

## INDEX

SR. NO.		CONTENTS	PAGE NO.
<b>1.</b>		<b>Introduction</b>	<b>1</b>
<b>2.</b>		<b>NMMC Area</b>	<b>3</b>
	2.1	History	3
	2.2	Location	4
	2.3	Demography	5
	2.4	Climate	7
	2.5	Composition	12
	2.6	Land use in NMMC Area	15
	2.7	Development Plan for NMMC Area	21
<b>3.</b>		<b>Facilities and Amenities in NMMC Area</b>	<b>23</b>
	3.1	Amenities and facilities	23
	3.2	Water Supply	23
	3.3	Sewerage	26
	3.4	Storm Water Management	27
	3.5	Public Toilets	27
	3.6	Solid Waste Management	29
	3.7	Health Services	30
	3.8	Roads and Transport	32
	3.9	Footpaths in NMMC area	35
	3.10	Electricity	36
	3.11	Education	37
	3.12	Crematoriums	38
	3.13	Fire-Fighting	39
	3.14	Trees and Gardens	40
	3.15	Slum Improvement	44
	3.16	Entertainment	46
	3.17	Public Grievances Redressal and Information Mechanism	46

<b>SR. NO.</b>		<b>CONTENTS</b>	<b>PAGE NO.</b>
<b>4.</b>		<b>Status of Environmental Quality</b>	<b>48</b>
	4.1	Approach	48
	4.2	Air Quality	48
	4.3	Noise Levels	54
	4.4	Drinking Water Quality	55
	4.5	Ground Water Quality	57
	4.6	Waste Water Management	58
	4.7	Surface Discharges	61
	4.8	Lake Water Quality	62
	4.9	Solid Waste Management	64
	4.10	Hospital Waste Management	66
<b>5.</b>		<b>Actions proposed by NMMC for Environmental Projects</b>	<b>68</b>
<b>6.</b>		<b>Summary of Environmental Status</b>	<b>71</b>
<b>7.</b>		<b>Environmental challenges and Agenda for Action</b>	<b>80</b>
	7.1	Premise	80
	7.2	Agenda for Action	81
		7.2.1 Reduction of Noise Pollution	82
		7.2.2 Solid Waste Management	83
		7.2.3 Restoration of Stone Quarries and Protection of Hills	84
		7.2.4 Protection of Coastal Areas	85
		7.2.5 Water Conservation	86
		7.2.6 Water Quality Management	87
		7.2.7 Hazardous Waste Management	89
		7.2.8 Restoration and Beautification of Lakes Restoration and Beautification of Lakes	90
		7.2.9 Promotion of Use of Renewable Energy	91
		7.2.10 Pollution Prevention in NMMC Area	93

<b>SR. NO.</b>		<b>CONTENTS</b>	<b>PAGE NO.</b>
<b>8.</b>		<b>Priority Areas of Action</b>	<b>94</b>
		<b>Annexure</b>	<b>97</b>
		<b>Comparison of Environmental Status</b>	
		<b>Environmental Legislations</b>	

## **Tables**

<b>Table No.</b>	<b>Particulars</b>	<b>Page No.</b>
2.1.1	Proposed Land-use Pattern in Navi Mumbai as Per CIDCO Plan	3
2.1.2	Land-use in NMMC Area	4
2.3.1	Population in NMMC Area	5
2.3.2	Demographic Details of NMMC Area as per 2001 Census	6
2.4.1	(A) Meteorological Observations in Navi Mumbai Area during 2001	8
	(B) Meteorological Data - 8hrs Monitoring	8
	(C) Meteorological Data - 24 hrs Monitoring	9
2.6.1	Zonewise Landuse in NMMC	16
2.6.2	Nodewise Landuse in NMMC Area	16
2.6.3	Lakes and Ponds in NMMC Area	18
2.6.4	Number of Properties in NMMC Area	20
2.6.5	Number of Registered Properties in NMMC Area	20
2.6.6	Permission to Start Construction Granted During 1995-2002	21
3.2.1	Water Requirement and Sources of Water Supply in NMMC Area	24
3.2.2	Salient Features of Water Supply in NMMC Area	24
3.2.3	Details of Sewer Lines in NMMC Area	25
3.3.1	Sewage Treatment Plants in NMMC Area	26

3.3.2	Expenditure on Sewerage and Sewage Treatment in NMMC Area	27
3.5.1	Organizations Maintaining Public Toilets in NMMC Area	28
3.5.2	Expenditure incurred in maintenance and repair of public toilets	28
3.7.1	Health Facilities in NMMC area	30
3.7.2	Patients affected by water borne diseases	31
3.7.3	Patients affected by Malaria	32
3.8.1	(a) Details of Roads in NMMC Area	47
	(b) Improvement of roads (2000-02)	33
3.8.2	Details of Walkways and Footpaths in NMMC Area	33
3.8.3	Details of NMMC Transport Service During 2001-2002	34
3.8.4	No. of Registered Vehicles in Thane District	34
3.8.5	Road Accidents in NMMC Area	35
3.9.1	Budgetary provisions for footpaths	36
3.11.1	Educational Institutes	38
3.12.1	Crematoriums in NMMC Area	39
3.13	Fire Fighting Facilities in NMMC	40
3.14.1	Gardens in NMMC Area	40
3.14.2	Details of Tree Plantation in NMMC Area	42
3.15	Slum Pockets in NMMC Area	45
4.21	Ambient Air Quality In NMMC Area at various nodes	51
4.2.2	Ambient Air Quality In NMMC Area at various traffic intersections	52
4.3.1	Noise Levels in NMMC Area for 24 hrs Monitoring at various nodes	54
4.3.2	Noise Levels in NMMC Area for 8 hrs Monitoring at various traffic intersections	55
4.4.1	Assessment of domestic water samples	56
4.4.2	Water quality of major ESR/GSR	56
4.5.1	(a) Water quality in wells	57
	(b) Water quality in wells	58
4.6.1	Wastewater Quality in STPs	59
4.6.2	BOD removal efficiency of STPs	60

4.6.3	CETP Outlet (Mahape)	60
4.7.1	Water quality in nallahs	61
4.8.1	(a) Water quality of major lakes	62
	(b) Water quality of major lakes	64
4.9.1	Composition of Solid Waste	
	(A) Physical Characteristics	65
	(B) Heavy Metals	65
4.10.1	Composition of Bio Medical Waste	66
4.10.2	Composition of Bio Medical Waste (average)	67

## **Figures**

2.3.1	Population distribution	6
2.3.2	Population growth in NMMC area	7
2.3.3	Population density in NMMC area	7
2.4	Wind roses	10
2.6.1	Land use NMMC area	17
2.6.2	Ratio of lake/total area	19
3.8	Accidents in NMMC area	35
3.11	Number of schools in NMMC area	37
3.14.1	Number of gardens in NMMC area	41
3.14.2	Garden area/zone area ratio in NMMC area	41
4.2.1	Air quality in NMMC area	51
4.2.2	Variation in air quality in NMMC area	51
4.2.3	Variation in air quality index at traffic junctions	52
4.3.1	Noise levels in NMMC area	55
4.4.1	Water samples unfit for drinking	57

## **Maps**

2.1	Map showing stations for meteorological data	11
4.1	Map showing ambient air quality and noise level monitoring stations	49
4.2	Map showing major lakes	63