



CITY OF CAPE TOWN | ISIXEKO SASEKAPA | STAD KAAPSTAD

THIS CITY WORKS FOR YOU

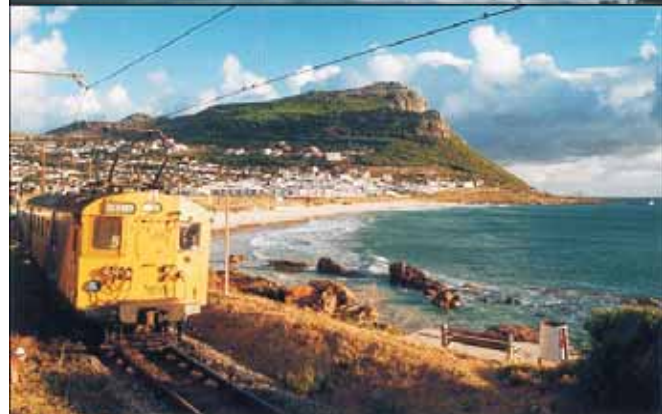
# 2005

# Status Report

COASTAL

WATER

QUALITY



# Introduction

Water Quality Criteria, used to determine fitness for use and the protection of the natural aquatic environment, include the physical, chemical, biological and aesthetic properties of the water. In order to assess the sea water quality for bathing purposes, the City monitors bacterial indicators of faecal pollution in the surf zone of bathing areas.

Results for the past twelve months have been evaluated against the South African Water Quality Guidelines for Coastal Marine Waters (DWA 1995 Volume 2: Recreational Use)

The guidelines specify desired values for the indicator organism, faecal coliforms, and are summarised as follows:

- \* 80% of samples must contain not more than 100 faecal coliforms / *E coli* per 100ml (80% limit and,
- \* 95% of samples must contain not more than 2000 faecal coliforms/ *E coli* per 100ml (95% limit)

The location of monitoring points are shown below:

Figure 1.



# False Bay

The area monitored extends from Miller’s Point to Kogel Bay. Sampling point locations are shown on Figure 1 and bacterial counts are listed in Annexure A and presented in graphical Form in Figure 2.

The table below shows the percentage of beaches that have complied with the 80th and 95th percentiles over the past eleven years (Full Year - October to September and Summer October to March).

## False Bay Coast

### FULL YEAR

Percentage compliance for bathing areas	Year												
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
80 Percentiles	76	97	86	68	78	84	92	85	93	85	98	93	<b>82</b>
95 Percentiles	95	97	97	89	97	95	95	87	100	93	100	100	<b>90</b>
Number of Areas	37	37	37	37	37	37	38	39	40	40	40	40	<b>39</b>

### SUMMER

Percentage compliance for bathing areas	Year												
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
80 Percentiles	92	95	87	51	75	76	89	92	98	78	98	95	<b>90</b>
Number of Areas	37	37	37	37	36	37	37	39	40	40	40	40	<b>39</b>

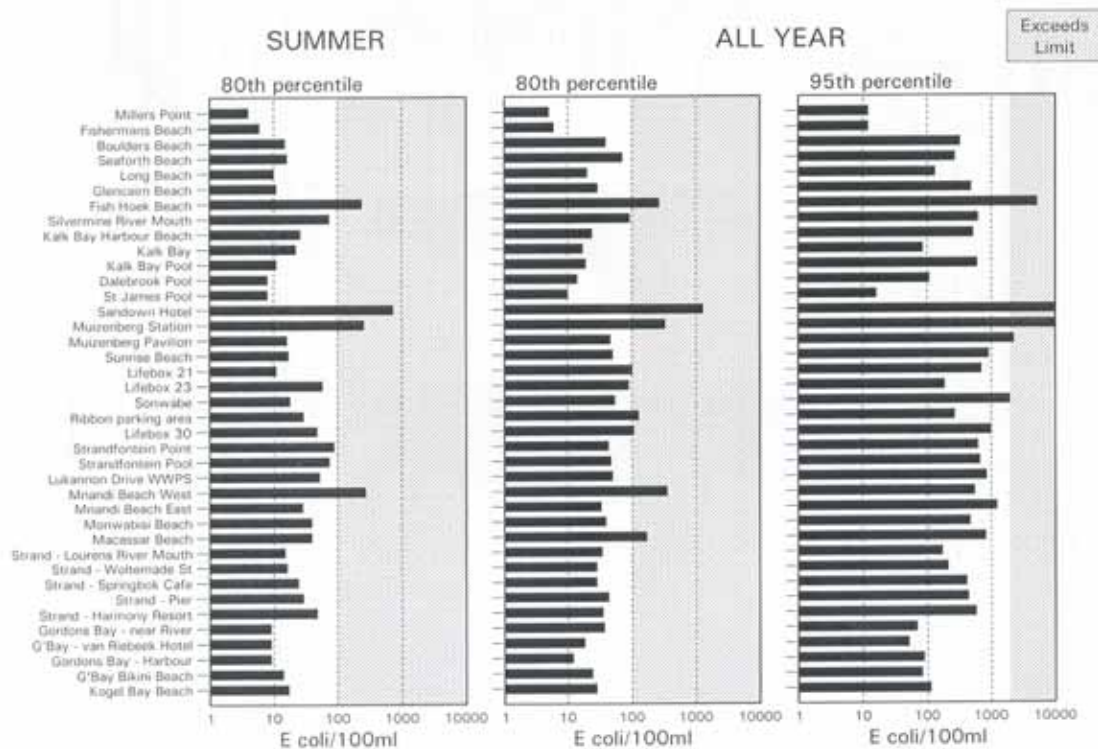


Figure 2.

Seven sample sites on the False Bay coast did not comply with the 80th percentile: Fish Hoek Beach, Silvermine River Mouth, Sandown Hotel, Muizenberg Station, Ribbon Parking Area, Mnandi Beach West and Macassar Beach. The diversion of the low flow of the stormwater culvert at Fish Hoek Beach into the sewerage system was completed and counts should now reduce. The investigation into improving the stormwater discharge at Muizenberg was completed but revealed no point source pollution. There is an overall deterioration in the compliance with both the 80th and 95th percentiles as compared to the previous year. The percentage compliance for summer deteriorated only slightly.

# Atlantic Coast

The area monitored extends from Silvermine Beach in the North to Scarborough in the South. Sampling point locations are shown in Figure 1. Bacterial counts are listed in Annexure B and presented in graphical form in Figure 3.

The table below shows the percentage of beaches that have complied with the 80th and 95th percentiles over the past eleven years (Full Year - October to September and Summer October to March).

## Atlantic Coast

### FULL YEAR

Percentage compliance for bathing areas	Year												
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
80 Percentiles	80	100	81	73	85	70	70	82	75	68	89	82	79
95 Percentiles	92	100	85	100	92	96	89	86	86	86	93	96	79
Number of Areas	25	25	26	26	26	27	27	28	28	28	28	28	28

### SUMMER

Percentage compliance for bathing areas	Year												
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
80 Percentiles	100	96	88	80	85	67	82	86	93	75	82	82	79
Number of Areas	25	26	26	25	26	27	22	27	28	28	28	28	28

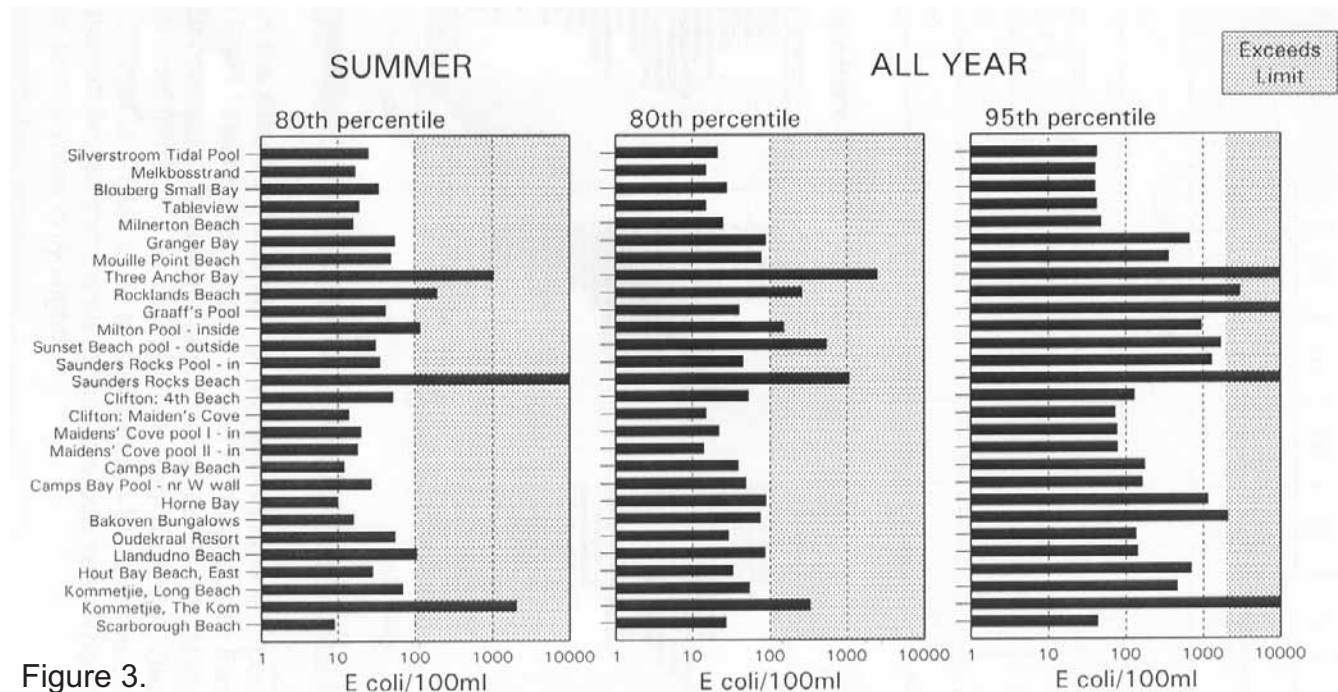


Figure 3.

Twelve sample sites on the Atlantic Coast did not comply with the 80th percentile: Rietvlei Outlet, Green Point Wastewater Outfall, Green Point opposite Park Rd, Three Anchor Bay, Rocklands opposite Shoreham Flats, Rocklands Beach, Milton Pool (in-and outside), Sunset Beach Pool (outside), Saunders Rock Pool (outside), Saunders Rock Pool and the Kom in Kommetjie. There is an overall deterioration in the compliance with both the 80th and 95th percentiles as compared to the previous year. The percentage compliance for summer deteriorated only slightly.

# How Does Our Water Quality Compare?

Each year the European Union publishes a summary of bathing water quality on the coastlines of their member countries. Because their criteria are very similar to those used in the South African guidelines, we can easily compare their values with those for False Bay and the Atlantic coast.

They use two criteria, a stringent guideline to be aimed at and a less stringent mandatory value, which is supposed to be complied with by all. These correspond to the South African 80<sup>th</sup> and 95<sup>th</sup> percentile guidelines.

In Figure 4 the first bar graph indicates percentage compliance with the 80<sup>th</sup> percentile guideline and the 95<sup>th</sup> percentile mandatory value, the second graph indicates compliance with the 95<sup>th</sup> percentile mandatory value.

It should be noted that the figure indicates percentage compliance rather than level of pollution. Higher values therefore represent less pollution. The European statistics are for the 2004 calendar year.

As can be seen from these graphs Cape Town beaches compare favourably with European beaches.

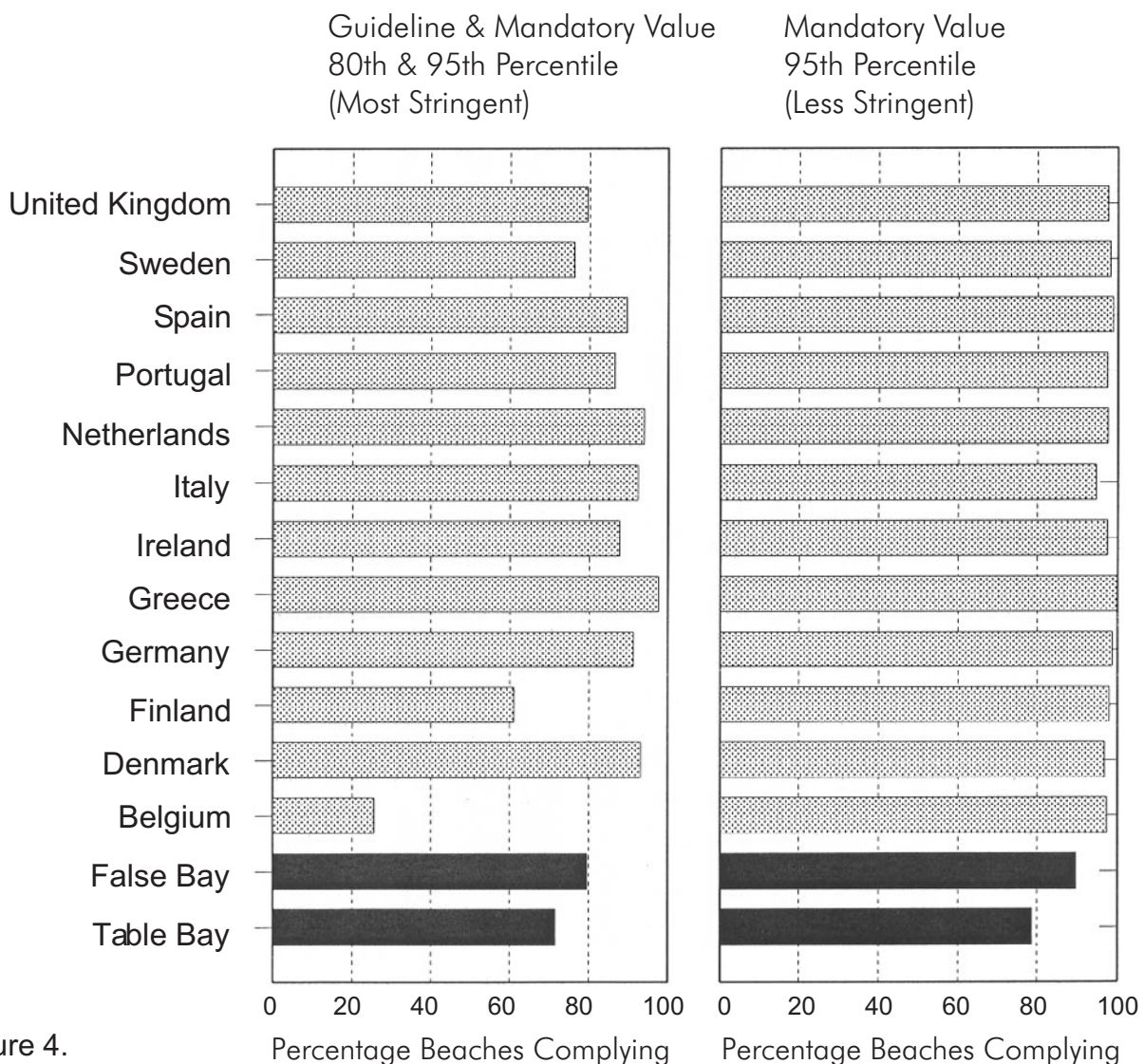


Figure 4.

# Annexure A

## FALSE BAY - BACTERIOLOGICAL DATA

	ALL YEAR Oct 2004 - Sep 2005			SUMMER Oct 2004 - Mar 2005	
	Samples Examined	E coli/100ml		Samples Examined	Ecoli/100ml
		Percentile*			Percentile*
		80%	95%		80%
<b>BATHING AREAS</b>					
Millers Point	24	5	12	13	4
Fishermans Beach	24	6	12	13	6
Boulders Beach	24	39	328	13	15
Seaforth Beach	24	71	269	13	16
Long Beach	24	20	132	13	10
Glencairn Beach	24	29	483	13	11
Fish Hoek Beach	24	264+	5190#	13	242+
Silvermine River Mouth	24	92	621	13	74
Kalk Bay Harbour Beach	22	24	519	11	26
Kalk Bay	22	17	84	11	22
Kalk Bay Pool	22	19	604	11	11
Dalebrook Pool	21	14	108	11	8
St James Pool	21	10	16	11	8
Sandown Hotel	22	1290+	15000#	11	731+
Muizenberg Station	21	326+	15000#	11	259+
Muizenberg Pavilion	23	46	2250#	12	16
Sunrise Beach	23	50	906	12	17
Lifebox 21	22	100	700	11	11
Lifebox 23	21	88	186	11	58
Sonwabe	22	54	1950	11	18
Ribbon Parking Area	21	125+	266	10	29
Lifebox 30	22	107+	982	11	48
Strandfontein Point	24	43	616	13	88
Strandfontein Tidal Pool	21	47	663	11	74
Lukannon Drive Pump Station	24	50	839	13	52
Mnandi Beach West	24	350+	550	13	273+
Mnandi Beach East	24	33	1220	13	28
Mowabisi Beach	22	39	465	12	39
Macassar Beach	20	168+	813	10	39
Strand Lourens River Mouth	20	34	170	9	15
Strand - Melkbaai - Woltemade St	21	28	210	10	16
Strand - Melkbaai - Springbok Café	22	28	412	11	24
Strand - Pier	22	43	441	11	29
Strand - Harmony Resort	22	35	577	11	48
Gordons Bay - nr Sir Lowry's Pass River	19	37	69	9	9
Gordons Bay - van Riebeeck Hotel	21	18	51	11	9
Gordons Bay - Harbour	21	12	88	11	9
Gordons Bay - Bikini Beach	21	24	82	11	14
Kogel Bay Beach	20	28	113	10	17

# Annexure B

## ATLANTIC COAST - BACTERIOLOGICAL DATA

	ALL YEAR Oct 2004 - Sep 2005			SUMMER Oct 2004 - Mar 2005	
	Samples Examined	E coli/100ml Percentiles*		Samples Examined	E coli/100ml Percentile* 80%
		80%	95%		
<b>BATHING AREAS</b>					
Silverstroom Tidal Pool	24	21	42	11	25
Melkbosstrand	24	15	40	11	17
Blouberg Small Bay	24	28	40	11	34
Table View	24	15	42	11	19
Milnerton Beach at Lighthouse	24	25	48	11	16
Granger Bay	26	88	675	13	55
Mouille Point Beach	26	78	362	13	49
Green Point WW Outfall	25	273+	5850#	12	30
Green Point opp. Park Road	26	452+	15000#	13	32
Three Anchor Bay	26	2520+	15000#	13	1040+
Rocklands opp. Shoreham	26	263+	2660#	13	162+
Rocklands Beach	26	263+	3000#	13	194+
Graaff's Pool	11	40	9640#	10	42
Milton Pool - inside	26	154+	952	13	117+
Milton Pool - outside	26	174+	15000#	11	283+
Sunset Beach Pool - outside	26	551+	1700	13	31
Saunders Rocks Pool - inside	17	45	1300	13	35
Saunders Rocks Pool - outside	17	543+	7990	11	283+
Saunders Rocks Beach	26	1090+	15000#	13	11000+
Clifton - 4 <sup>th</sup> Beach	26	53	129	13	52
Clifton - Maidens Cove	24	15	73	12	14
Maidens Cove Tidal Pool I - inside	22	22	77	10	20
Maidens Cove Tidal Pool I - outside	24	21	104	12	27
Maidens Cove Tidal Pool II - inside	21	14	78	10	18
Maidens Cove Tidal Pool II - outside	24	22	92	12	28
Camps Bay Beach	26	39	175	13	12
Camps Bay Pool - inside near W wall	26	49	163	13	27
Camps Bay Pool - inside near toilet	26	38	519	13	18
Camps Bay Pool outside	25	45	102	12	12
Horne Bay	26	89	1150	13	10
Bakoven Bungalows	26	75	2080#	13	16
Oudekraal Resort	25	29	134	14	55
Llandudno Beach	25	86	141	14	105+
Hout Bay Beach East	25	33	695	14	28
Kommetjie, Long Beach	25	54	459	13	69
Kommetjie, The Kom	25	334+	15000#	14	2030+
Scarborough Beach	25	27	43	14	9

\* Values below which given percentage of results lie

+ Exceeds WQG 80% limit (80% of values not more than 100)

# Exceeds WQG 95% limit (95% of values not more than 2000)

# GENERAL INFORMATION

## Contacts and Numbers

City of Cape Town:

**All Emergencies 107 or 021 480 7700 from a cellphone**

General Enquiries 021 400 1111

City Police 021 400 4100

Water Pollution Control 021 684 1042

Catchment, Stormwater and River Management 021 487 2206

Community Facilities 021 400 3785

Solid Waste: Collections, Area Cleaning

(incl illegal dumping) and Disposal 086 010 2640

Wastewise 021 487 2477

Transport, Roads and Stormwater 021 957 4700

Department of Water Affairs and Forestry 021 950 7100

Department of Environmental Affairs and Tourism: 021 402 3342

Marine and coastal Management or 082 557 6612

Provincial Government: Pollution and Waste Management 021 483 2705

## What can you do to help?

- Realise that you can make a difference
  - Report overflowing litter bins
  - Prevent littering and illegal dumping
  - and confront or report perpetrators
  - Remove your dog and horse droppings from the beach
  - Don't swim during or after a rain storm
  - GET INVOLVED! Join a forum or interest Group and improve water quality
  - Never swim in stormwater
  - Allow only rain water into stormwater drains
- Report pollution