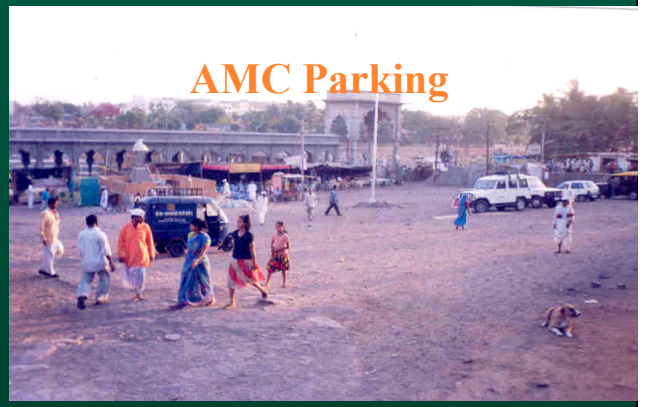
Existing Environmental Scenario

4. Traffic and Transportation

- Total road network - 18 km
  - 10 km -Bitumen Topped (BT)
  - 2 km - Concrete roads
  - 4 km - Water Bound Macadam (WBM) roads
  - 2 km - Kutcha roads.
- Vehicle parking is a major area of concern
  - Only one parking lot owned by the Alandi MC near the Chakan Chowk (3300 sq.m.)
  - Another Parking area in front of the Shri Dnyaneshwar Maharaj Samadhi Temple
- Frequent traffic jams at Nagar Parishad Chowk, Rath, Vadgaon Chowk and Chakan Chowk due to movement of heavy traffic leading to Markal MIDC, built up area, commercial activities, encroachments and haphazard parking



Existing Environmental Scenario

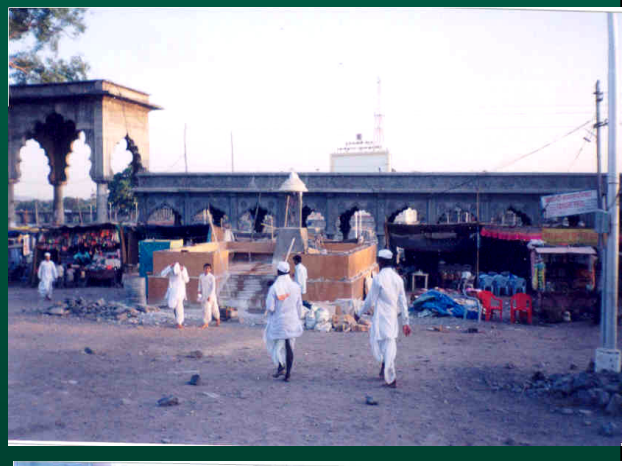
4. Traffic and Transportation (contd..)

Key Issues :

- Un planned parking areas & Haphazard parking and Encroachments on roads reduce effective road width causing congestion hazards and vehicular noise & air pollution

- Poor road surfaces quality, resulti in wear and tear of vehicle tyres, slow traffic movement and dust pollution

- The Pune-Chakan MDR passing through the town creating accident spots and traffic jam due to narrow width & acute angles



Major Roads in Alandi			
Sl No	Road	Type	Width (ft)
1	Pune-Chakan Road over new bridge	BT	60
2	Branch of Pune-Chakan Road to Alandi Nagar Parishad over old bridge	BT	60
3	Dehu Phata from Pune – Chakan Road	BT	60
4	Municipality office – Rath – Vadgaon Chowk – Bharav Road - (Pradakshina Marg)	BT	25 to 40
	Municipality office to Samadhi Temple (Mahadwar Road)	BT	25
5	Markal Road	BT	40
6	Vadgaon Road	BT	50
7	Padmavati Road	WBM	50
8	Charholi Road (Cosmos Bank to Municipal boundary)	WBM + BT	30
9	Chakan Chowk to Water Treatment Plant	WBM	20
10	Kelgaon Road	BT	30

Existing Road Network.		
Category of Roads	**Length, km**	**Distribution %**
Municipal Roads		
Surfaced Roads		
Bitumen Topped	10	55.56
Concrete	2	11.11
Un- surfaced Roads		
WBM	4	22.22
Earthen/Kutcha	2	11.11
Total Length	**18**	**100**

Important Traffic Junctions in Alandi

Sl No.	Traffic Junction Name	No.of Roads
1	Junction in front of Municipality office (Nagar Parishad Chowk)	3
2	Markal Chowk	2
3	Rath	3
4	Vadgaon Chowk	3
5	Chakan Chowk	4
6	Y junction on Pune road bifurcating entry from old and new bridge	3
7	Dehu Road (T)	2

Ambient Air Quality in Alandi

Location	Parameter	Unit	Min	Max	NAAQS
Near Shani Mandir	SPM	ug/M^3	198.37	212.37	200
	RSPM	ug/M^3	152.13	165.64	100
	Sulphur Dioxide	ug/M^3	77.14	81.33	80
	Oxide of Nitrogen	ug/M^3	89.12	102.14	80
Near Alandi Nagar Parishad	SPM	ug/M^3	198.37	212.34	200
	RSPM	ug/M^3	152.13	165.64	100
	Sulphur Dioxide	ug/M^3	77.14	81.33	80
	Oxide of Nitrogen	ug/M^3	89.12	102.14	80

Ambient Noise Level in Alandi		
Location	**Leq (day)**	**Leq (night)**
Near Shani Temple	82	61
Near Alandi Nagar Parishad	96.29	62.72
CPCB Standards in dB (A)	55	45

Surface and Groundwater Quality in Alandi compared with National water quality standards

Parameters	L - 1	L - 2	L - 3	L - 4	L – 5 (GW)	National Water quality Stds.
Essential characteristics						
pH	8.6	8.9	8.6	8.6	8.8	6.5 - 8.5
Total Hardness (as CaCo3) (mg/l)	156	389	482	110	96	300
Chlorides (as Cl) (mg/l)	130	140	139	93	83	250
Residual, free chlorine, Min (mg/l)	0.01	0.02	0.04	0.008	0.1	0.2
Alkalinity (mg/l)	150	205	165	123	110	200
Desirable Characteristics						
Total Dissolved solids, Max (mg/l)	160	600	728	150	140	500
Calcium (as Ca), Max (mg/l)	117	302	330	70	60	75
Magnesium as Mg (mg/l)	30	85	145	35	35	30
Sulfate (as SO4), Max (mg/l)	51.2	161.4	63.8	51.2	47.2	200
Nitrate (as NO3), Max (mg/l)	0.5	0.7	0.8	0.7	0.4	45
Ammonical Nitrogen (mg/l)	0.8	0.8	0.7	0.4	0.2	1.0
Phenolic Compounds (as C6 H5OH), Max. (mg/l)	BDL	BDL	BDL	BDL	BDL	0.001
Dissolved Oxygen (mg/l)	6.8	6.9	6.8	6.9	6.8	NS
Bacteriological Parameters						
Total Coliforms (No./ 100 ml)	900	≥ 1600	900	20	23	>50
Faecal Coliforms (No./ 100 ml)	240	500	240	< 2	07	10

L-1: Upper Stream of Indrayani River ,L-2: Behind Temple, Indrayani River (Near Dyaneshwar Ghat)

L-3: Down Stream of Indrayani River, L-4: Public Tap water, L-5: Well water from Temple premises

Proposed Projects

1. CONSTRUCTION OF UNDERGROUND SEWERAGE NETWORK & STP

A. PHASE - I (2005 - 2011) Pilgrim Zone - Approx 3.5 km^2

Total Est. Cost : Rs. 343.00 Lakh (including DPR, Contingency & QA/QC)

Population covered : Approx 10,000 residents (WS @ 135 lpcd) + 8,000 floating (WS @ 70 lpcd)

1) U/G sewage collection network covering the Pilgrim Zone and adjoining area on the left bank of the river stretch (Rs. 200 Lakh)
2) Construction of STP - 4 MLD + Holding Pond - 2 MLD on Lt. bank (Rs. 115 Lakh)

B. PHASE-II (2011- 2031) : Rest of the Alandi Town

Total Est. Cost Rs. 289.00 Lakh (including DPR, Contingency & QA/QC)

Population covered – 60,515 residents (2031) + 20,000 floating

1) Development of U/G sewage collection network covering area on the Rt. bank (Rs. 150 Lakh)
2) Construction of an STP- 4 MLD capacity and a Holding Pond - 2 MLD on the right bank of the river stretch (Rs. 115 Lakh)

1. CONSTRUCTION OF UNDERGROUND SEWERAGE NETWORK & STP (Contd.)

C. Stakeholders involved

- Construction of Sewerage Network – AMC/MJP
- Construction & Operation of STP - Private operator/MJP or PPP

D. Cost recovery and Management options

- Aid from State and Central Govt.
- Municipal tax from residents, commercial organizations, dharmashala, hotels & restaurants
- Sell of treated waste water to partially recover of treatment cost ; Construction and operation of STP by private/JV partner of AMC

E. Beneficiaries & Projected Environmental Benefits

i. Residents and pilgrims :

- Improved public health, reduced risk of water borne diseases, improvement in surface and ground water quality

ii. AMC :

- Improved sewerage collection and sewage T & D
- Overall clean environment & Pleasing aesthetics
- Improvement in Indrayani river water quality
- Water reuse for greenbelt development

2. MUNICIPAL SOLID WASTE MANAGEMENT

A. PHASE-I (2005-2011) : - Project Cost - Rs. 50.00 Lakh

1) Implementation of waste segregation and collection system in Pilgrim Zone
2) Development of the Compost Plant at proposed site in DP.
3) Development of Land fill site for non-degradable waste in abandoned stone quarry.
4) Rehabilitation of existing SW disposal sites
5) Community awareness programmes, IEC campaigns by NGOs on waste segregation

B. PHASE-II (2011-2031) : Project Cost- Rs. 75.00 Lakh

1) Implementation of waste segregation & collection system in entire town
2) Identification and commissioning of new site for composting and landfill.

2. MUNICIPAL SOLID WASTE MANAGEMENT (Contd.)

C. Stakeholders involved

1) MSW Collection & transportation by AMC
2) Development, O & M of disposal facilities by private operator
3) Project development assistance by MPCB
4) Private sector sponsorship (Financial/equipment) for collection of waste, operation & maintenance of the Compost plant.
5) Participation of NGOs, Social groups etc. in awareness programme
6) Participation from local education institutes/NGOs in maintaining cleanliness of Temple area and the river front

D. Cost recovery And management options

1) Aid from State and Central government agencies
2) Partial recovery through sale of compost
3) Recycling of waste like plastic, glass etc.

E. Beneficiaries & Projected Environmental Benefits

1) Clean roads & surroundings
2) Improved water quality and aesthetics along Indrayani river banks
3) Reduction in odor nuisance
4) Improved hygienic conditions & Improvement in public health
5) Better hygienic conditions at the eateries and food joints.

3. WATER SUPPLY

A. Phase-I (2005-2011) : - Project Cost - Rs. 221.00 Lakh
(including DPR, Contingency & QA/QC)

Rehabilitation of Existing Water Supply Scheme

1) Rehabilitation of existing supply & distribution system (Rs. 19.0 Lakh)
2) Rehabilitation of treatment plant (Civil Structures) (4.0 Lakh)
3) Raw water intake for additional capacity (2 MLD) (50.0 Lakh)
4) Construction of additional capacity WTP (4MLD) (130 Lakh).

B. Phase-II (2011-2031) : Project Cost- Rs. 329.00 Lakh
(including DPR, Contingency & QA/QC)

New Proposals for Additional Capacity

1) Construction of additional capacity of WTP (7 MLD) (100 Lakh)
2) Improvements to distribution system (2 Km) (75 Lakh)
3) Construction of new service reservoirs (120 Lakh)

3. WATER SUPPLY (Contd.)

C. Stakeholders involved

1) Construction of intake and distribution network& WTP by MJP
2) Operation & maintenance of WTP by AMC

D. Cost recovery And management options

1) Aid from State and Central Govt.
2) Water Tax
3) Revision of water charges

E. Beneficiaries & Projected Environmental Benefits

1)Resident of Alandi and Pilgrims due to assured water supply of drinking water quality

2) Reduced risk of water borne diseases, Improved of public health

4. ROADS AND TRAFFIC IMPROVEMENTS

A. Phase 1 (2005-2011) Project Total Cost 170.00 Lakh

1) Road Improvements – 75.00 Lakhs
2) Junction Improvements at Chakan chowk, Vadgaon chowk, and at New MSRTC Depot. – 10 Lakhs
3) Pedestrian Facilities – 17.05 Lakh
4) Parking Facilities – 91.40 Lakhs
5) Street Lighting – 10.66 Lakhs
6) Road Safety Improvements – 0.50 Lakhs

B. Phase 2 (2011-2031) Total Cost 140.00 Lakh

1) Construction of Bypass Road (Rs. 80.0 Lakh)
2) Integrated bus terminus at New MSRTC Bus stand (Rs. 60.0 Lakh)

C. Stakeholders involved

1) Construction of roads by PWD / AMC
2) Junction improvement works by Temple Trust, private sector
3) Construction & Maintenance of Parking area by AMC/Temple Trust/ private sector
5) Development & maintenance of green belt along roads by AMC/ NGOs