SEA Process (in response to the Government's Strategic Infrastructure Build Program, Strategic Integrated Project SIP 10: Electricity transmission and distribution for all) which concluded in 2016 (CSIR, 2018).

The SEA will be focussed on nine corridors identified as part of Operation Phakisa as key areas where gas transmission pipelines are required in order to meet future energy requirements. SEA will assess the environmental, social and economic constraints and opportunities for gas pipeline and EGI development within these corridors. The results of the assessment will serve to inform suitable routing options for gas pipelines and EGI expansion.

The proposed gas pipeline corridors that will directly affect the clm are as follows (refer to Figure 19):

1. From Saldanha Bay to Abraham Villiers Bay (landing point for the Ibhubesi field).



**Figure 19: The gas pipeline corridors that were assessed as part of the SEA (CSIR, 2018; [https://gasnetwork.csir.co.za/wp-content/uploads/2019/04/PART-1\\_Background\\_Gas-Pipeline\\_FINAL\\_110419.pdf](https://gasnetwork.csir.co.za/wp-content/uploads/2019/04/PART-1_Background_Gas-Pipeline_FINAL_110419.pdf))**

### **Algal blooms**

Harmful algal blooms (HABs) are a fairly common occurrence along the CLM coastline and can have a significant impact of natural coastal resources such lobster, commercial fisheries and aquaculture operations. These algal blooms are caused by south-easterly winds bringing nutrients from the sea bottom to the surface. This event is known as an upwelling and results in a rapid increase in plankton populations. The density of the algal bloom turns the ocean's surface red to brown.

Over time algal blooms naturally die off and get dispersed. When calm and relatively warm oceanic conditions occur, this could further result in a proliferation and congregation of decomposing bacteria that have, through the breakdown of dead algae, depleted the available oxygen in the water.

The National Oceans and Coastal Information Management System (OCIMS) has developed a HAB Decision Support Tool (DeST) and provides capability for monitoring and assessing risk of HAB events for the South African coastal area to approximately 50km offshore. Maps of sea surface temperature, ocean winds and ocean colour-derived phytoplankton biomass proxies are used to provide information on the presence and movement of blooms, and the HAB viewer provides real time information on the spatial extent of the HAB risk along the coast.

The WCDM does have a HAB Contingency Plan as part of the Disaster Management Plan to monitor and manage HAB event. With regards to removing and disposing of mortalities that wash up on beaches as a result of HAB events, the WCDM has a mandate to manage municipal health services, which is defined in the Minmec Resolution in July 2002, as environmental health services. The responsibility thus falls to the WCDM to remove and dispose of mortalities. However, the CLM has been designated the responsibility of managing beaches, which also includes an environmental health component, and it is suggested that the removal and disposal of mortalities becomes a joint effort between the WCDM and the CLM. The WCDM HAB Contingency Plan needs to be updated to incorporate a joint function between the WCDM and CLM with regards to removal and disposal of mortalities.

#### **3.7.4. Mineral resources**

The South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (SAMREC) defines mineral resources as any solid mineral of potential economic interest in any concentration found in bedrock or as afloat, especially a valuable or potentially valuable mineral in sufficient concentration to suggest further exploration. In the WCDM region, these mineral resources include the following:

- Diamonds;
- Limestone;
- Dolomite;
- Dimension stone;
- Gypsum;
- Salt;
- Silica sand;
- Brentonite;
- Phosphate;
- Kaolin;
- Heavy minerals;
- Sepiolite;
- Brick clay; and
- Building sand

Mining activities that occur in the CLM are minimal. The main commodities that are mined in the Cederberg region are building sand and phosphate. However, diamond mining activities are taking place off shore from Lamberts Bay to the north of the LM (Cederberg SDF, 2017-2022).

## **SANBI Mining Guidelines**

Most mining operations, past, in operation, proposed and possibly in future, comprise neither quarrying or open cast mining. This results in total surface destruction. This is further worsened if there is no proper rehabilitation as happened with Foskor near the West Coast Fossil Park. SANBI has produced spatial data that indicates where such habitat destruction should not be contemplated and areas where it could.

Mining is already prohibited in legally protected areas and should also be prohibited in 'highest risk' areas. It should be permitted in medium risk and no risk areas only but with the most stringent rehabilitation plans whose implementation is strongly monitored with regular reporting to the Municipality who are responsible for land use management (SANBI, 2012).

It is important that these mining guidelines are incorporated into all municipal planning processes.

**Based on the above as well as feed-back from stakeholders, the future needs in terms of natural resource management are as follows:**

- Alien vegetation need to be better managed in the CLM, particularly within open areas of coastal towns.
- The WCDM and CLM need to continue to work closely with CapeNature and Private nature reserves to ensure that the unique biodiversity of the CLM is conserved.
- The WCDM and CLM must be in the position to assist members of the public to alert the relevant authorities of suspicious or illegal activities that are taking place in terms of NEMA and MLRA.
- A Marine Mammal Stranding Policy must be developed for the WCDM where the roles and responsibilities of each organ of state, as well as a protocol to be followed in terms of responding to a stranding report, are clearly defined. The CoCT Policy should be used as an example.
- The WCDM and the CLM must ensure that they are aware of offshore oil and gas and mining activities taking place as oil spills and other contaminant leaks could potentially impact the coastline. The relevant authorities will then need to respond appropriately.
- The WCDM needs to revise the HAB Contingency Plan to incorporate the cleaning up of mortalities that result from a HAB event. The cleaning up of mortalities along beaches is a LM responsibility and this needs to be carried through into the Contingency Plan.
- The WCDM and CLM must take into consideration the cumulative impact of existing and proposed mining activities along the coastline in order to ensure that the integrity and sustainability of the ecological functioning of the coastline is not severely impacted. The SANBI Mining Guidelines must inform the development of the mining industry along the West Coast.

### **3.8 Theme 7: Heritage resource management**

The West Coast has a wealth of heritage resources as well a cultural history. The coastal regions of the south-western Cape were densely occupied by pastoralists, or herders, known as the Khoikhoi or Khoi-San. The West Coast region was the land of the CochoQua, which included Saldanha Bay to Vredenburg. The ChariGuriQua or GuriQua occupied the lower Berg River area, St Helena Bay and points around Piketberg (SAWestcoast.com).

#### **3.8.1. Khoisan communities within the WCDM**

Archaeological sites on the West Coast, like Kasteelberg, show occupation by herders between 1800 and 1600 years ago. It is well recorded that whale meat was used by the



Khoikhoi. Places where whales often strand themselves along the shore are known as 'cetacean traps', which are areas where minima in the earth's magnetic field cross the shoreline, and where there are offshore reefs. St Helena Bay, or more specifically, Slipper Bay appears to be one of these 'cetacean traps', approximately 12km from Kasteelberg.

The GuriQua and the SonQua (Bushmen) are forgotten in the history of the West Coast. They were here to witness the arrival and departure of Vasco da Gama. The history of the Khoikhoi and the SonQua after 1652 is well documented, but it is important to mention that the 1713 small-pox epidemic was one of the main causes for the virtual disappearance of the Khoikhoi from the south-western Cape.

The remnants of the ChariGuriQua of the West Coast followed Adam Kok, the founder of the Bastard (later Griqua) group. The Bastards or Baster group were descendants of mixed unions between European settler farmers and Khoikhoi women. After the 1950's many descendants of the Khoikhoi were classified as "Coloured". There are no written records by the indigenous peoples for the pre-colonial period. Anthropological and archaeological research are the only tools we can use to give us a picture of a people and culture lost in time. The only other sources of information we have are ships journals and the diaries of visitors written from 1488 to 1652 ([www.sawestcoast.com](http://www.sawestcoast.com)).

Today the ancestors of the Khoisan people along the West Coast are active members of the broader community. However, the local Khoisan people still feel the effects of being severely marginalised during the Apartheid Era. A Draft Khoisan Bill is being reviewed, which aims to support the Khoisan people in providing opportunities for cultural, social and economic upliftment.

### **3.8.2. Heritage resources**

South Africa has a wealth of important heritage sites located along the coastline. Coastal heritage sites provide proof of human presence in, and associations with, the coastal zone. Therefore, the safe-guarding of these heritage resources is important for the understanding of the history of humankind and the definition of our cultural identity. The management of heritage resources in South Africa takes place within a legal and administrative framework in terms of the National Heritage Resources Act (Act No. 25 of 1999, NHRA). The parastatal responsible for the implementation of this legislation is the South African Heritage Resources Agency (SAHRA). SAHRA has developed policies, guidelines and regulations for the management of heritage sites. In terms of the NHRA, archaeological heritage material of relevance for the West Coast coastal zone includes the following:

- Material remains resulting from human activities that are in a state of disuse older than 100 years, including human and hominid remains as well as artificial features and structures;
- Wrecks of vessels or aircraft wrecks, whether on land or within our maritime zones or water, and any other associated artefacts or cargo; and
- Features, structures and artefacts associated with military history that is older than 75 years, as well as the sites in which they are found.

In terms of Section 8 of the NHRA, the management of heritage resources is prescribed as follows:

- Tier 1: SAHRA is responsible for the identification and management of Grade I heritage resources and heritage resources in accordance with the applicable provisions of the NHRA and co-ordinates and monitors the management of the national estate in the Republic;

- Tier 2: A provincial heritage resources authority is responsible for the identification and management of Grade II heritage resources, and heritage resources which are deemed to be a provincial competence in terms of the NHRA; and
- Tier 3: A local authority is responsible for the identification and management of Grade III heritage resources, and heritage resources which are deemed to be a provincial competence in terms of the NHRA.

Shorelines were an attractive landscape for early people to exploit, and the West Coast coastline has thousands of shell middens scattered along its coastline. Shell middens result from people visiting the shore, collecting shellfish and consuming the flesh in sheltered areas such as dunes, hollows or caves. Some of these middens date back to the Middle Stone Age (MSA), and are often associated with stone tools, hearths (fireplaces), animal bones, ostrich eggshell water containers and beads. Occasionally human burials have been found in these middens. The most significant of these networks of shell middens are found between Britannia Bay to Stompneusbaai. Other areas where significant shell middens have been observed include Elands Bay, Paternoster, Namakwa Mining area and areas around Saldanha Bay.

More recent agricultural colonisation of the West Coast and the development of the fishing industry are reflected in the cultural landscapes of the District. The West Coast contains a variety of modified landscapes (cultural landscapes) which contribute significantly to the character of the region. Fishing villages, harbours, lighthouses, farms and farmsteads all contribute to the cultural landscape of the Districts coastal zone and its rich heritage resources. Some examples of these culturally significant resources within the CML include the following:

- World War II structures that have been converted to labourer camps at Elands Bay;
- Archaeological and rock art sites at Mussel Point Midden and Baboon Point; and
- Shell middens within the Doorspring Private Nature Reserve.

The local authorities are required to develop a heritage register that lists all graded heritage assets as well as heritage and cultural assets that require formal protection through the NHRA. To date, the CLM has compiled a heritage register.

In order for heritage assets along the coastline to be managed effectively, these heritage registers need to be maintained.

In terms of Provincial Heritage assets as well as the CLM heritage register, heritage assets along the coastline are provided in Appendix C.

**Based on the above as well as feed-back from stakeholders, the future needs in terms of heritage resource management are as follows:**

- The WCDM and CLM must identify the Khoisan communities that occur within their municipal areas and highlight their needs in the IDP in order to aim in addressing past racial inequalities. Many coastal Khoisan communities do not benefit from coastal resources as they did historically, and these benefits need to be identified and supported.
- The WCDM and CLM must engage with the Provincial Heritage Resources Agency to maintain a comprehensive heritage register and new heritage resources must be identified for formal protection.
- More comprehensive engagement with communities by the Provincial Heritage Resources Agency with regards to the proclamation of heritage resources and the renaming of heritage sites is required.

### 3.9 Theme 8: Pollution control and management

Pollution requires effective management and prevention strategies, with emphasis on reducing and responding to land based and marine based sources of pollution in the coastal zone. Ensuring adherence to the waste management hierarchy of reduce, reuse, recycle will help reduce especially solid waste. The effective management of waste within the coastal zone requires cooperation between various departments within the local and district municipalities, government departments as well as coastal communities.

#### **3.9.1. Existing sources of pollution in the coastal zone**

A number of point and non-point sources of pollution within the CLM have an impact on the coastal zone. These sources of pollution can result from activities taking place directly within the coastal zone as well as further up in the catchment areas. Pollution sources can be derived from industrial, domestic and agricultural activities. This section aims to identify as far as possible the known sources of pollution that impact the coastal zone within the CLM.

#### **Effluent discharges into the coastal zone**

A number of direct discharges into the coastal zone can be found along the CLM coast. These outfalls discharge effluents that are derived from a number of activities, including aquaculture, fish processing and Waste Water Treatment Works (WWTW). Discharges into the coastal zone require authorisation in terms of the ICMA, which makes provision for the allocation of Coastal Waters Discharge Permits (CWDP). A CWDP must specify the volume and type of effluent that is authorised to be discharged, as well as water quality conditions that are required to be met. These water quality conditions are specified by the "South African Water Quality guidelines for Coastal Marine Waters".

The table below provides information on the coastal discharges along the CLM where authorisation in terms of the ICMA is currently being applied for (WCSocr, 2018).

**Table 6: Coastal discharges along the CLM**

<b>Outfall name</b>	<b>Location</b>	<b>Effluent Type</b>	<b>Quantity Authorised per Annum (m<sup>3</sup>/annum)</b>
Lamberts Bay Foods Limited	Lamberts Bay	Food Processing Effluent	2 900 000
Ocean Lobster Elands Bay	Elands Bay	Aquaculture	2 847 000

The responsibility to monitor the quality of effluent and the impacts on the receiving environment is that of the CWDP holder. Monitoring reports are required to be submitted to DEFF on an annual basis and any non-compliances will be acted on by the Department. However, as custodians of the coastline, it also becomes the responsibility of the communities and municipalities to report any non-compliances (e.g. sewage spills) that may be observed.

#### **Food and fish processing facilities**

There are a number of food and fish processing facilities located within the WCDM coastal zone that produce various waste streams that require careful management. Effluent discharges, as well as solid waste such as offcuts are produced by these facilities. The

inappropriate management of these waste streams can have knock on effects that directly impact the surrounding environment as well as the behaviour of animals.

An example of this is the situation taking place at Lamberts Bay. Lamberts Bay Foods Limited is a food processing facility that is located at the Lamberts Bay harbour. One of the waste streams that are generated by this facility are off-cut potato chips. The offcuts are loaded into transport vehicles and disposed of. However, the transport vehicles are not covered, and this provides an opportunity for birds to scavenge on these off-cuts. The local environmental manager for the nearby Bird Island Protected Area has indicated that the seagulls have started feeding exclusively of these off-cuts and have started breeding on the roof of the factory. The Crowned cormorant (endangered species), which is found on Bird Island, is not nesting on the island any more but on the factory roof and in the trees around town. The guano from the birds nesting on the potato factory roof also poses a health risk. There is insufficient monitoring of the activities taking place at this facility and the CLM together with the WCDM need address this as a matter of urgency.

### **Waste Water Treatment Works (WWTW) within the coastal zone**

In the CML, there is one WWTW that is located in close proximity to the coastal zone that may impact the health and safety of the nearby beaches and coastal waters. This WWTW is located in Lamberts Bay and is managed by the CLM. Figure 11 indicates the location of the Lamberts Bay WWTW within the CLM..

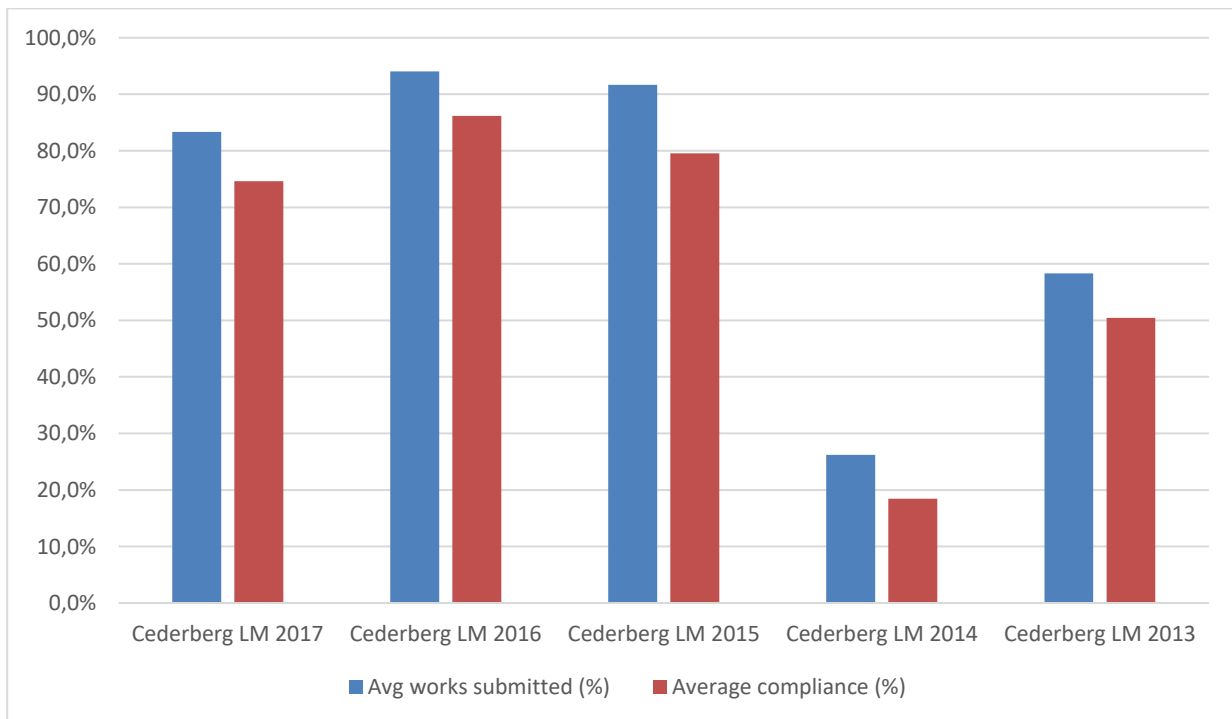
It is the CLMs responsibility to maintain the infrastructure associated with the WWTW to minimise the risk of contamination from untreated sewage. The CLM is also responsible for monitoring the quality of the treated effluent generated by the WWTW and are required to report to the DWS.

One of the regulatory approaches that was introduced in South Africa in 2008 was the Green Drop Certification Programme for Wastewater Quality Management Regulation. The Green Drop process measures and compares the results of the performance of water service authorities and their service providers via a standardised scorecard, and subsequently rewards (or penalises) the municipality upon evidence of their excellence (or failures) according to the defined minimum standards or requirements.



**Figure 11: The location of WWTWs near coastal zones along the CLM coastline**

However, Figure 12 below presents the 2013 – 2017 results of compliance with the Green Drop Certificate for the WWTWs located in the CLM (WCSocr, 2019).



**Figure 24: The results of compliance with the Green Drop Certificate for the WWTWs located in the CLM (WCSocr, 2019)**

It is important that the CLM continues to maintain WWTW infrastructure and to ensure that the quality of the treated effluent meets the required norms and standards.

### **Air emissions within the coastal zone**

A number of air emissions that are generated through the greater CLM area can impact on coastal areas. The primary sources of air emission are derived from the following activities within the CLM (Cederberg Air Quality Management Plan, 2013) include the following:

- Domestic fuel burning
- Agricultural activities; and
- Biomass burning.

DEFF published legislation and established an online national atmospheric emissions inventory system that requires that industry and local government report to the system on an annual basis. The WCDM is required to develop a detailed Emissions inventory that needs to be updated on an annual basis. This air emissions inventory is based on licensed activities within the WCDM. Currently there are no facilities within the CLM that have been issued Air Emissions Licenses.

### **Solid waste within the coastal zone**

Solid waste, in particular plastic waste is becoming more evident on beaches and in coastal waters. The Ocean Conservancy's International Coastal Clean-up initiative, which has become an annual feature on the South African environmental calendar, reports that over 8 million kg of waste was cleaned up off approximately 24 000km of coastline around the world in 2016 (WCSocr, 2018). In South Africa, the most common items picked up off beaches include the following (International Coastal Clean-up, 2017):

1. Cigarette butts – 9 192 units;
2. Plastic beverage bottles – 5 526 units;
3. Plastic bottle caps – 7 812 units;
4. Food wrappers – 8 285 units;
5. Plastic grocery bags – 1 877 units;
6. Plastic lids – 1 091 units;
7. Straws / stirrers – 3 305 units;
8. Glass beverage bottles – 2 594 units;
9. Other plastic bags 3 269 units; and
10. Foam take-away containers – 1 169 units.

The CLM has a mandate to ensure that beaches are maintained and kept clean but communities along the coastline also need to take responsibility of their coastal environments and dispose of solid waste in a more responsible manner.

### **Oil spills off the WCDM coastline**

The WCDM has a number of small harbours as well as the larger Saldanha Bay port. The presence of these ports and harbours within the WCDM increase the risk of the occurrence of oil spills due to increased shipping traffic (Anchor Environmental, 2018). In South Africa there have been a total of five major oil spills:

- two off Cape Town (1983 and 2000);
- one in the vicinity of Dassen Island (1994);
- one close to the St. Lucia estuary in KwaZulu-Natal (2002);

- one in the Goukamma Nature Reserve (2013); and
- Treasure oil spill occurred on 23 June 2000 when the ship sank six miles off the West Coast.

No comparable oil spills have occurred in the CLM to date, but minor spills do occur, which have the potential to severely impact the surrounding environment (Anchor Environmental, 2018).

## **Stormwater**

Storm water runoff occurs when rain flows over impermeable surfaces into waterways and can become a major source of non-point pollution into the coastal zone. Surfaces such as paved driveways, tarred roads and pavement are impermeable and do not allow rainwater to soak into the ground. Stormwater runoff accumulates contaminants that may be found on these surfaces and stormwater runoff does not get pre-treated before entering coastal waters (Anchor Environmental, 2018a). It is an important emerging issue in coastal zone management, and a particularly difficult one to manage.

Stormwater runoff is difficult to characterise and treat prior to it entering the coastal zone due to the variation of the composition of the discharge as well as the large number of discharge points. However, in order to address the issue of contaminated stormwater, the source of the contaminants needs to be identified and managed. This will aid in preventing these contaminants from entering into the stormwater systems. In order to do this, a coordinated effort needs to be made between various public and private sector groups within the coastal communities.

### **3.9.2. Existing pollution monitoring and management activities**

A number of existing pollution monitoring and management programmes are being implemented within the CLM and greater WCDM area. This section briefly identifies these programmes and highlights the CLMs role in terms of the implementation of these programmes.

#### **Department of Human Settlements, Water and Sanitation**

The Department of Human Settlements, Water and Sanitation established the National Estuarine Monitoring Programme, NEsMP, in 2008. The purpose of NEsMP is the monitoring of water quality, physico-chemical and biological aspects for determining long-term trends and changes in the condition of South African estuaries. The NEsMP coordinates national monitoring efforts and provides support in the form of sampling equipment, training, data management and information dissemination, while collaborating institutions collect physico-chemical data and water samples.

Through the NEsMP, basic water quality monitoring is currently undertaken on a monthly basis by the WCDM. However, monitoring is limited to the EFZ. The data that is obtained from this monitoring are important as they contribute to a long-term data repository for the system to detect long term trends and to assist in decision making. The existing estuary fora also play a valuable role in monitoring activities in and around the estuaries and the facilitating the appointment of designated monitoring officer.

#### **Department of Environment, Forestry and Fisheries: Oceans and Coasts**

The Department of Environment, Forestry and Fisheries: Oceans and Coasts branch (DEFF: O+C) is in the process of revising the Water Quality Guidelines for Coastal Marine Waters.

The Water Quality Guidelines for Coastal Marine Waters is an important source of information with regards to norms and standards required for discharges into coastal waters. DEFF required that all authorised discharges are compliant with the limits outlined in these guidelines, and holders of discharge authorisations are required to submit annual monitoring reports to DEFF in order for DEFF to track compliance with these guidelines.

DEFF: O+C have also begun to appoint regional representatives that form part of their newly established coastal monitoring unit. This unit will be monitoring a variety of coastal and oceanographic parameters, particularly focused on climate change. These parameters will include wave data, sea surface temperature as well as pollution monitoring. The regional representative for the West Coast is Trevor Coetzee (tcoezee@environment.co.za). The regional representative will be the primary link between the local authorities and the national DEFF and it is important that the WCDM and CLM work closely with the regional representative, particularly with regards to coastal pollution monitoring.

### **Air Quality monitoring and management**

Within the WCDM area of jurisdiction, ambient air quality monitoring is done by Saldanha Bay Municipality, comprising of full ambient monitoring stations, with one located in Saldanha and one in Vredenburg. A total of seven dustfall buckets have also been placed in strategic positions within the Saldanha/Vredenburg area. Ambient air quality monitoring stations are also operational at an industrial level, particularly in the more densely developed industrial area of Saldanha Bay. The following industrial plants currently undertake ambient air quality monitoring:

- Transnet Port Terminals (TPT): Two stations measuring PM10 and PM2.5;
- ArcelorMittal steel plant: One station measuring PM10, SO<sub>2</sub> and H<sub>2</sub>S. This station has been vandalised and is not operational;
- EXXARO Namakwa Sands: One station measuring PM10. Not operational due to vandalism.

Monitoring results from these industrial stations (TPT) are reported on a quarterly basis to the WCDM as well as to the West Coast Air Quality Working Group established to coordinate air quality matters in the WCDM area of jurisdiction. This working group is chaired by the WCDM.

The National Environmental Management: Air Quality Act 39 of 2004 (AQA) requires Municipalities to develop Air Quality Management Plans (AQMP) that set out implementation strategies to achieve the prescribed air quality standards. The WCDM and CLM have Air Quality Management Plans that are currently being reviewed and updated.

#### AQMP Steering Committee and Working Groups

Communication with CLM and the appointment of Air Quality Officers (AQOs) at this level have been identified as shortcomings for the effective management of the air quality function in the WCDM. It has been suggested that a Memorandum of Understanding be entered into with the CLM in order to coordinate this function properly. Air Quality Officers have now been designated at all five LMs.

A West Coast Air Quality Working Group (WCAQWG) has been established by the WCDM. The relevant working groups for air quality management meet on a quarterly basis prior to meetings by the WCAQWR. Issues such as air quality management, education and raising awareness and compliance monitoring and enforcement can receive the required attention at these meetings and be reported to the provincial structure. Within the WCDM area of jurisdiction, a Joint Municipal Air Quality Working Group was established in February



2015 between the WCDM and five LMS. The working group meet quarterly and items of mutual interest are discussed.

### **Oil Spill Contingency Plans**

A number of Oil Spill Contingency Plans have been developed by various organs of state within the CLM. Oil Spill Contingency Plans for the West Coast Zone was developed by DEFF in 2012.

The oils spill contingency plan outlines the roles and responsibilities of each sphere of government with regards to managing an oil spill incident. The primary responsibility for managing oil spills lies with the South African Maritime Safety Authority (SAMSA) with support from DEFF, DEA&DP and local government. According to the West Coast Zone Oil Spill Contingency Plans, local government, and in this case the CLM, is responsible for:

- taking specified measures to prevent or remedy adverse effects of the spill on the coastal environment;
- providing assistance in the form of supervision, labour, transport and equipment for the protection and clean-up of their beaches, estuaries and other areas under their jurisdiction; and
- making arrangements with local Traffic and Police Officers to ensure traffic and crowd control in the vicinity of the impacted area.

It is the responsibility of the WCDM to provide support and resources to the CLM where required.

### **Estuary Management Plans**

As part of the EMPs that have been developed for the three estuaries within the CLM, resource monitoring protocols have been developed to monitor both abiotic and biotic components of the estuaries. The water quality monitoring activities associated with the EMPs are supported by the WCDM as well as DWS.

### **Blue Flag for beaches**

Blue Flag for beaches is an international annual award which focuses on the environmental management of our coastline and coastal waters to help tourism growth and development. Although it is a voluntary eco-label, it has become an international symbol of quality for beaches and marinas that achieve a standard of excellence in the areas of safety, amenities, cleanliness, environmental information and environmental management. South Africa was the first country outside Europe to be granted Blue Flag accreditation for its beaches, and the programme has been locally managed by WESSA since 2001 in partnership with participating coastal local municipalities. The strict criteria of the programme are set by the international coordinators of the Blue Flag campaign in Europe, the FEE (the Foundation for Environmental Education) (WESSA, 2018).

The Blue Flag Programme requires that beaches achieve excellent bathing water quality. The bathing water quality standards have been based on the most appropriate international and national standards and legislation.

Blue Flag has one minimum global standard for water quality, and these standards must be adopted unless stricter national standards are already in existence, e.g. testing for total coliform bacteria. In that case, the beach must comply with the more demanding national standards for bathing water quality.

In the WCDM, there used to be 2 beaches that had been awarded Blue Flag status, namely Yzerfontein (2009-2011) and Strandfontein (2012-2015). Currently there are no Blue Flag beaches in the CLM.

### **Working for the Coast**

Waste, in this case litter/rubbish, along the CLM coastline is managed through the Working for the Coast (WftC) initiative, which is a national programme. WftC are responsible for collecting waste from the coastal environment and maintaining facilities at all the accessible beaches. It is important that the CLM uses the WftC as a tool to aid them in ensuring that beaches are kept clean.

### **Operation Phakisa**

Operation Phakisa was launched in 2014 as a programme aimed at accelerating government's development targets. The Oceans Economy programme anticipates that the oceans have the potential to contribute up to 177 billion rand to the gross domestic product (GDP) of South Africa and create just over one million jobs by 2033 (Operation Phakisa, 2018). These projects, aimed at maximising economic benefits from the coastal and marine environments, plans on establishing Marine Water Quality Laboratories to analyse samples and create an environmental monitoring network along the 3 900 km of South African coastline (Caren George, 2018).

As one of the enablers, the Minister launched the South African Marine Research and Exploration Forum (SAMREF) to facilitate new collaborative offshore studies to increase knowledge of the offshore marine environment related to renewable energy potential, marine biodiversity and ecology, climate change and ecosystem functioning (DEA, 2018).

The National Pollution Laboratory (NPL) located at Walter Sisulu University (WSU) has been established and work will soon be commencing. The laboratory will monitor water quality along the South African coast (DEA, 2018).

**Based on the above as well as feed-back from stakeholders, the future needs in terms of coastal pollution monitoring and management are as follows:**

- The CLM needs to monitor the quality of the effluent from WWTW more carefully and ensure that the infrastructure is appropriately maintained to prevent contamination of the coastal environment by untreated sewage.
- The WWTW effluent water quality data must be made publicly available in order to ensure transparency.
- DEFF need to complete their Coastal Waters Discharge audit and make decisions on the CWDPs that have been applied for. DEFF then need to ensure that they monitor the permit holders on an annual basis to ensure compliance with the permit conditions.
- DEFF need to address the potato offcut issue at Lamberts Bay. Engagement with CapeNature is needed to ensure that the birds return to their natural behaviours.
- The WCDM and CLM must finalise their updated Air Quality Management Plans and implement the plans.
- WCDM and the CLM must, where possible, engage with the communities in the municipality to assist with monitoring non-compliances to permits and authorisations. Essentially, engage the community as "environmental watch dogs".
- WCDM must continue to monitor AEL holders to ensure compliance with the license conditions and must consider the cumulative impact of air emissions when approving an AEL application.
- The WCDM and CLM must include the tribal authorities in their various environmental and coastal monitoring forums.

- The CLM must implement recycling programmes in all coastal towns and must ensure that separated waste is collected regularly.
- WCDM must continue to implement the Oil Spill Contingency Plan when required, and must have these plans developed for the CLM.
- WCDM must improve stormwater management by developing a stormwater bylaw that restricts the discharge of certain substances into the general stormwater system. The Buffalo City Metropolitan Municipality in the Eastern Cape have developed a Trade Effluent By-law that could be used as an example.
- All dredging activities must receive the appropriate authorisations prior to dredging activities commencing.
- Reinstate the Blue Flag beach programme by obtaining Blue Flag Beach status at least at one of the beaches in the WCDM (e.g. Strandfontein).
- CLM must ensure that they utilise the WftC programme in order to obtain support and capacity to clean up beaches. A CLM official must be able to monitor the effectiveness of the beach clean-up activities by supervising the WftC team.
- CLM needs to move away from allowing the use of septic tank systems and move towards the installation of conservancy tanks instead.
- The CLM are responsible for cleaning organic matter as well as litter off of beaches and must respond to washed up kelp/seaweed and animals before it becomes a health hazard due to decay.

### 3.10 Theme 9: Socio-economic development

The coastal zone is important to society, and the economic development of all coastal communities. It is important that the socio-economic environment along the coastline is well managed and supported to ensure that all coastal communities receive the full benefit of the resources that the coastal zone provides. The identification and exploitation of sustainable livelihood opportunities is equally important to capitalise on the benefits offered by the coastline.

The Cederberg is located on the West Coast of the Western Cape Province. The total area of the Cederberg Municipality is eight thousand square kilometres (8,007 km<sup>2</sup>) which represents 25.7% of the West Coast District. The Cederberg Municipal area stretches from the Atlantic coast in the west to the Cederberg on the east, the Hantam and Matzikama in the north and Witzenberg and Bergrivier in the south.

#### **3.10.1. Contribution to Provincial GDP and demographic profile**

In 2018, the coastal municipalities of the CLM contributed 0.68 % to the Provincial Gross Domestic Profit (GDP). The CLM has a population of 52 949 people (WCSocr, 2019) and there is a total of two coastal settlements. Each coastal settlement has its own key socio-economic drivers that contribute towards the CLMs overall Gross Domestic Profit (GDP) (WCSocr, 2019). The CLM has a number of socio-economic characteristics that contribute to the WCDM and Provincial GDP that are discussed in Table 5 below.

**Table 5: The socio-economic characteristics of each of the CLM**

Population (StatsSA, 2016)	Unemployment rate (IDP, 2017-2022)	Average household income (IDP, 2017-2022)	Coastal settlements	% Contribution to Provincial GDP for 2018 (WCSocr, 2018)	Key socio-economic drivers along the coastline
52 949	10.5% (StatsSA, 2011)	51.4% of households within the low-income bracket	Elands Bay (coastal village)	0,68%	Elands Bay functions as a low order service town and holiday town.

Population (StatsSA, 2016)	Unemployment rate (IDP, 2017-2022)	Average household income (IDP, 2017-2022)	Coastal settlements	% Contribution to Provincial GDP for 2018 (WCSocr, 2018)	Key socio-economic drivers along the coastline
		of up to R50 613 per annum.	Lamberts Bay (coastal town)		The fishing industry forms the main economic activity in the LM. The Saldanha-Sishen railway divides Elands Bay, restricting access between the northern and southern sections of the town. The harbour at Lamberts bay plays an important role in the fishing industry in the LM.

### **3.10.2. Existing ports and harbours**

Within the CLM, Lamberts Bay Harbour is now home to only a limited number of small fishing vessels. Fishing activities are mostly centred on line fish, West Coast Rock Lobster and small volumes of pelagic species and hake. Subsistence fishing remains important due to the socio-economic profile of the region. Both recreational and commercial West Coast Rock Lobster fisheries are still very active at the harbour, albeit not to the same extent as it was in the past due to the heavily depleted status of West Coast Rock Lobster (Aurecon, 2017c).

### **3.10.3. Western Cape Small Harbours: Spatial and Economic Development Frameworks**

There are five fishing harbours in the WCDM that are owned by the Department of Public Works (DPW) and administered by DEFF. The following harbours in the WCDM have been earmarked to benefit from this project:

- Saldanha Bay;
- Pepper Bay;
- St Helena Bay;
- Laaiplek; and
- Lamberts Bay.

This study identified that these harbours have four main functions which are:

1. Marine Access Points (inter-modal exchange points);
2. Key point in Fish Produce Value Chain (farms and fresh produce markets);
3. Public Space and Amenities (parks, beaches, community recreational facilities, etc.); and
4. Business/Commercial Nodes (shopping centres and industrial business parks).

To date, Spatial and Economic Development Frameworks (SEDF's) for the five Fishing Harbours within the WCDM have been completed and the report was finalised in 2014. To

date, all bathymetry surveys of the identified harbours have been completed as well as a condition assessment for each harbour.

#### **3.10.4. Tourism assets in the CLM**

Tourism in Cederberg is the fastest growing industry in the LM. The natural environment and assets place Cederberg in a favourable position to become one of the leading destinations for adventure tourism. In recent years the Pakhuys region has distinguished itself as one of the best bouldering destinations in the world, drawing predominantly overseas visitors who stay in the area for longer periods.

The Cederberg LM aims to mainstream community-based tourism initiatives by implementing a portfolio of marketable tourism products and services in marginalized, rural communities of the Cederberg (e.g. Elands Bay).

These tourism assets need to be managed effectively in order to increase the number of people visiting these areas. The IDP for the CLM also identifies projects to be implemented to attract more visitors. These projects within coastal areas must be pulled through into this CMP.

#### **WESSA Green Coast**

The National Development Plan (NDP) outlines South Africa's strategy to tackle socio-economic development in the country. It provides a framework for Government, private sector and citizens to work together to stimulate and accelerate economic growth and provide solutions to the challenge of unemployment, poverty and inequality. In an attempt to fast track the objectives of the NDP, Operation Phakisa was developed in 2014 as a "fast results delivery programme to help implement the National Development Plan". The South African coastline has been identified as a crucial starting point for this strategy as Government aims to realise the potential that the coastline offers as an untapped resource. Operation Phakisa states that the oceans have the potential to contribute up to 177 billion Rand to the Gross Domestic Product (GDP) and create approximately 1 million jobs by 2030.

The Green Coast award has been developed to recognise those coastal sites which are managed according to standardised criteria and able to maintain a consistent improvement of conditions at the site. Green Coast sites aim to protect one of three main coastal themes namely; sensitive habitats, species and cultural heritage. The Green Coast award allows local municipalities to sustainably manage those coastal sites outside of traditionally developed swimming beaches. The award has been developed in a way that will allow for adequate monitoring and protection of the site, whilst also allowing for the development of low impact coastal tourism, should there be potential for this. A Green Coast site is not just another stretch of protected coastline but rather a platform for collaboration, innovation and local public participation.

The Green Coast criteria include aspects of basic ecological monitoring which allow for the setup of exciting new citizen science initiatives. The Green Coast sites with their unique habitat, species and cultural heritage also provide ideal locations for outdoor learning and exemplary environmental education activities. The objectives of Green Coast are two-fold. Firstly it aims to provide a system for sustainable management of sensitive coastal spaces and secondly, to engage local citizens to become involved in management of these unique sites.

In an attempt to now extend this positive influence along the coastline to non-swimming beaches, WESSA will work closely with existing municipal partners to identify new coastal sites to manage under the Green Coast guidelines. The main themes covered by the Green Coast award include: Environmental management; ecological monitoring; tourism management and environmental education. A local Green Coast site committee will oversee the management of each site and this committee should ideally have representatives of all stakeholders involved in the management of the site.

Other WESSA Green initiatives include the following:

**Eco-Schools programme:** This programme is aimed at creating awareness and action projects around environmental sustainability at schools and in their surrounding communities. The programme improves education through curriculum-aligned environmental learning which helps learners develop practical, useful classroom and outdoor everyday skills, equipping them to live sustainably in the future.

**The Green Key award:** This initiative is a leading standard of excellence in the field of environmental responsibility and sustainable operations within the tourism industry. This prestigious eco-label requires that sites adhere to the strict criteria stipulated by the international Foundation for Environmental Education (FEE), with regard to water, waste, energy, food and beverage, and other areas of operation. A Green Key is an establishment's promise to its guests that by opting to support such an establishment, they are helping to make a difference on an environmental and sustainability level.

It is strongly suggested that the WCDM, together with CapeNature and the coastal LMs, support this initiative by identifying areas that meet the criteria stipulated in order for a section of coast to receive the Tourism Green Coast eco-label. Suitable sites include unspoilt beaches and non-urban, wild spaces with minimal infrastructure. To achieve Green Coast status, locations will have to comply with a set of site-specific requirements and inspection criteria. LMs will be responsible for upholding the criteria, assisted by WESSA members who will provide specific support with the collection and monitoring of baseline ecological info.

### **3.10.7. Small Scale Fisheries Policy**

Many communities along the Western Cape coast rely on the coastline for subsistence purposes. The recommended definition of subsistence fishers according to the Policy for the Small-Scale Fisheries Sector in South Africa are poor people who:

- personally harvest marine resources as a source of food or to sell it to meet the basic needs of food security;
- operate on or near to the shore or in estuaries,
- live in close proximity to the resource,
- consume or sell the resources locally,
- use low technology gear (often as part of a long-standing community-based or cultural practice), and
- the types of resources they harvest generate only sufficient returns to meet the basic needs of food security (Branch, et. al. 2002).

The first democratic election in South Africa in 1994 was followed by a revision of many policies and laws, with the aim of correcting past political and social inequalities. One change that was made was the promulgation of the Marine Living Resources Act (MLRA), which recognised the previously marginalized subsistence fisheries as a formal fishing sector for the first time (Harris, et. al. 2002).

Interim Relief Measures (IRM) have been in place since an equality court order was issued to the DEFF in 2007. The IRM permit system was originally intended to provide temporary relief to small-scale fishers who did not benefit from Long Term Rights according to policies developed by DEFF in 2005, while the new Small-Scale Fisheries Policy was being drafted. However, the Small-Scale Fisheries Policy is in the process of being implemented and the IRM permit system continues to be utilised by DEFF to allow for the provision of legal access to limited marine resources for community fishers in the Northern and Western Cape (WWF-SA, 2015).

The main species that communities involved in the IRM are allowed to harvest are West Coast rock lobster, linefish (snoek, yellowtail, and cape bream), white mussels and oysters, subject to various respective limits. West coast rock lobster is the most valuable resource to the communities along the West Coast of South Africa. For the last two seasons, the Department allocated 235 tonnes of lobster to these communities, of which most was officially reported as caught. However, the actual catch data is likely to be far higher than what is reported due to high levels of under-reporting (DAFF, 2017).

In terms of the number of permits issued for small scale fisheries operations and what percentage of these have been issued to communities that were previously deprived of these rights, the WCSoCR indicates that forty-five communities are currently involved in IRM, which includes two communities in the Northern Cape. The total number of people supported through the dispensation is 1998 but is not consistent due to fishers passing away or finding other forms of work, while communities also regularly include new fishers on the IRM list (DAFF, 2017).

### **3.10.8. Renewable Energy opportunities**

Renewable energy resources within the CLM include wind resources, wave energy, biomass waste, solar- and hydro energy. Although these energy resources have potential to be utilized, it is acknowledged that within the WCDM, renewable energy production is still in its infancy. The most viable resources within the CLM include:

#### **Wind**

Wind resources in the West Coast District are substantial and comparably high in relation to the rest of the country. The region also leads the country in terms of implementation experience with regards to the establishment of several wind farms throughout the WCDM, from Darling and Hopefield in the south to the ESKOM Sere wind farm north of Vredendal.

#### **Wave energy**

Wave energy development is still in its early stages but holds much promise as a source of renewable energy. The CLM has a long coastline and preliminary results show that wave energy resources are substantial. However, no large-scale commercial projects are yet in place. The Western Cape Provincial Government encourages private developers to explore options for large scale electricity generation of the cape coastline. However, potential environmental impacts that this technology may have on marine ecosystems must be taken into consideration.

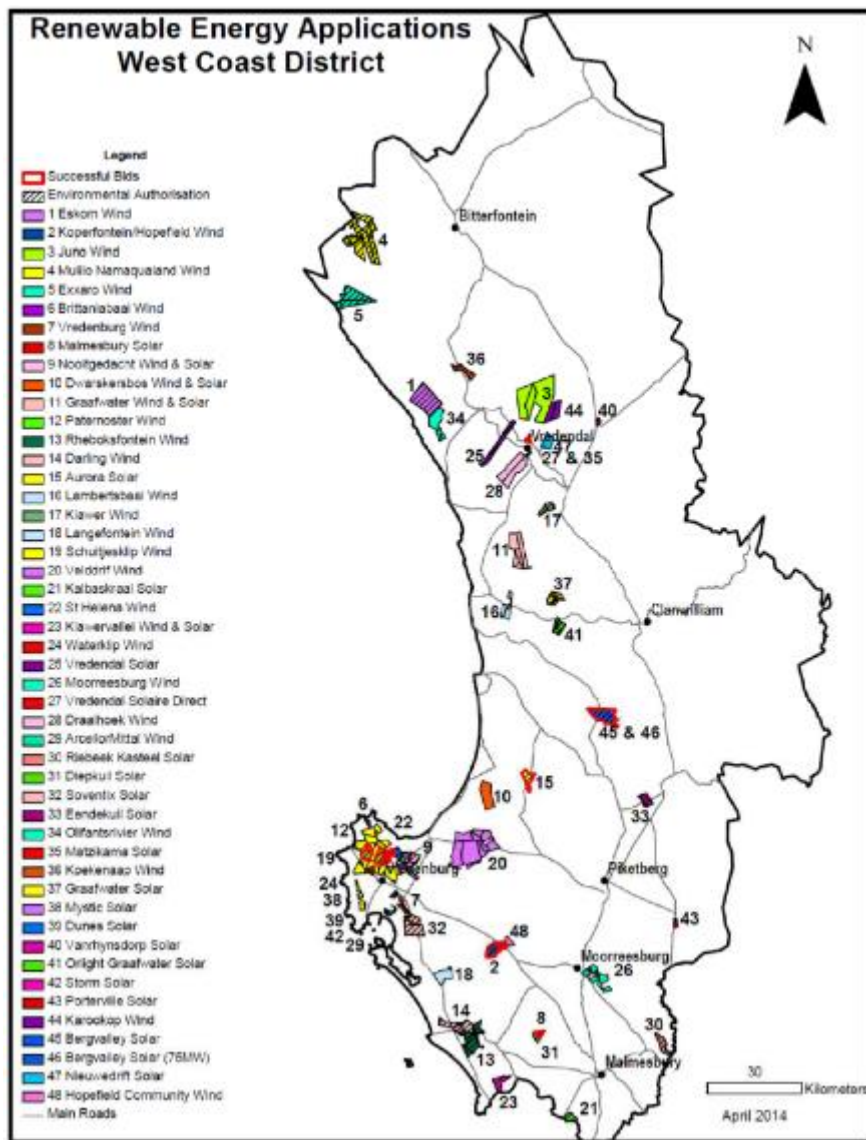


Figure 22: Existing and Pending Renewable Energy Environmental Applications (WCDM SDF, 2014)

### Renewable Energy Development Zones (REDZ) and Strategic Transmission Corridors

A Strategic Environmental Assessment was undertaken in 2015 by DEFF that aimed to identify Renewable Energy Development Zones that were of strategic importance for large scale wind and solar photovoltaic development in South Africa. In 2017, Cabinet approved the REDZ based on the recommendations of the SEA. As a result, applications for Environmental Authorisation for large scale wind and solar energy facilities need only follow a Basic Assessment procedure in terms of Section 19 and 20 of the EIA Regulations (2014, as amended).

While none of the REDZ fall within the CLM, the CLM falls within the Western Strategic Transmission Corridor.

**Based on the above as well as feed-back from stakeholders, the future needs in terms of coastal socio-economic development are as follows:**

- WCDM and CLM must ensure that they engage with the Western Cape Small Harbours: Spatial and Economic Development Framework and incorporate the programme into their IDPs and SDFs.



- CLM must implement the projects outlined in the IDP and SDFs that relate to coastal development and conservation.
- WCDM and CLM must ensure that they incorporate the promotion of aquaculture into their Local Economic Development (LED) plans. A feasibility study should also be conducted to determine the potential for a formal partnership between the Municipalities and the Aquaculture Operators to directly involve communities so that they can benefit through skills development and employment opportunities.
- The WCDM must engage with the CLM to assist them in participating in the WESSAs Green Coast project.
- The DEFF must ensure that community development is catered for in the ADZ business model. Community opportunities must include skills transfer and employment.
- DEFF need to finalise the Small-Scale Fisheries Policy and implement the allocation of rights in an appropriate and transparent manner.
- DEFF Regional Offices need to consider supporting communities with regards to assisting them with the application process for fisheries permits. Many communities are far from Cape Town and do not have the money for transport. The Regional officers must consider receiving and processing applications for fishing rights in the WCDM.
- The WCDM and CLM must incorporate the development of the renewable energy sector into their IDPs, SDFs and LEDs in accordance with the Renewable Energy Development Zones (REDZ), provided that Environmental Authorisations have been issued for new renewable energy projects, or are stipulated as a clear requirement in the IDPs and SDFs.

### **3.11 Theme 10: Awareness, education, training, capacity building and information**

Creating awareness of the importance of the coastline through education, training and capacity building will help to facilitate the cooperative management of the coastal zone, which is required to successfully implement an integrated coastal management strategy. The generation of internal capacity within the CLM, to effectively manage the coast is also vital in ensuring that the objectives and strategies set out in the CMP are implemented. Awareness of the coastal zone among various key stakeholder can be achieved through the facilitation of knowledge production and exchange, the promotion of knowledge sharing of coastal issues, and instilling a sense of ownership of the coastal zone amongst all stakeholders.

#### **3.11.1. National Oceans and Coastal Information Management System**

DEFF and the Department of Science and Technology (DST) have initiated the National Oceans and Coastal Information Management System (OCIMS) for South Africa. The OCIMS project forms part of the Operation Phakisa Marine Protection Services and Oceans Governance workstream Initiative 6 and is endorsed by Cabinet.

OCIMS will support a variety of oceans and coastal initiatives by providing information and decision support to key stakeholders involved in the day-to-day management of South Africa's oceans and coasts. The project outcomes will be achieved through the development of an Information Management System (IMS) that will integrate current and future oceans and coastal systems, information and expertise into a user-friendly and cost-effective IMS for the benefit of relevant stakeholders. In June 2015, the CSIR was nominated by DEFF as a service provider to facilitate the implementation of the project and to co-develop OCIMS.

The OCMIS website provides a wide range of resources that will enable decision makers to access existing data, policies and programmes related to the coastal and marine environment. Training guidelines and manuals that have been developed by various

organisations for different coastal activities are available for download as well as all relevant coastal and marine legislation, policies and guidelines (www.ocims.gov.za).

The following Decision Support Tools are also available on the OCMIS webpage that can be used to assist with informed decision making as well as provide information to the public:

### 1. Harmful Algal Bloom Decision Support Tool:

The HAB Decision Support Tool (DeST) provides a capability for monitoring and assessing risk of HAB events for the South African coastal area to approximately 50 km offshore. Figure 25 is a screenshot of the HAB DeST.



Figure 25: A screenshot of the HAB DeST from the OCIMS website.

### 2. Coastal Operations at Sea Decision Support Tool

The Coastal Operations at Sea (CoastOps) DeST provides a capability for monitoring and predicting ocean and sea state variables in the coastal ocean using state-of-art forecasts of winds, currents and waves, which are provided by numerical models that simulate and predict ocean and atmospheric conditions.

### 3. Marine Spatial Planning Support Viewer

Marine Spatial Planning (MSP) Support Viewer DeST provides a consolidated view of data sources that can inform MSP and the development of Marine Area Plans (MAPs). The MSP Support Viewer DeST contains relevant and accessible spatial data from authoritative sources and use a federated data source approach for data ingestion.

### 4. Integrated Vessel Tracking Decision Support Tool

The Integrated Vessel Tracking (IVT) DeST provides the capability of monitoring vessels movements based on both transponder information (such as Automatic Identification Systems) as well as vessels detected using Search and Rescue data, and provides notifications when vessels are within Marine Protected Areas (MPAs).

### 5. Water Quality Decision Support Tool

The purpose of the Water Quality DeST is to provide support to coastal managers' decision-making processes by providing a consolidated view of various remote-sensed and in-situ sources of water quality data.

### **6. Coastal Flood Hazard Decision Support Tool**

The Coastal Flood Hazard DeST identifies coastal areas at risk of flooding and aids in facilitating climate change adaptation. Based on the data available for South Africa, as one example the DeST can provide disaster managers, spatial planners and the general public a way of identifying coastal areas that are potentially at risk of flooding.

### **7. Department of Environmental Affairs Coastal Viewer**

Information regarding the Coastal Public Property (CPP) and Coastal Protection Zone (CPZ) can be found in this viewer. This can support decision making processes by focussing on access to the coast, protecting sensitive coastal ecosystems and protecting people, property and economic activities that may be affected by dynamic coastal processes.

### **3.11.2. South African National Biodiversity Institute (SANBI)**

SANBI has developed an online portal where decision makers and other public and private entities can freely access spatial data that relates to biodiversity in South Africa. The Biodiversity Geographical Information System (BGIS) website houses all biodiversity related spatial data and their associated technical reports.

The following information and services are made available by the SANBI BGIS website and team:

- Freely downloadable biodiversity-related spatial datasets;
- Each spatial dataset is accompanied by metadata. Metadata describes the spatial datasets and provides the user an idea of its validity;
- An easy to use mapping platform that allows users to visualise important biodiversity features. The mapping platform allows users to add their own data, switch layers on and off, add annotations, and print maps;
- A pdf report listing all the biodiversity features in an area of interest; and
- The BGIS team offers free, quarterly BGIS training. The training focuses on how to efficiently use the website to make informed land-use decisions.

### **3.11.3. Formalised coastal education and awareness campaigns**

The objective of awareness and education campaigns is to reduce the impacts on the coastal environment relating to prevalent coastal pressures such as land use, pollution (such as solid waste) and resource exploitation.

A number of environmental education (EE) programmes are active in the Western Cape, with the WCDM, but not the CLM, actively participating in these programmes. Examples of coastal programmes that are implemented in partnership with government and non-profit organisations (NGOs) include:

- Working for the Coast programme, implemented by the DEFF and is aimed at ensuring access to pristine beaches and a well conserved coastline.
- International Coastal Clean-up, which is an initiative in partnership with volunteer organisations and individuals around the globe. It provides an opportunity to encourage people to remove waste and litter from beaches, estuaries and rivers, identify the sources of debris and change human behaviours regarding marine litter. In South Africa this

initiative is managed by PlasticsSA and KZN Wildlife, and on one occasion over 3000 people collected over 7 tonnes of litter off 121km of the South African coastline.

- Youth Environmental Services Programme, the Government initiated the Youth Service Programme (YES) as a Presidential programme in 2003. Its aim was to respond to the multiple needs of young people which enable them to access new opportunities for employment, income generation, skills development and personal development while contributing to the reconstruction of South Africa. The Youth Environmental Service entails the involvement of unemployed young people in activities which provide environmental service that benefits the community whilst they are also provided with opportunities for personal development, accredited training and exit opportunities.

The DEA&DP, as the designated lead agent for coastal management in the Western Cape, promote and support environmental awareness and education amongst the people of the Western Cape through Environmental Calendar events and programmes, particularly the International Coastal Clean-up and National Marine Month activities. These initiatives are annual events and are aimed at raising environmental awareness in a broader sense and the WCDM work together with the DEA&DP to roll out these programmes within the region (WCSocr, 2018).

The WCDM, with support from DEA&DP, promotes and implements the annual National Marine Week programme, which highlights the importance of oceans and the role they play in the life of all South Africans, as well as the Coastal Clean-up week. Typically the Environmental Calendar includes the following events, and the WCDM and the CLM are encouraged to promote and become involved in these :

- World Recycling Day
- Earth Hour
- Earth Day
- World Biodiversity Day
- World Environment Day
- World Ocean Day
- International Coastal Clean-up Day
- Marine week
- International Day of Climate Action
- World Fisheries Day

#### **3.11.4. National and Provincial training initiatives**

A comprehensive understanding of the Integrated Coastal Management Act (ICMA) forms an integral aspect of coastal management for implementing agents and coastal officials. The DEA&DP have provided training on different aspects of the ICMA, including how ICMA integrates with other legislation (WCSocr, 2019). The training that the DEA&DP have facilitate since 2013 include the following:

Year	Date	Type of training
2013	20 November	DEA&DP Estuaries Workshop
2014	18 February	Estuarine Management Chairpersons Forum
2015	19 March	ICMA/SPLUMA
2015	26 May	ICMA- support workshop
2016	1-2 March	Western Cape Integrated Management Act Training
2016	14-15 March	Environmental Management Framework Workshop
2016	17 November	ICMA with focus on Environmental Governance

Year	Date	Type of training
2017	1-2 March	ICMA with focus on Estuaries
2017	03 March	ICMA with focus on CML
2017	6-8 March	Estuary Management Course
2017	15 June	Marine Mammal Stranding Workshop

Nelson Mandela University facilitates a three day "Management in Estuaries in South Africa" short course, with support from DEFF, on an annual basis. This course aims to capacitate government officials and private entities on estuarine management and the requirements of the national Estuarine Management Protocol. In order to enrol for this course, the following people can be contacted:

Dr Janine Adams  
 Director of the Institute for Coastal and Marine Research  
 Tel: 041 504 2429  
 Email: Janine.Adams@mandela.ac.za

### **3.11.5. Signage at beaches**

One of the most simple and effective ways to provide information to the public is through the erection of education-based signage at public access points along the coastline. The LMs are proactive in erecting a variety of signage at key areas that prohibit illegal dumping as well as illegal ORV activities. It is also important that signage be erected at high risk public areas, such as dangerous swimming beaches and public launch sites, that warn the public of dangerous conditions.

Through the WfC programmes, educational signage at beaches can be erected. The OCIMS Programme also has links to educational posters that follow coastal themes that are free and easy to access. These posters are available in English, isiXhosa and Afrikaans (<https://www.ocims.gov.za/documents/gen-info/>).

One of the issues that was raised during the initial stakeholder consultation was that members of the public do not know who to contact to report illegal or suspicious activities. It is suggested that signage be erected at key coastal access points that provide the contact details of the relevant officials (e.g. the Local FCO for fisheries transgressions, EMIs for ORV infringements, etc.).

### **3.11.6. Coastal related forums and committees**

A number of environmental and coastal-related forums and committees exist within the WCDM that aim to keep up to date with environmental and coastal issues within the district. It is important that the CLM are represented at these forums. However, many of these forums and committees are restricted to government and industrial organisations.

- In Saldanha Bay, an Air Quality forum has been developed that allows for members of the public to participate.
- The Estuary Advisory Forums allow for representatives of local community leaders and Rate Payers Associations to engage with the officials that are responsible for the management of these estuaries and the execution of the Implementation Plans.

### **3.11.7. Fisheries Community Development Workers**

DEFF have community development workers to ensure that there is constant interaction

and easily accessible relationships with local coastal communities. This function also aids in making sure that information about the operations and service deliver programmes of the department are easily cascaded to the coastal communities.

The roles and responsibilities of the community development workers include the following:

- Conducting community outreach programmes and events;
- Conduct situational analysis for each respective area;
- Establish community fishing forums;
- Establish database of all stakeholder and forums in their respective coastal areas;
- Act as a departmental representative/ link between the local coastal communities and the department, and
- Provide constant feedback on service delivery enquiries.

The details for the Fisheries Community Development Workers for the CLM are listed in Table 7 below.

**Table 7: the details for the Fisheries Community Development Workers in the WCDM**

Fisheries Community Development Worker	Areas of responsibility	Contact Number
Fransiena Magdalena Joseph	Doringbaai, Lambertsbaai and Elandsbaai	078 2380 109

### **3.11.8. Public libraries**

Public libraries are an underutilised resource when it comes to education and awareness. Each coastal town within the CLM has a public library that can be used to allow members of the public access to environmental and coastal literature. Public libraries can also be used as a resource for the municipalities to directly engage with communities to discuss and educate people on coastal issues.

One of the prominent issues that came out of the stakeholder engagement sessions was that the communities were not aware of coastal policies, programmes or legislation, and they do not all have access to online resources. A database of coastal and environmental literature can be made available at public libraries with a summary of the key resources being made available in more than one language.

**Based on the above as well as feed-back from stakeholders, the future needs in terms of awareness, education, training, capacity building and information are as follows:**

- The WCDM and CLM need to ensure that they are familiar with the OCIMS and what data can be obtained in terms of environmental monitoring and decision-making tools.
- The WCDM and CLM must provide links on the webpages to key coastal legislation, policies and programmes as well as sources of scientific data (e.g. OCIMS and BGIS).
- WCDM and the CLM must continue to engage with DEFF and DEA&DP with regards to upcoming training opportunities for officials. This must be done at the beginning of each year so provision can be made for training.
- The CLM Environmental Officer must attend the Estuary Management Training course that is implemented by NMU.
- Educational signage must be erected at all formalised coastal access points. The WftC programme must be used to support this.
- Signage must be erected at all coastal access points that provide the contact details of the relevant authorities that the public can report suspicious or illegal activities to.
- The WCDM and CLM must ensure that they continue to participate in the relevant committees and forums.
- The WCDM and CLM must engage with the FCDW in an attempt to assist the local communities with issues relating to the MLRA.

- The CLM must ensure that the public libraries have access to all the latest relevant environmental and coastal policies, plans and programmes.
- A formalised Coastal Education Strategy must be developed that utilises municipal resources such as public libraries, schools and own halls. Open days and information sharing sessions by representatives from relevant coastal authorities and organisations must be included. The Two Oceans Aquarium and CapeNature can assist with the implementation of some coastal education activities that may form part of this strategy.
- The DM and CLM need to support cultural education facilities. Support can be in the form of creating awareness of these initiatives by creating a link on the municipality's website or including them as part of their tourism plans.
- The WCDM, together with the CLM, should consider hosting an aquaculture summit that highlights the aquaculture industry in the region as well as the opportunities for community benefaction.
- The CLM must be available to support research institutions by providing data, if it is present, in a timely manner. Other ways that the municipalities can support research is by engaging with communities so that field visits can be facilitated without suspicion.
- The CLM should start to formalise an internship programme that allows undergraduate students the opportunity to obtain valuable work experience. Institutions such as the DPW, SETA and NRF can be approached to source funding.

## 4 ROLES AND RESPONSIBILITIES FOR COASTAL MANAGEMENT

### 4.1 Mandatory Roles and Responsibilities in terms of the ICMA

The ICMA is the central piece of legislation that defines the roles and responsibilities of various spheres of government, and other role players with regards to coastal management. While the roles and responsibilities of the National and Provincial government are important to consider at local government level, this chapter will only highlight roles and responsibilities pertaining to the CLM.

The ICM Act definition of a municipality is as follows:

- a metropolitan, district or local municipality established in terms of the Local Government: Municipal Structures Act (Act No. 117 of 1998); or
- in relation to the implementation of a provision of this Act in an area which falls within both a local municipality and a district municipality, means -
- the district municipality; or
- the local municipality, if the district municipality, by agreement with the local municipality, has assigned the implementation of that provision in that area to the local municipality.

Responsibilities assigned to Municipalities are automatically assigned to metropolitan and district municipalities (WCDM). If capacity exists at a local government level, district municipalities can assign certain provisions.

However, the functions and powers of municipalities are assigned in terms of sections 156 and 229 of the Constitution of the Republic of South Africa Act (No. 108 of 1996). When two municipalities have the same fiscal powers and functions with regard to the same area, an appropriate division of those powers and functions must be made in terms of national legislation, namely, the Municipal Structures Act (No. 117 of 1998). This Act assigns responsibility for the adjustment of the division of functions and powers, as well as the resolution of disputes arising between district and local municipalities to the MEC for local government. Any action initiated should be undertaken after consultation and via a notice in the Government Gazette. The Municipal Systems Act, (No. 32 of 2000) also provides a directive for the cooperation, support and assistance between district and local municipalities wherever possible.

Table 8 below summarises the key roles and responsibilities of the CLM in coastal management in terms of the ICMA.

**Table 8: The roles and responsibilities of the WCDM in coastal management in terms of the ICMA**

ASPECT	RELATED SECTION/S IN THE ICMA	BRIEF DESCRIPTION OF ROLE AND RESPONSIBILITY	ASSISTANCE FROM OTHER ORGANS OF STATE
Access to coastal public property	18, 19, 20	Ensuring that the public has equitable access to coastal public property by designating coastal access land, designate in by-laws strips of coastal access land to promote access to CPP along the coast, withdraw inappropriate coastal access land and follow an environmentally sensitive and socially	DEFF, DEA&DP, WCDM



		responsible process in designating coastal access land. This is the responsibility of the CLM.	
Coastal management line demarcation on zoning maps	25	The WCDM and the LMs must delineate coastal management lines in municipal zoning schemes maps and should participate in any provincial coastal management line determinations, but this is discretionary; alternatively can work with province to determine coastal management lines. Province will have to Gazette.	DEA&DP
Determining and adjusting coastal boundaries of coastal access land	29	The WCDM must ensure specified considerations are taken into account when determining or adjusting a coastal boundary of coastal access land.	DEFF, DEA&DP
Marking coastal boundaries zoning maps	31	The WCDM and CLM must delineate coastal boundaries determined or adjusted in terms of S26 on zoning scheme maps	
Municipal Coastal Management Programmes	48, 49, 55	The WCDM must prepare and adopt a municipal coastal management programme for managing the coastal zone or specific parts of the coastal zone in the municipality.	DEFF, DEA&DP
Consistency and alignment between Municipal Coastal Management Programmes and other statutory plans	51, 52	The WCDM and CLM must ensure that any plan, policy or programme adopted by an organ of state that may affect coastal management is consistent and aligned with municipal coastal management programmes, which in turn is aligned with provincial coastal management programmes and the national coastal management programme. Ensure that IDPs (including its spatial development framework) is consistent with other statutory plans [See S52 (1) (a-f)] adopted by either a national or a provincial organ of state.	
Consultation and public participation	53	The WCDM must ensure that adequate consultation and public participation precedes the exercising of a power by a municipality, which the ICMA requires to be exercised in accordance with section 53 of the ICMA.	DEA&DP
Implementation of land use legislation in the coastal protection zone	62	In implementing any legislation that regulates the planning or development of land, in a manner that conforms to the principles of co-operative governance contained in Chapter 3 of the Constitution, apply that legislation in relation to land in the coastal protection zone in a way that gives effect to the purposes for which the protection zone is established, as set out in section 17.	DEFF, DEA&DP, Cape Nature

## **4.2 Collaborative Partnerships for Coastal Management**

In order to effectively achieve integrated coastal management in the CLM, cooperative governance must be promoted. This requires that methods and approaches be developed to ensure the optimal involvement of all coastal stakeholders in decision making processes that are highlighted in the CLM CMP are achieved. The NCMP (2014) describes examples of collaborative partnerships that will be helpful in achieving the goals and objectives highlighted in the CLM CMP. The following will be useful:

- Involvement of communities in coastal management by engaging with community leaders, ward councillors, rate payers associations, etc.;
- The improvement of partnerships between government (both Provincial and National), civil society (through effective public participation) and the private sector (local businesses, corporate companies, etc.);
- The strengthening of relationships between communities and conservation agencies (DEA&DP and Cape Nature);
- Improved conflict-resolution mechanisms;
- Improved communication between spheres of government and institutional structures;
- Improved co-ordination between sectors within the WCDM (e.g.: Community Services, Engineering Services, etc.);
- Encouraging sustainable development that adheres to the various pieces related to environmental and coastal management;
- Inclusion of public review into land use planning processes;
- Reduction of bureaucracy of development proposals;
- Elevating the priority of coastal management by incorporating goals, objectives and actions into the WCDM IDP; and
- Integration of coastal management principals into plans and strategies for all sectors of the WCDM (SDF, IDP, LED, etc.).

## **4.3 Development of bylaws**

Section 11 of the Municipal Systems Act (Act No. 32 of 2000) clearly defines the executive and legislative authority that can be exercised by a municipality. Section 11(2) and (3) states the following:

- (2) A municipality may exercise executive and legislative authority within its boundaries only, but may, by written agreement with another municipality and subject to Chapter 5 of the Municipal Structures Act and other applicable national legislation, exercise executive authority in the area of that other municipality.
- (3) A municipality exercises its legislative or executive authority by— 5
- (a) developing and adopting policies, plans, strategies and programmes, including setting targets for delivery;
  - (b) promoting and undertaking development;
  - (c) establishing and maintaining an administration;
  - (d) administering and regulating its internal affairs and the local government 10 affairs of the local community;
  - (e) implementing applicable national and provincial legislation and its by-laws;
  - (f) providing municipal services to the local community. *or* appointing appropriate service providers in accordance with the criteria and process set out in section 78; 15
  - (g) monitoring and, where appropriate, regulating municipal services where those services are provided by service providers other than the municipality;
  - (h) preparing, approving and implementing its budgets;
  - (i) imposing and recovering rates, taxes, levies, duties, service fees and surcharges on fees, including setting and implementing tariffs, rates and tax 20 and debt collection policies;
  - (j) monitoring the impact and effectiveness of any services, policies, programmes *or* plans;
  - (k) establishing and implementing performance management systems;
  - (l) promoting a safe and healthy environment; 25
  - (m) passing by-laws and taking decisions on any of the above-mentioned matters; and
  - (n) doing anything else within its legislative and executive competence.

Bylaws can act as a tool to provide capacity for the CLM to enforce laws within the area of their jurisdiction. The Municipal Systems Act (Act No 32 of 2000) Section 12 states that only a member of a municipal council may introduce a bylaw in the council after which it must be published in the Provincial Gazette.

A District level by-law for coastal management will be developed as part of the CMP process. However, it is strongly suggested that the CLM also develop a by-law for coastal management as well. This will provide the CLM the legislative support to implement coastal management along its coastline.

### 5.1 The Cederberg Local Municipality Vision for the Coastline

South Africa's Constitution specifies the following objectives for local government:

- To provide a democratic and accountable government for local communities;
- To ensure the provision of services to communities in a sustainable manner;
- To promote social and economic development;
- To promote a safe and healthy environment; and
- To encourage the involvement of communities and community organisations in the matters of local government.

The vision of the CLM as expressed in its 2017 - 2021 IDP captures these objectives:

*“Cederberg municipality, your future of good governance, service excellence, opportunities and a better life”.*

The vision for the first generation CMP for the CLM has been carried through to the second generation CMP. The vision that was created for the first generation CMP still holds true and still bears relevance to the CLM coastline.

*We, the people of the Cederberg Municipality, celebrate the diversity, richness and uniqueness of our coast and its communities. The coastal environment will be effectively managed to ensure a balance between ecological integrity, sustainable livelihoods and cultural values.*

*The coast will be a safe, clean and healthy asset with equitable access and opportunities for all communities, now and in the future.*

The guiding principles for coastal management within the CLM, presented in Figure 26 below (NCMP, 2015), are closely aligned with the principals set out in this Western Cape CMP and the NCMP:

### Economic development

- Coastal economic development opportunities must be optimised to meet society's needs and to promote the well being of coastal communities through sustainable activities that do not compromise the long term opportunities for people living in the coastal zone.

### Social Equity

- Coastal Management efforts must ensure that all people, including future generations, enjoy the rights of human dignity, equality and freedom. Access to resources and benefits from the main opportunities provided by coastal resources must be made available to the public in an equitable manner.

### Ecological integrity

- The diversity, health and productivity of coastal ecosystems must be maintained and, where appropriate, rehabilitated.

### Holism

- The coast must be treated as a distinctive and indivisible system, recognising the inter-relationships between coastal users and ecosystems and between land, sea and air.

### Risk Aversion and Precaution

- Coastal management efforts must adopt a risk-adverse and precautionary approach under conditions of uncertainty.

### Accountability and Responsibility

- Coastal management is a shared responsibility. All people must be held responsible for the consequence of their actions or lack of actions, including financial responsibility for negative impacts.

### Duty of Care

- All people and organisations must act with due care to avoid negative impacts on the coastal environment and coastal resources.

### Integration and Participation

- A dedicated, co-ordinated and integrated coastal management approach must be developed and conducted in a participatory, inclusive and transparent manner.

### Co-operative governance

- Partnerships between government, the private sector and civil society must be built in order to ensure co-responsibility for coastal management and to empower stakeholders to participate effectively.

### Adaptive Management Approach

- Incrementally adjusting practises based on learning through common sense, experience, experimenting and monitoring.

**Figure 26: The guiding principles for coastal management in South Africa (NCMP, 2015)**

## 5.2 The Cederberg Municipality's Priorities for Coastal Management

The Situational Analysis (Chapter 3) describes the state of the CLMs coastal ecosystems. The Situational Analysis along with contributions from the stakeholder engagement workshops held in each coastal LM contributed significantly to the assessment of the status of coastal management within the CLM.

The CLM does not have the resources or the capacity to address every coastal issue or challenge with which it is faced. It is also good coastal management practice to focus available resources on those issues that are deemed to be significant and require urgent response and to embark on a "cycle of improvement".

Ten priorities for coastal management in the CLM have been identified and are listed in order of importance based on the outcomes of the stakeholder engagement process thus far:

### **Priority 1: Cooperative governance and institutional arrangements**

**Goal: To promote the integrated and cooperative management of the coastline by bringing all relevant stakeholders together and creating the capacity within the municipalities to effectively monitor and manage coastal activities.**

Cooperative governance is important in the implementation of coastal management objectives and strategies within the WCDM and the CLM. Effective cooperative governance requires:

- the participation of all stakeholders,
- coastal governance and co-responsibility,
- integrated, coordinated decision making,
- planning and development,
- the continued learning and practical implementation of programmes and processes, and
- ensuring compliance with international conventions, protocols and agreements.

It is important that the WCDM and the CLM work closely with the National and Provincial spheres of government to ensure that the municipalities are sufficiently capacitated and financially resourced to implement coastal management strategies.

### **Priority 2: Facilitation of coastal access**

**Goal: To ensure that safe and equitable access to the coast for all people within the WCDM is facilitated and maintained by identifying areas that require the provision of new coastal access points, and by ensuring that existing coastal access points, and the public amenities associated with them, are in a state that conforms with the requirements set out in the ICMA.**

The provision of public access to the coast is clearly addressed in the ICMA. Within the CLM, public access to the coast is not fully compliant with the relevant provisions in the ICMA, due to either a lack of public access or amenities, a lack of awareness on the impact of illegal activities on the coastal zone, the poor condition of existing access roads to coastal areas, and the lack of open communication between local communities and authorities with regards to the provision of public access within the coastal zone. Other challenges

facing the facilitation of coastal access in the CLM includes the alienation of land for mining and gated residential estates.

The lack of access to the coast could result in the loss of tourism opportunities, which in turn could limit economic benefits to communities. The provision and maintenance of public amenities falls within the mandate of the CLM. However, the WCDM needs to provide assistance to the CLM by assisting with the provision of resources to enable the CLM to promote coastal tourism.

### ***Priority 3: Coastal planning and development***

**Goal: To promote responsible coastal planning for the sustainable development of the WCDM coastal zone consistent with ICMA and other legislation and policy requirements, namely:**

- Coastal Protection Zone
- Coastal Management Lines
- Coastal Access
- Climate change risks
- Cape West Coast Biosphere Reserve
- Western Cape Biodiversity Spatial Plan

This can be achieved by incorporating appropriate spatial principles into the CLM SDF, defining and establishing urban edges for all urban nodes in the coastal zone and ensuring that climate change adaptation and mitigation measures are included in the planning process.

Marine and coastal resources are vulnerable to a variety of impacts from human activities, such as coastal urban and rural sprawl, uncontrolled and unmonitored development in coastal areas, and development that may pose a threat to eco-tourism through environment degradation.

There will inevitably be impacts due to the increasing development along the CLM coastline. However, in order to preserve the coastline and prevent degradation, it is necessary to incorporate all existing guidelines and frameworks into town and regional planning schemes, and broader spatial planning tools such as SDFs, for all development along the coastal zone.

### ***Priority 4: Compliance, monitoring and enforcement***

**Goal: To capacitate the municipalities with regards to monitoring and enforcing coastal management objectives and to encourage other organs of state who have a legal mandate to enforce coastal and marine legislation to become more visible around areas that are known to be hotspots for illegal activities in order to ensure the protection of marine and coastal resources for exploitation and degradation.**

The coastal and marine environments are sensitive and are prone to exploitation and degradation as a result of anthropogenic activities. Various legislation has been developed to protect these coastal and marine resources and need to be effectively implemented and enforced in order to preserve the integrity of these systems.

Illegal activities within the CLM need to be monitored and the relevant coastal and marine legislation needs to be enforced. There are a number of structures that make provision for

enabling organs of state to respond to these illegal activities, and the officials who have been mandated to enforce certain legislation need to be more visible in areas that are known to be hotspots for illegal activities. The municipalities also need to build their own capacity in terms of being able to ensure compliance with coastal management objectives.

**Priority 5: Estuary management:**

**Goal: The implementation of the estuarine management plans for the Jakkalsvlei Wadrif and Verlorenvlei estuaries in accordance with the National Estuary Management Protocol.**

**Goal: To engage with the Province for formally identify the RMAs for the estuaries in the WCDM and to facilitate discussions around the management of the smaller estuaries identified in the 2019 NBA.**

Estuaries are sensitive unique environments and are susceptible to pollution and degradation from sources upstream and the surrounding areas. The CLM does not have a large number of estuaries along its coastline and all the estuaries have estuarine management plans. It is important that the implementation strategies outlined in these EMPs are actioned in order to preserve their ecological integrity.

**Priority 6: Natural resource management:**

**Goal: To manage the terrestrial and marine environment in a holistic and coordinated manner where the municipalities acknowledge and support the goals and objectives of the protected areas and conservancies located within the region in order, to protect and preserve the unique biodiversity that characterises the CLM.**

The marine environment includes inshore and offshore reefs, sandy beaches and rocky shores. This area is an extremely valuable asset and resource due to its aesthetic value, ecological and biological diversity and economic potential. However, the integrity of marine resources is vulnerable to a variety of impacts largely resulting from varying levels of human induced pressure. Numerous plant and animal populations (such as abalone, limpets, mussels and lobster and other shellfish, seaweed, bait species, etc.) along the CLM coastline are subject to varying degrees of exploitation for subsistence and non-subsistence purposes, both permitted and un-permitted. Certain coastal communities along the CLM coastline are dependent on harvesting various marine organisms either for food or to generate an income. As described in Section 3.7.4. sand mining and heavy mineral mining takes place in certain areas. Both mining and the harvesting of resources seem to continue unchecked. The DMRE is responsible for checking environmental compliance in the mining sector, and DEFF is responsible for monitoring marine living resource use. The unsustainable use of these resources results in over exploitation and degradation of the marine and coastal zones. Both the WCDM and CLM need to engage with national departments to improve natural resource management along the West Coast.

**Priority 7: Heritage resource management:**

**Goal: To appreciate and conserve the rich heritage and cultural resources that are found within the CLM.**

The CLM is home to some of the oldest population groups in southern Africa and as a result, some of the most valuable heritage and cultural assets. These assets highlight the history



of the development of the South African people. It is important that these cultural groups, and the heritage and cultural assets that are associated with these groups, are acknowledged and that the cultural and heritage assets are formally protected to ensure that future generations can better understand and appreciate the rich and diverse heritage of South Africa.

#### **Priority 8: Pollution control and management**

**Goal: To better manage and monitor effluent generating infrastructure and facilities to prevent pollution of the coastal zone as well as ensuring transparency through the publishing of monitoring data.**

To achieve this goal the community needs to become custodians of their environment by supporting the authorities objectives regarding waste management. This can be achieved by reporting pollution events as well as reducing household pollution through adopting a reduce-reuse-recycle culture.

Existing waste management policies and plans need to be updated and better implemented to ensure that the municipalities fulfil their required mandates in terms of waste management; and the municipalities need to continue to support organisations that undertake continual monitoring of environmental conditions within the CLM.

The CLM has a number of processing facilities along the coastline that discharge into the coastal environment. It is important that all discharge and other pollution generating activities within the CLM are properly authorised and that they remain compliant with their authorisation conditions.

There are programmes that are being implemented by National government that afford an opportunity for the municipalities to capacitate themselves on waste management, thereby improving waste management along the coastline. These programmes are currently being underutilised by the LMs, it is their responsibility to ensure that these programmes are being effectively utilised. The most relevant of these programmes in the Working for the Coast Programme that focusses on cleaning the coastline and maintaining and developing new coastal infrastructure.

#### **Priority 9: Socio-economic development**

**Goal: To ensure direct involvement with the Western Cape Small Harbours Spatial and Economic Development Framework in order to promote community development. The Municipalities must also ensure that all projects identified in the IDP and SDF that relate to development of coastal areas are implemented within the IDP period.**

**Goal: To assist communities to benefit from the growing aquaculture industry by engaging with aquaculture operations with regards to community benefaction programmes.**

**Goal: To assist communities to benefit from the Small-Scale Fisheries Policy through engagement with DEFF in order to facilitate the fair and transparent allocation of fishing rights. DEFF also need to support communities in applying for fisheries permits as many community members cannot travel to Cape Town.**

**Goal: To promote and support renewable energy projects that are being proposed in the WCDM area, provided that environmental sustainability is achieved.**

The CLM coastal economy focusses harbours, fisheries and it is important that the further development of these industries is achieved in an environmentally sustainable manner. However, it is even more important to ensure that the coastal communities benefit from these activities, and the municipalities need to encourage private operators to support community benefaction objectives. To assist with this, the CLM should develop a list of community benefaction objectives and targets that the private sector is expected to meet.

Many coastal communities rely on the fisheries industry. Although the municipalities cannot directly control the issuing of rights and permits, they have a responsibility to support community development. Close partnership with DEFF is essential in ensuring the sustainable livelihood of coastal communities that rely on marine resources, and DEFF need to be able to support the more isolated communities who cannot travel long distances to secure their permits.

Renewable energy is a rapidly growing sector in South Africa, and a number of renewable energy projects are being proposed in the CLM. It is important that the WCDM and the LMs participate in the development of the sector, but they must ensure that the renewable energy projects do not come into conflict with the Municipality's environmental and biodiversity conservation programmes. Active involvement in the EIA process by both the WCDM and CLM is required to ensure this.

***Priority 10: Awareness, education, training, capacity building and information***

**Goal: Instil a sense of custodianship of the coast amongst all coastal communities through education, training and awareness of coastal conservation and management by creating a centralised, publicly accessible database of all municipal plans relevant to coastal management, coastal bylaws and coastal legislation and regulations. Update and maintain this coastal stakeholder database and develop a coastal education and awareness programme.**

**Goal: To ensure that all municipalities are aware of and have access to the new and updated environmental monitoring and decision-making tools; and that municipal planning officials are actively using these tools to ensure that town planning process are being undertaken in an environmentally responsible and informed manner.**

**Goal: To ensure that all municipal officials are adequately capacitated to manage environmental and coastal aspects through ensuring that all training programmes that are offered by National and Provincial government, as well as private organisations are utilised and attended.**

**Goal: To encourage education and skills development amongst graduates through the implementation of internship programmes; and to support research institutions be facilitating access to municipal data and assisting with field visits.**

The CLM coastline has unique biodiversity and has many beaches and rocky shore environments that are in good condition. It is important to conserve and effectively manage this natural heritage through awareness and education of the coastline. This requires the coordination and cooperation of the communities, authorities and private sector.

Municipal officials also need to be able to make informed and environmentally sound decisions with regards to spatial and town planning activities. A wide variety of data is publicly available and there is easy access to up-to-date environmental planning tools that

can assist decision-makers. It is important that environmental management officials are adequately capacitated to understand the management aspects and legislative tools that need to be utilised to effectively fulfil their mandates. National and Provincial government understand the need to provide training to municipal officials regarding environmental management, and offer training programmes on an annual basis. The municipalities need to ensure that they are aware of these programmes and need to attend where possible.

In order to secure capacity in the future, it is strongly recommended that the Municipalities utilise internship programmes where graduates are afforded the opportunity to gain valuable work experience within the environmental management context. Engagement with universities and funding organisations (NRF, DOPW, SETA) needs to be undertaken to facilitate this initiative. Municipalities must also assist research institutions in their research objectives by facilitating access to data and potential access to resources.

## **6 COASTAL MANAGEMENT OBJECTIVES AND ACTIONS**

The vision for the CLM coastline, along with the ten priority objectives identified in the previous chapter (Chapter 5) provides the focus for coastal management for the CLM. In order to address the ten objectives and to promote the implementation of the CLM CMP, specific management strategies and actions are required.

This chapter addresses the CLMs coastal management priorities, with respect to the ten coastal management objectives identified, with focus being drawn on the municipal mandate in terms of the ICMA, while ensuring alignment with the national and provincial management objectives as well.

Specific strategies and actions have been developed for the WCDM and the CLM to achieve the CLMs CMP objectives. These strategies and actions have been developed based on the Situational Analysis and stakeholder consultation.

## 6.1 Coastal Management Objective 1: Improve Cooperative Governance and Clarify Institutional Arrangements

PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
<b>1.1. Coastal Management Strategy: Clarification of institutional arrangements for coastal management and the facilitation of the generation of capacity</b>			
1.1.1. The Cederberg LM must formally appoint an environmental officer.	Formal environmental officer appointed.	2019/2020	WCDM Cederberg LM
1.1.2. Develop clear mandates for LM and DM environmental officers and adopt.	Mandate adopted by Council. Adopted mandate circulated to all environmental officers.	2020	WCDM & LM
<b>1.2. Coastal Management Strategy: The continued implementation and update the Coastal Management Programme</b>			
1.2.1. Update the LM CMP every five years.	Update of LM CMP commenced. Update of LM CMP finalised.	By June 2024 By June 2025	LM
1.2.2. Ensure that LM participates in the CMP development by providing comment within the stipulated timeframes and attending stakeholder workshops.	Record of comment received on all drafts of the CMP. Record of attendance to all relevant stakeholder sessions (attendance registers).	At time of CMP update At time of CMP update	WCDM & LM
1.2.3. Report on status of implementation of the CMP at the WCDM MCC meetings.	CMP update added as permanent item on the WCDM MCC agenda. Meeting minutes recording update report. Produce an annual report based on the quarterly inputs on the implementation of the WCDM and submit to DEA&DP.	Quarterly	WCDM & LM
<b>1.3. Coastal Management Strategy: The promotion of cooperative governance through engagement with all relevant coastal stakeholders</b>			
1.3.1. Organise and facilitate WCDM Municipal Coastal Committee (MCC) meetings every three months.	WCDM Coastal Committee meetings held every three months (minutes of meetings). Attendance registers indicating participants.	Quarterly	WCDM & LM
1.3.2. WCDM to ensure attendance at all PCC meetings to escalate key coastal issues	WCDM represented at PCC meetings (attendance register).	Quarterly	WCDM DEA&DP

PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
that require assistance from the province or National.	WCDM issues raised if necessary (minutes of meetings).		

## 6.2 Coastal Management Objective 2: The Facilitation of Coastal Access

PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
<b>2.1. Coastal Management Strategy: The implementation of the West Coast District Municipality Coastal Access Audit</b>			
2.1.1. Incorporate areas identified in the Coastal Access Audit to be addressed in municipal zoning schemes.	Coastal access priority areas from the Coastal Access Audit incorporated into municipal zoning schemes.	2024	LM
2.1.2. Status of implementation of WCDM Coastal Access Audit recommendations reported to the WCDM MCC.	Feedback recorded in MCC meeting minutes.	Continual	DEA&DP WCDM LM
2.1.3. The LM must develop and obtain approval of a coastal access bylaw.	Approved coastal access by law for each LM.	2020	WCDM LM
<b>2.2. Coastal Management Strategy: Engagement with the Working for the Coast Infrastructure Programmes</b>			
2.2.1. LMs to submit proposals for upgrading coastal access infrastructure to the WftC Programme for every funding cycle (2-years).	Proposal submitted to WftC.	2022 2024	WCDM LM
<b>2.3. Coastal Management Strategy: Addressing Public Coastal Access Issues through Town Planning and Resource Use Permits</b>			
2.3.1. The Impact of coastal access related to private township and resort developments needs to be assessed before the municipality approves any future development in the coastal zone. This can be done by identifying nearby formal coastal access points and determining whether sufficient coastal access is already available. If not, the following should take place: <ul style="list-style-type: none"> <li>• A request for servitudes to be put in place;</li> </ul>	Environmental Authorisations for private developments carefully consider coastal access issues, and comments on the EA or BA is provided.	Ongoing	WCDM LM

PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
<ul style="list-style-type: none"> <li>Request that access be incorporated as part of the title deeds; or</li> <li>Request that the developments oversee the maintenance of certain access areas.</li> </ul> <p>These can also be incorporated as mitigation measures in the EIA not only comment wise.</p>			
2.3.2. The LM must assess the impact of the coastal access point before approving its development. Determine if access infrastructure triggers an EIA or BA in terms of NEMA EIA regulations and appoint service provider to undertake the study to obtain environmental approval.	Suitable coastal access included in town planning approvals.	Ongoing	WCDM LM
2.3.3. Engage with DEFF to ensure that DEFF are aware of the location of formal coastal access points to prevent permits being issued for sections of beach that do not have access points in order to limit illegal access and ecological impacts associated with this.	Coastal access maps provided to DEFF.	2020	LM DEFF
<b>2.4. Coastal Management Strategy: The facilitation of the effective management of Public Launch Sites</b>			
2.4.1. The LM MUCT undertake a municipal capacity assessment to determine whether the LM has the capacity and resources to manage its designated Public Launch Sites.	Municipal Capacity Assessment for the Management of Public Launch Sites completed	2020	WCDM LM
2.4.2. The LM must appoint a service provider to management the Public Launch Sites that the capacity assessment shows requires	Service Level Agreements signed. Public allocation approved.	2021	WCDM LM DEA&DP



PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
the delegation of management responsibilities.			
2.4.3. The LM must undertake a "State of Public Launch Sites" assessment where key infrastructure upgrade requirements must be identified and implemented.	State of Public Launch Sites completed Infrastructure upgrades implemented	2020 2024	WCDM LM
2.4.4. The LMs must develop and obtain approval of Operational Management Plans for their designated Public Launch Sites.	Operational Management Plans approved by DEA&DP	2020	WCDM LM DEA&DP
<b>2.5. Coastal Management Strategy: Managing recreational and commercial events on beaches</b>			
2.5.1. A Standardised policy for the management of recreational and commercial events (including sporting events) needs to be developed and adopted.	"Policy for Recreational and Commercial Events of Beaches" adopted.	2020	WCDM LM
<b>2.6. Coastal Management Strategy: Ensuring public safety and security</b>			
2.6.1. Periodic updating of Disaster Management Plan with the incorporation of ICMA principals, findings and new legal requirements and improve the detection and response system.	Disaster Management Plans revised	Ongoing	WCDM
2.6.2. Increase patrols of coastal parking areas and expand Sector Policing approach.	Increased patrols to coastal parking areas and decrease in reported crime at these sites. Operational procedure revised to sector approach.	Ongoing	SAPS

**6.3 Coastal Management Objective 3: To Ensure that Coastal Planning and Development is Conducted in a Manner that ensures the Protection and Rehabilitation of the Coastal Zone**

PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
<b>3.1. Coastal Management Strategy: The incorporation of biodiversity, environmental and climate change policies into town planning processes</b>			
3.1.1. Update IDPs and SDFs to incorporate all updated coastal and environmental spatial plans, management legislation (based on boundaries in terms of ICMA), policies and plans.	Revised IDPs and SDFs	2023	WCDM LM
3.1.2. Consider climate change risks and the Coastal Management Lines when reviewing coastal development applications in order to prevent damage to coastal infrastructure.	WCDM CMP updated.	2019	LM
3.1.3. Coastal Management Lines must be incorporated into the SDFs.	CMLs indicated in SDF	2019	WCDM LM
<b>3.2. Coastal Management Strategy: Addressing coastal erosion within the coastal zone</b>			
3.2.1. Identify, prioritise, estimate costs, and rehabilitate areas in estuaries that are experiencing or are prone to erosion, as per the Estuarine Management Plans.	Priority areas needing rehabilitation identified. Degradation profiles compiled. Rehabilitation programme developed. Priority degraded areas restored.	2024	Western Cape Department of Transport: Public Works (WC DoT&PW) LM RMA
<b>3.3. Coastal Management Strategy: To address the high percentage of vacant plots and the low occupancy levels of residential dwellings.</b>			
3.3.1. Urban edges to be illustrated in SDFs to promote nodal development and appropriate densities beyond urban edges. SDF and other planning instruments to ensure infill development of the high percentage of vacant plots	Revised SDFs.	2020	LM

PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
within urban areas, as well as including zones for mixed-cost housing.			

#### 6.4 Coastal Management Objective 4: To Enhance Compliance Monitoring and Enforcement Efforts in the District

PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
<b>4.1. Coastal Management Strategy: Developing Local Authority Environmental Management Inspectorate and Marine Conservation Capacity</b>			
4.1.1. The LM must appoint one Grade 5 EMI within to enforce the legislative requirements in terms of NEMA.	One official identified for the LM. Budget allocated within the LM to send the identified official on the training programme. Training and function included in an official performance agreement.	2023	LM DEA&DP
4.1.2. At least one Honorary Marine Conservation Officer must be appointed in terms of Section 9 of the MLRA in the LM. CapeNature officials may also be appointed as Honorary Marine Conservation Officers.	One official identified in the LM. Budget allocated within the LM to send the identified official on the training programme. Training and function included in an official performance agreement.	2020	DEFF CapeNature LM
<b>4.2. Coastal Management Strategy: Facilitating and encouraging public reporting of illegal activities</b>			
4.2.1. The LMs must develop and erect signs at all coastal access points that provide the contact details of the local SAPS unit, Fisheries Control Officer, the Local EMI as well and the Local Environmental Officer.	Funding received from WftC. Signage design approved. Signage printed Information signs erected at all coastal access points.	2020	LM WCDM
4.2.2. Contact details of the local SAPS unit, Fisheries Control Officer, the Local EMI as well and the Local Environmental Officer must be made available on all Municipal Websites.	Contact details of relevant compliance officials indicated on the Municipal website.	2019	WCDM LM
4.2.3. Compliance officials need to be more visible in areas that are known to be hotspots for illegal activities, including poaching and illegal ORV driving.	Increased patrols by local compliance officials at known hotspots for illegal activities. A decrease in report of illegal activities.	Ongoing	LM WCDM DEA&DP DEFF
<b>4.3. Coastal Management Strategy: Facilitating the development and enforcement of Municipal by-laws</b>			

PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
4.3.1. Enforcement of existing municipal by-laws need to be improved, particularly with regards to water-sports. Local Authority officials need to act of reports received on transgressions.	Records of transgressions. Decrease in transgressions against municipal by-laws.	2019	LM
4.3.2. A Coastal Management By-law must be developed to assist the LM in the implementation of the CMP. This by-law must be adopted by Council and enforced by the Environmental Officer, EMI, Honorary Marine Conservation Officers, Fisheries Control Officers and SAPS.	Coastal Management By-law adopted.	2020	LM
<b>4.4. Coastal Management Strategy: Addressing the increase in illegal Off-Road Vehicle activity.</b>			
4.4.1. The LM must identify sites and then erect physical barriers to prevent illegal access to the coastal zone by ORVs. The Local Municipality, who is mandated to maintain beaches, must assess the location of illegal ORV access points as well as the extent of damage. This high priority access points must be physically barricaded.	Illegal ORV audit finalised. Budget allocated for the installation of physical barriers. Physical barriers at illegal ORV access points installed.	2021	LM WCDM DEA&DP
4.4.2. Signs must be erected at known illegal ORV access points with the contact details of the DEA&DP official responsible for enforcing ICMA in the WCDM area.	Funding received from WftC Signs erected at illegal ORV access points.	2020 2024	LM

## 6.5 Coastal Management Objective 5: To Ensure Effective Management of Estuarine Resources in the WCDM

PROPOSED IMPLEMENTATION STRATEGY	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
<b>5.1. Coastal Management Strategy: Facilitating the designation of Responsible Managing Authorities (RMA)</b>			
5.1.1. A formal MoU between DEA&DP, WCDM and the Cederberg LM needs to be signed identifying the designated RMA for the Jakkals and Verlorenvlei estuaries.	Signed MoU	2019	DEA&DP WCDM Cederberg LM
5.1.2. A formal MoU between DEA&DP, CapeNature, WCDM and the Cederberg LM needs to be signed identifying the designated RMA for the Wadrift estuary.	RMA identified Signed MoU	2019	DEA&DP CapeNature WCDM Cederberg LM
<b>5.2. Coastal Management Strategy: Supporting the development of Estuarine Management Plans for smaller estuaries in the WCDM</b>			
5.2.1. The LM, together with the WCDM will implement actions and engage with relevant authorities on the management of the smaller and micro-systems and development of the EMPs, where relevant.	Proof of correspondence. Minutes of meetings.	2020	WCDM LM DEA&DP
<b>5.3. Coastal Management Strategy: Facilitating the implementation of Estuarine Management Plans in the District</b>			
5.3.1. The LM must support, and where relevant, undertake the implementation of the actions in the EMP for the Jakkalsvlei estuary and the LM must form part of the EAF.	All actions in EMP implemented. WCDM attendance at EAF meetings (attendance registers).	2024	RMA WCDM
5.3.2. The LM must support, and where relevant, undertake the implementation of the actions in the EMP for the Wadrift estuary and the LM must form part of the EAF.	All actions in EMP implemented. WCDM attendance at EAF meetings (attendance registers).	2024	RMA WCDM
5.3.3. The LM must support, and where relevant, undertake the implementation of the actions in the EMP for the Verlorenvlei	All actions in EMP implemented. WCDM attendance at EAF meetings (attendance registers).	2024	RMA WCDM

PROPOSED IMPLEMENTATION STRATEGY	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
estuary and the LM must form part of the EAF.			
5.3.4. The status of the Implementation of the EMPs must be reported at the EAFs as well as the WCDM Coastal Committee.	<p>Update of implementation of EMPs recorded in relevant EAFs meeting minutes.</p> <p>Update of status of implementation of the EMPs is a permanent item on the WCDM Coastal Committee Agenda.</p> <p>Update of implementation of EMPs recorded in WCDM Coastal Committee meeting minutes.</p>	Quarterly	<p>RMA</p> <p>WCDM</p> <p>WCDM</p>

## 6.6 Coastal Management Objective 6: The Protection, Management and Sustainable Use of Natural Resources

PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
<b>6.1. Coastal Management Strategy: The effective control of invasive alien plants</b>			
6.1.1. WCDM and LMs to develop a long-term alien clearing plan for properties under their ownership, in conjunction with Working for Water.	Budget/funding approved, and development of plans included in IDPs. Appointment of service providers. Finalisation of plans.	2020 2020 2021	WCDM LM WfW
6.1.2. WCDM and LMs to implement long-term alien clearing plans for properties under their ownership.	Budget/funding approved, and development of plans included in IDPs. Appointment of service providers. Commencement of alien clearing programme. Number of hectares cleared.	2022 2022 2022 2024	WCDM LM WfW
<b>6.2. Coastal Management Strategy: Cooperative management of Protected Areas</b>			
6.2.1. The WCDM and LMs must ensure that the objectives of the Protected Areas and Conservancies in the area are incorporated into the IDP and SDFs.	Updated IDPs and SDFs	2022	WCDM LM
6.2.2. All local authority nature reserves must have approved Ecological Management Plans	100% of Local Authority Nature Reserves with approved Ecological Management Plans	2024	LM
<b>6.3. Coastal Management Strategy: Monitoring mining activities in the coastal zone</b>			
6.3.1. Enforce rehabilitation requirements of Mining and Mine Prospecting Licenses and Permits	Written instructions to mine operators. Approved rehabilitation Plans. Completion of rehabilitation and formal closure of mines.	Ongoing	DMRE DEFF DEA&DP
6.3.2. The SANBI Mining Guidelines must form part of the decision-making process when mining applications are made.	No mining activities in legal protected and highest biodiversity important areas.	Ongoing	DMRE DEFF DEA&DP
6.3.3. The SANBI Mining Guidelines must be incorporated into the municipal IDPs and SDFs to ensure that mining plans are not	Updated IDPs and SDFs.	2022	WCDM LM



PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
considered in environmentally sensitive areas.			
6.3.4. The WCDM and LMs must be aware of offshore mining, oil and gas prospecting activities as these activities could result in the degradation of the coastal zone due to oil spills and other contaminants affecting beaches. These offshore mining areas must be included in the municipal IDPs and SDFs.	Updated IDPs and SDFs	2022	WCDM LM
<b>6.4. Coastal Management Strategy: Facilitating the coordinated management of marine living resources</b>			
6.4.1. A Marine Mammal Stranding Policy and Protocol for the West Coast must be developed in order to effectively manage marine mammal stranding events. The roles and responsibilities of the various stakeholders must be clearly defined in the policy and a clear response plan must be developed. The Marine Mammal Stranding policy must also indicate that the LMs are responsible for removing mortalities off beaches and disposing of them in an appropriate manner.	Adopted Marine Mammal Stranding Policy and Protocol.	2020	DEFF: Oceans and Coasts SANParks DEA&DP CapeNature WCDM LM Two Oceans Aquarium SPCA
6.4.2. The WCDM HAB Contingency Plan must be updated to incorporate information from the OCIMS as well as to clearly define the roles and responsibilities of the DM and LM in terms of managing mortalities that may wash up in the coastal zone.	Updated HAB Contingency Plan	2020	WCDM LM
6.4.3. The Local Authorities must assist members of the public with reporting illegal	Illegal activities referred to the FCOs	Ongoing	DEFF WCDM

PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
activities in terms of the MLRA by referring the informant to the local FCO.			LM

## 6.7 Coastal Management Objective 7: Managing Heritage Resources within the District

PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
<b>7.1. Coastal Management Strategy: Acknowledging khoisan communities and their needs</b>			
7.1.1. The history of the Khoisan communities in the LM needs to be incorporated into the tourism and social development section of municipal IDPs with emphasis being made on providing opportunities to develop these communities.	Update of IDPs	2023	WCDM LM
7.1.2. The LM is required to develop and maintain a heritage register in terms of the NHRA. Khoisan heritage and cultural sites of importance must be identified and incorporated into the Municipality's heritage register.	Updated heritage register.	2024	WCDM LM
7.1.3. The heritage register must be made available to other organs of state and public via online GIS, coupled with an awareness campaign. It is suggested that the GIS data for coastal heritage and cultural assets be incorporated into the DEFF Coastal Viewer platform.	Coastal heritage and cultural assets present on DEFF Coastal Viewer.	2020	DEFF SAHRA WCHRA LM
7.1.4. Comprehensive stakeholder engagement with communities and traditional authorities to be undertaken when name changes of heritage resources taken place.	Attendance registers. Meeting minutes	2019	WCHRA LM
<b>7.2. Coastal Management Strategy: Facilitating the conservation of Heritage Resources</b>			
7.2.1. The LM must identify Heritage Resources that require formal protection under the NHRA.	Formal protection of one heritage resource per year	Annually	WCHRA LM

PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
7.2.2. Heritage Conservation Management Plans must be developed for all Provincial Heritage sites in the LM with assistance from the WCDM.	2 plans to be completed per annum	Every 2 years	WCHRA LM WCDM

## 6.8 Coastal Management Objective 8: The Effective Management and Control of Pollution in the Coastal Zone

PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
<b>8.1. Coastal Management Strategy: Managing the discharge of effluent, stormwater and other industrial-based pollutants into coastal waters</b>			
8.1.1. A Coastal Waters Discharge Audit of coastal outfalls is underway. Thereafter DEFF O+C will decide how to move forward with authorising discharges in terms of the new Coastal Waters Discharge Regulations. The LM must ensure that they engage with DEFF in this process.	Proof of engagement with DEFF regarding the Coastal Waters Discharge Audit.	2020 2021	LM
8.1.2. Facilities that are discharging into the coastal waters need to be continuously monitored for compliance with the CWDP conditions and the Water Quality Guidelines for Discharge into Coastal Waters. The LM must request that it is updated on the status of each of the coastal discharges that are being monitored.	Proof of requests from the WCDM for access to reports on results of monitoring of discharges.	Annual Annual	LM DEFF: Oceans and Coasts
8.1.3. Stormwater management by-laws must be revised and implemented to control the release of commercial and industrial discharges into the municipal stormwater systems.	Updated by-law	2024	WCDM LM
8.1.4. Municipalities need to limit the number of septic tanks located in the coastal zone and catchment areas by requesting that conservancy tanks be installed and maintained, if no municipal sewerage infrastructure is available, and encourage existing septic tank users to convert septic	No new developments with septic tanks to be approved. Increase in conservancy tanks installed on existing developments.	2024	LM

PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
tanks systems to conservancy tanks systems.			
8.1.5. The LM must request proof that all dredging activities in ports and harbours have the appropriate authorisations in place in terms of NEMA prior to dredging activities taking place.	Proof of request for authorisations.	Periodically	LM, TNPA, DPW, DEFF
8.1.6. The West Coast Oil Spill Contingency Plan must be implemented when required and all relevant authorities must be made aware of their responsibilities. The LM must request that workshops be conducted to provide training for all required authorities on the implementation of the Contingency Plan in the event of an oil spill	Proof of request to attend workshops and training.	Periodically	SAMSA
	Incident reports detailing process undertaken to respond to oil spill.	Periodically	DEFF: Oceans and Coasts
	Attendance registers from workshop.	Every 2 years	LM
<b>8.2. Coastal Management Strategy: Continue to plan, install, alter, operate, maintain, repair, replace, protect and monitor municipal WWTWs in coastal towns</b>			
8.2.1. Municipal WWTWs to test and report on treated effluent quality (i.e. continue with Green Drop monitoring-type programme) and publish results in an annual report that is publicly accessible on the municipality's website.	Monitoring reports published on website	Annual	LM
<b>8.3. Coastal Management Strategy: To promote the effective management of Air Quality</b>			
8.3.1. Finalise the updated Air Quality Management Plan and implement the management strategies outlined in the Plan.	Finalised Air Quality Management Plan. Strategies implemented.	2019 2022	WCDM LM
8.3.2. Tribal Authorities must form part of existing Air Quality forums where public attendance is encouraged.	Tribal Authorities present at meetings (Attendance registers)	2019	WCDM LM

PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
<b>8.4. Coastal Management Strategy: To ensure the effective management of solid waste in the coastal zone</b>			
8.4.1. The LM must ensure that beach cleaning activities take place on a regular basis to ensure the removal of litter. This can be done through using the WftC resources as well as installing new rubbish bins and increasing rubbish collections at coastal access points.	No litter on beaches. At least one new rubbish bin at coastal access sites. Rubbish bins cleaned.	Ongoing 2020  Once a week	LM WftC WCDM
8.4.2. The LM must remove seaweed (on selected beaches), animal mortalities and other organic matter, particularly after storm surges and HAB incidents.	No organic waste on beaches one week after storm surges or HAB incidents.	On-going	LM WCDM
8.4.3. The LM and other relevant authorities must ensure that food processing facilities are regularly audited to ensure that solid and organic waste is properly managed and disposed of. Trucks that are transporting organic waste must be covered to prevent birds from feeding on the waste and any organic waste that has accumulated at the food processing facility must be cleaned and removed before birds can feed on it.	No waste outside of food processing factories. Reduced number of birds feeding on organic waste at food processing factories.	2019	LM CapeNature
8.4.4. Recycling programmes must be initiated in all coastal towns in order to reduce the amount of solid waste ending up in dustbins and landfill sites.	Recycling drop-off points in each coastal town. Recycling material collected from recycling points.	2019  Once a week	LM
<b>8.5. Coastal Management Strategy: Encouraging the Reinstatement of the Blue Flag Beach Programme</b>			
8.5.1. At least an additional two beaches to achieve Blue Flag Status	Two beaches additional beaches with Blue Flag status.	2024	LM

## 6.9 Coastal Management Objective 9: Ensuring the Socio-Economic Development of Coastal Communities

PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
<b>9.1. Coastal Management Strategy: Promotion of the Small Harbours: Spatial and Economic Development Framework</b>			
9.1.1. The LM must engage with DEA&DP with regards to the small harbours that have been identified and incorporate the SEDF plans for these harbours into their IDPs, SDFs and LED plans.	Update of IDPs, SDFs and LED plans	2022	WCDM LM
<b>9.2. Coastal Management Strategy: Development of marine aquaculture within the District</b>			
9.2.1. The DM and LMs must engage with DEFF to continue to be informed of aquaculture development plans that must be incorporated into the IDPs, SDFs and LED plans.	Updated IDPs, SDFs and LED plans.	2022	WCDM LM
9.2.2. A feasibility study must be conducted to determine the potential for development of a community-driven aquaculture project in the LM, either looking at a new site or utilising a site within the new ADZ in Saldanha Bay.	Feasibility study completed.	2021	WCDM LM WC Department of Economic Development and Tourism (DED&T)
9.2.3. The LM must engage with the relevant authorities with regards to hosting an aquaculture summit that focuses on community development and opportunities for previously disadvantaged communities in aquaculture. The summit should include existing industry partners that could provide assistance to communities to develop capacity in the aquaculture industry in the WCDM region.	Proof of WCDM engagement with relevant authorities Aquaculture summit held.	2020	DEFF DTI DED&T WCDM LM



PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
<b>9.3. Coastal Management Strategy: Supporting the Small-Scale Fisheries Industry</b>			
9.3.1. The WCDM and the LM must engage with DEFF to push that the Small Scale Fisheries Policy be finalised and Gazetted with rights being issued to communities in the WCDM in a fair and transparent manner.	Proof of WCDM communication with DEFF. Rights issued to communities in the WCDM.	2020	WCDM LM DEFF
9.3.2. The LM must engage with DEFF to try to encourage the DEFF Regional offices to provide more support to communities through assisting them with MLRA permits and rights. The WCDM must facilitate a discussion between DEFF and the LM to determine a way forward in assisting coastal communities who cannot travel to Cape Town.	Proof of WCDM correspondence with DEFF Minutes from a workshop held with the WCDM, LMs and DEFF to discuss supporting communities.	2020	WCDM LM DEFF
<b>9.4. Coastal Management Strategy: The facilitation of coastal tourism development</b>			
9.4.1. The LM must update their Local Tourism Strategies to incorporate the development of coastal towns as tourism destinations with emphasis on community driven tourism initiatives (e.g. !Khwa ttu Project). Development must include upgrading and supporting tourism offices as well as advertising coastal town on municipal websites.	Local Tourism Strategies updated. Coastal tourism facilities advertised on websites.	2020 2020	WCDM LM
9.4.2. The LM must participate in the WESSA Tourism Green Coast project by identifying one beach in the LM that meets the criteria for the project.	One beach in the LM that has received Tourism Green Coast status.	2020	WCDM LM
<b>9.5. Coastal Management Strategy: Preparing for the growth of the renewable energy sector</b>			
9.5.1. The LM must update their IDPs and SDF with potential and existing renewable	Updated IDPs and SDFs.	2022	LM WCDM

PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
energy projects in the district and must include the REDZ and Strategic Transmission Corridors.			
9.5.2. Municipalities must engage with renewable energy developers to encourage the inclusion of previously disadvantaged communities in the development and operation of the sector through job creation and partnerships.	Signed MoUs.	2024	LM WCDM

**6.10 Coastal Management Objective 10: Developing and Facilitating Awareness, Education, Training, Capacity Building and Information Gathering in the District**

PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
<b>10.1.Coastal Management Strategy: Facilitate the training of municipal officials on coastal management and informed decision making</b>			
10.1.1.The LM must assist the WCDM in conducting a survey within the LM to understand what the specific needs are in terms of training required to carry out coastal management functions.	Survey conducted.	2020	LM WCDM
10.1.2.The WCDM, together with the LM, must engage with DEA&DP to facilitate a short training course that identifies all the online tools available to assist municipalities to make informed decision with regards to town planning and coastal monitoring. These online resources include the OCIMS and BGIS.	Attendance at training course (Attendance register)	2020	LM WCDM DEA&DP
10.1.3.The WCDM and LMs must continue to engage with DEA&DP and DEFF to ensure that all upcoming training course for officials are added to the municipal calendar and that at least one municipal official attends the courses.	DEA&DP and DEFF courses indicated on Municipal calendar. At least one municipal official in attendance (attendance register).	Annual  Annual	DEFF DEA&DP WCDM LM
10.1.4. At least one LM official or representative from the relevant RMAs must attend the Estuary Management training course each year facilitated by NMU.	LM or RMA official attendance at Estuary Management course.	Annual	LM
<b>10.2.Coastal Management Strategy: Facilitating Public Awareness and Access to Information</b>			
10.2.1.Educational signage highlighting the importance of the coastal environment (can be downloaded from the OCMS	Educational signage at all formalised coastal access points	2024	WftC LM

PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
webpage) must be erected at all formalised public access points.			
10.2.2. The municipalities must have links on their webpages to the major publicly accessible coastal and biodiversity information websites (e.g. OCMIS and BGIS) as well as the main updated coastal and environmental management programmes (CMP, AQMP, Disaster Management Plan, etc.).	Links on municipal webpages.	2020	WCDM LM
10.2.3. All public libraries must have updated copies of the relevant coastal planning documents (e.g. updated CMPs).	Update copies of coastal planning documents in libraries.	2020	WCDM LM
10.2.4. A formalised Coastal Education Strategy must be developed that utilised municipal resources such as public libraries, schools and town halls. Open days and information sharing sessions by representatives from relevant coastal authorities and organisations must be included. The Two Oceans Aquarium, CapeNature and other partners such as the CWCBR and !KwaThu can assist with the implementation of some coastal education activities that may form part of this strategy.	Coastal Education Strategy completed. Initiation of the implementation of the Coastal Education Strategy.	2021 2022	LM WCDM DEA&DP
<b>10.3. Coastal Management Strategy: Supporting Existing Education and Awareness Projects</b>			
10.3.1. Existing education and awareness initiatives, such the !Kwa ttu Project, must be supported by the municipalities. Support can be in the form of creating awareness of these initiative by creating a link on the municipality's website or	Existing projects advertised on municipal websites. Existing projects incorporated into Tourism Development Strategies.	2020	LM WCDM

PROPOSED IMPLEMENTATION ACTION	OUTPUT INDICATOR	TIMEFRAME	RESPONSIBLE AUTHORITIES
including them as part of their tourism plans.			
10.3.2. The LM must continue to actively engage with and participate in existing environmental management-based forums and committees (Air quality, Coastal, EAFs, water quality trusts, etc.)	Attendance at meetings (attendance registers)	On-going	LM WCDM
10.3.3. The municipalities must assist the Fisheries Community Development Workers with regards to engagement of communities and assisting with MLRA issues.	MoU signed.	2020	LM DEFF
<b>10.4. Coastal Management Strategy: Supporting Research and Development and Graduate Skills Development</b>			
10.4.1. The Municipalities must be available to support research institutions by providing data, if it is available, in a timeous manner. Other ways that the municipalities can support research is by engaging with communities so that field visits can be facilitated without suspicion.	MoUs signed.	2020	LM WCDM Research Institutions
10.4.2. The Municipalities should formalise an internship programme that allows undergraduate students the opportunity to obtain valuable work experience. Organs of State such as the DPW, SETA and NRF can be approach to source funding.	MoUs signed.	2021	LM WCDM Research Institutions

## **7 IMPLEMENTATION AND REVIEW**

Implementation of this CLM CMP is driven by the Municipality's commitment to the requirements of the various relevant national and provincial drivers (The National Development Plan, NCMP, Operation Phakisa, Western Cape Coastal Management Programme), as well as the CLMs strategic objective of 'ensuring environmental integrity for the West Coast'. These, together with the outcomes of the stakeholder engagement process, form the basis for the CLM CMP priority areas which will enable quantifiable and measurable outcomes.

Monitoring the success of the implementation of this CLM CMP is important and the five-year programme is proposed to be continually reviewed by the West Coast District Coastal Committee. Indicators identified will be used to measure the success of the proposed strategies. Indicators, and the means of collecting information about them, are anticipated to be refined over time. The recently completed Western Cape State of Coast report will be a useful guide for developing district and local level indicators. The implementation and monitoring of the estuarine management plans will also play an important role in the monitoring of the success of the CLM CMP as many of the priority actions are linked.

It is proposed that a short summary report on the implementation of the CLM CMP is prepared on an annual basis at the end of each municipal year. This summary report can assist the WCDM MCC in its reviewing role as well as can be submitted to DEA&DP in its monitoring and supporting role. An assessment of output achievement and amendment can then also assist if any review is to be undertaken within the 5 year cycle.

Following the adoption of the updated CLM CMP by the MEC and Council, the next substantive amendment is required to occur five years after publication of this updated CLM CMP, in compliance with the requirements of the ICM Act. Review of the progress of implementation will be on-going and interim amendments to the programme may be required and undertaken in consultation with the West Coast District Coastal Committee.

## **8 CONCLUSION**

Managing the complex and sensitive environments that make up the coastal zone is a challenge that requires strategic and practical coastal management objective setting followed by the development of definitive and implementable goals, with on-going monitoring of indicators to ensure effective implementation.

This CLM CMP is intended to function as an integrated coastal planning tool to manage the diverse range of activities that occur in the coastal zone, without compromising environmental integrity or economic development. Effective implementation of the priority strategies contained in this CLM CMP should make a significant contribution towards the achievement of ICM along the West Coast as well as the Western Cape as a whole.

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## APPENDIX B: ESTUARY MANAGEMENT OBJECTIVES FROM THE EMPS THAT ARE RELEVANT TO THE CLM

CATEGORY	KEY OBJECTIVE	PERFORMANCE INDICATOR(S)
<b>Jakkalsvlei Estuary</b>		
Estuarine Health and Functioning	The ecological health and functioning of the Jakkalsvlei estuary is maintained	<ul style="list-style-type: none"> <li>• Baseflow to estuary is restored</li> <li>• Water abstractions are controlled</li> <li>• Ecological health of estuary is maintained</li> <li>• Estuary requirements are integrated into catchment processes</li> <li>• Water quality programme is in place</li> <li>• Best agricultural practice adopted &amp; reduced agricultural return flows</li> <li>• Pollution is reduced</li> </ul>
Biodiversity Conservation	The biodiversity of the Jakkalsvlei estuary is conserved	<ul style="list-style-type: none"> <li>• Conservancy is established</li> <li>• Integrity of estuarine habitats is improved</li> <li>• EMP incorporated into the Cederberg Integrated Development Plan (IDP) and Spatial Development Framework (SDF)</li> <li>• Spatial zonation plan is adopted and enforced</li> <li>• Monitoring programmes are in place</li> <li>• Further transformation of estuary prevented</li> </ul>
Land-use and Infrastructure Planning and Development	Impacts associated with developments and proposed changes in land-use, including infrastructure and agriculture, are minimised	<ul style="list-style-type: none"> <li>• Coastal Management Line and controls implemented</li> <li>• Bylaws developed and published</li> <li>• Existing impacts reduced (through redesign)</li> <li>• Further transformation/ habitat degradation of estuary prevented</li> <li>• Disaster management plan implemented</li> </ul>
Institutional and Management Structures	The Jakkalsvlei estuary is managed well through effective co-operative governance	<ul style="list-style-type: none"> <li>• EMP is seamlessly incorporated into the Cederberg IDP and SDF</li> <li>• RMA assigned &amp; supported</li> <li>• Regional estuary advisory forum is established and meets regularly</li> <li>• Estuarine bylaws are drafted</li> </ul>

CATEGORY	KEY OBJECTIVE	PERFORMANCE INDICATOR(S)
		<ul style="list-style-type: none"> <li>• Mandated authorities and participating agencies are well capacitated, actions are fulfilled</li> </ul>
Socio-economic Considerations	Socio-economic benefits are regulated to ensure sustainable use of the Jakkalsvlei estuary and its resources	<ul style="list-style-type: none"> <li>• Integrity of estuarine habitats is improved</li> <li>• Illegal/damaging activities controlled</li> <li>• Early warning system for pollution established</li> </ul>
Education and Awareness	The scientific aspects, importance and value of the Jakkalsvlei estuary is well understood and made known to members of society	<ul style="list-style-type: none"> <li>• Awareness programme developed and on on-going</li> <li>• Signage erected, information disseminated</li> <li>• Increase in number of monitoring programmes/ projects (Water Quality (WQ), birds, fish)</li> </ul>
Disaster Management	Risk Potential risks that could impact the Jakkalsvlei estuary are reduced, inclusive of climate change impacts	<ul style="list-style-type: none"> <li>• Rehabilitation programme developed</li> <li>• Key infrastructure is well defended</li> <li>• Contingency plans in place for high risk areas / activities</li> <li>• Disaster impacts are timeously and effectively mitigated</li> </ul>
<b>Wadrift Estuary</b>		
Estuarine Health and Functioning	The ecological health and natural functioning of the Wadrift River estuary is improved and maintained	<ul style="list-style-type: none"> <li>• Baseflow to estuary is restored</li> <li>• Water abstractions are controlled</li> <li>• Connectivity within the system is restored</li> <li>• Ecological health of estuaries is improved from E to D</li> <li>• Estuary requirements are integrated into catchment processes</li> <li>• Water quality programme is in place</li> <li>• Best agricultural practice adopted &amp; reduced agricultural return flows</li> </ul>
Biodiversity Conservation	The biodiversity of the Wadrift River estuary is conserved	<ul style="list-style-type: none"> <li>• The value of the Wadrift as a bird sanctuary is preserved – Special Management Area established</li> <li>• EMP incorporated into the Cederberg Integrated Development Plan (IDP) and Spatial Development Framework (SDF)</li> <li>• Spatial zonation plan is adopted and enforced</li> <li>• Extractive resource use is controlled</li> </ul>

CATEGORY	KEY OBJECTIVE	PERFORMANCE INDICATOR(S)
		<ul style="list-style-type: none"> <li>Monitoring programmes are in place</li> </ul>
Land-use and Infrastructure Planning and Development	Impacts associated with developments and proposed changes in land-use, including infrastructure and agriculture, are minimised	<ul style="list-style-type: none"> <li>All development and land use changes surrounding and within the EFZ comply with environmental legislation and environmental best practice / risk aversion approach</li> <li>Bylaws developed and published</li> <li>Further transformation of estuary prevented</li> </ul>
Institutional and Management Structures	The Wadriest River estuary is managed well through effective co-operative governance	<ul style="list-style-type: none"> <li>EMP is seamlessly incorporated into the Cederberg IDP and SDF</li> <li>RMA assigned &amp; supported</li> <li>Regional estuary advisory forum is established and meets regularly</li> <li>Estuarine bylaws are drafted</li> <li>Mandated authorities and participating agencies are well capacitated, actions are fulfilled</li> </ul>
Education and Awareness	The scientific aspects, importance and value of the Wadriest River estuary is well understood and made known to members of society	<ul style="list-style-type: none"> <li>Awareness programme developed and on-going</li> <li>Signage erected, information disseminated</li> <li>Increase in number of monitoring programmes/ projects (water quality (WQ), birds, fish)</li> </ul>
Disaster Risk Management	Potential risks that could impact the Wadriest River estuary are reduced, inclusive of climate change impacts	<ul style="list-style-type: none"> <li>Rehabilitation programme developed</li> <li>Key infrastructure is well defended</li> <li>Contingency plans in place for high risk areas / activities</li> <li>Disaster impacts are timeously and effectively mitigated</li> </ul>
<b>Verlorenvlei Estuary</b>		
Conservation (Linking to Ramsar Convention)	<ul style="list-style-type: none"> <li>Reinforce Ramsar status of Verlorenvlei through promulgation as a formal Protected Area</li> <li>Adopt a formal conservation zoning plan for Verlorenvlei (as part of the estuary zoning plan) and ensure that local IDP/SDF is aligned with this plan</li> </ul>	<ul style="list-style-type: none"> <li>The Verlorenvlei ecosystem is proclaimed a formal Protected Area</li> <li>Estuary zoning plan and recommendations incorporated into IDP/SDF and acknowledged in formal initiatives</li> <li>Heritage sites receive formal protection and heritage site database developed and maintained</li> </ul>

CATEGORY	KEY OBJECTIVE	PERFORMANCE INDICATOR(S)
	<p>and that plan is incorporated in the IDP/SDF, and linked to other formal initiatives</p> <ul style="list-style-type: none"> <li>• Obtain formal protection of the heritage areas in and around Verlorenvlei</li> <li>• Prepare and implement a rehabilitation and restoration programme for Verlorenvlei</li> <li>• Develop and implement a climate change adaptation plan for Verlorenvlei (in response to changes in freshwater flow, sea level rise, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Fine scale GIS map developed indicating areas requiring priority rehabilitation and restoration identified</li> <li>• Long term budget estimated and funding sourced</li> <li>• Rehabilitation and restoration programme implemented</li> <li>• Estuary-specific climate change adaptation plan developed, in line with the Provincial climate change adaptation plan</li> </ul>
Living Resource Management	<ul style="list-style-type: none"> <li>• Eradicate alien fish in Verlorenvlei</li> <li>• Eradicate alien vegetation in Verlorenvlei through Working for Wetlands programme</li> <li>• Investigate deterioration of fish health in Verlorenvlei</li> <li>• Investigate the occurrence of avian botulism in wading bird population of Verlorenvlei</li> <li>• Investigate the viability of fishing competitions (for alien fish) and aquaculture in Verlorenvlei</li> </ul>	<ul style="list-style-type: none"> <li>• Alien fish species and abundance decreased on annual basis</li> <li>• Alien vegetation eradication programme developed and implemented</li> <li>• Deployment of staff to the area, but preferential employment of locals</li> <li>• Alien vegetation cover greatly reduced</li> <li>• On-going maintenance in terms of vegetation removal</li> <li>• Research project devised and executed</li> <li>• Results and recommendations published</li> <li>• Mitigation measures implemented</li> <li>• Research project devised and executed • Results and recommendations published</li> <li>• Mitigation measures implemented</li> <li>• Aquaculture feasibility study conducted</li> <li>• Competitive fishing feasibility study conducted</li> <li>• Results of these studies published and discussed among relevant forums</li> </ul>
Water Quantity and Quality (Including Waste)	<ul style="list-style-type: none"> <li>• Determine the Ecological water requirements of Verlorenvlei at a comprehensive level</li> </ul>	<ul style="list-style-type: none"> <li>• Ecological water requirements determined, implemented and monitored to ensure compliance</li> </ul>

CATEGORY	KEY OBJECTIVE	PERFORMANCE INDICATOR(S)
and Waste Water Management)	<ul style="list-style-type: none"> <li>• Develop and implement a water resource utilization plan (including registration &amp; licensing)</li> <li>• Prepare and implement a mouth management plan (to improve connection with the sea)</li> <li>• Address sanitation and sewage treatment facilities in Redelinghuys &amp; Elands Bay</li> <li>• Appropriately manage solid waste dump sites along Verlorenvlei</li> <li>• Investigate impact of water abstraction on groundwater in Verlorenvlei</li> <li>• Investigate the link between nutrient dynamics and algal blooms in Verlorenvlei</li> <li>• Design and implement a water quality monitoring programme for Verlorenvlei</li> </ul>	<ul style="list-style-type: none"> <li>• Water resource utilisation plan developed and implemented (including monitoring and compliance)</li> <li>• Catchment Classification process is completed in consideration of climate change, and all water resources are classified and reserves are secured</li> <li>• Catchment Management Plan and Strategy is developed</li> <li>• Database developed and maintained</li> <li>• All water uses and users are registered and licensed</li> <li>• Mouth management plan developed and implemented •</li> <li>• Optimal functioning of estuary mouth maintained</li> <li>• Current maintenance plans reviewed and priorities identified</li> <li>• Budget secured for priority maintenance activities/upgrades</li> <li>• Sanitation and sewage treatment facilities upgraded and functioning optimally</li> <li>• Improved water quality and reduced pollution into Verlorenvlei</li> <li>• Environmental management plans developed for each dump site, and necessary permitting obtained</li> <li>• Environmental best practice and appropriate management actions implemented</li> <li>• Sites monitored for compliance with approved environmental management plans</li> <li>• Illegal sites closed</li> <li>• Research project devised and executed</li> <li>• Results published</li> <li>• Mitigation measures implemented</li> <li>• Sandveld Area-wide Plan developed</li> <li>• Research project devised and executed</li> <li>• Results published</li> <li>• Mitigation measures implemented</li> <li>• Occurrence of algal blooms reduced</li> <li>• Water quality programme developed and implemented</li> <li>• Regular, documented monitoring undertaken</li> <li>• Database of results maintained</li> </ul>

CATEGORY	KEY OBJECTIVE	PERFORMANCE INDICATOR(S)
		<ul style="list-style-type: none"> <li>• Regular reports produced, inclusive of recommendations</li> <li>• Recommendations implemented</li> </ul>
Agriculture	<ul style="list-style-type: none"> <li>• Develop and implement agricultural best practice specifically to reduce nutrient enriched return flow and sediment erosion (e.g. through Biodiversity and Potatoes/ Rooibos Initiatives)</li> <li>• Develop and implement a protocol for reed management in Verlorenvlei (addressing excessive growth, harvesting e.g. for thatching and burning)</li> <li>• Manage and control salt marsh grazing in Verlorenvlei</li> </ul>	<ul style="list-style-type: none"> <li>• Agricultural best practice guidelines developed and published</li> <li>• Farmers and local communities made aware of such guidelines</li> <li>• Agricultural best practice implemented</li> <li>• Protocol for reed management developed, implemented, monitored and enforced, with due consideration of natural processes of reed control (e.g. regular saline inundation etc.)</li> <li>• Areas, volumes and seasonality for reed harvesting and burning determined</li> <li>• Areas and grazing capacity determined</li> <li>• Grazing protocol developed</li> <li>• Cattle farmers /local communities involved in the development or made aware of such protocol</li> <li>• Grazing protocol implemented, with compliance monitoring and enforcement</li> </ul>
Town and Tourism Development	<ul style="list-style-type: none"> <li>• Remove or upgrade of road crossings through Working for Wetlands programme</li> <li>• Ensure appropriate development in and around Verlorenvlei through IDP/SDF</li> <li>• Increase and improve access (e.g. for birding) in Verlorenvlei</li> </ul>	<ul style="list-style-type: none"> <li>• Priority road crossings and type of action identified</li> <li>• Project plan developed and implemented</li> <li>• All road crossings addressed (removal or upgrade)</li> <li>• Developed coastal management lines gazetted</li> <li>• Coastal management lines incorporated into IDP &amp; SDF</li> <li>• Development excluded from sensitive areas, including EFZ</li> <li>• Applicable building controls applied to high risk areas</li> <li>• Prime access points and appropriate type of access and facilities identified</li> <li>• Access needs for Verlorenvlei incorporated in municipal coastal access roll-out process</li> <li>• Controlled access provided and maintained within Verlorenvlei</li> </ul>



CATEGORY	KEY OBJECTIVE	PERFORMANCE INDICATOR(S)
Institutional Arrangements and Empowerment	<ul style="list-style-type: none"> <li>• Establish the Verlorenvlei Estuary Advisory Forum, comprising broader representation from relevant government authorities and the community. To give formal status to the forum a constitution must be drafted and approved.</li> <li>• Develop and deploy a human resource plan for implementation of Verlorenvlei EMP</li> <li>• Develop and deploy an education and awareness programme for Verlorenvlei</li> </ul>	<ul style="list-style-type: none"> <li>• Former Estuary Management Forum reconstituted into Estuary Advisory Forum and ToR agreed with Cederberg Local Municipality</li> <li>• Members confirmed</li> <li>• Bi-annual EAF meetings convened</li> <li>• Minutes of meeting compiled</li> <li>• ToR agreed to by various government departments and other institutions</li> <li>• Project champions assigned</li> <li>• Departmental project plans developed and implemented</li> <li>• Education and awareness programme developed and implemented</li> <li>• Strategically placed signage in and around Verlorenvlei</li> <li>• Dissemination of information via website, newsletters, pamphlets relating to both environmental education and compliance awareness</li> </ul>
Law Enforcement and Compliance	<ul style="list-style-type: none"> <li>• Sign an MoU (CapeNature and DEFF) to increase compliance capacity and formalize agreement on the removal of gillnetting</li> <li>• Increase environmental law enforcement and compliance capacity with respect to pollution (e.g. from waste and wastewater and agricultural return flows)</li> <li>• Increase environmental law enforcement and compliance capacity with respect to water quantity (abstractions)</li> <li>• Increase environmental law enforcement and compliance with respect to infrastructure development and land-use</li> </ul>	<ul style="list-style-type: none"> <li>• MoU signed</li> <li>• Deployment of additional compliance officers/conservancy rangers</li> <li>• Additional patrols undertaken</li> <li>• Database of offenders developed and maintained</li> <li>• Gillnetting (legal and illegal) phased out entirely</li> <li>• Appropriate waste management facilities/infrastructure established and maintained (e.g. rubbish bins)</li> <li>• Designated pollution compliance and enforcement units deployed to Verlorenvlei and surrounding areas</li> <li>• Improved compliance with applicable standards (e.g. water quality standards) and municipal by-laws</li> <li>• Ecological flow requirements (EFR) determined for Verlorenvlei</li> <li>• Verlorenvlei EFR considered in issuing of abstraction permits</li> <li>• Database of licensed and illegal users maintained</li> <li>• Illegal users/uses convicted and appropriately penalised</li> </ul>

CATEGORY	KEY OBJECTIVE	PERFORMANCE INDICATOR(S)
	<ul style="list-style-type: none"> <li>• Develop a safety and security plan for the Verlorenvlei area (e.g. "Buurtwag")</li> </ul>	<ul style="list-style-type: none"> <li>• Verlorenvlei EAF registered as an Interested &amp; Affected Party for all developments and rezoning applications surrounding the estuary</li> <li>• Increased monitoring of compliance with Environmental Authorisations</li> <li>• Increased monitoring of compliance with building controls</li> <li>• Safety and security plan developed and implemented</li> <li>• Deployment of additional security officers</li> <li>• Additional patrols undertaken</li> <li>• Database of offenders developed and maintained</li> <li>• Offenders convicted and appropriately penalised</li> </ul>
Funding Source and Opportunities	<ul style="list-style-type: none"> <li>• Prepare a financial plan for the implementation of the Verlorenvlei EMP</li> </ul>	<ul style="list-style-type: none"> <li>• Financial plan developed</li> <li>• MoUs signed with relevant responsible departments and institutions</li> <li>• Sufficient and effect use of funding</li> <li>• Project plans implemented</li> </ul>
Innovative Opportunities for Job Creation	<ul style="list-style-type: none"> <li>• Investigate and deploy job opportunities for communities in the Verlorenvlei area linked to tourism (e.g. guides for hiking trails/boat trip)</li> <li>• Investigate and deploy projects the area to increase food security, e.g. hydroponics programme or ecological restoration/ rehabilitation</li> <li>• Develop a suitable venue for a range of activities, including a museum of the area, a wetlands museum and interpretive centre and a training centre for supporting the establishment of work opportunities in the community</li> </ul>	<ul style="list-style-type: none"> <li>• Enhanced local economic development (e.g. through SMMEs)</li> <li>• Increase in employment rate surrounding Verlorenvlei</li> <li>• Reduction in poverty index</li> <li>• Feasibility study conducted</li> <li>• Results published and funding secured</li> <li>• Job creation programme initiated</li> <li>• Increase in employment rate surrounding Verlorenvlei</li> <li>• Improved food security for Verlorenvlei communities</li> <li>• Access EPWP programme</li> <li>• Development options investigated and approved</li> <li>• Funding secured</li> <li>• Project plan developed and implemented</li> <li>• Information centre developed</li> <li>• Increase in number of visitors</li> <li>• Increase in number of school tours / events</li> </ul>



**APPENDIX C: CITY OF CAPE TOWN'S "LARGE MARINE ANIMAL STRANDING POLICY AND PROTOCOL"**

**APPENDIX D: DECLARED PROVINCIAL HERITAGE SITES ALONG THE CLM COASTLINE (SAHRIS, 2019).**

LM	Site ID	Site Reference	Full Site Name	Site Type	Archive Status	Declaration Type	Gazette No	Gazette Date
Cederberg	3387	BPT PHS	Baboon Point Provincial Heritage Site	Rock Art, Deposit, Artefacts, Shell Midden, Cultural Landscape, Building, Palaeontological, Natural		Provincial Heritage Site	6621	09/04/2009
	3494	MPM PHS	Mussel Point Midden	Shell Midden		Provincial Heritage Site	6621	09/04/2009
	108260	The Verlorenvlei Heritage Settlement (Smit Section)	The Verlorenvlei Heritage Settlement (Smit Section)	Cultural Landscape		Provincial Heritage Site	7310	23/09/2014