

Describing A Specific Challenge

City	Mumbai	Contact person	Mr. R. A. Rajeev (IAS), Metropolitan Commissioner, MMRDA																																															
Concerned Department / Authority	Mithi River Development and Protection Authority	Contact person	Mr. Shankar C. Deshpande, Project Director and Member Secretary																																															
Theme	Rejuvenation and Beautification of the River																																																	
Background	<ul style="list-style-type: none">Unprecedented deluge occurs in Mumbai on 26th July 2005 with rainfall of 944 mm. in 24 hours coinciding with highest high tide of 4.48 m. Mithi River in Mumbai received attention of the entire world.The Mithi River originates from spillovers of Vihar and Powai Lake traverses through Mumbai's suburban areas viz. Seepz, Marol, Andheri and then flows below the runway of International Airport and then meanders through areas of Bail Bazar, Kurla, Bandra - Kurla Complex and meets Arabian sea at Mahim Bay after flowing below 15 bridges for a length of 17.84Km.Mithi River with Catchment area of 7295 ha. has its origin at 246 m. above mean sea level and has a total length of 17.84 kms. Out of this, 11.84 kms is under jurisdiction of MCGM (Planning Authority as Local Authority) and 6 kms is under jurisdiction of MMRDA (Special Planning Authority for BKC) for carrying out the Mithi River improvement works. The 6 Km in MMRDA portion has tidal effect.GoM took number of initiatives for revival of the Mithi river including appointment of Fact Finding Committee chaired by Dr. Madhavrao Chitale in August 2005, establishment of Mithi River Development and Protection Authority (MRDPA) in August 2005, appointment of expert organisations viz. CWPRS, IIT B, NEERI etc. for various studies.The Hon. Bombay High Court in March 2006 accepted MRDPA's proposal to implement the river development works in two phases. Phase I included deepening, widening and desilting of Mithi River and resettlement and rehabilitation of PAPs and MRDPA was directed to monitor and oversee the work of deepening, widening and desilting being executed by MMRDA and MCGM. Phase-II works included pitching, construction of Retaining wall, construction of service roads, landscape development, beautification work on either sides of the river along with additional widening works and deepening works.																																																	
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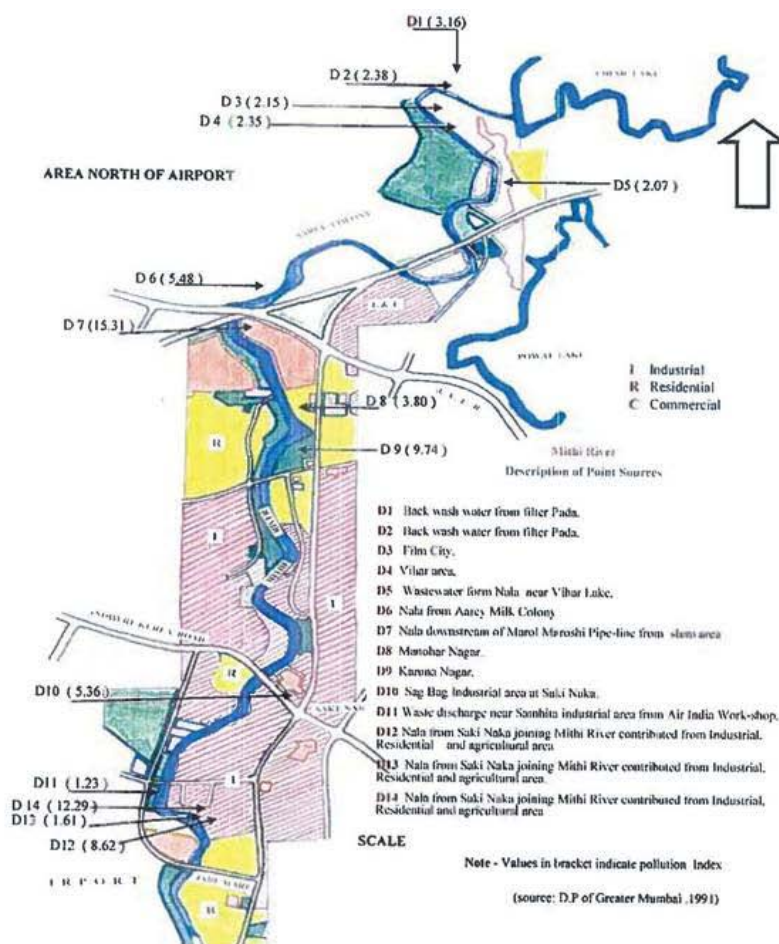
Achievements :

- River has been widened by average 30 mt width.
- River has been deepened by average 2.0 mt depth.
- Increase in water holding capacity 2.0 times.
- Increase in river discharging capacity 3.0 times.
- BED SLOPES Resulted in increased flushing activity
- Decreased water pollution, Reduction in Siltation
- Embankment protected due to retaining walls.
- Encroachments restricted due to retaining wall.
- Service road facilitates periodic maintenance work.
- Enhanced Aesthetic view

Challenges :

- Encroachment removal
- Religious structures, Authorized structures - Tenant, Owner, Commercial & Industrial R & R
- Shifting of Utilities
- Service road is not possible throughout the length of river and nalla due to legal Structures.
- MOEF Clearance, Court Cases, Land Acquisition

Description
of the
specific
challenge



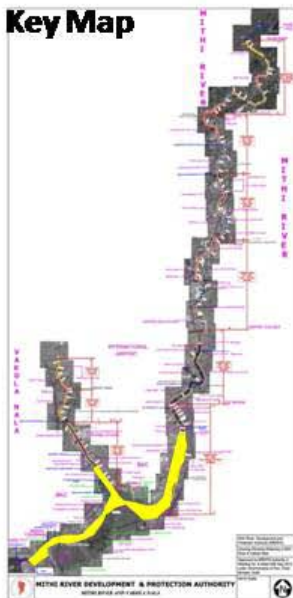
Refer the portion highlighted in

Sr.No.	Point	Remarks
D1	Back wash from Filter pada	Non point source, Natural terrain dominates the flow. These areas natural drains with sewage flows from nearby slums and these have seen changes in last 10 years. Some informal shops and tabella as were seen. No Change in Film city areas
D2	Back wash from Filter pada	
D3	Film City	
D4	Vihar area Royal Palm Club	Non-point sources. Natural terrain dominates the flow. Plus the area is covered with garbage and water hyacinth. Depth of this area is reduced to less than 15cm.
D5	Waste water from nall near Vihar lake	Cement debris thrown into the nalla, also some of the nallas have been diverted or obstructed while building retaining wall.
D6	Nalla from Aarey Milk Coloney	Steep slope and reduced width. Changes could be due to the terrain and retaining walls. Actual flows appears less.
D7	Nalla downstream of Marol Maroshi Pipe line from Slum area	Excessive water hyacinth growth obstructs flow of water also flow gets obstructed due to floating matter & open dumping from adjoining slum pockets.

Description of the affected area	D8	Manohar Nagar	Multiple entries of small nallas. Some area of the river partly covered by debris and cement bags. Near the bridge and below it there are 3 medium size nalls/drains and two small visible drains from adjoining region through retaining walls. Difficult to measure these drains flow due to locations, entry points and shape. Area of the river partly covered by debris and cement bags.
	D9	Karuna Nagar	Nalla diversion work is going on. Also non point sources that have very less flow<10m3 that come from the car wash shops.
	D10	Sag Baug Industrial area near Saki Naka	Industries (not clear which type & how) and sewage combined flows.
	D11	Waste discharge near Samhita Industrial area from Air India workshop	Water hyacinth. According to MCGM a lot of the industries here have their own treatment plant and don't discharge water into the river anymore.
	D12	Nall from Saki naka joining river, contribution of industrial, residential etc.	Excessive water hyacinth growth and floating matter with reduced flow due to river diverting with retaining walls. Dumping of solid waste obstructs flow.
	D13	Nall from Sakinaka joining Mithi River	Smaller nalla. High deposition of MSW.
	D14	Nalla from Sakinaka joining Mithi River	

Description
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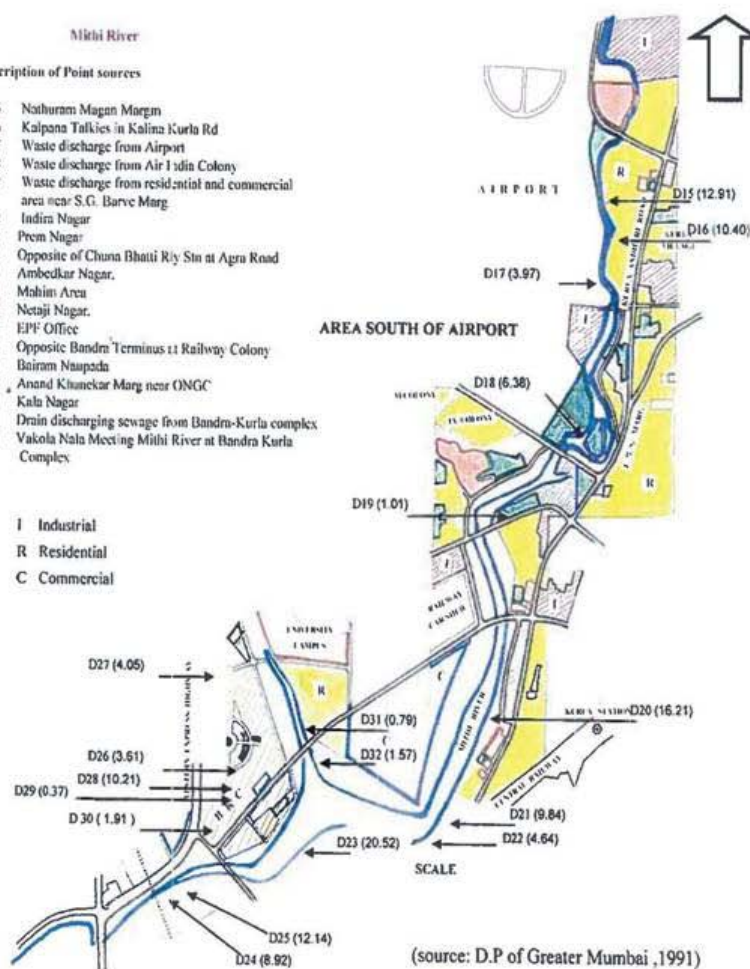
Key Map



Mithi River Description of Point sources

- D 15 Nathuram Magan Marg
- D 16 Kalpana Talkies in Kalina Kurla Rd
- D 17 Waste discharge from Airport
- D 18 Waste discharge from Air India Colony
- D 19 Waste discharge from residential and commercial area near S.G. Barve Marg
- D 20 Indira Nagar
- D 21 Prem Nagar
- D 22 Opposite of Chuna Bhatli Ry Sta at Agra Road
- D 23 Ambedkar Nagar,
- D 24 Mahim Area
- D 25 Netaji Nagar
- D 26 EPI Office
- D 27 Opposite Bandra Terminus & Railway Colony
- D 28 Bairam Naupada
- D 29 Anand Khanekar Marg near ONGC
- D 30 Kala Nagar
- D 31 Drain discharging sewage from Bandra-Kurla complex
- D 32 Vakola Nala Meeting Mithi River at Bandra Kurla Complex

I Industrial
R Residential
C Commercial



(source: D.P of Greater Mumbai ,1991)

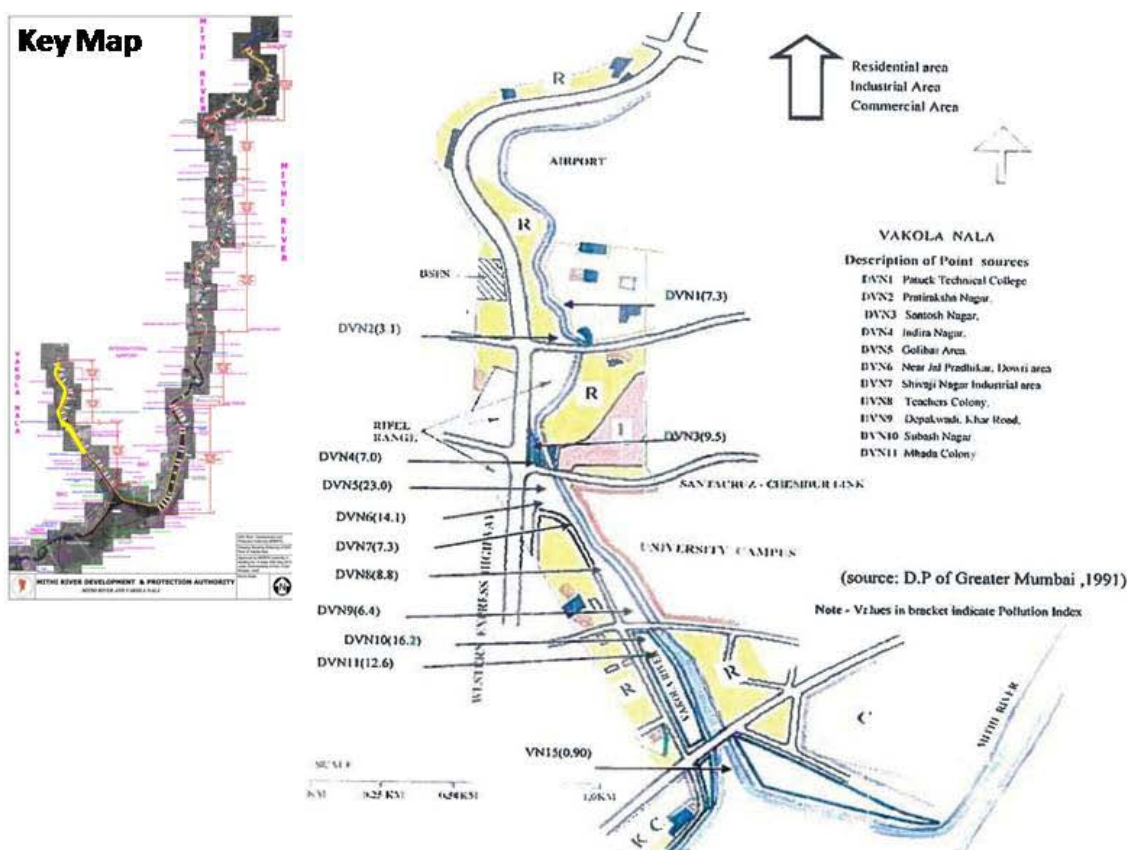
Note - Values in bracket indicate pollution index

Refer the portion highlighted in

Sr.No.	Point	Remarks
D15	Nathuram Magan Marg	Open dumping of waste from domestic, industrial/commercial.
D16	Kalpana talkies on Kalina Kurla Road.	Stagnant. No flow in afternoon or evening. This place the flow has drastically reduced. Even after three times check. It appears the sources have either been diverted or land use changes have taken place.
D17	Waste discharge from Airport	Almost treated water quality airport authority
D18	Waste discharge from Air India Colony	
D20	Indira Nagar	A lot of non point sources that come from individual houses. These are dependent upon the time when the data is taken because there is no flow in this area in late afternoons. Also, fish waste baskets and open dumping is seen in this area. Washings and other discharges.
D21	Prem Nagar	Tidal influence is felt

D22	Opposite Chunabhatti Railway Station on Agra Road	In accessible due to mangrove growth and slushy areas.
D23	Ambedkar Nagar	
D24	Mahim Area	
D25	Netaji Nagar	Tidal influence reverse flow
D26	EPF office	
D27	Opposite Bandra Terminus at Railway Colony	Debris and floating matter
D28	Bairam Naupada	Floating matter, shredded cloths and cement bags. Flow obstructed and it appears upstream flows are stopped somewhere.
D29	Anant Kanekar Marg ONGC	Animal carcasses and waste are seen in the water. Also this area has had varied data due to tidal influence. During low tide the calculated flow was less than 85m ³ /day
D30	Kala Nagar	Choked and also very narrow.
D31	Drain Discharging sewage from BKC	It has high tidal influence. Also there is data variation during high tide and low tide.
D32	Vakola Nalla meeting Mithi River at BKC	Open dumping of car parts and most of the nallas are choked towards upstream at Kurla station, during morning the nalla water flows out from a manhole which is an everyday affair

Description of the affected area



Refer the portion highlighted in 

Description
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Sr.No.	Point	Remarks
DVN1	Patuck Technical College	<ul style="list-style-type: none"> • The nallas along Vakola nalla are about a Kilometre far away from one to another • The flows are mainly during morning hours. In the afternoon, it reduces drastically. • Barring three nallas that are on the main road side, the other nallas are stagnant with no flow during late afternoons. • Solid waste deposition was very high across the nalla
DVN2	Pratiksha Nagar	
DVN3	Santosh Nagar	
DVN4	Indira Nagar	
DVN5	In Golibar Area	
DVN6	Near Jal Pradhikar, Dowri Area	
DVN7	Shivaji Nagar Industrial Area	
DVN8	Teachers colony	
DVN9	Depakwadi, Khar Road	
DVN10	Subash Nagar	
DVN11	Mhada Colony	

Desired outcome	Cleaned, Rejuvenated and Beautified River.
Current status	Open Dumping, Chocked Nallas, Polluted River
Estimated timelines	3 months
Procurement procedure	Government Funding / Public Private Partnership / Corporate Social Responsibility
Key local stakeholders	MMRDA (Administrative Control, Special Planning Authority), MCGM (Local Authority), Local Representatives
Any other remarks	