



Figure 1. Aerial view of Table Bay Nature Reserve (photo by Bruce Sutherland).

Coastal section	CONTENTS		PAGE
Fynbos Corridor and Diep River	1	AREA MANAGER'S SECTION	2
Rietvlei wetlands	2	HIGHLIGHTS AND CHALLENGES	4
Milnerton Racecourse	3	BIODIVERSITY MANAGEMENT	5
Milnerton Lagoon	4	NATURE CONSERVATION	6
Zoarvlei wetlands	5	WATER MANAGEMENT	9
The Table Bay Nature Reserve	6	FIRE MANAGEMENT	11
	7	COMPLIANCE MANAGEMENT	13
	8	PEOPLE AND CONSERVATION	16
	9	HUMAN RESOURCE MANAGEMENT	20
	10	TOURISM AND VISITORS	21
	11	INFRASTRUCTURE MAINTENANCE	22
	12	FINANCIAL MANAGEMENT	23

Figure 2. Sections of the Table Bay Nature Reserve.

1 AREA MANAGER'S SECTION

1.1 This quarterly report summarises the activities of the Biodiversity Management Branch in the Milnerton Area, specifically in and around the Table Bay Nature Reserve (TBNR) for the period from 1 April to 30 June 2013. This report is written in such a way that stakeholders and role-players may refer to it for information purposes, but does not contain all the official internal reporting information.

1.2 Main headlines in the local media this quarter focussed on the **Seli 1 wreck reduction programme**, and a **fish die-off in the Milnerton Lagoon** Section of the nature reserve.

1.2.1 The Seli 1 wreck, as reported in previous versions of this report, continued to let out some pollution along the Milnerton coastline. Oil pollution control booms were placed at the mouth of the Milnerton Lagoon to prevent any oil from entering the estuary, but now oil reached the estuary mouth. The wreck reduction work featured in the local press and the [CONTACT magazine](#) (Figures 3-4).

So long, Seli 1 (and it has been a long time)



Going, going, gone! Clockwise from top: The Seli 1 aground in 2009, Navy divers approaching the hulk, preparing to place charges, and the demolition.



South African Navy explosive experts broke up the wreck of the Seli 1 on Wednesday 20 March in a set of spectacular explosions.

Parts of the wreck are still visible, but the remains of the bulk freighter have been significantly weakened and tidal and wave forces should break up the rest.

A joint City, South African Maritime Safety Authority and Department of Environmental Affairs task team monitored the process, and the minimal quantities of oil released from the wreck were promptly contained and dealt with.

The Turkish-registered Seli 1, carrying a cargo of 30 000 tons of coal, 660 tons of heavy fuel oil and 60 tons of diesel fuel, ran aground on 8 September 2009, and its owners subsequently abandoned it.

The oil, coal and most of the superstructure were removed in a series of salvage operations, with minimal environmental damage. The salvage and demolition was the responsibility of the National Department of Transport, and cost R40 million.

Figure 3. Article in the City of Cape Town [CONTACT magazine of May/June 2013](#) about the Seli 1 wreck reduction programme.

Seli 1 coal deposits not 'much of a threat'

FAATIMAH HENDRICKS

A section of Strandjans beach stretching about 500 metres is laden with coal, but authorities said there is no cause for concern and there are no expected health risks to humans and animals.

The pieces of coal, most about the size of the palm of a hand, can be mistaken for black stones as they lie among the sea shells. If the pieces are rubbed or broken open, it is clear that they are coal and not pebbles.

"Ever since the Seli 1 was beached there have been incidences of oil and coal spillages," said acting mayor committee member for utilities, Councillor Ivet Herron.

"As soon as they have been found, we do clean it up."

He confirmed that City officials went to the beach to investigate on Thursday April 4 after they were contacted by Tabletalk.

However, the City could not

provide answers as to how long the coal has been there, if the situation worsened after the reduction of the Seli 1 wreckage, and if more coal can be expected to wash up from the wreck.

"The necessary clean-up will take place: where required," said Mr Herron.

Christina van Wyk, the owner of the Seaskyn B&B, said the coal has been washing up there since the Seli 1 ran aground in September 2009.

However, Table View resident Len Steele said he first saw the coal on the beachfront at the beginning of February. At the time some of the coal was the size of a tennis ball. He said the pieces of coal reduced in size as the water washed over them.

After Mr Steele installed an anthracite heater in his house, someone joked with him that there's anthracite on the beach that he could use. He thought the coal was black pebbles and took some

home to burn. He said it burnt "very well", had a very strong smell and gave off white smoke.

"I spoke to some of the people I know living nearby and they weren't aware that it was coal," said Mr Steele.

"The way it was being ground up, one of these days the beach will be a black beach. It can be ground up and then lie in between the sand."

Mr Steele said the coal could be put to good use by either selling it or giving it to poor or homeless people who made fires to keep warm during winter.

"I am concerned that the beaches could become contaminated," he said.

The Southern African Foundation for the Conservation of Coastal Birds (SANCCOB) said they have not had any birds admitted that may have been affected by the coal.

Conservation director, Vanessa Strauss, said the coal shouldn't pose any type of risk to the seabirds.



■ The pieces of coal are not noticeable among the pebbles and shells on the beach sand.

"The coal dust should just rise off the birds' feathers as they swim," she said.

Pierre de Villiers, the programme manager for marine protected areas, islands and estuaries at Cape Nature, said the authorities should have the coal cleaned up as soon as possible. He said coal is a natural product and will break down, but any unnatural spillage

should be cleaned.

"If it is hundreds of metres it's not that much of a threat. Over time it will break down like wood would break down," said Mr De Villiers.

"I would be worried if tons of coal were lying on the beach and smothered the beach. Any unnatural washing up of anything should be addressed by the authorities."

Figure 4. Article in the local press about the Seli 1 wreck reduction programme.

1.2.2 A fish die-off in the Milnerton Lagoon Section, as reported in the previous version of this report, raised renewed concern about water quality in the Diep River estuary during this quarter. The story featured in the local press and the [CONTACT magazine of May/June 2013](#) (Figures 5-6).



Figure 5. Article in the local press about the fish die-off in the Milnerton Lagoon.

Mysterious Milnerton mullet deaths

When almost 15 tons of mostly adult mullet washed up dead on the banks of the Milnerton Lagoon in March, it took a mammoth effort by City officials to clean up the mess.

The fish, commonly known as harders, washed up along the shoreline of Milnerton Lagoon between Woodbridge Island and the estuary mouth. The lagoon is an important estuarine habitat and part of Table Bay Nature Reserve. It is one of the 16 nature reserves owned and managed by the City.

It is thought that the fish deaths were caused by a combination of high nutrient levels, high water temperatures and low oxygen levels, although the exact cause will be difficult to determine. Samples of fish tissue were sent to the Department of Agriculture, Fisheries and Forestry for analysis.

"The very high temperatures in the second week of March could have caused the slow release of nutrients from the sediment through decomposition, which would also have caused oxygen depletion," says Julia Wood, Manager: Biodiversity Management, Environmental Resource Management.

"Summer's reduced water levels could have added to the low available oxygen. There was no evidence of any toxic spill."

"Small and juvenile fish, including mullet, appeared to be unaffected. There was no measurable impact on other estuarine species, such as birds and sand prawns, and the lagoon environment appears to be back to normal," says Julia.



It is estimated that the dead fish formed less than 10% of the estuary population.

The lagoon forms part of the Diep River, which is both a rural and urban catchment and receives contaminants such as agricultural run-off, stormwater run-off and treated effluent.

The City and its partners via the Rietveld Management Working Group are working towards reducing the high nutrient levels in the system.

Meanwhile, it took four days to clear and move the fish to the Vissershok landfill site.

Belly up: Adult mullet may have been killed by a lack of oxygen and high temperatures.

This was achieved through the combined efforts of Solid Waste Management, Pollution Control, Scientific Services, Catchment Management, Biodiversity Management and Disaster Risk Management staff.

The City's Law Enforcement and Specialised Services cordoned off the area and prevented bathers and the public from picking up the fish for potential consumption.

"Line departments worked together exceptionally well to ensure that the fish were cleaned up quickly," says Julia.

Figure 6. Article in the City of Cape Town [CONTACT magazine of May/June 2013](#), about the fish die-off in the Milnerton Lagoon.



■ This caracal (rooikat) was captured at the Potsdam waste water treatment works, in Milnerton, by Biodiversity Management staff of the City's Environmental Resource Management Department, on Thursday May 23. The caracal probably came from the adjacent Table Bay Nature Reserve and was therefore relocated to the Rietvlei Section of this reserve on the same day.

Figure 7. A caracal (rooikat) captured the Potsdam WWTW.

2.1 The capture and relocation of an adult caracal from the adjacent Potsdam Waste Water Treatment Works to the Rietvlei Section on Thursday 23/05/2013 was a highlight. The confirmation of this species' presence in the nature reserve is very valuable information. The nature reserve team waited a week for the caracal to enter the cage, and once it was trapped, it was relocated into the reserve on the same morning. The cage was borrowed from the Witzands Aquifer Nature Reserve near Atlantis. Caracals, which are the largest predators in the Table Bay Nature Reserve, prey on wildfowl, rodents, and small mammals. Any sightings of interesting animals and birds can be reported to reserve management at tablebay.naturereserve@capetown.gov.za.

2.2 Controlled burning on Robben Island

The City sent nature conservators and fire fighters to conduct controlled burning on Robben Island during 22-26/04/2013. The island is a World Heritage Site under the South African Heritage Resources Agency (SAHRA) with a multi-layered history, including being a leaper colony, a World War II coastal protection area, as well as the political imprisonment of president Jacob Zuma, and former president Nelson Mandela. It is also a natural haven for colonies of breeding African penguins and Swift terns. Invasive plants now threaten the natural and built environment.

The City assisted the island's environmental manager, Sabelo Madlala, to prioritize management of the fire hazard. SAHRA supported a burn permit application. Burning was used under controlled conditions at selected sites on the island to remove this biomass.

The firefighters and nature conservators spent an entire week on the island, and slept in one of the jails. This partnership with Robben Island, and the use of fire as a tool, is a first in the island's history. The City hopes to invest more to improve the biodiversity and natural habitat of the island.

Proactive fire management to reduced fire hazard and flammable fuel loads is the desired approach to reduce the threat of uncontrolled wildfires and the costs involved in managing them. During this season the City did many controlled brush pile burns and ecological vegetation fires.



Figure 8. Controlled burning on Robben Island.



Figure 9. Controlled burning on Robben Island.

2.2 Challenges that are experienced at the nature reserve include the shortage of visitor control staff at the main entrance gate to the Rietvlei Section. The reserve also operates on an aging vehicle fleet that needs replacement. Plans are underway to purchase replacement vehicles and to motivate to obtain visitor control staff.

3 BIODIVERSITY MANAGEMENT

3.1 Biodiversity Database

The Table Bay Nature Reserve records species presence and absence in four different data collection boundaries. The below Table 1 is a compilation of this data to represent the present records for the nature reserve as a whole. Not all species occur in all the management sections. Nature reserve staff undertake active searching to confirm the presence of certain birds and amphibians that have not been recorded for a long time. See below Figures 10-13 of some of the sightings.

Table 1. Species richness of the Table Bay Nature Reserve.

CLASS	PRESENT	NOT SEEN	PRESUMED LOST	TOTAL
Amphibians	6	3	2	11
Insects	15	0	0	15
Mammals	28	0	1	29
Fish	14	0	0	14
Reptiles	22	11	1	34
Birds	178	70	17	265
Plants	255	108	119	482
TOTALS	518	192	140	850



Figure 10. Rock kestrel (photo: Ms Landi Louw).



Figure 11. Cape grysbok and a mongoose (photo: Ms Landi Louw).



Figure 12. Slender sunfish, published in the local press.



Figure 13. Black sparrowhawk published in the local press.

4 NATURE CONSERVATION

4.1 Flora Management

4.1.1 Invasive vegetation clearing in the nature reserve comprised the removal of various alien plants, including Port Jacksons at the Coastal Section, the Diep River Section at La' Afrique, the Fynbos Corridor Section, and the Rietvlei Section at SANCCOB, Milnerton Ridge and the Table View boundary.

Herbicide treatment was used to manage the invasion of kikuyu grass in the Rietvlei Section at SANCCOB, Milnerton Ridge and the Table View boundary, as well as to ring-bark Blue Gum trees in the Diep River Section at the riverine floodplain (see Figure 14 below).

Australian *Acacia* and *Eucalyptus* species are extremely invasive and have the potential to remove water from the soil profile and displace indigenous vegetation. Kikuyu grass invades from surrounding residential areas and road verges and has the potential to completely displace indigenous vegetation.

Sadly many residential properties offer no barriers to prevent kikuyu grass from escaping into the nature reserve. Some residential properties actively cultivate and plant exotic plants on nature reserve land. Such illegal practices will be stopped by liaison with the relevant landowners. The nature reserve's strategy is to remove all alien species and to promote indigenous biodiversity.

Indigenous gardens are preferred for properties adjacent to a nature reserve, and have the additional benefit of being water-wise and low maintenance. Residents who want to get advice about what indigenous plants to plant in their gardens can contact tablebay.naturereserve@capetown.gov.za.

Detailed reports of hectares cleared, person days and resources spent on these operations are sent separately to the Invasive Species Unit, based at Westlake.



Figure 14. Red areas indicate focus points of invasive vegetation clearing this quarter.

4.2 Fauna Management

4.2.1 Monitoring of Wildlife: Game counts and sightings

4.2.1 An integrated bird census was conducted at TBNR on 19/04/2013. The census was done by the nature reserve and North Region staff. It covers 11 water area sections, including Potsdam Waste Water Treatment Works (WWTW) as well as a terrestrial (bush) bird survey. All *ad hoc* animal sightings are also recorded.

The waterbirds numbered a total of 1,370 birds from 34 species, including Little grebe 10, White pelican 106, Whitebreasted cormorant 22, Reed cormorant 35, African darter 11, Grey heron 15, Blackheaded heron 11, Purple heron 3, Little egret 26, Yellowbilled egret 3, Sacred ibis 27, Glossy ibis 2, African spoonbill 2, Greater flamingo 111, Egyptian goose 41, Yellowbilled duck 46, Cape teal 20, Cape shoveller 23, Spurwinged goose 1, African fish eagle 3, Common moorhen 22, Redknobbed coot 377, African black oystercatcher 2, Threebanded plover 2, Blacksmith lapwing 88, Blackwinged stilt 23, Water thicknee 3, Kelp gull 146, Hartlaub's gull 154, Caspian tern 2, Swift tern 12, Pied kingfisher 3, Cape wagtail 14, and Mallard 4.

Additional terrestrial bird species that were seen included Black-shouldered kite, Cape bulbul, Cape robin, Olive thrush, Cape whiteeye, Rock kestrel, Karoo prinia, Helmeted guineafowl, Yellow-billed kite, Southern double-collared sunbird, Pied crow, Cape sparrow, Fiscal shrike, Bokmakierie, Cape Canary, and Yellow Canary. Also Cape Autumn Widow butterflies and Brown-veined White butterflies were seen. See Figures 15-17 below and across for more details.

Bird \ TBNR site	Total	Diep River	North Vlei	South Vlei	Central Pan	Dolphin Beach	Milnerton Channel	Lagoon North	Lagoon South	Zoarvlei North	Zoarvlei South	Potsdam WWTW
TOTALS	1370	50	126	258	84	191	8	226	157	16	29	225
Little grebe	10	1	3			2						4
White pelican	106		106									
Whitebreasted cormorant	22		1	15				1				7
Reed cormorant	35	1						21	9		1	3
African darter	11	1	4	2				4				
Grey heron	15	2	1	2				8				2
Blackheaded heron	11	2	2				5	1				1
Purple heron	3			1				1				1
Little egret	26			1				23	1			1
Yellowbilled egret	3							3				
Sacred ibis	27	3			5			2				17
Glossy ibis	2	1										1
African spoonbill	2			1				1				
Greater flamingo	111							27	12			72
Egyptian goose	41	4	1	22				6				2
Yellowbilled duck	46		6	2				18		2		18
Cape teal	20		2							2		16
Cape shoveller	23					2		2				19
Spurwinged goose	1	1										
African fish eagle	3				3							
Common moorhen	22	5				9	1					1
Redknobbed coot	377	22	77	93		165		2			12	6
African black oystercatcher	2							2				
Threebanded plover	2											2
Blacksmith lapwing	88	2	5	2	38			26	2	7	4	9
Blackwinged stilt	23				23							
Water thicknee	3		1									2
Kelp gull	146	1	14	3	5			23	100			
Hartlaub's gull	154	1	9	3	17	13	2	36	32	5	4	32
Caspian tern	2			2								
Swift tern	12							12				
Pied kingfisher	3							3				
Cape wagtail	14	3	3	2					1		2	3
Mallard	4							4				

Figure 15. Records of waterbirds from the integrated bird census.

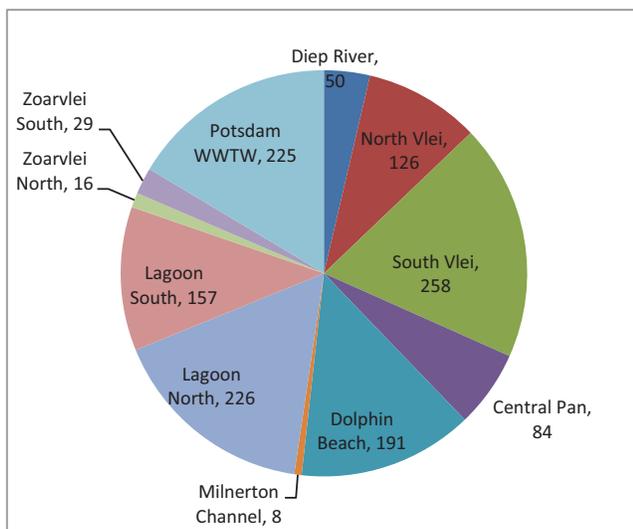


Figure 16. Pie chart of numbers of birds per section.

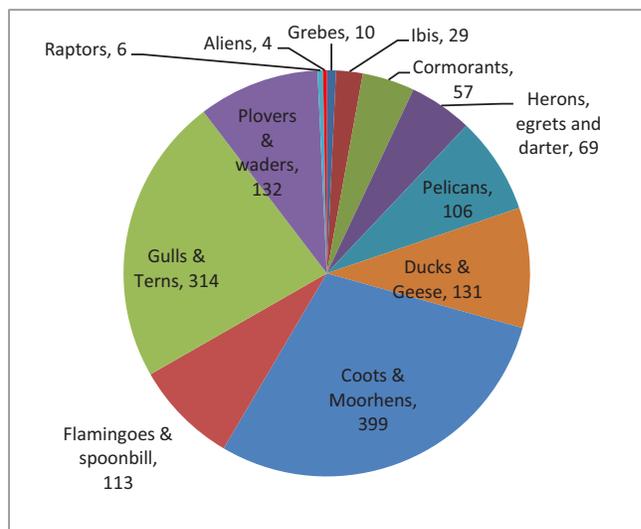


Figure 17. Pie chart of groups of birds.

4.2.2 The confirmation of the presence of species in the nature reserve is important in order to ensure that up-to-date biodiversity information guides the management of the nature reserve. Some species are difficult to detect and some may have become locally extinct at the nature reserve due to various factors. Constant work is being done to confirm the presence of species on a search list in the form of surveys and recorded observations.

A Determination Of The Status Of Bird Species Designated As Absent Or Extinct From The Rietvlei Section Of The Table Bay Nature Reserve was conducted by Nature Conservation student, Landi Louw.

The study tried to determine how many of the bird species that have not been seen for several years are actually present. Field surveys were conducted to assess the status of 57 species listed on a search list for the reserve. An assessment of the relative success of various sampling methods was also done. A total of 16 additional bird species were recorded during the study. Nine of these species were categorised as “extinct” on the search list, whereas five were new species never before recorded for this section. Most of the new species were terrestrial (bush) birds, meaning that a need exists to expand terrestrial surveys to confirm the presence of 48 species remaining on the search list. Figures 18-22 are some of the species that were confirmed present at the nature reserve, thanks to Landi’s work.



Figure 18. *Acrocephalus baeticatus* (African Reed Warbler).



Figure 19. *Turdus olivaceus* (Olive Thrush).

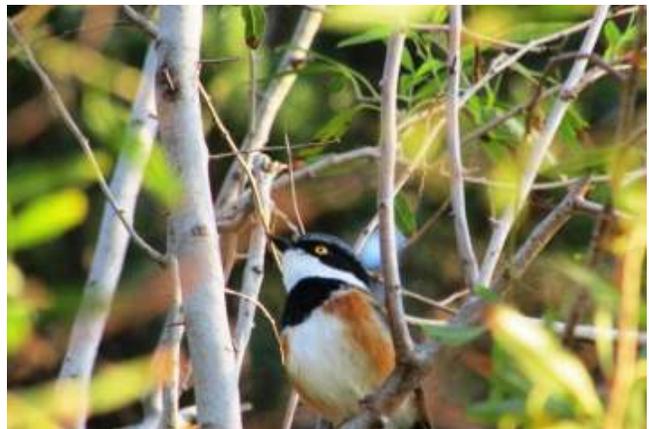


Figure 20. *Batis capensis* (Cape Batis).



Figure 21. *Chrysococcyx klaas* (Klaas’s Cuckoo).



Figure 22. *Laniarius ferrugineus* (Southern Boubou).

4.2.3 Roadkill of animals from the nature reserve still takes place on an intermittent basis, despite reduced speed limits on Marine Drive and the West Coast Road.

Animals that are found dead, but still in a good condition can be used by a taxidermist to mount as displays. This work is expensive, but once completed, adds a lot of value to the reserve environmental education resources. Table Bay presently has a Cape grysbok, and this male Cape clawless otter (see Figure 23 across) in deep freeze for curing by a taxidermist once funds become available.

Residents are urged to be on the lookout for animals on our roads, and to reduce driving speeds adjacent to natural areas.



Figure 23. A Cape clawless otter roadkill from the West Coast Road.

4.3 Erosion Management

Nothing to report.

5 WATER MANAGEMENT

5.1 Water quality

5.1.1 Water quality was monitored over three occasions at 15 monitoring points in the Table Bay Nature Reserve. The monitoring dates were 30/04, 28/05, and 25/06/2013.

5.1.2 An annual review of water quality in the nature reserve is done and presented at the Rietvlei Management Working Group by Candice Haskins (Transport, Roads and Stormwater Management). The report is very technical and too large to include in its entirety. The report looks primarily at trends in bacteria and nutrients in various sampling points in and around the reserve. One of the key indicators is faecal coliforms, and *E. coli*, as an indicator of sewage contamination in this system. Below Table 2 summarises the trends in bacteria at key sampling locations. Due to the fact that this reserve is in an urban area, there is very little compliance with national standards for water quality, except at the Rietvlei water sports area. There is however very strong improving trends.

Table 2. Trends in bacteria at selected location in and around the reserve (2013).

Sample site (trends in bacteria)	Compliance	Trend
Bayside canal at Blaauwberg Rd	Non-compliant	Improving
Bayside canal at pump station	Non-compliant	Deteriorating
Rietvlei watersports area	Compliant	Unchanged
Diep River N7 bridge	Marginal	Unchanged
Diep River Blaauwberg Rd	Marginal	Deteriorating
Diep River at Potsdam	Marginal	Improving
Diep River at Otto du Plessis bridge	Non-compliant	Improving
Woodbridge Island	Marginal	Unchanged
Lagoon Beach	Marginal	Unchanged
Duikersvlei stream	Marginal	Deteriorating
Theo Marais canal	Non-compliant	Improving
Confluence of Duikersvlei and Theo Marais	Non-compliant	Improving

5.2 Rainfall measurements

5.2.1 Rainfall at Rietvlei totalled an above-average 192.5mm. June had exceptionally high rainfall, resulting in accumulation above the average accumulation rate. See Table 3 and Figure set 24 below for interpretation of data.

Table 3. Rainfall records from the Rietvlei main entrance gate.

RIETVLEI RAINFALL Updated on 02/07/2013															
	Ave	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
January	10.531		16.0	57.9	3.5	8.0	16.0	1.0	1.5	4.0	4.00	1.00	10.00	5.00	9.00
February	6.8		2.0	10.0	6.0	0.9	4.0	7.0	19.5	6.0	9.00	5.00	0.00	0.00	19.00
March	7.4462		0.0	10.1	32.2	7.0	14.5	4.0	15.0	4.0	0.00	1.00	7.00	0.00	2.00
April	33.136	5.0	18.9	29.9	10.9	79.5	69.5	27.2	45.5	10.0	32.50	9.00	20.00	56.00	50
May	49.386	26.1	48.7	38.6	22.2	2.3	54.1	104.0	42.5	44.0	94.00	84.00	34.00	64.00	33
June	67.689	51.6	36.4	62.8	13.1	66.8	83.3	25.5	127.7	67.0	83.00	71.00	93.00	57.00	109.5
July	67.581	46.1	175.7	69.5	27.3	65.8	38.0	64.2	96.0	116.0	57.00	38.00	13.00	72.00	
August	63.842	24.3	108.7	66.9	81.1	45.5	74.0	45.0	86.0	68.5	79.00	30.00	54.00	67.00	
September	31.758	49.3	61.5	19.5	53.8	17.8	30.0	12.0	34.0	4.0	47.00	12.00	33.00	39.00	
October	24.904	5.3	31.2	33.7	25.3	119.0	9.8	20.5	22.0	2.0	29.00	0.00	10.00	16.00	
November	20.046	8.8	22.5	13.2	2.8	3.0	9.8	31.0	30.0	46.0	62.50	12.00	8.00	11.00	
December	10.431	2.5	10.5	20.1	15.5	6.5	0.0	4.5	22.0	19.0	7.00	10.00	18.00	0.00	
TOTAL	393.5	219.0	532.1	432.2	293.7	421.9	402.9	345.9	541.7	390.5	504.0	273.0	300.0	387.0	222.5

NB: Open Spaces = No DATA (RED) indicates insufficient DATA

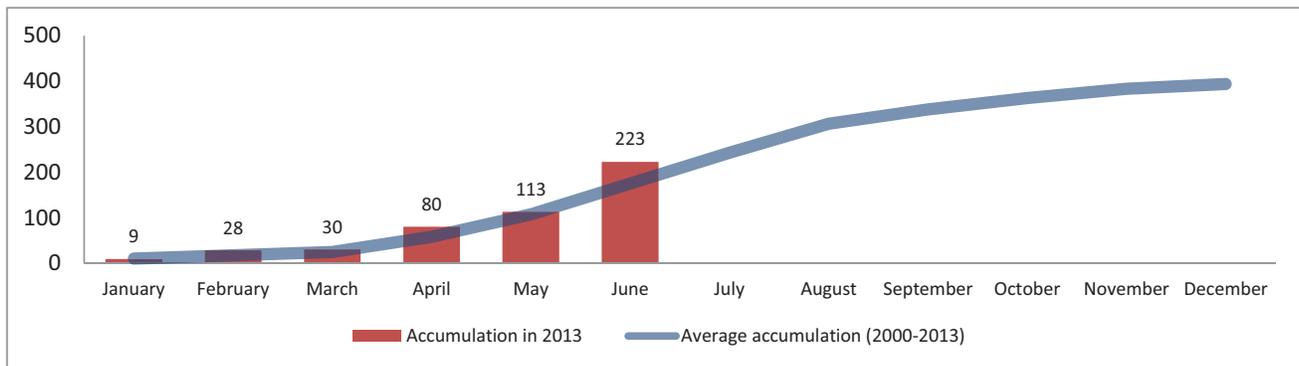
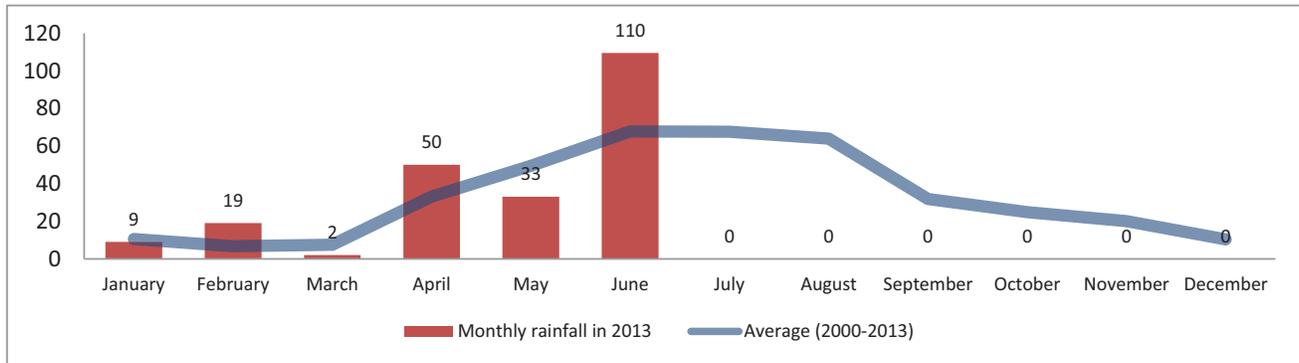
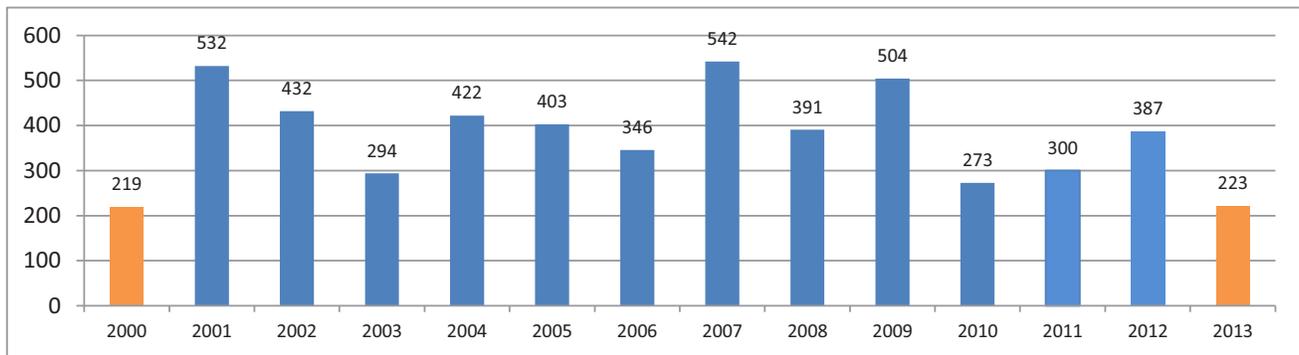


Figure set 24. Graphic representations of rainfall information.

5.3 Wetland mapping

5.3.1 Ground truthing of the City's wetland mapping continued with assistance from Mr Ian Cranna and GIS intern Khodani Munyai. Table Bay Nature Reserve covers a wetland complex, which means that a variety of different wetlands are mapped in the system.

Ground truthing is undertaken to confirm whether map information corresponds with what is physically visible on the ground. All wetlands in the nature reserve have been ground-truthed.

The mapping information is accessible to employees on the City's Integrated Spatial Information System (ISIS) Viewer under Catchment Management \ Waterbodies.

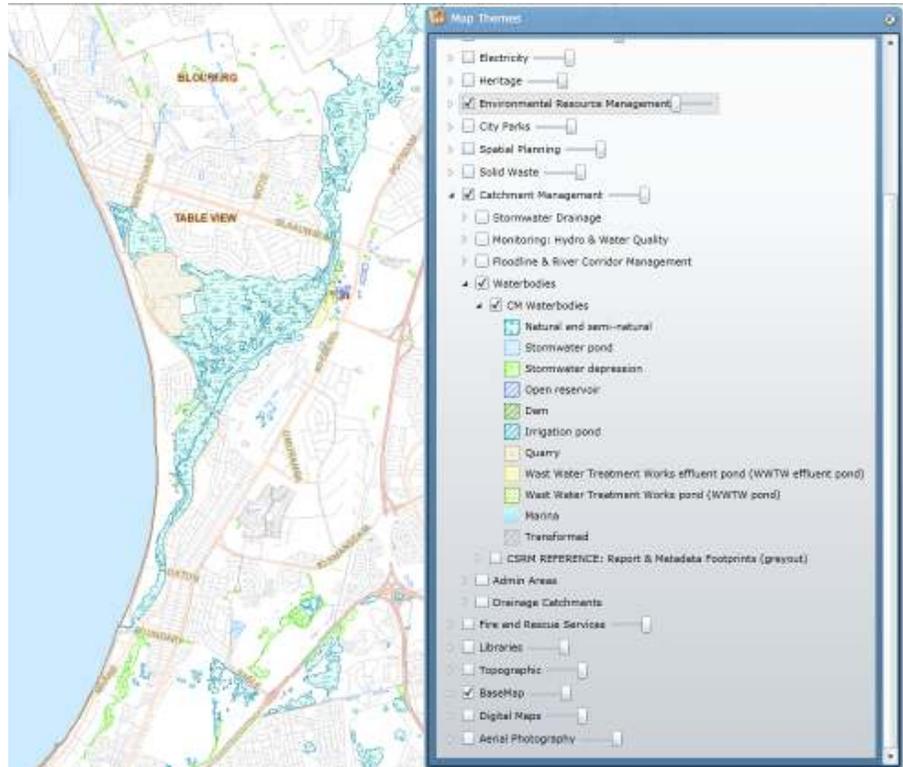


Figure 25. Extract from wetlands mapping in the City.

5.3.2 A delineation and vegetation description of a wetland in the Milnerton Racecourse section was done by student, Landi Louw. This study was part of her National Diploma's Work In-service Learning. Comparative data was collected at sample areas along transects. She assessed vegetation, the presence of an impermeable layer in the soil, hydrological characteristics, soil colour as well as redoxymorphic features (mottling) in the soil. The information that she recorded corresponded with visual signs on the location and boundaries of the seasonal and temporary wetland zones as indicated by the plant communities in the area. The presence of sandy soils, mottling, and the indicator plant communities could be used to determine the boundaries of the respective wetland zones. The indicator plant communities served as the primary indicator of wetlands.

6 FIRE MANAGEMENT

6.1 The Table Bay Nature Reserve team assisted with controlled burning operations at:

- Blaauwberg Nature Reserve, large controlled block burn as part of a Fynbos restoration project on 4/04/2013;
- Robben Island, brush pile burning between 22-26/04/2013; and
- Blaauwberg Nature Reserve, brush pile burning on 27/06/2013.

All these burns were conducted with great success. The large block burn was probably one of the largest coordinated block burns in the history of City of Cape Town nature reserves. The controlled burning on Robben Island was also a first in the history of the Island, and a great success for the City.

6.2 Fire management priorities for the next quarter include continued assistance to burning of brush piles in the Blaauwberg Nature Reserve and other sites in the North Region. There is also a process underway to obtain a permit to conduct burning of the brush piles in the Diep River Section.

6.2 A fire management plan is presently being drafted for the nature reserve. Part of this plan determines that all fires in the nature reserve must be mapped and recorded in the fire history database. Below Figure 26 illustrates the **fire history map** of this nature reserve.

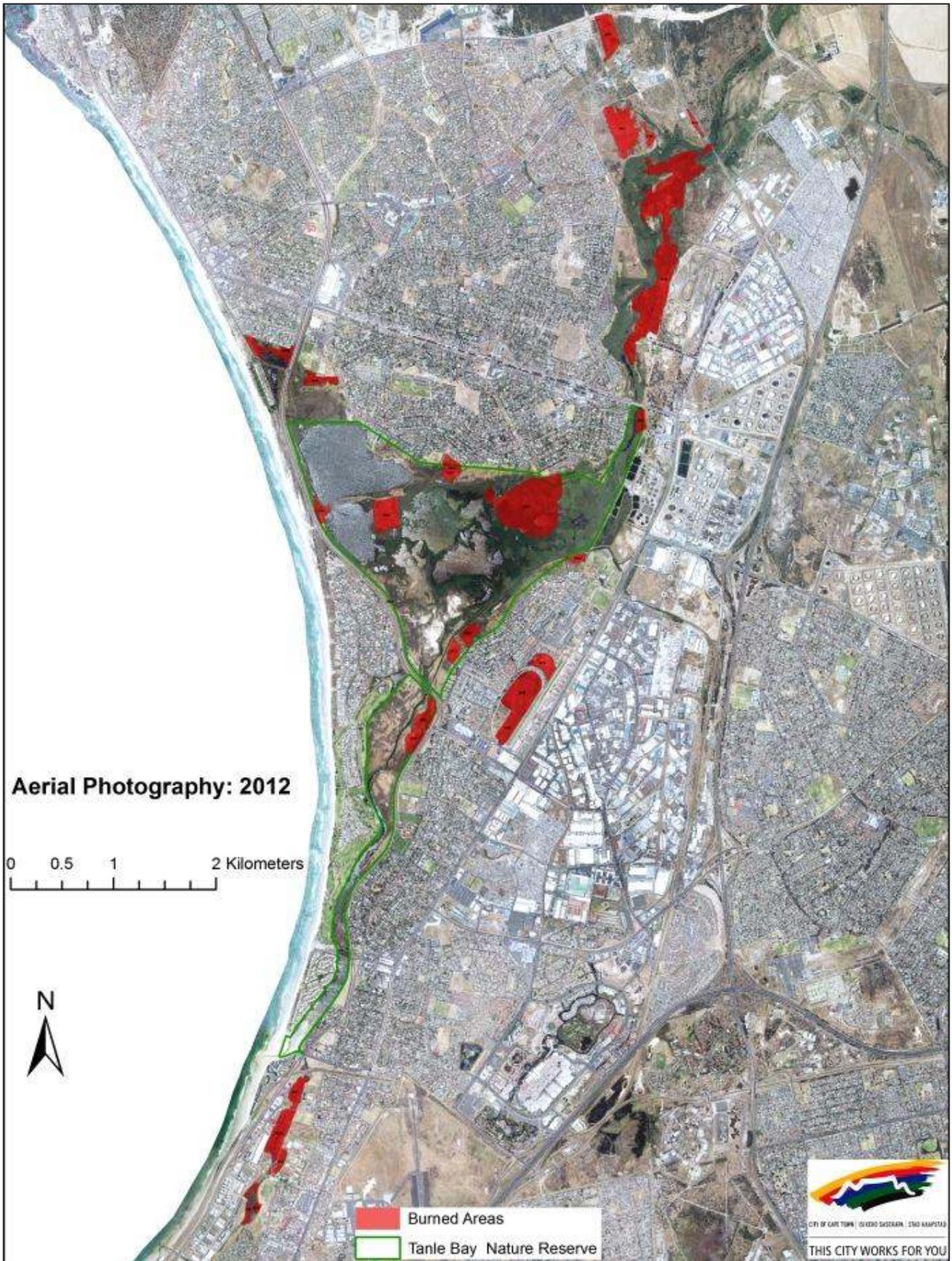


Figure 26. Updated fire history map of the Table Bay Nature Reserve.

7 COMPLIANCE MANAGEMENT

7.1 An unauthorised irrigation system in the Coastal Section at Isabella Road to Sunset Links was removed by the reserve team.

People may not place private infrastructure on public land, open spaces, public parks or nature reserves. The owner of the land, in this case the City of Cape Town, is obliged to remove all unauthorised infrastructure.

In cases where it can be identified who constructed unauthorised infrastructure on public land, that person may be instructed to remove such infrastructure and rehabilitate the land to the satisfaction of the owner at their own cost.

Several alien plants have established in this portion of nature reserve due to the artificial irrigation on the coastal dunes. Artificial irrigation can pave the way for potentially destructive alien plants to displace indigenous species.

Residents who suspect that they unwittingly affected the nature reserve negatively, or that a neighbour is doing this, can write to tablebay.naturereserve@capetown.gov.za.

Nature reserve management can give advice on how to limit or eliminate impacts from residential properties on the nature reserve.



Figure 27. Portion of Coastal Section where unauthorised irrigation system was found.

7.2 Illegal occupation of land in the nature reserve continues to be a problem. Illegal informal structures are repeatedly removed in areas such as the Milnerton Lagoon, as well as the Zoarvlei-, Rietvlei- and Coastal Sections of the reserve. The Table Bay team work with the North Region Conservation Compliance officers, as well as with the Anti Land Invasion Unit and the Displaced Peoples' Unit, to combat illegal occupation of City land. Below Figures 28-29 indicates some of the locations where structures and illegal shelters are often found and removed from the reserve.

Residents are requested to contact 021 444 0315 or tablebay.naturereserve@capetown.gov.za in case any illegal structures are observed.



Figure 28. Illegal shelter under the Wooden Bridge.



Figure 29. Illegal structure in a bush at the Coastal Section.

7.3 Illegal grazing continues to be a problem in the Diep River Section. The Table Bay staff work with the Atlantis Pound to impound animals, including cattle and goats that are illegally grazing in the nature reserve. The owner of the livestock lives in Du Noon and apparently has no land of his own to graze cattle. He is therefore grazing his cattle on private properties and public land. Figures 30-31 illustrate the impounding of animals in the nature reserve.



Figure 30. Student, Landi Louw, helping to remove illegally grazing goats from the Diep River Section.



Figure 31. Atlantis pound helping to combat illegal grazing in the Diep River Section.

7.4 An identification and assessment of negative edge effects and threats that affect the biodiversity of the Table Bay Nature Reserve was conducted by student Landi Louw.

The nature reserve is fragmented into 10 different fragments of land by physical barriers such as roads and railway lines. This means that the fragments are very small and that there are many different edges that affect the nature reserve.

A total of 172 different edges were assessed in terms of their impact on the nature reserve ranging from low, medium, high, and extremely high (see Figure 32 across of an example).

The edges were categorised into 27 different kinds of edges ranging from commercial centres, general and single residential properties, industrial parks, the marine high water mark, public and private roads, public facilities, Public Open Space, railways, recreational grounds, servitudes, sewage pump stations, stormwater canals, and vacant land.

The impacts from these edges range from encroachment of private properties, dumping and littering, spreading of fires, stray animals, invasive plants, pollution, and illegal development, to name a few.

Priority edges will be addressed by reserve management. The report is available on request from reserve management.



Figure 32. Example of mapping of edges at the Fynbos Corridor Section.

7.5 The Zoarvlei Section is in an area in the reserve that suffers from various impacts from surrounding areas, as well as illegal occupation and severe pollution. The City parks Department funded a new footbridge over the wetland at Wemyss Road, which is now a huge improvement to the visual perspective of the area (see Figure 33 below).

Zoarvlei finally gets to soar

ANDRÉ BAKKES

Years of conjecture, clamour and contention has finally been resolved – the 140 hectare Zoarvlei is indeed important.

The open space near Ysterplaat is important enough to beautify, improve, promote and maintain.

The City of Cape Town, the Paarden Eiland City Improvement District (PECID) and the local residents' association are now all pulling in the same direction.

A non-flammable bridge was recently built in the "quality open space" and the area in front of the Wolraad Woltemade home (dating back to the 1770s) has been beautified.

The reeds in the vlei are also being removed, although this might still take a substantial amount of time to complete. Other plans, such as a giant chess board, are also envisaged by ward councillor Bernadette le Roux.

Says Le Roux: "I was so desperate for something to be done to the run down area of Zoarvlei in Brooklyn that I think I shouted loud enough and won the support of my colleagues. Many meetings were held with a very capable planning and urban design official from the city, as well as the residents' association, PECID and people passionate about their environment."

One of these passionate people, the late Dr Frank Wygold, probably shared the greatest affinity with Zoarvlei.

"It is unfortunate that Wygold will not see some of the fruits of his visions for a healthy vlei area," says Le Roux.

Patricia Tallant from PECID is, however, certain that a smiling Wygold is looking down from heaven.

There is still plenty to do in the vlei for it to be regarded as a "top" quality open space, as Tallant explains: "It's right on our doorway and we have been involved with the Friends of the Paarden Island Wetland. We were involved with the petition to have the reeds taken out. We got well over 2 000 signatures. At last they did the controlled burn and we're looking forward to them herbiciding the area and removing all the reeds. We even offered to help with labour."

Le Roux reckons it will still take a while before this has been achieved.

She adds that the improvement of the vlei will extend all the way to Boundary Road, but this is also still a long way off.

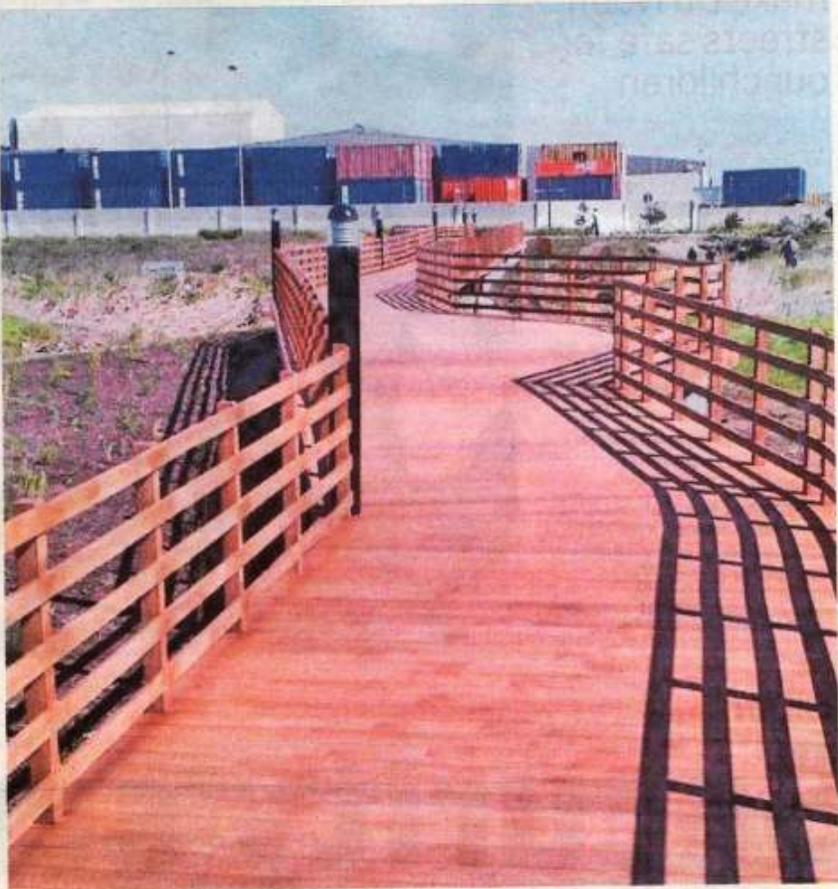
Tallant also says that it is very important to maintain the vlei, something which has not been adhered to strictly enough.

"The lack of ongoing maintenance is why the vlei has digressed so much," she insists.

Le Roux responds: "The area around the old house is well maintained by Jos Baker (the owner), who herself was also very involved with this project. Management of such quality open space was, of course a concern, but that's no reason not to continue delivery."

She reveals that the City Parks department will be taking over the maintenance responsibility once the current contractor's period is over.

Concludes Tallant: "The improvements so far look fabulous! Once it is completed it will certainly be a drawcard for Capetonians. Until recently the illegal dumping and vagrant problem have kept people away. For these improvements to be fully realised one must be patient. It is a long way to go, but we are very generally very excited, as long as the authorities prioritise to emphasise the natural beauty of the place."



The new bridge now links Zoarvlei to the BRT bus station.

Figure 33. Article in the local press about improvements at the Zoarvlei footbridge.

The staff from the Table Bay Nature Reserve was involved in no less than **30 official meetings**. The office and reserve facilities were used for no less than **36 events**. Environmental education programmes reached no less than **336 people** this quarter. This included the population environmental holiday programme for children (see Figure 34 below). See below reports for details.



Figure 34. Article in the local press about the combined holiday programme presented by Table Bay and Blaauwberg Nature Reserves.

8.1 Stakeholder Engagement (external meetings)

TBNR staff attended no less than 19 external stakeholder meetings during this quarter. See Table 4.

Table 4. External stakeholder meetings relating to the TBNR.

AREA	DATE	MEETING	PURPOSE
TBNR	12/04/2013	Zoarvlei Management Advisory Committee	Feedback
	13/04/2013	Planning of controlled burning of Robben Island	Planning
	16/04/2013	Contract site inspection: Curb Edging for internal roads	Procurement
	18/04/2013	Cell C representative regarding proposed cell mast	Review
	30/04/2013	Reed weaving workshop: Du Noon	Workshop
	03/05/2013	Contract site inspection: Fencing and gates	Procurement
	07/05/2013	Contract site inspection: Demolitions	Procurement
	08/05/2013	Contract site inspection: Provision of a service provider to conduct hydrology and geohydrology study to produce a hydrodynamic model	Procurement
	16/05/2013	Friends of Rietvlei AGM	Friends
	29/05/2013	Rietvlei Management Working Group	Feedback
	07/06/2013	Zoarvlei Management Advisory Committee	Feedback
	13/06/2013	Cape Peninsula University of Technology review of students	Feedback
	18/06/2013	Boardwalk planning at Milnerton Racecourse Section	Planning
	19/06/2013	Subcouncil 1: Discussion of Ward Allocation projects	Feedback
	20/06/2013	Former student, Leigh Wootton, planning B.Tech research project	Planning

	21/06/2013	Method statement for Parklands stormwater canal into Diep River Section	Planning
	25/05/2013	Contract site inspection: Vehicle repairs	Procurement
	26/06/2013	City responsibilities in terms of National Estuarine Management Protocol	Feedback
	28/06/2013	Feedback session on proposed amendments: National Veld and Forest Fire Act	Feedback

8.2 Stakeholder Engagement (internal meetings)

TBNR staff attended no less than six internal stakeholder meetings during this quarter. See Table 5.

Table 5. Internal stakeholder meetings relating to the TBNR.

AREA	DATE	MEETING	PURPOSE
TBNR	08/04/2013	Milnerton Lagoon management	Planning
	10/04/2013	Protected Area Reviews of North Region	Audit
	19/04/2013	Farewell for Elzanne Burger	Staff
	03/05/2013	Discussion on draft recreational water area by-law	Planning
	14/05/2013	Demonstration of office alarm activation	Security
	17/05/2013	Blaauwberg / Beachfront coastal zone issues	Planning

8.3 North District Meetings: Management and Health & Safety

Table Bay staff attended three Regional Meetings during this quarter. See Table 6.

Table 6. Records of regional meetings relating to the TBNR.

DATE	VENUE	MEETING
05/04/2013	Table Bay Nature Reserve	North Region Health & Safety and Management meeting
31/05/2013	Blaauwberg Nature Reserve	North Region Health & Safety and Management meeting
21/06/2013	Blaauwberg Nature Reserve	North Region Management meeting

8.4 Environmental Resource Management / Branch Meetings / Fun Days

Table Bay staff attended one Branch Meeting during this quarter (See Table 7 below).

Table 7. Branch meetings relating to the TBNR.

DATE	VENUE	THEME
30/05/2013	Table Bay Nature Reserve	Branch meeting

8.5 Benefits, use of facilities, and media headlines

8.5.1 The Rietvlei Boma was used for no less than 21 events this quarter, providing at least 557 person days of benefit to people (see below Table 8 for details).

Table 8. Rietvlei boma usage.

DATE	GROUP	ACTIVITY	PERSON DAYS
2013/04/01	EPWP working group	Health and safety	43
2013/04/08	EPWP working group	Health and safety	30
2013/04/15	EPWP working group	Health and safety	33
2013/04/19	Finance Accounting - CCT	Accounting training workshop	12
2013/04/22	EPWP working group	Health and safety	28
2013/04/29	EPWP working group	Health and safety	23
2013/05/06	EPWP working group	Health and safety	35
2013/05/13	EPWP working group	Health and safety	12

2013/05/20	EPWP working group	Health and safety	45
2013/05/27	EPWP working group	Health and safety	33
2013/05/30	BMB meeting	Quarterly meeting	40
2013/05/31	Finance Accounting - CCT	Accounting training workshop	14
2013/06/03	EPWP working group	Health and safety	30
2013/06/10	Budget Department	Workshop	27
2013/06/12	CoCT ERMD	EE & Communication Forum	12
2013/06/18	EPWP working group	Health and safety	30
2013/06/21	North Region	Monthly meeting	11
2013/06/24	EPWP working group	Health and safety	53
2013/06/25	ERMD	Skippers License exam and practical	22
2013/06/26-27	Natanya Dreyer – BMB	EE & Comms training for Groen Sebenza staff	24
TOTAL			557

8.5.2 The Rietvlei Education Centre was used for no less than 3 events this quarter, providing at least 40 person days of benefit to people (see below Table 9 for details).

Table 9. Rietvlei Education Centre usage.

DATE	GROUP	ACTIVITY	PERSON DAYS
2013/04/25	Rietvlei Management Working Group	Meeting	14
2013/05/29	Rietvlei Management Working Group	Meeting	11
2013/06/12	People & conservation staff – BMB	Educators Week	15
TOTAL			40

8.5.3 Environmental Education was of at no less than 12 events this quarter, providing at least 336 person days of benefit to people (see below Table 10 for details).

Table 10. Environmental Education this quarter.

DATE	GROUP(S)	LEARNERS	TEACHER + ADULTS	PD'S	PROGRAMME
2013/04/03	Holiday Programme	12	3	15	All about fishing
2013/04/04	Holiday Programme	12	4	16	All about fishing
2013/04/05	Holiday Programme	12	5	17	All about fishing
2013/05/06	Table View Brownie Group	8	3	11	Bird watching
2013/05/31	West Coast Christian School	28	5	33	Biodiversity week
2013/06/12	Wolraad Woltemade Primary	41	2	43	Biodiversity week
2013/06/13	Wolraad Woltemade Primary	41	2	43	Biodiversity week
2013/06/22	Youth Group from Atlantis & Neptune Castle Committee	80	8	88	Bird watching, mini-SASS, arts and crafts
2013/06/24	Holiday Programme	18	1	19	Getting Savvy with SASSI seafood
2013/06/25	Holiday Programme	17	1	18	Wetland Wildlife
2013/06/26	Holiday Programme	15	1	16	Racing for Wetlands
2013/06/27	Holiday Programme	16	1	17	Forever Frogging Fun
TOTALS		300	36	336	TOTALS

8.5.4 Environmental awareness in the City of Cape Town is promoted by the Smart Living toolkit which is available online at www.capetown.gov.za/smartoffice (see Figure 35 below). Nature reserve staff presented Smart Living Training to all the Fire Departments in the North Region, to assist with rolling out this awareness campaign.

The public are urged to form part of this by downloading the Smart Living resources from the City's webpage and participating in becoming more aware of, and responsible to the environment. Public perceptions of environmental assets are often portrayed in the local media (See Figure 34).

Go green with toolkit

STAFF REPORTER

Now you can green your office with the help of the City's Smart Office Toolkit which focuses on environmental awareness for the workplace.

It's part of the Smart Living series and the launch coincided with Earth Day on Monday April 22) and Green Office Week, from Monday April 22 to Friday April 26.

The comprehensive toolkit will help individuals and organisations green their workplaces.

It is only available online and consists of the handbook, a range supporting resources and publications; and an A3 reminder poster.

The toolkit is designed to assist in developing a process for imple-

menting a sustainability strategy; learning practical tips; planning a successful and cost-effective approach to addressing environmental issues in the workplace; and compiling an environmental policy and strategy that is relevant to your business.

The Smart Living series consists of the Smart Living Handbook, Smart Events Handbook, Smart Building Handbook, Smart Eating Toolkit (for schools) and now the Smart Office Toolkit.

To download the Smart Office Toolkit, visit the City's website at www.capetown.gov.za/smartoffice.

For more information on Green Office Week, go to www.greenofficeweek.co.za or log on to www.earthday.org/2013.

Figure 35. Article in the local press about responsible approaches to the environment.

9 HUMAN RESOURCE MANAGEMENT

9.1 Staff Establishment

Staff at TBNR consisted of 11 permanent staff and no less than 72 contract (non-permanent) staff (see Table 11 below). Apart from two students and one intern, most of the non-permanent staff members were EPWP contract workers that work on projects ranging from invasive vegetation clearing, reed bed cutting, and firebreak maintenance.

Table 11. Table Bay staff complement.

TBNR	POSITION	PURPOSE	PERMANENT	CONTRACT
Internal	Area Manager	Functional / Operational Management	1	
	Assistant Cons Off	Gate control / Visitor Mngt / Law Enforcement	2	
	Assistant Cons Off	Conservation Compliance – Diep River	1	
	People & Cons Off	Environmental Education Officer	1	
	Foreman	Supervision of Junior Staff	1	
	Small Plant Operator	Chainsaw / Brush-cutter / weed eaters / mowers	1	
	Senior Workers	Labour / Field Ranging	4	
	Intern	Education Programme Management		1
	Student	Nature Conservation Learning		2
External	Workers	EPWP Labour		69
TOTALS			11	72

9.1.1 Staff changes affected the reserve in this quarter. Senior worker, Jikephi Noludwe, applied for a promotion at Bracken Nature Reserve. He was selected for this position and started there in April. His vacancy was advertised and several people who work in the EPWP teams applied for this position. The training programmes that are offered in the EPWP programme, as well as on site coaching that is offered by nature reserve staff improved the standard of applicants in the interview process.

Ferika Yamile (see Figure 37) was successful in her application and was appointed as a new senior worker in the place of Jikephi Noludwe. Ms Yamile lives in Du Noon and is now adding great value to the work at Table Bay Nature Reserve.



Figure 36. New senior worker, Ferika Yamile.

9.1.2 Overtime expenditure this quarter was primarily used for visitor management. A total of almost 400 person hours was spent to ensure the reserve is properly managed on weekends and public holidays. See below Table 12 for a breakdown.

Table 12. Breakdown of overtime this quarter.

Month	April	May	June	TOTAL
Overtime	141.9 hrs	105.16 hrs	151.29 hrs	398.35 hrs

9.2 Staff Training

Nothing to report.

10 TOURISM AND VISITORS

10.1 Entrance and revenue: A total of **R31 317** was collected at the Rietvlei main gate during this quarter (see Table 13 below for details).

Table 13. Revenue collected at the Rietvlei main entrance this quarter.

DESCRIPTION	TARIFF	APR	MAY	JUNE	QTY	INCOME
Pensioners	R 6.00	35	34	17	86	R 516.00
Adults	R 12.00	293	253	195	741	R 8 892.00
Children; 3-17 yrs	R 6.00	81	62	56	199	R 1 194.00
Children <3yrs & free	R 0.00	2	4	7	13	R 0.00
Scholars - school groups	R 5.00	15	111	30	156	R 780.00
Friends groups with proof of membership	R 0.00	29	29	6	64	R 0.00
Vehicles	R 17.00	156	142	112	410	R 6 970.00
Powerboats	R 44.00	17	17	12	46	R 2 024.00
Fishing - Senior Citizen	R 13.00	13	20	7	40	R 520.00
Fishermen - Adult	R 38.00	86	92	61	239	R 9 082.00
Fishermen - Children (3-17yrs)	R 13.00	32	14	7	53	R 689.00
Commercial activity 1-9 people per day	R 110.00		1		1	R 110.00
Commercial activity 10-20 people per day	R 270.00		2		2	R 540.00
TOTAL FOR YEAR		759	781	510	2050	R 31 317.00

10.2 Non-motorised sporting codes are promoted at the Rietvlei Section to address inequity of access to opportunities and to address concerns regarding the impact of motorised boating on the aquatic environment.

Paddling and canoeing was identified as an opportunity for more people to become involved at the Rietvlei Section. Traditionally canoeing has only been practiced at the Milnerton Lagoon Section, and Stand Up Paddling along the coast.

Due to water quality concerns at the lagoon, and the unpredictability of the sea, it was decided that paddling and canoeing should also be allowed in the Rietvlei Section.

As of 1 July 2013, paddling and canoeing will be allowed on a trial basis at Rietvlei between 07:30 and 10:00 on weekdays. Canoes will operate in the same circuit as power boats, but not during the same times. A media release was published in the local press to inform residents and users of the change in the pattern of use.



Figure 37. Media release about canoeing and paddling starting at Rietvlei.

11 INFRASTRUCTURE MAINTENANCE

The Table Bay Nature Reserve team focused on the maintenance of access control measures and internal roads during this quarter. The Roads and Stormwater Department cleaned all the stormwater canals that run into the nature reserve. See Figures 39-43 below.



Figure 38. Inserting a vehicle barrier (photo C. Roux).



Figure 39. Flooding of internal road at Rietvlei Section.



Figure 40. Repair to an internal road at Rietvlei Education Centre.



Figure 41. Excavator cleaning Bayside Canal.



Figure 42. Excavator cleaning Theor Marais Park canal.

12 FINANCIAL MANAGEMENT

Several capital expenditure projects were undertaken during this quarter to improve and upgrade the nature reserve facilities. These amounted to no less than R340,000, and including items such as the demolition of old infrastructure, construction of fences and gates, curb edging of an internal road, and upgrades to signage (see Figures 44-47 below).

These improvements at the nature reserve will offer better security, safety and accessibility for visitors and users of the nature reserve. See Table 14 below for a breakdown of the costs.

Table 14. Breakdown of CAPEX projects.

CAPEX Projects in Table Bay NR	Amount (incl of VAT)
Demolition and removal of old structures	R 25,650.00
Concrete palisade and Beta fencing	R 119,206.38
Motorised entrance gate	R 15,471.36
Curb edging of road	R 128,433.31
Signage upgrade	R 53,890.00
TOTAL	R 342,651.05

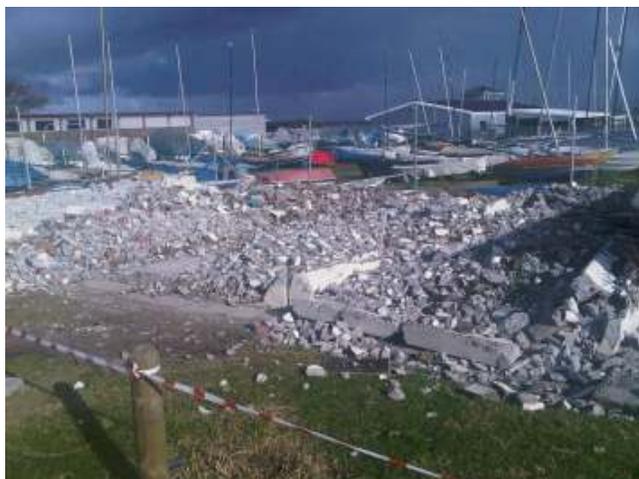


Figure 43. Demolition of old infrastructure at the main entrance.



Figure 44. Fences and gate at main entrance.



Figure 45. Curb edging of internal road.



Figure 46. Curb edging of internal road.