

INTRODUCTION

The Drainage Department of the Vadodara Mahanagar Seva Sadan provides the necessary infrastructures to carry the sewerage from domestics and industrial establishments of the city to the treatment plants, treating it and then disposing it appropriately.

MISSION

To provide a better Quality of life and to make Vadodara a self-reliant and sustainable city with all basic amenities, our commitment is for 100% coverage in terms of geographical areas and populations for the year 2021 by providing a comprehensive sewerage system by the end of December-2015.

Vadodara Mahanagar Seva Sadan has prepared a Master Plan for comprehensive sewerage system (more than 1425 K.M. of sewers and 7 Sewage Treatment Works) to serve the domestics and commercial but also the industrial developments for the year 2021. Wastewater generated from all this development is collected by a underground Drainage Network and Sewage Pumping Stations (APS) and conveyed to Sewerage Treatment Plants (STP) for Physical and Biological Treatment to meet the parameters prescribed by the Gujarat Pollution Control Board before discharge into nearest water course.

In the year 2001, total area of VMSS Limit was 108.00 sq.km. In this period 55 % area and 65 % of the present population have been covered with sewerage systems. As stated earlier increase in the VMSS limits from 108.00 Sq.km to 159.31 Sq.km the coverage of sewerage system after commissioning of laid gravity Network under Phase-I & Phase-II is going to increased, from 55% to 95% by Area and 65% to 93% by Population.

FUNCTIONS

The functions of the Department include Planning, designing, estimating, tendering, executing and operating as well as maintaining the sewerage systems which consists of sewerage network, sewage pumping stations, sewage pumping mains, sewage treatment and effluent disposal works etc.

SCENARIO 2001 AND 2014

Description	Year - 2001	Year - 2014
Municipal Area	108.0 Sq.K.M.	159.0 Sq.K.M.
Population	13.0 Lacs	18.0 Lacs
Coverage of Drainage facility (area wise)	55%	95%

Coverage of Drainage facility (population wise)	65%	93%
Sewerage flow generated	192 MLD	354 MLD
Treatment capacity	106 MLD	276.5 MLD
Gravity line / Pressure line	500 K.M	1425 K.M.
Manholes	23380	28715
Sewage pumping Stations (APS)	25	48

The operation and maintenance of all the sewage treatment plants is carried out by private agencies.

Vadodara Mahanagar Seva Sadan gives the contract for desilting of manholes and drainage lines in the different parts of the city to the private agencies.

Performance Indicators, Facilities and Plans, Treatment Plants, Pumping Stations.

Based on the natural topography, the Overall area of Vadodara city for sewerage system is divided into three Drainage Zones.

Drainage Zones	Collection Area	Sewage Treatment Plant	Sewage Treated in (MLD)
Zone - I Ward (4,12)	All the area to the south of meter gauge railway line and east of river Vishwamitri	Tarsali	52
Zone - II Ward (1,2,3,5,8,9)	All the area to the north of meter gauge railway line and east of river Vishwamitri	Gajarawadi & Kapurai	66 + 43 = 109
Zone - III Ward (6,7,10,11)	All the area to the west of river Vishwamitri	Atladra, Chhani Village & Sayaji Garden	43 + 43 + 21 + 8.5 = 115.50
		TOTAL	276.50 MLD

The Important Constituents of the Sewage System are:

- Sewage Treatment Plants (STP)
- Sewage Pumping Stations (APS)
- Drainage Gravity and Pressure Line

Sewage Treatment Plants:



(A) Existing :

1. Atladara (old) Sewage Treatment Plant :	43.00 MLD capacity
2. Atladara (new) Sewage Treatment Plant :	43.00 MLD capacity
3. Tarsali Sewage Treatment Plant :	52.00 MLD capacity
4. Gajarawadi Sewage Treatment Plant :	66.00 MLD capacity
5. Sayaji Garden Sewage Treatment Plant :	8.50 MLD capacity
6. Kapurai Sewage Treatment Plant :	43.00 MLD capacity
7. Chhani Sewage Treatment Plant :	21.00 MLD capacity
Total	276.50 MLD Capacity

(B) Ongoing STP Projects :

- Chhani Sewage Treatment Plant (Under Trial Run): 21.00 MLD capacity

(C) Proposed STP Projects:

1. Rajivnagar Sewage Treatment Plant : 78.00 MLD capacity
2. Atladara Sewage Treatment Plant : 66.00 MLD capacity

Sewage Pumping Stations (APS) :-



(A) Existing :

Sr.No.	Name Of Sewage Pumping Stations (APS)	Capacity in MLD
1	Maneja Pumping Station	18 MLD
2	Danteshwar Pumping Station	10 MLD
3	Manjalpur Pumping Station	15 MLD
4	Lalbaug Pumping Station	10 MLD
5	Shardnagar Pumping Station	10 MLD
6	G.I.D.C. (Old) Pumping Station	40 MLD
7	G.I.D.C. (New) Pumping Station	25 MLD
8	Makarpura Pumping Station	30 MLD
9	Jambuva Pumping Station	15 MLD
10	Vadasar Pumping Station	15 MLD
11	Kalaghoda (APS-1) Pumping Station	3.5 MLD
12	SSG (APS-3) Pumping Station	3.5 MLD
13	Saradar bhuvan (APS-5) Pumping Station	5 MLD
14	Kalupura (APS-6) Pumping Station	7 MLD
15	Ajabadi Mill (APS-8) Pumping Station	20 MLD
16	Kevdabaug (APS-9) Pumping Station	4.2 MLD
17	Jetalpur (APS-11) Pumping Station	5 MLD
18	Navapura (APS-12) Pumping Station	4 MLD
19	Narahari Hospital (APS-13) Pumping Station	8 MLD
20	Sama Pumping Station	6 MLD
21	New Sama Pumping Station	10 MLD
22	VIP Road Pumping Station	5 MLD

23	Ajwa Road Pumping Station	20 MLD
24	Waghodiya Pumping Station	25 MLD
25	Harni Pumping Station	20 MLD
26	Zala Compound Pumping Station	20 MLD
27	Nizampura Pumping Station	30 MLD
28	Amitnagar Pumping Station	3 MLD
29	Bahucharaji Pumping Station	5 MLD
30	Dabhoi Road (Old) Pumping Station	55 MLD
31	Dabhoi Road (New) Pumping Station	45 MLD
32	Ayodhyanagar Pumping Station	5 MLD
33	New Harni Pumping Station	15 MLD
34	Kamalanagar Pumping Station	15 MLD
35	Shastribridge Pumping Station	35 MLD
36	Gotri (Harinagar) Pumping Station	20 MLD
37	Gorwa Pumping Station	25 MLD
38	Laxmipura Pumping Station	12 MLD
39	Gayatri Nagar Pumping Station	10 MLD
40	Said-Vasna Pumping Station	10 MLD
41	Kalali Pumping Station	10 MLD
42	Kalali-I Pumping Station	15 MLD
43	Kalali-II Pumping Station	15 MLD
44	New Gotri Pumping Station	15 MLD
45	Tandalja Pumping Station	10 MLD
46	Manekpark Pumping Station	03 MLD
47	Chhani Village Pumping Station	09 MLD
48	Sardarbaug Pumping Station	03 MLD
49	RTO Pumping Station	

(B) Under Execution :

Sr.No.	Name Of Sewage Pumping Stations	Capacity in MLD
1	Madanzapa (Bakarawadi) Pumping Station	32.5
2	Karelibaug Pumping Station	12

- Ongoing Projects during the year 2014-2015

Sr. No.	Project Area	Main Project	Sub Projects	Details of Project	Unit	Project Cost (Rs in Lacs)	Timelines / Completion Date	Current Status of the Project	Remarks
1	Zone-II	Drainage Network	Karelibaug APS and its Gravity and Pressure Line	9.0mt / 1.3 / 0.85	Dia . / K.M . / K.M .	2191	20 Month	20% progress	Project Under Swarnim Jyanti Part-2
2	Zone-I, II & III	comprehensive Master Plan	Preparation of comprehensive Master Plan of 5 K.M. Outside Radius of Vadodara City.	-	-	39.18	6 Month	Preliminary survey and digitisation done, priority work proposal submitted	Project Under RCB
11	Zone-II	drainage Network	Madanapa APS and Its Pressure and Gravity Line	12.0 mt. / 2.0	Dia . / K.M .	650.64	12 Month	70% progress	Project Under Swarnim Jyanti Part-2

- Project to be implemented during the year 2015-2026

Sr.No.	Name Of the Project	Year	Zone	Project Cost (in Lacs)
1	Rajivnagar 78 MLD STP	2015-16	Zone-II	12000
2	Atladara 66 MLD STP	2014-15	Zone-III	7800
3	Gajarawadi 66 MLD STP	2015-16	Zone-II	10000
4	Jambua 86 MLD STP	2015-16	Zone-I	6000
5	Gorva to Shrenik Park Drainageline	2015-16	Zone-II	12400
6	Augmentation of Proposals of New Sewerage Master Plan 2040	2015-2026	All Zones	
A	Maretha Drainage Network	2015-16	Zone-I	400
B	Lalbaug APS & Related Network		Zone-I	250
C	Gorwa, Ambewadi-Khatrinagar APS		Zone-III	300
D	Undera APS		Zone-III	250
E	Sevasi APS		Zone-III	300
F	Bhayali APS-I		Zone-III	300
G	Bhayali APS-II		Zone-III	300
H	Bill APS		Zone-III	300
I	Talsat APS		Zone-III	250
J	Talsat 86 MLD STP		Zone-III	6000
K	Trunk Line form Undera to Talsat village		Zone-III	5000
L	Chhani 43 MLD STP		Zone-III	4000
M	Akota Smashan APS		Zone-III	400

❖ Public Health Engineering Laboratory:

Organization details & Works:-

- Department:- Public Health Engineering Laboratory(Drainage Project), Vadodara Mahanagar Seva Sadan.
- Works: - Industries which are situated within the limits of Vadodara Mahanagar Seva Sadan are monitored frequently and collect the industrial treated effluent sample from the final outlet chamber of the industries, which comes to VMSS drainage line. Samples collected from different industries are analyzed in laboratory. Analysis charge per sample is 750 rs.

Industries which fails to comply the norms of GPCB/VMSS are given the show cause notice and if found guilty the drainage & water connection of such industries disconnected with the approval of competent authority.

The reconnection charges of the drainage & water of such industries are categorized as below:-

Micro scale Industries: - 2500 rs.

Small scale Industries: - 10000 rs.

Middle scale Industries: - 20000 rs.

Large scale Industries: - 50000 rs.

- PHEL also collect the inlet and outlet sewage samples from the different sewage treatment plants of Vadodara city and analyzed it regularly.

PHEL also collect and analyze the samples of Sursagar pond, Vishwamitri river and other ponds of the vadodara city periodically as and when required.