



HMWSSB



HYDERABAD
METROPOLITAN
WATER SUPPLY &
SEWERAGE BOARD

**URBAN INFRASTRUCTURE AND JNNURM
SECOND ANNUAL CONFERENCE
DECEMBER 1-2, 2008,
THE GRAND NEW DELHI**

**-Asok Kumar IAS
Managing Director**

Services of Hyderabad Metro Water Supply and Sewerage Board (HMWSSB)

- Supply potable drinking water**
 - Sewage disposal & treatment**
 - Planning, Designing and execution of water supply and sewerage works**
-



HMWSSB

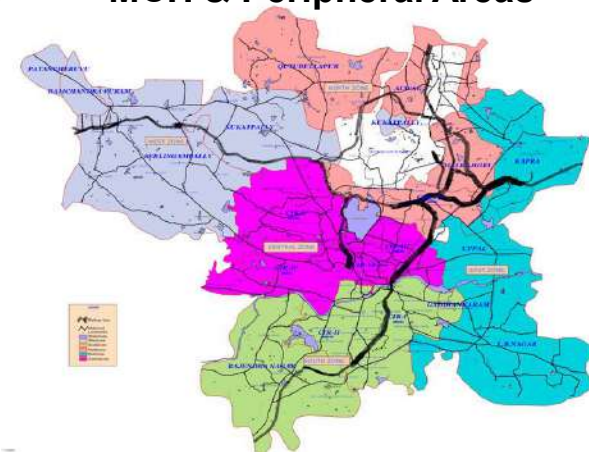
HMWSSB At a Glance

SERVICE AREA	- 688.20 Sq.kms
Erstwhile MCH area	- 169.30 Sq.kms
❖ Peripheral & adj. Municipal areas	- 518.90 Sq.Kms

SNAP SHOT DETAILS OF WATER SUPPLY

❖ Length of Raw Water Mains	: 84 Km
❖ Length of Treated Water Mains	: 272 Km
❖ Length of Distribution Network/ Pipe material	: 2800 Km : RCC/CI/DI/PSC/MS
❖ Installed Capacity of Treatment System	: 1568 Mld
❑ Population served	: 85.00 Lakhs
❑ Total Quantity Available	: 328 MGD
❑ No of Connections	: 7.50 Lakhs (5.90 + 1.60)
❑ Monthly Revenue	: Rs.25 Crores
❑ Total No of Employees	: 5300

MCH & Peripheral Areas



SOURCES OF WATER SUPPLY

The main surface sources of water supply for the city from five impoundments on the four rivers:

- Osmansagar on River Musi
- Himayatsagar on River Esi
- Manjira Barrage & Singur Dam on River Manjira
- Nagarjunasagar on River Krishna

Source Name	River	Year	Distance from city "Km"	Capacity		Drawls (Mgd)
				Installed (Mgd)	Storage (TMC)	
Osmansagar	Musi	1920	15 (Gravity)	27	3.90	18
Himayatsagar	Esi	1927	9.6 (Gravity)	18	2.967	10
Manjira - Phase I & II	Manjira	1965 & 1981	58 (Pumping)	45 (15+30)	1.500	45
Manjira - Phase III & IV	Manjira	1991 & 1994	80 (Pumping)	75 (37 + 38)	30.00	75
Krishna Ph-I	Krishna	2004/05	116 (Pumping / Gravity)	90	1.50	90
Krishna Ph-II	Krishna	2006-08	116 (Pumping / Gravity)	90		90

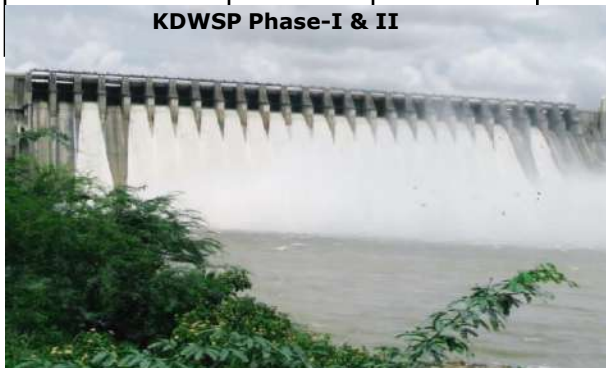
OSMANSAGAR



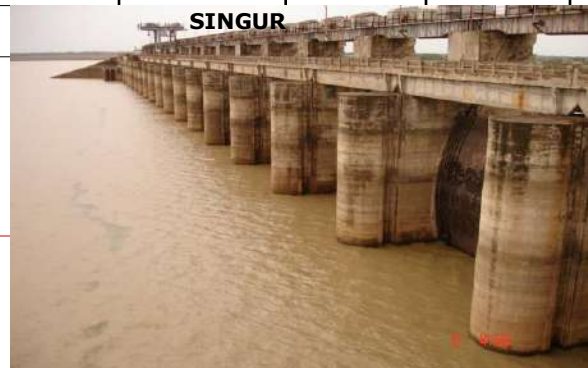
HIMAYATSAGAR



MANJIRA



SINGUR





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JNNURM PROJECTS

ONGOING WATER SUPPLY PROJECTS UNDER JNNURM

Sl. No	Name of the Project	Estimate Cost (Rs. in Crores)	Cost Approved Under JNNURM (Rs. in Crores)	JNNURM Share at 35% (Rs. in Crores)
1	Pipeline Project from Saheb Nagar to Prashasan Nagar	100.00	94.93	33.225
2	Pipeline Project from L.B.Nagar to Marredpally	85.00	81.20	28.42
3	Building Additional Storage Reservoirs on North of Musi – 50.5 ML at 7 locations	31.10	29.81	10.433
4	Building Additional Storage Reservoirs on South of Musi – 49.50 ML at 7 locations	35.90	33.	
5	Krishna Drinking Water Supply Project Phase-II	830.00	606.50	212.275
6	Providing Flow, Level and Chlorine measurements and Supervisory Control and Data Acquisition System (SCADA) for All Reservoirs and bulk supply pipe lines in the entire system of HMWSSB	10.00	9.90	3.465
7	Refurbishments of Existing Feeder System including Distribution network for the ten(10) zones in erstwhile MCH limits of Greater Hyderabad Municipal Corporation	250.00	251.25	87.938
	Sub-Total	1342	1107.14	375.756

ONGOING SEWERAGE PROJECTS UNDER JNNURM

Sl. No.	Name of the Project	Estimate Cost (Rs. in Crores)	Cost Approved Under JNNURM (Rs. in Crores)	JNNURM Share at 35% (Rs. in Crores)
1	Implementation of Sewerage Master Plan in Zone-1 of MCH area, North of Musi	150.00	148.81	52.083
2	Implementation of Sewerage Master Plan in Zone-2 of MCH area, North of Musi	250.00	251.25	87.937
3	Implementation of Sewerage Master Plan in Serilingampally Municipality	200.00	200.38	70.135
	Sub total	600.00	600.44	210.155



Hyderabad Metropolitan Water Supply & Sewerage Board

Inauguration of Krishna Drinking Water Supply Project Phase-II

by

Sri P. Chidambaram

Hon'ble Union Minister for Finance
Govt. of India, New Delhi.

at 9.30 a.m. on Saturday
19th July 2008 at Sahebnagar
(Reservoir premises)

Guest of Honour

Sri S. Jaipal Reddy

Hon'ble Union Minister for Rural &
Urban Development
Govt. of India, New Delhi.

Presided over by

Dr.Y.S.Rajasekhara Reddy

Hon'ble Chief Minister
Andhra Pradesh



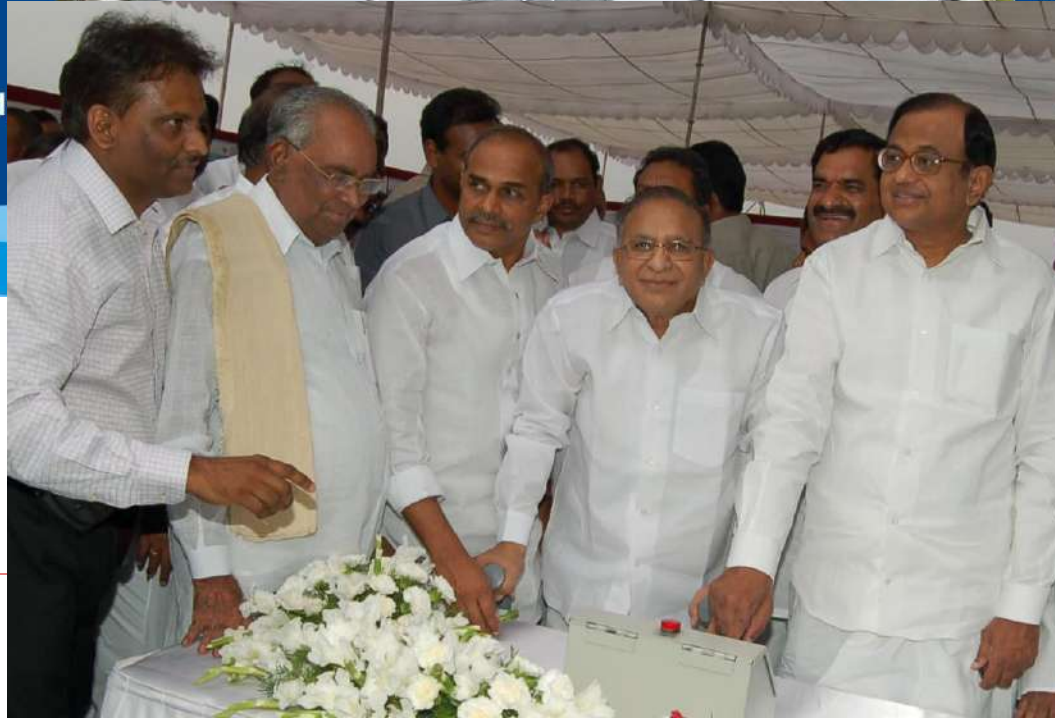
Sri P. Chidambaram
Hon'ble Union Minister for Finance
Govt. of India, New Delhi.



Sri S. Jaipal Reddy
Hon'ble Union Minister for Rural &
Urban Development
Govt. of India, New Delhi.



Dr. Y.S. Rajasekhara Reddy
Hon'ble Chief Minister
Andhra Pradesh



In the presence of

Dr. Koneru Ranga Rao

Hon'ble Minister for Municipal Administration & Urban Development

Sri Mohd. Ali Shabbir
Hon'ble Minister for Energy, Coal,
Minorities Welfare, Walk & In-Charge
Minister for Hyderabad

Sri K. Jana Reddy
Hon'ble Minister for Home, Jails &
Cinematography

Smt. Sabita Indra Reddy
Hon'ble Minister for Mines & Geology,
Handlooms & Textiles, Spinning Mills

Sri G. Chinna Reddy
Hon'ble Minister for Rural Development,
NREGP, Self Help Groups & In-Charge
Minister for Ranga Reddy

Sri M. Mukesh Goud
Hon'ble Minister for B.C. Welfare

Sri V. Hanumantha Rao
Hon'ble Member of Parliament (RS)

Sri K. Keshava Rao
Hon'ble Member of Parliament (RS)

Sri P. Madhu
Hon'ble Member of Parliament (RS)

Sri Rashid Ali
Hon'ble Member of Parliament (RS)

Sri Syed Azeez Pasha
Hon'ble Member of Parliament (RS)

Sri M.A. Khan
Hon'ble Member of Parliament (RS)

Sri S. Sudhakar Reddy
Hon'ble Member of Parliament, Nalgonda
Constituency

Sri Asaduddin Owaisi
Hon'ble Member of Parliament,
Hyderabad Constituency

Sri Anjan Kumar Yadav
Hon'ble Member of Parliament,
Secunderabad Constituency

Sri T. Sudhakar Reddy
Hon'ble Member of Legislative Council

Sri S. Indrasena Reddy
Hon'ble Member of Legislative Council

Sri K. Janardhan Reddy
Hon'ble Member of Legislative Council

Dr. P.V. Ranga Rao
Hon'ble Member of Legislative Council

Sri Malireddy Ranga Reddy
Hon'ble Member of Legislative
Assembly, Malakpet Constituency

Sri Marri Sashidhar Reddy
Hon'ble Member of Legislative Assembly,
Sanathnagar Constituency

Smt. T. Manemma
Hon'ble Member of Legislative
Assembly, Musheerabad Constituency

Sri T. Srinivas Yadav
Hon'ble Member of Legislative Assembly,
Sanathnagar Constituency

Sri G. Sayanna
Hon'ble Member of Legislative
Assembly, Secunderabad Cantonment
Constituency

Sri Akbaruddin Owaisi
Hon'ble Member of Legislative Assembly,
Chandrayangutta Constituency

Smt. Mumtaz Ahmed Khan
Hon'ble Member of Legislative
Assembly, Yakatpura Constituency

Sri Mohd. Muqadda Khan
Hon'ble Member of Legislative Assembly,
Karwan Constituency

Sri Ahmed Pasha Quadri
Hon'ble Member of Legislative
Assembly, Charminar Constituency

Sri Mouzam Khan
Hon'ble Member of Legislative Assembly,
Asif Nagar Constituency

Kishan Reddy
Member of Legislative
Assembly, Himayathnagar Constituency.

Sri P. Vishnuvardhan Reddy
Hon'ble Member of Legislative Assembly,
Khairatabad Constituency

Venkat Reddy
Member of Legislative
Assembly, Munugod Constituency

Sri M. Narasimha
Hon'ble Member of Legislative Assembly,
Ibrahimpetnam Constituency

Ravinder Kumar
Member of Legislative
Assembly, Devarakonda Constituency

V.S.K. Sarma, IAS
Inspector & Special Officer, GHMC
D. Principal Secretary to Govt.,
Department

Sri S.P. Singh, IAS
Principal Secretary,
to Govt., M&UO Department, GoAP
Department

Sri G. Asok Kumar, IAS
Managing Director, HMWSSB



410 Mld WTP - Kodandapur



Pump House - Godakondla



Pumping Installation - Godakondla



Over View of MBR - Gungal



With the Completion of Krishna Phase-I & II and Ring Main I and II

After a gap of 24 years,

On November 14, 2008

restarted the

DAILY WATER SUPPLY

**to the core areas of Hyderabad
covering 3.8 lakh connections out
of 4.06 lakh connections**

24 x 7

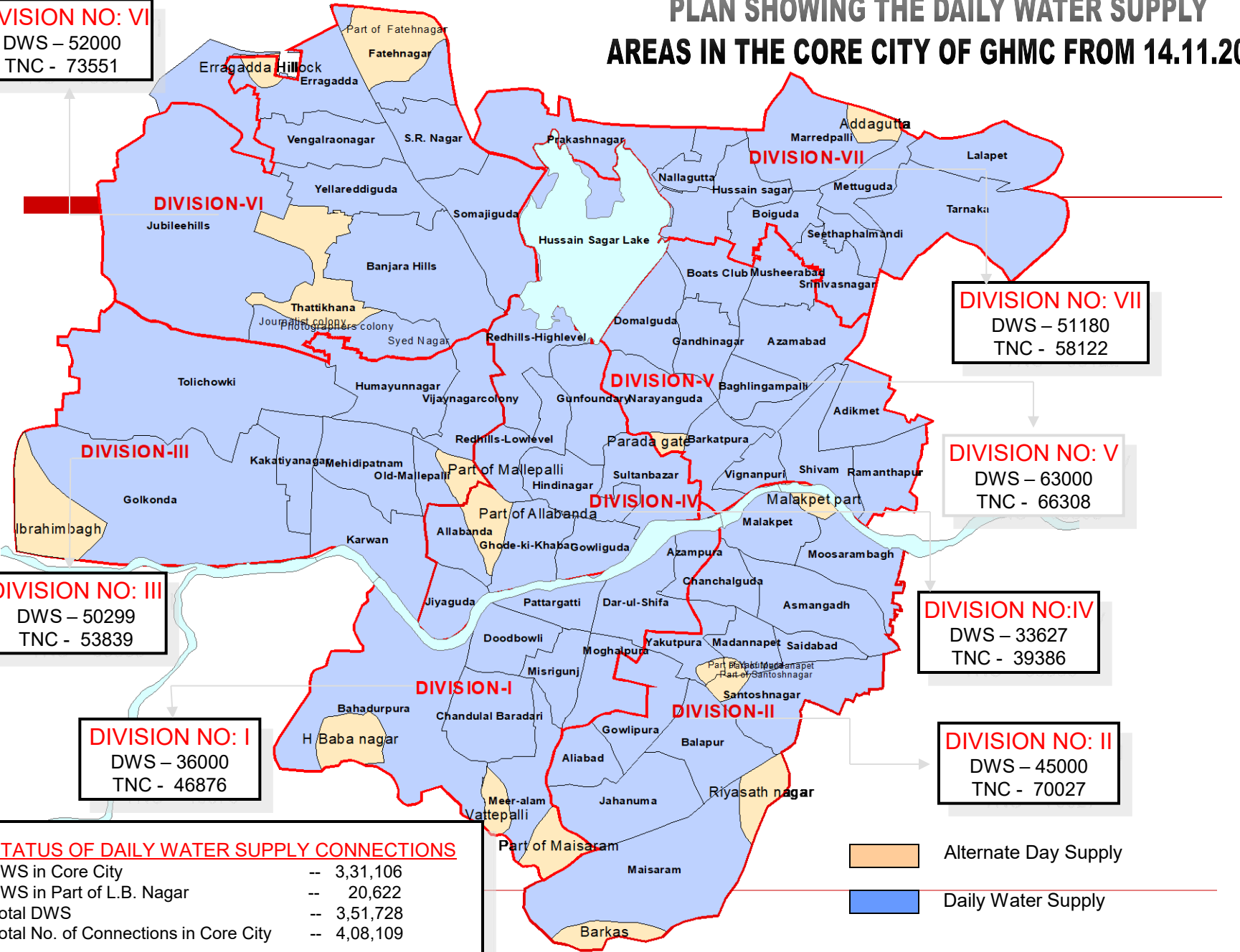


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PLAN SHOWING THE DAILY WATER SUPPLY AREAS IN THE CORE CITY OF GHMC FROM 14.11.2008

DIVISION NO: VI
DWS – 52000
TNC - 73551



DIVISION NO: VII
DWS – 51180
TNC - 58122

DIVISION NO: V
DWS – 63000
TNC - 66308

DIVISION NO: III
DWS – 50299
TNC - 53839



DIVISION NO: IV
DWS – 33627
TNC - 39386

DIVISION NO: I
DWS – 36000
TNC - 46876

DIVISION NO: II
DWS – 45000
TNC - 70027

STATUS OF DAILY WATER SUPPLY CONNECTIONS

DWS in Core City	--	3,31,106
DWS in Part of L.B. Nagar	--	20,622
Total DWS	--	3,51,728
Total No. of Connections in Core City	--	4,08,109

 Alternate Day Supply
 Daily Water Supply



HMWSSB

SCADA SYSTEM

**PROVIDING FLOW, LEVEL
AND
CHLORINE MEASUREMENTS**

**(SCADA) SYSTEM FOR ALL RESERVOIRS
AND
BULK PIPELINES
IN THE ENTIRE SYSTEM OF HMWSSB**



MEASURING DEVICES

- ULTRASONIC TRANSIT TIME FLOW METERS WITH INDICATOR, INTEGRATOR AND DIGITAL/ ANALOG OUT PUT WITH PROTECTION CHAMBERS - 184 Nos.**

 - ULTRASONIC LEVEL MEASUREMENT WITH INDICATOR AND DIGITAL / ANALOG OUT PUT - 84 Nos.**

 - ON-LINE RESIDUAL CHLORINE MEASURING DEVICES - 84 Nos.**
-



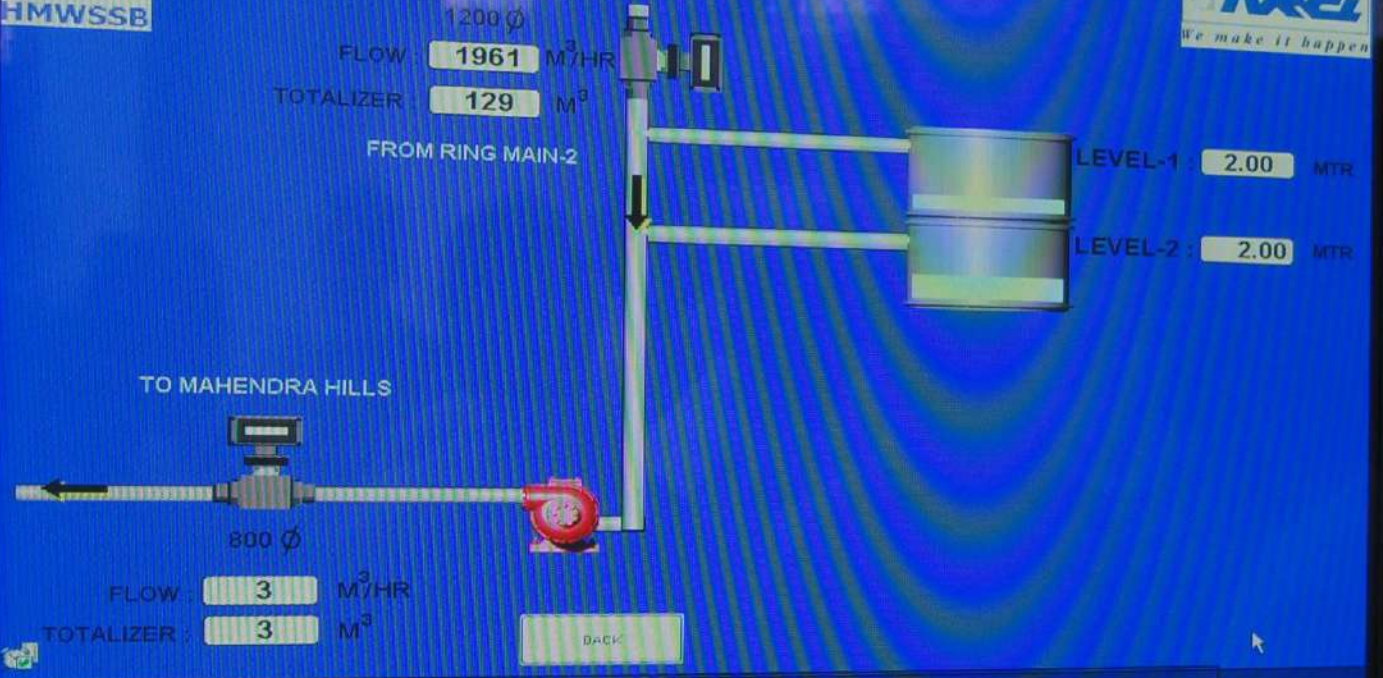
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VIERA

MAREDPALLY



MAREDPALLY



10:46:47 AM 11/14/2009	Level	LOW	LOW
10:46:47 AM 11/14/2009	Level	LOW	LOW

Panasonic



Customer Relations Management Cell HMWSSB

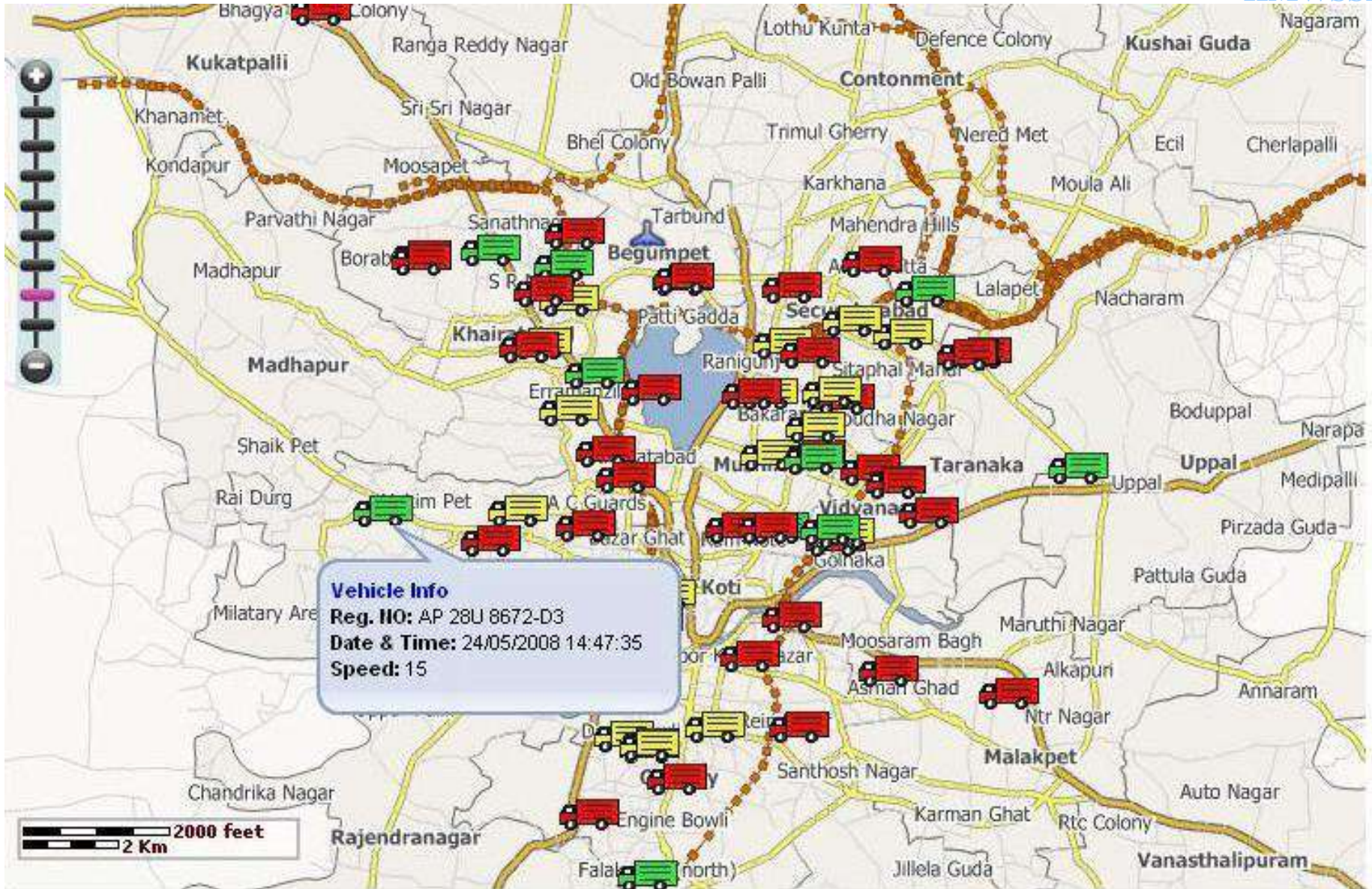
People's Participation in Water Management

- New connection related**
 - Water supply related**
 - Tanker booking**
 - Billing related**
 - Bill payments**
 - Sewerage related issues**
 - Water quality related**
-



HMWSSB

AUTOMATIC VEHICLE TRACKING SOLUTION FOR WATER TANKERS OF HYDERABAD METRO WATER SUPPLY & SEWERAGE BOARD



Automatic Tracking of Water Tankers

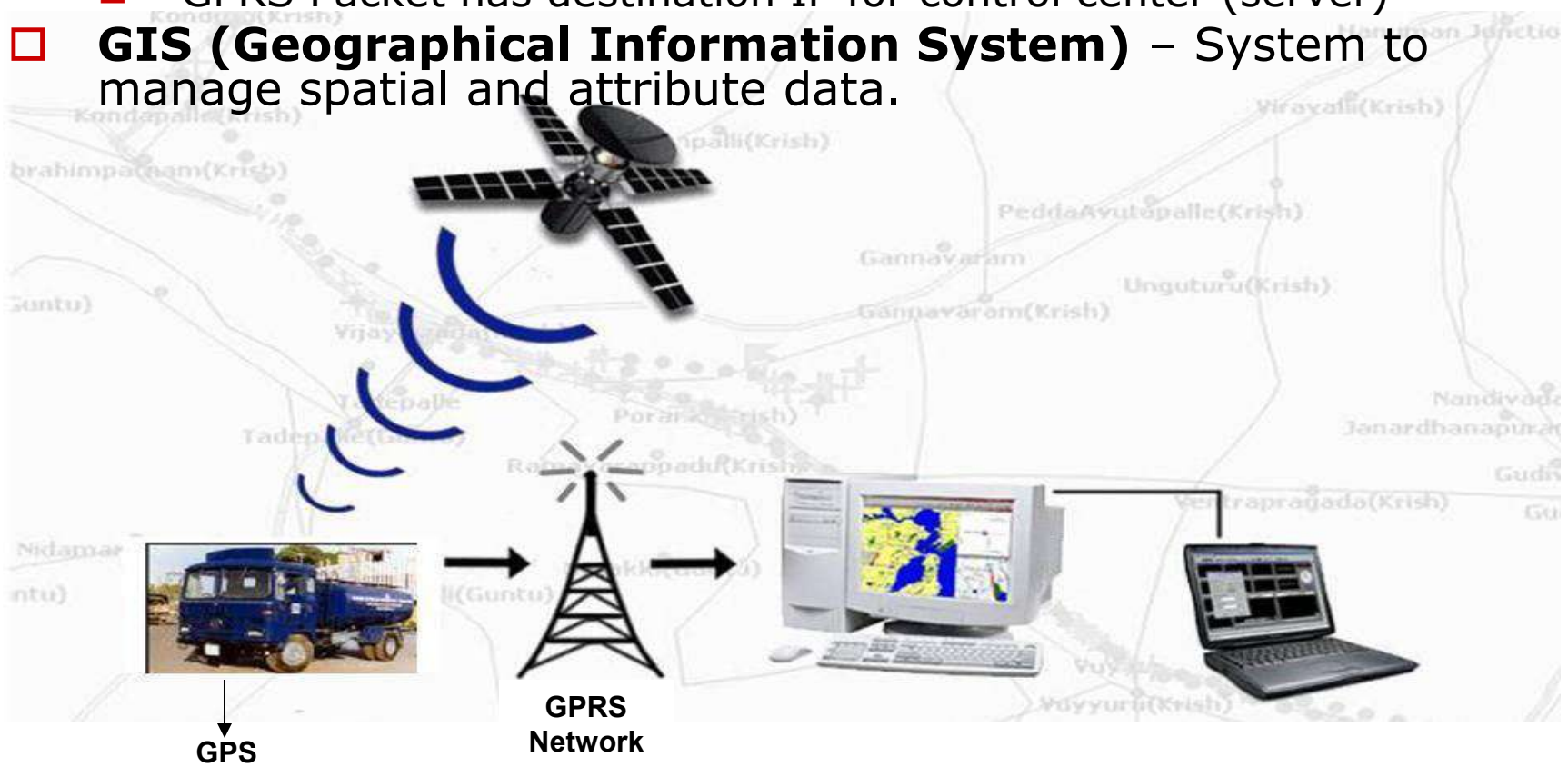
□ Objectives

- Online realtime tracking of Free Trip Water Tankers as a decision support tool to efficiently manage and monitor.
 - Creation of surveyed Geo-fence points as Geo-fences (tanker free trip locations) with proper radius as a separate layer to overlay on Hyderabad Map
 - Generation of various reports dynamically to monitor and analyze the performance to deliver better service to the public
-



Technology

- ❑ **GPS (Global Positioning System)** – Gives position in standard latitude/Longitude format.
- ❑ **Communication – GPRS**
 - Device send location information using GPRS
 - GPRS Packet has destination IP for control center (server)
- ❑ **GIS (Geographical Information System)** – System to manage spatial and attribute data.



-
- Live Tracking of Single Vehicle
 - Last Found of Single Vehicle
 - Last Found of Multiple Vehicles
 - Dynamic Status Window (Live Status Window)
 - Geofences
 - Live Tracking using Geofences
 - Searching Geofence
 - Point of Interest
 - Address Search
 - Road Name
 - Area Name
-

VEHICLE TRACKING SYSTEM

Asset Management System - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Search the Web Search Address http://121.241.169.193/ams/ Go Links >>

Google Go Bookmarks PageRank Popups okay Check AutoLink AutoFill Settings



Hyderabad Metropolitan Water Supply and Sewerage Board

Asset Management System

Version 7.0

Login

User name

Password



- :: Supports GSM and GPRS Network
- :: Any type of Asset Tracking(Personal, Vehicle, Cargo etc.,)
- :: Track & Control vehicles using PC, Laptop or a Mobile phone
- :: Total Vehicle Security with Immobilizer Option
- :: Data logging feature for Cost effective solution



because we can!

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Done Internet

start Asset Management S... EN 14:38



Live History Add Points Report Mail Admin Logout Help

Welcome Super User : hmwss

Live Vehicle Tracking

Select Map: Hyderabad

- Vehicle No
- AP 29T 2517-D5
 - AP 01T 5466-D1
 - AP 02T 7560-D6
 - AP 02U 5798-D9
 - AP 03U 4235-D6

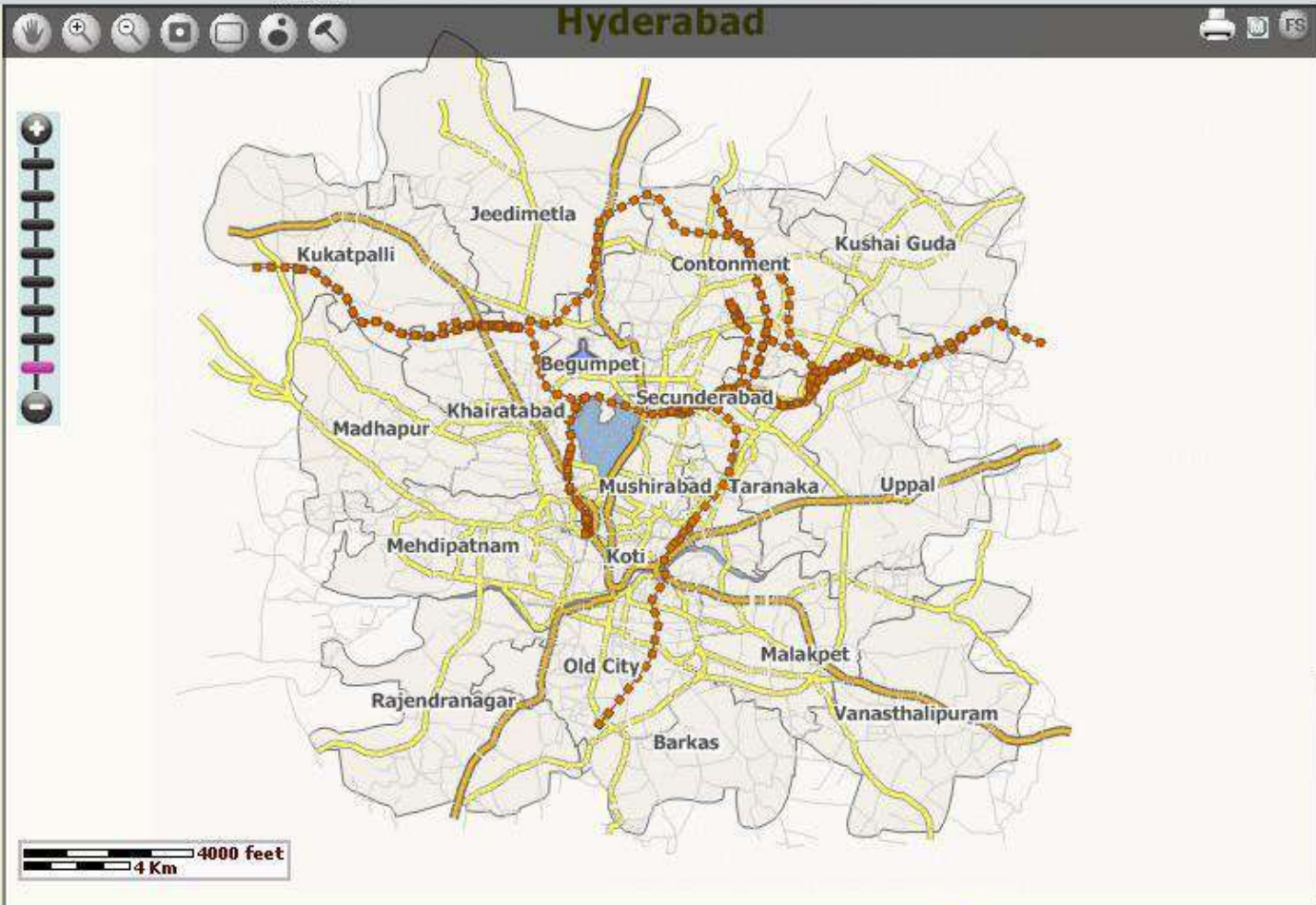
Unit No

Start Live Tracking

Last Found

[Dynamic Status Window](#)

Powered by **InfoTrack**



SEARCH

Live Tracking of Single Vehicle

Asset Management System - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Search the Web: Search Address: http://121.241.169.193/ams/MultipleTracking/ItsMain.aspx?LoadTracking=0

Hyderabad Metropolitan Water Supply and Sewerage Board

Live History Add Points Report Mail Admin Logout Help

Welcome Super User: hmwss

Live Vehicle Tracking

Select Map:

Vehicle No:

Unit No:

[Dynamic Status Window](#)

Vehicle No : AP 03V 1971-D5
Date&time : 24/05/2008 14:54:07
Bapuji Nagar College

Vehicle Info
Reg. No: AP 03V 1971-D5
Date & Time: 24/05/2008 14:54:07
Speed: 8
Bapuji Nagar College Galli Huts 1-6-174/5/35&1-6-

Dayara Grave Yard, Dayara, Blue Birds High School, M.s Saink School, Sri Sai Santhosh Medical Shop, Sri Sainanath Children Clinic, Clinic Dr.hemalata Boyini, Model High School, Gangapuri, Top Housing Society Office, School, Sri Venkateswara High School, Grave Yard, Sri Venkateswara High School, Helping Society, Sri Sindhu Lakshmi Clinic, Marvelious English Institute, Ganga Putra Sangam, Chamber's School, Maheswara Me, Venkateswara I, 50 feet, 100 meter

Infotrack Internet

start Asset Management S... Microsoft PowerPoint ... EN 14:54

Last Found of Single Vehicle Or Multiple Vehicles

Asset Management System - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Search the Web: Search Address: <http://121.241.169.193/ams/MultipleTracking/ItsMain.aspx?LoadTracking=0> Go Links

Google Go Bookmarks PageRank Popups okay Check AutoLink AutoFill Settings

Hyderabad Metropolitan Water Supply and Sewerage Board

Live History Add Points Report Mail Admin Logout Help Welcome Super User : hmwss

Live Vehicle Tracking

Select Map:

Vehicle No:

Unit No:

[Dynamic Status Window](#)

Vehicle Info
Reg. No: AP 28U 8672-D3
Date & Time: 24/05/2008 14:47:35
Speed: 15

2000 feet
2 Km

Infotrack Internet

start Asset Management S... Microsoft PowerPoint ... EN 14:50

Dynamic Status Window (Live Status Window)

Vehicle Symbol Color	Vehicle Status
Green	Running
Yellow	Idle
Red	Stopped
Gray	Inactive



Running



Idle



Stopped



Inactive

Help

Print

Minimize

Dynamic Status Report

Search

SNO	Status	Vehicle No	Location	Speed	Date Time	GPS	Map It
1		AP 29T 2517-D5	3-4, Lingamapally & Bhoomanna Gally Syntex-2,India	0	24/05/2008 14:39		Map
2		AP 09U 3147-D7	O.u. Quarters,Lalapet Road,South Lalaguda,Hyderabad,India	0	24/05/2008 14:39		Map
3		AP 26U 4824-D6	H M W S Water Sewarage Treat Plant,Neclace Road,Somajiguda,Hyderabad,India	25	24/05/2008 14:39		Map
4		AP 10U 5790-D6	S.R.NAGAR,India	0	24/05/2008 14:39		Map
5		AP 10U 286-D7	Lamcy Hotel,Rastrapathi Road,Monda Market,Hyderabad,India	0	24/05/2008 14:39		Map
6		AP 09W 5507-D1	Chaderghat Police Station,National Hwy 9,Chaderghat,Hyderabad,India	0	24/05/2008 14:39		Map
7		AP 9W 5437-D5	Shivam Filling Station,India	0	24/05/2008 14:39		Map
8		AP 16T 9473-D5	Chilkaguda Filling Station,India	0	24/05/2008 14:39		Map
9		AP 11W 1394-D5	Sri Rama Plywood Hardware Shop,Padmarao Nagar Main Road,Warasi Guda,Hyderabad,India	0	24/05/2008 14:39		Map
10		AP 12U 9487-D1	Ihaussunna Educational Welfare Association,Biwi Ka Chasma Road,Nawab Shahi Kunta,Hyderabad,India	0	24/05/2008 14:39		Map
11		AP 05U 2464-D4	Md Dulaykhan,Mangalghat-tappacahabutra Road,Dattatreya Nagar,Hyderabad,India	4	24/05/2008 14:39		Map
12		AP 09T 9987-D4	Hari Nagar,India	0	24/05/2008 14:39		Map
13		AP 13W 6804-D5	Elchiguda Public Trip-2,India	0	24/05/2008 14:39		Map
14		AP 11W 7583-D1	Fazal Eng Works,Talab Katta Road,Moghal Pura,Hyderabad,India	0	24/05/2008 14:39		Map
15		AP 21T 5036-D1	Mosque,Chandulal Baradar- Zoo Park Road,Gazi Banda,Hyderabad,India	16	24/05/2008 14:39		Map
16		AP 05V 0721-D2	Sky View,Asman Ghad Road,New Malakpet,Hyderabad,India	0	24/05/2008 14:39		Map



Live Vehicle Tracking

Select Map: Hyderabad

Vehicle No:
 AP 05U 2464-D4
 AP 05V 0721-D2
 AP 05X 8458-D3
 AP 07U 7284-D5
 AP 09T 5092-D6

Unit No: 52728

Stop Live Tracking

Last Found

[Dynamic Status Window](#)

Vehicle No : AP 07U 7284-D5
 Date&time : 30/05/2008 15:59:55
 Location : Domalguda-Filling Station

Geofence
Name: Domalguda-Filling Station
Location: Domalguda-Filling Station
Type: Customer Location

50 feet / 100 meter scale bar

SEARCH



Live Vehicle Tracking

Select Map: Hyderabad

Vehicle No:
 AP 05U 2464-D4
 AP 05V 0721-D2
 AP 05X 8458-D3
 AP 09T 5092-D6

Unit No: 52728

Stop Live Tracking

Last Found

[Dynamic Status Window](#)

Vehicle No : AP 07U 7284-D5
 Date&time : 30/05/2008 16:10:11
 Location : Domalguda-Filling Station

GeoFence List

GeoFence	Location
<input type="checkbox"/> 3-5-1138/41 Naseer bagh	Naseer bagh
<input type="checkbox"/> 3-4, Shyam Mandir / tanks,	Kachiguda PoliceS

GeoFence
Name: 3-5-1138/41 Naseer bagh
Location: Naseer bagh
Type: Un-Authorised Area

DELETE GEOFENCE



Live History Add Points Report Mail Admin Logout Help

Welcome Super User : hmwss

Vehicle History Tracking

Select Map:

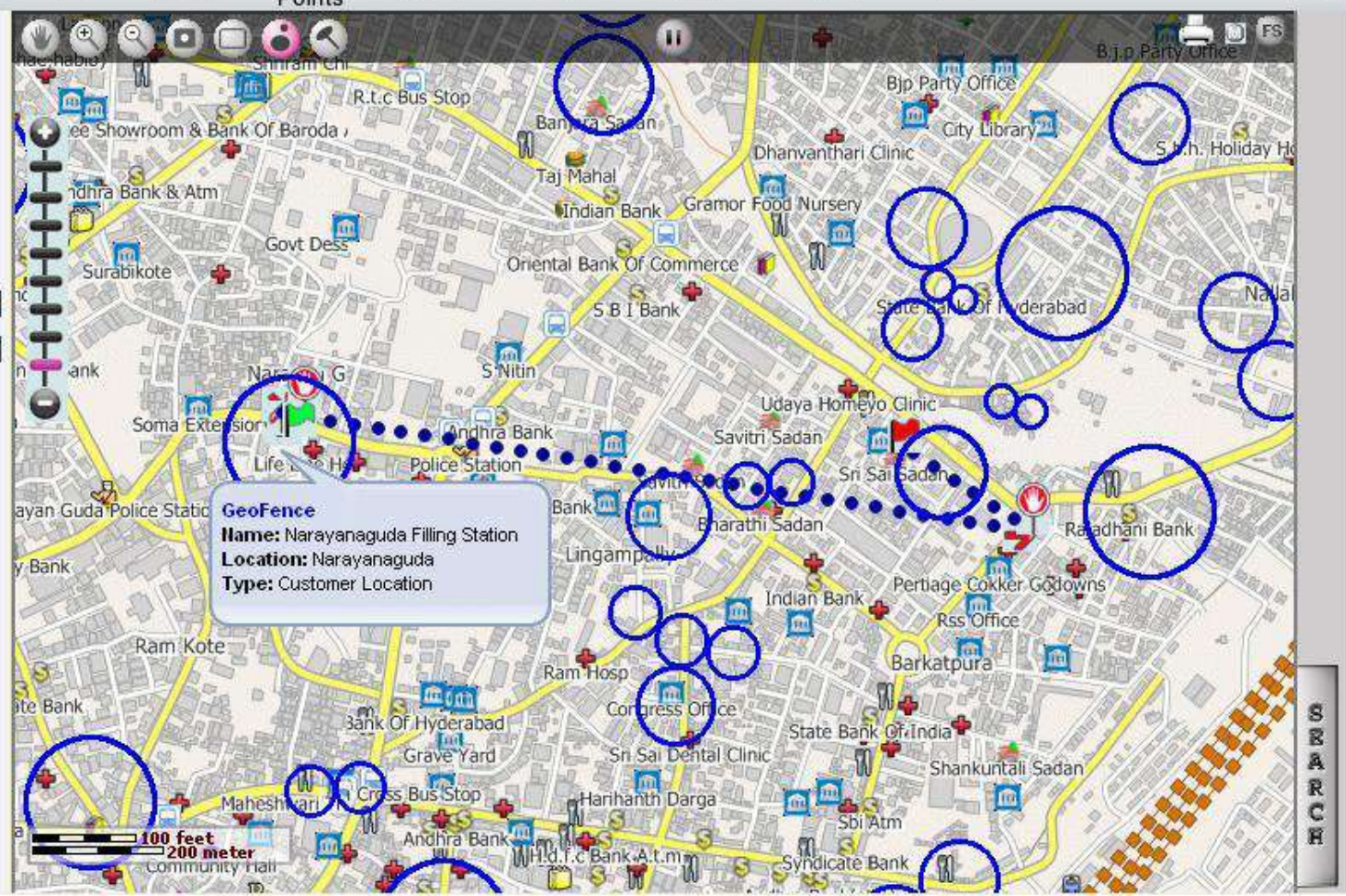
Vehicle No:

Duration:

From:

To:

Playback: mins



Hyderabad Metropolitan Water Supply and Sewerage Board

Live History Add Points Report Mail Admin Logout Help

Welcome Super User : **hmwss**

Query for Report

Report

Vehicle

From

To

Generate Report

Main Report 37 / 72 100%

Location Report

Vehicle Id: **AP 03V 1971-D5**

Duration From: **23/05/2008 00:00 to: 23/05/2008 23:59**

SI No	Date Time	Latitude	Longitude	Location	Speed
AP 03V 1971-D5					
649	23/5/2008 11:49:35	17.421140	78.501540	Chilkaiguda-Filling Station	0
650	23/5/2008 11:48:32	17.421160	78.501540	Chilkaiguda-Filling Station	0
651	23/5/2008 11:47:30	17.421260	78.501500	Chilkaiguda-Filling Station	1
652	23/5/2008 11:46:27	17.420430	78.500520	Mohammadi Function Hall, Boyiguda Road, Newbhoiguda, Hyderabad	0
653	23/5/2008 11:44:58	17.418160	78.499520	Post Office musheerabad, R.t.c X Road-musheerabad Road musheerabad	23
654	23/5/2008 11:43:35	17.414520	78.497820	S.s Enclave, R.t.c X Road - Musheerabad Main Road, Zamistanpur, Hyderabad	15
655	23/5/2008 11:43:35	17.414520	78.497820	S.s Enclave, R.t.c X Road - Musheerabad Main Road, Zamistanpur, Hyderabad	15
656	23/5/2008 11:42:33	17.412190	78.497740	Subash Theatre usha Mayuri, R.t.c X Road - Musheerabad Main	4
657	23/5/2008 11:41:31	17.411020	78.498240	Ramakrishna Complex, R.t.c X Road - Musheerabad Main	16

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Query for Report

Report: Trip Report

Scheduled
 Comprehensive

Vehicle: AP 29T 2517-D5
AP 01T 5466-D1
AP 02T 7560-D6
AP 02U 5798-D9
AP 03U 4235-D6

From: 25/05/2008 00:00

To: 25/05/2008 23:59

Generate Report

Scheduled Trip Report

Vehicle Id: AP 29T 2517-D5
Duration From: 25/05/2008 00:00 to:25/05/2008 23:59

Trip No	Filling Station	Scheduled Departure Time	Name of unloading Destination
AP 29T 2517-D5			
1	Narayanaguda Filling Station	25/5/2008 10:30	3-4, B.R.R School, Barkathpura
2	Narayanaguda Filling Station	25/5/2008 13:30	3-1, Kamgarnagar Syntex tanks
3	Narayanaguda Filling Station	25/5/2008 14:30	3-1-801/A & 3-1-733/1 Taggy jail Syn
4	Narayanaguda Filling Station	25/5/2008 15:30	3-4, Shyam Mandir / 3-1, Syntex tanks, Kachiguda,
5	Narayanaguda Filling Station	25/5/2008 16:30	3-4, Sathyanagar Syntex tanks
6	Narayanaguda Filling Station	25/5/2008 17:30	3-4, Sri Naini Narsimha Reddy, MLA r

Reports

The following standard reports will be generated to analyze vehicles trip related activities

Activity Report

Location Report

Geofence Report

E-log Book Report

Trip Report

Trip Exception Report

Comprehensive Report (Schedule Vs Actual Trips made)

Non-polling Data Report

SMS alerts

Day Summary Report

All the Reports will be exported to Excel, PDF, MS Word and Rich Text Format



Query for Report

Report Activity Report

Vehicle
 AP 29T 2517-D5
 AP 01T 5466-D1
 AP 02T 7560-D6
 AP 02U 5798-D9
 AP 03U 4235-D6

From

To

Generate Report

Powered by **InfoTrack**

Vehicle Status Report

24/05/2008 15:27:45

SNo	Vehicle No	Date Time	Location	Speed
1	AP 21T 5036-D1	24/05/2008 15:27:25	Masjid Anwar Shafi,Biwi Ka Chasma Road,Shamsheer Gunj,Hyderabad	0
2	AP 09W 5507-D1	24/05/2008 15:27:13	Mandir,Chaderghat-dabeerpura Road,Azampura,Hyderabad	0
3	AP 9W 5437-D5	24/05/2008 15:27:12	R.K.Nagar Huts	0
4	AP 5Y 4217-D5	24/05/2008 15:27:12	Chilkaguda Filling Station	0
5	AP 11W 7129-D5	24/05/2008 15:27:09	Narayanaguda Filling Station	0
6	AP 10U 5500-D5	24/05/2008 15:27:09	Shivam Filling Station	0
7	AP 11W 7583-D1	24/05/2008 15:27:09	Fazal Eng Works,Talab Katta Road,Moghal Pura,Hyderabad	0
8	AP 26U 4824-D6	24/05/2008 15:27:08	Research Office,Punjagutta Officers Colony Road,Panjagutta,Hyderabad	0
9	AP 07U 7284-D5	24/05/2008 15:27:06	Domalguda-Filling Station	0
10	AP 29U 1172-D5	24/05/2008 15:27:03	1-5-332, Bakaram	0
11	AP 11W 7858-D5	24/05/2008 15:27:03	Sridevi,Gandhinagar Main Road,Lower Tank Bund,Hyderabad	24
12	AP 11W	24/05/2008 15:27:03		0

Query for Report

Report:

Scheduled
 Comprehensive

Vehicle:

From:

To:

Generate Report

Powered by **InfoTrack**

VEHICLE TRACKING MONITORING REPORT

Vehicle Id: AP 29T 2517-D5

Duration From: 25/05/2008 00:00 to: 25/05/2008 23:59

HMWS

Status of Timing at Filling Station

Trip No	Filling Station	Scheduled Departure Time	Actual Departure Time	Name of unloading Destination	Schedule of unloading
AP 29T 2517-D5					
1	Narayanaguda Filling	25/05/2008 10:30:00		3-4, B.R.R School, Barkathpura	25/05/2008
2	Narayanaguda Filling	25/05/2008 13:30:00	25/05/2008 12:31:14	3-1, Kamgarnagar Syntex tanks	25/05/2008
3	Narayanaguda Filling	25/05/2008 14:30:00	25/05/2008 10:54:37	3-1-801/A & 3-1-733/1 Taggy jail Syntex tank-2	25/05/2008
4	Narayanaguda Filling	25/05/2008 15:30:00	25/05/2008 15:19:24	3-4, Shyam Mandir / 3-1, Syntex tanks, Kachiguda,	25/05/2008
5	Narayanaguda Filling	25/05/2008 16:30:00	25/05/2008 13:05:58	3-4, Sathanagar Syntex tanks	25/05/2008
6	Narayanaguda Filling	25/05/2008 17:30:00		3-4, Sri Naini Narsimha Reddy, MLA residence.	25/05/2008



Live History Add Points Report Mail Admin Logout Help

Welcome Super User : hmwss

Query for Report

Report: Trip Exception Report

Served by Other Vehicle

Not Served

Vehicle: AP 29T 2517-D5

Date: 25/05/2008 00:00

Date: 25/05/2008 23:59

Generate Report

Main Report 1 / 1 100%

Trip Served by Other Vehicle Report

Vehicle Id: AP 29T 2517-D5

Duration From: 25/05/2008 00:00 to: 25/05/2008 23:59

HMWSS

S No	Filling Station	Scheduled Start Time	Unload Station	Scheduled Reach Time	Acutal Reach Time
AP 09W 5507-D1					
1	Narayanaguda Filling Station	25/05/2008 13:30:00	3-1, Kamgarnagar Syntex tanks	25/05/2008 13:40:00	25/05/2008 15:16:15
AP 11W 1394-D5					
2	Narayanaguda Filling Station	25/05/2008 15:30:00	3-4, Shyam Mandir / 3-1, Syntex tanks	25/05/2008 15:40:00	25/05/2008 20:04:09
AP 29T 7336-D5					
3	Narayanaguda Filling Station	25/05/2008 15:30:00	3-4, Shyam Mandir / 3-1, Syntex tanks	25/05/2008 15:40:00	25/05/2008 11:46:46
4	Narayanaguda Filling Station	25/05/2008 16:30:00	3-4, Sathyanagar Syntex tanks	25/05/2008 16:40:00	25/05/2008 13:10:34



Query for Report

Report: **Trip Exception Report**

Served by Other Vehicle

Not Served

Date:

Date:

Generate Report

Trip Not Served Report

Vehicle Id: **HMWSS**

Duration From: 25/05/2008 00:00 to: 25/05/2008 23:59

S No	Filling Station	Scheduled Time of Departure	Un-Loading Station	Scheduled Time of Arrival
AP 29T 2517-D5				
1	Narayanaguda Filling Station	25/05/2008 10:30:00	3-4, B.R.R School, Barkathpura	25/05/2008 10:40:00
2	Narayanaguda Filling Station	25/05/2008 17:30:00	3-4, Sri Naini Narsimha Reddy, MLA residence	25/05/2008 17:40:00
AP 03V 1814				
3	Asif Nagar	25/05/2008 14:50:00	HUDA Colony Masjeed	25/05/2008 15:00:00
4	Asif Nagar	25/05/2008 11:15:00	Nuzhath Niswan Mosque	25/05/2008 11:30:00
AP 09W 1799				
5	Shaik Pet	25/05/2008 21:15:00	PensionPura Gulla Basthi	25/05/2008 22:00:00
AP 10U 5684				
6	Shaik Pet	25/05/2008 08:50:00	Janakinagar Masjeed Taqwa	25/05/2008 09:00:00
7	Shaik Pet	25/05/2008 07:40:00	Hakeempet Near Jhanda Galli	25/05/2008 08:10:00
AP 10V 6933				



HMWSSB

Manhole Information and Management System

Approach and methodology followed



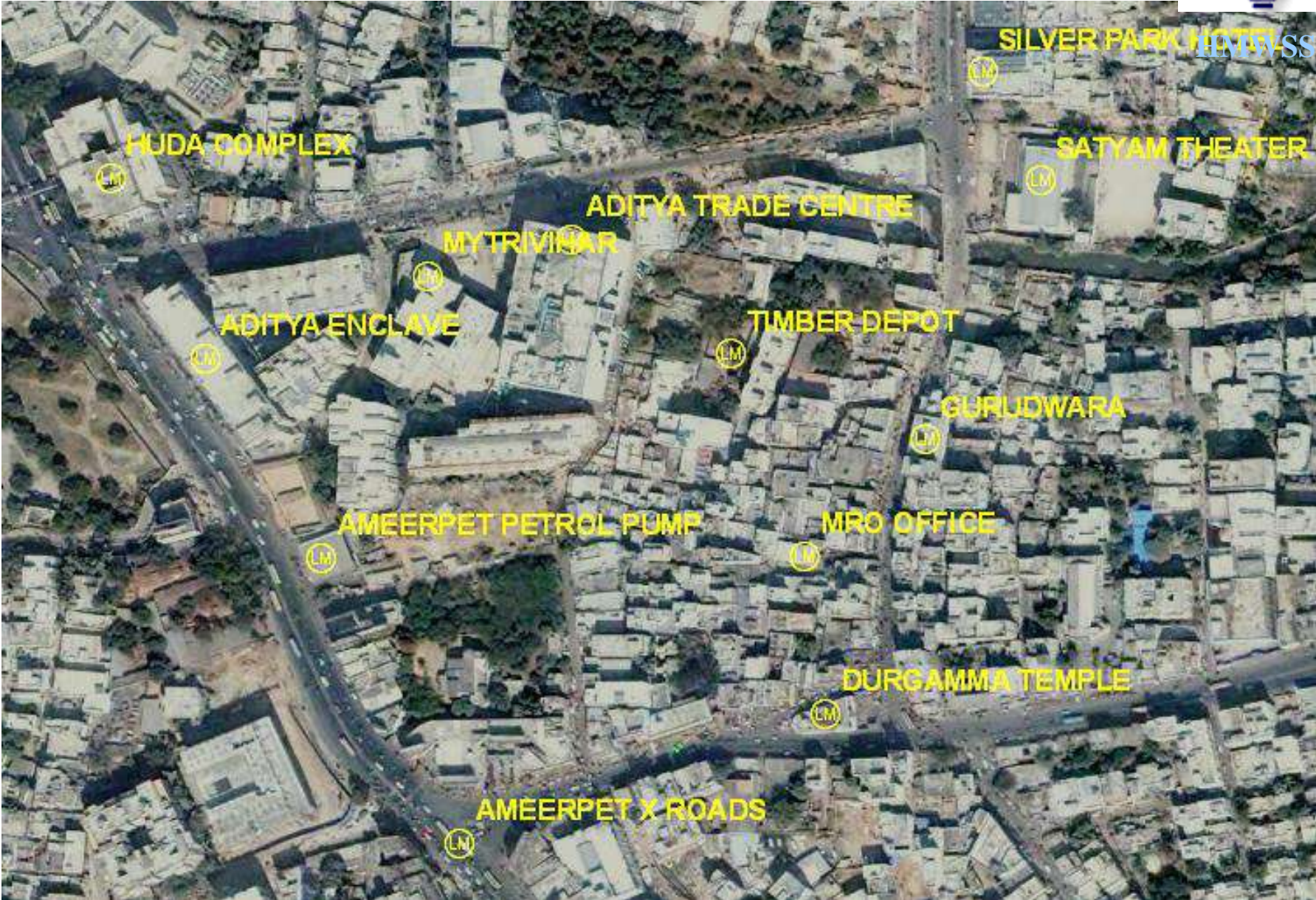
HMWSSB

-
- ❑ **HMWSSB – existing GIS maps as a reference**
 - ❑ **Overlay – existing map over satellite imagery and re-projected**
 - ❑ **Field survey using GPS instrument**
 - ❑ **Downloading and processing GPS points**
 - ❑ **Compilation of attributes and linking**
 - ❑ **Preparation of sewerage network map**
 - ❑ **Development of Manhole Information and Management System (MIMS)**
-

Pilot study area - Ameerpet



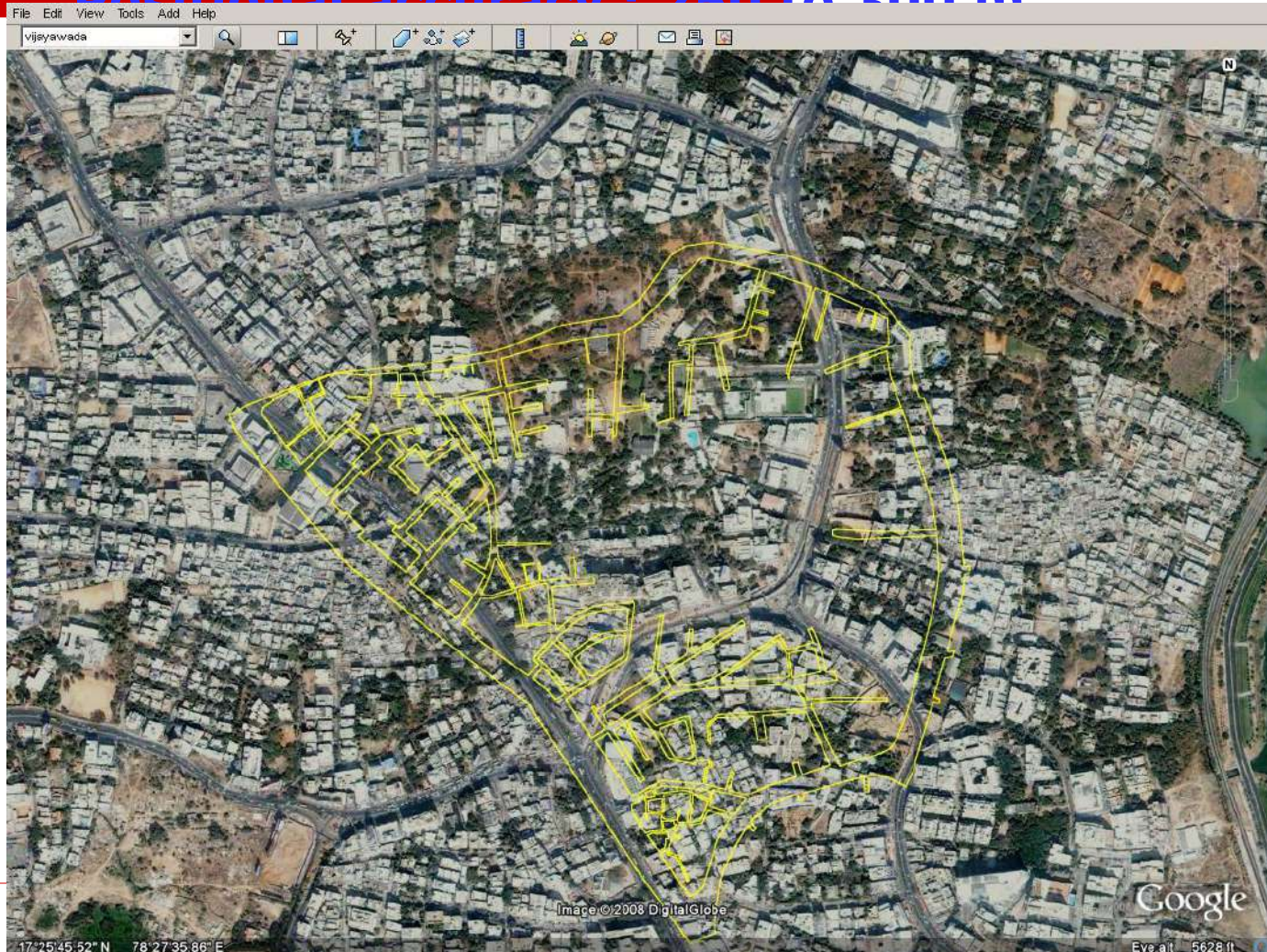
INTVSSB



Map existing with HMWSSB



- UTM projection system with Spheroid NAD83
- Overlay with Google Earth imagery
- Positional accuracy: 250 to 300 m

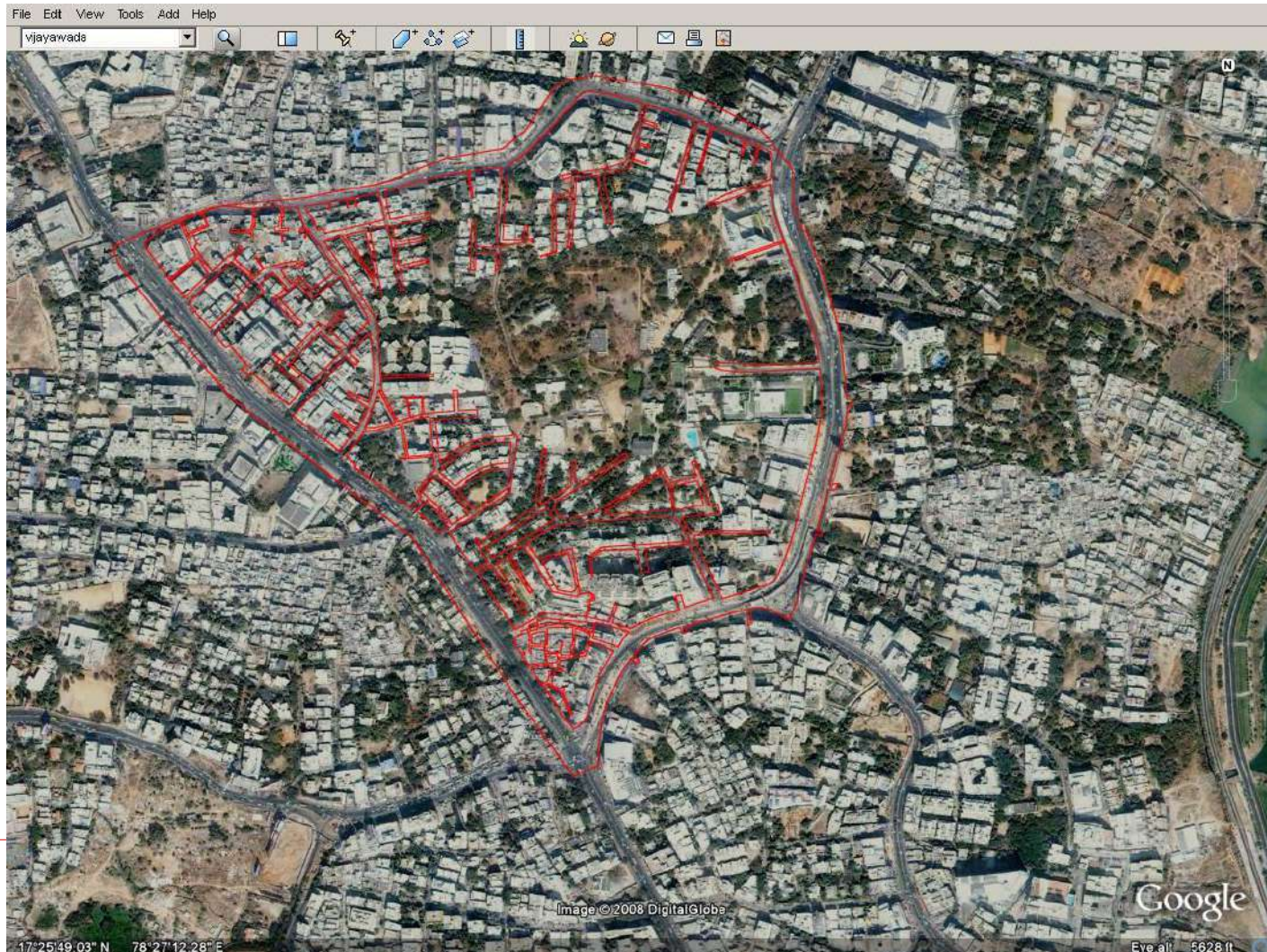


Map re-projected



HMWSSB

- **Positional accuracy: 5 to 10 m**
- **UTM projection system with Spheroid WGS84**
- **Overlay on satellite imagery**



Existing map Vs projected map



HMWSSB

- **Difference in the projection system**
- **Overlay both maps on satellite**





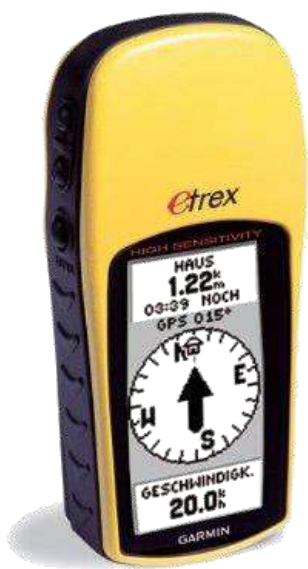
HMWSSB

Manhole - Field Survey using GPS Instrument



HMWSSB

No of sattelites



Elevation: 1102 ft

Latitude:
17°26'11.82"N

Longitude:
78°26'39.07"E

Manhole location with geographical coordinates



HMWSSB



Latitude: $17^{\circ}26'11.82''\text{N}$
Longitude: $78^{\circ}26'39.07''\text{E}$
Ground level: 540 M

Field survey : Manhole – Data sheet



HMWSSB

Manhole survey format - HMWSSB														
MHID	PIPE DIA		DIAMETER	MATERIAL	ROAD-TYPE	NO OF CONNECTIONS	RELATIVE POSITIONS	INVERT LEVEL	GROUND LEVEL	CONDITION	DATE OF INSTALL	NEAREST LAND MARK	LOCATION	PHOTO
	S.NO	GPS ID												
135	01	002	0.45	0.9/3m	FRC	BT	1	540	545	Reaching Reg GOOD		Saligrama Maha Temple	Saligrama	No Safety grill
150	02	003	1.2	0.9/3.3	FRC	BT	1	530	536	Reaching Reg GOOD		"	"	No Safety grill
210	03	004	1.2	0.9/3.4	FRC	C.C	2	540	544	Reaching Reg GOOD		"	"	No Safety grill
230	04	005	1.2	0.9/3.4	FRC	BT	1	530	537	Reaching Reg GOOD		"	"	"
550	05	006	0.3	0.6/1.1	FRC	BT	2	526	526	GOOD		Saligrama	opp Saligrama	"
555	06	007	0.3	0.6/3.7	CT	In Saligrama C.C	3	519	519	GOOD		"	In Saligrama	"
	07	008	300mm	0.9/1.9m	FRC	B.T	2	-	545	GOOD		"	opp Saligrama	008
	08	009	1200mm	0.9/1.6m	FRC	B.T	1		554	GOOD		"	"	009
	09	010	200mm	0.6/2.7m	FRC	B.T	1	on the path	538	GOOD		opp Saligrama	010	02
	10	011	300mm	0.6/1.9m	FRC	B.T	2	on the path	545	GOOD		opp: chera	011	03
	11	012	300mm	0.9/1.3m	FRC	B.T	2	Reaching good	544	GOOD		"	012	04
	12	013	300mm	0.9/1.2m	FRC	B.T	1	Reaching good	532	GOOD		Reaching good	013	05

Manhole attribute – Collected from field

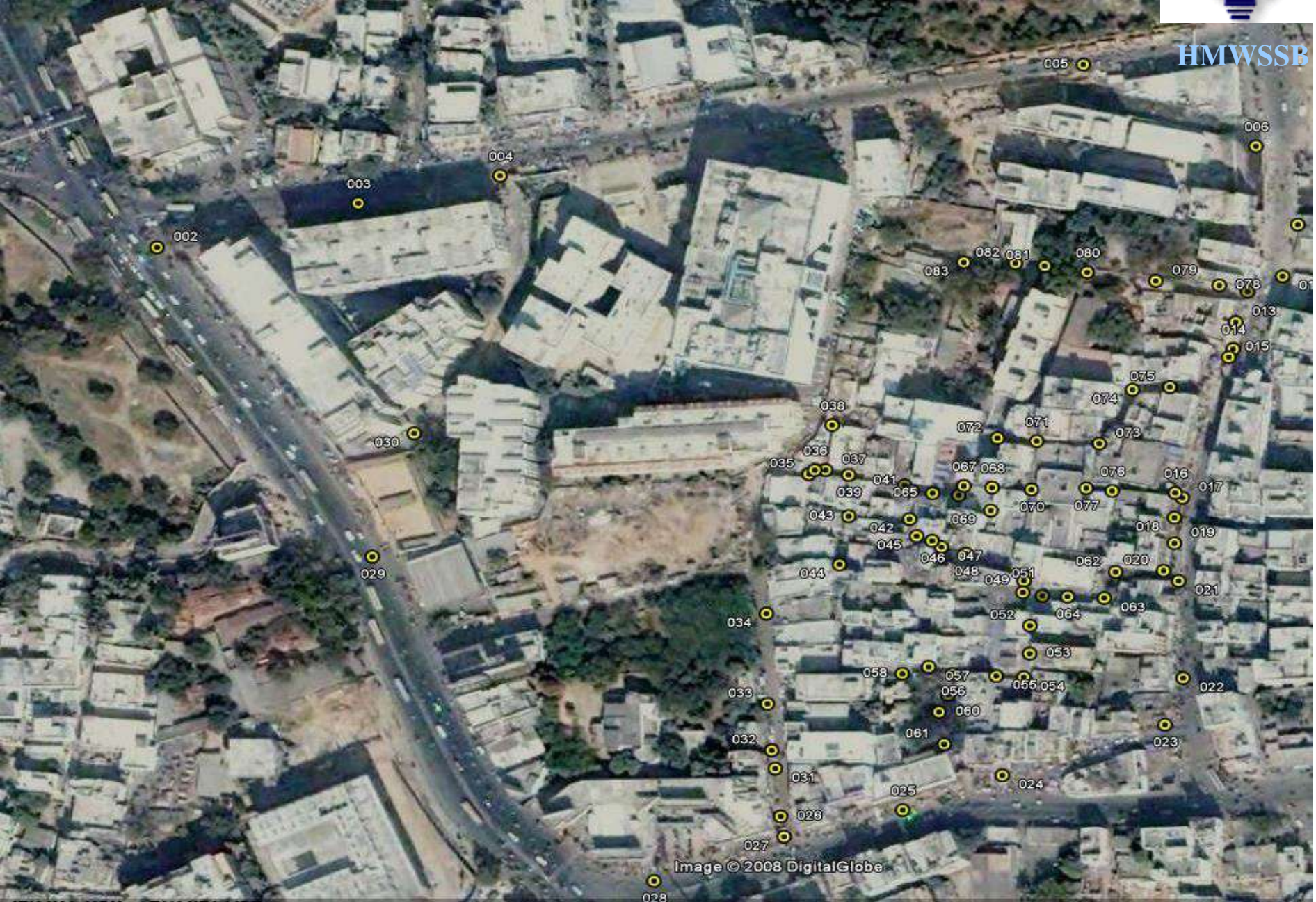


MANHOLE-ID	DIAMETER	MATERIAL	ROADTYPE	NO_OF_CONN	DEPTH	INVERT_LEV	GROUND_LEV	CONDITION	LANDMARK	LOCATION	SAFETY	WCSR
008	900	FRC	BT	2	1900	0	0	GOOD	OPP TO SILVER PARK HOTEL	AMEERPET	NO	NO
009	900	FRC	BT	1	4600	0	0	GOOD	OPP TO SILVER PARK HOTEL	AMEERPET	NO	NO
010	600	FRC	BT	1	2700	0	0	GOOD	BESIDE SATYAM THEATER NALLA	AMEERPET	NO	NO
011	600	FRC	BT	2	1900	0	0	GOOD	OPP TO CHINA BAZAR	AMEERPET	YES	NO
012	900	FRC	BT	2	1300	0	0	GOOD		AMEERPET	NO	NO
013	900	FRC	BT	1	1200	0	0	GOOD	BESIDE GURUDWARA	AMEERPET	NO	NO
014	900	FRC	BT	1	1150	0	0	GOOD	BESIDE GURUDWARA	AMEERPET	NO	NO
015	900	FRC	BT	2	1100	0	0	GOOD	BESIDE GURUDWARA	AMEERPET	NO	NO
016	900	FRC	BT	2	1350	0	0	GOOD	OPP TO MANOHAR JEWELLERS	AMEERPET	NO	NO
017	900	FRC	BT	1	1250	0	0	GOOD	OPP TO MANOHAR JEWELLERS	AMEERPET	NO	NO
018	900	FRC	BT	1	1100	0	0	GOOD	SRI LUCKY HOMES	AMEERPET	NO	NO
019	900	FRC	BT	1	1200	0	0	GOOD	OPP TO PADAMATHI JEWELLERS	AMEERPET	NO	NO
020	900	FRC	BT	1	800	0	0	GOOD	OPP M.R.O OFFICE	AMEERPET	NO	NO
021	900	FRC	BT	1	1450	0	0	GOOD	OPP M.R.O OFFICE	AMEERPET	NO	NO
022	900	FRC	BT	1	1300	0	0	GOOD	MAYUR JEWELLERS	AMEERPET	NO	NO
023	900	FRC	BT	1	900	0	0	GOOD	OPP TO DELHI SWEETS	AMEERPET	NO	NO
024	900	FRC	BT	1	1100	0	0	GOOD	OPP VIJAY LAXMI THEATER	AMEERPET	NO	NO
025	900	FRC	BT	1	1300	0	0	GOOD	OPP SHEETHAL SELECTIONS	AMEERPET	NO	NO
026	900	FRC	BT	1	1800	0	0	GOOD	OPP TO TIMEX GOBAL WATCHES	AMEERPET	NO	NO
027	900	FRC	BT	2	1800	0	0	GOOD	OPP TO TIMEX GOBAL WATCHES	AMEERPET	NO	NO
028	900	FRC	BT	0	1800	0	0	GOOD	NEAR AMEERPET X ROADS	AMEERPET	NO	NO
029	900	CI	BT	1	3100	0	0	GOOD	NEAR PETROL BUNK , BUS STOP	AMEERPET	NO	NO

Downloaded GPS points of manholes from GPS instrument



HMWSSB





HMWSSB

Overview of Map data – Sewerage network

- Sewerage pipe diameter – 200,300,450 & 1200 mm
- Existing Manhole & Missing Manhole
- Sewerage – Flow direction

Layers

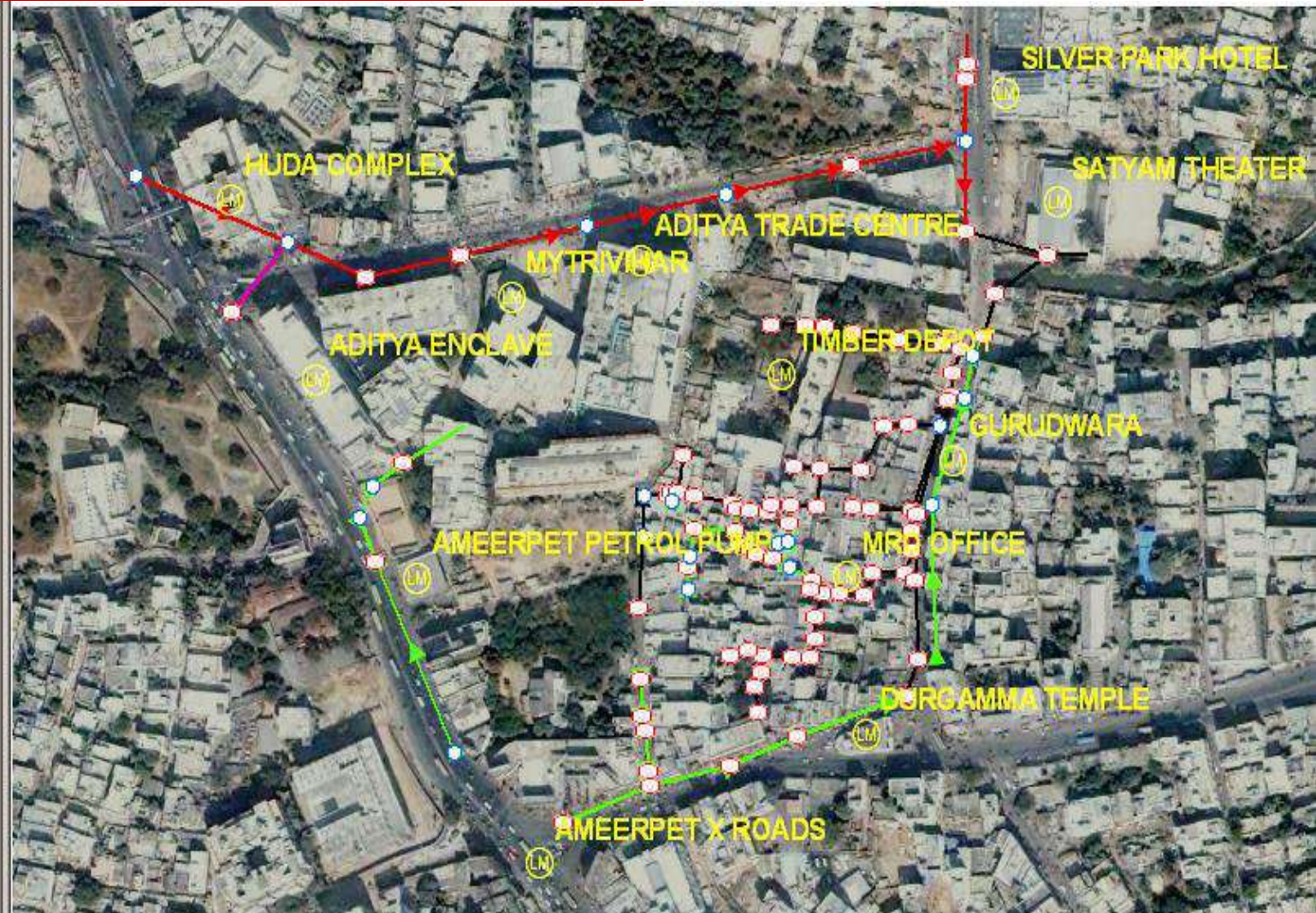
- MISSING MANHOLE
- LANDMARKS
- EXISTING_MANHOLE
- SEWERAGE_PIPE
- ampt.jpg

DIAMETER

- 200
- 300
- 450
- 1200

RGB

- Red: Band_1
- Green: Band_2
- Blue: Band_3





HMWSSB

Sewerage pipeline Information

Layers

- F:\sharing\MHsurvey\HMW:
 - MISSING MANHOLE
 - LANDMARKS
 - EXISTING_MANHOLE
 - SEWERAGE_PIPE
 - <all other values>
 - DIAMETER
 - 200
 - 300
 - 450
 - 1200
- F:\sharing\MHs:
 - ampt.jpg
 - RGB
 - Red:
 - Green:
 - Blue:

Identify

Identify from: <Top-most layer>

SEWERAGE_PIPE

FRC

Location: 78.446 17.437 Ur

Field	Value
FID	1
Shape	Polyline
Id	0
DIAMETER	1200
MATERIAL	FRC
REMARKS	

Identified 1 feature

Manhole Information on one click



HMWSSB

i Identify

Identify from:

EXISTING_MANHOLE
005

Location: 78.448 17.437 Unknown Units

Field	Value
FID	3
Shape	Point
NAME	005
LAYER	MANHOLE
DIAMETER	900
MATERIAL	FRC
ROADTYPE	BT
NO_OF_CONN	1
INVERT_LEV	0
GROUND_LEV	0
CONDITION	GOOD RAISING REQUIRED
DATE_OF_IN	<null>
REL_POS	
LANDMARK	SARADHI STUDIOS TO SATYAM THEATER ROAD
LOCATION	AMEERPET
PHOTO_ID	0
REMARKS	

Identified 1 feature



HMWSSB

INTERESTING FINDINGS DURING FIELD SURVEY

Field survey – Raising required



■ **Raising required**

Manhole cover not found



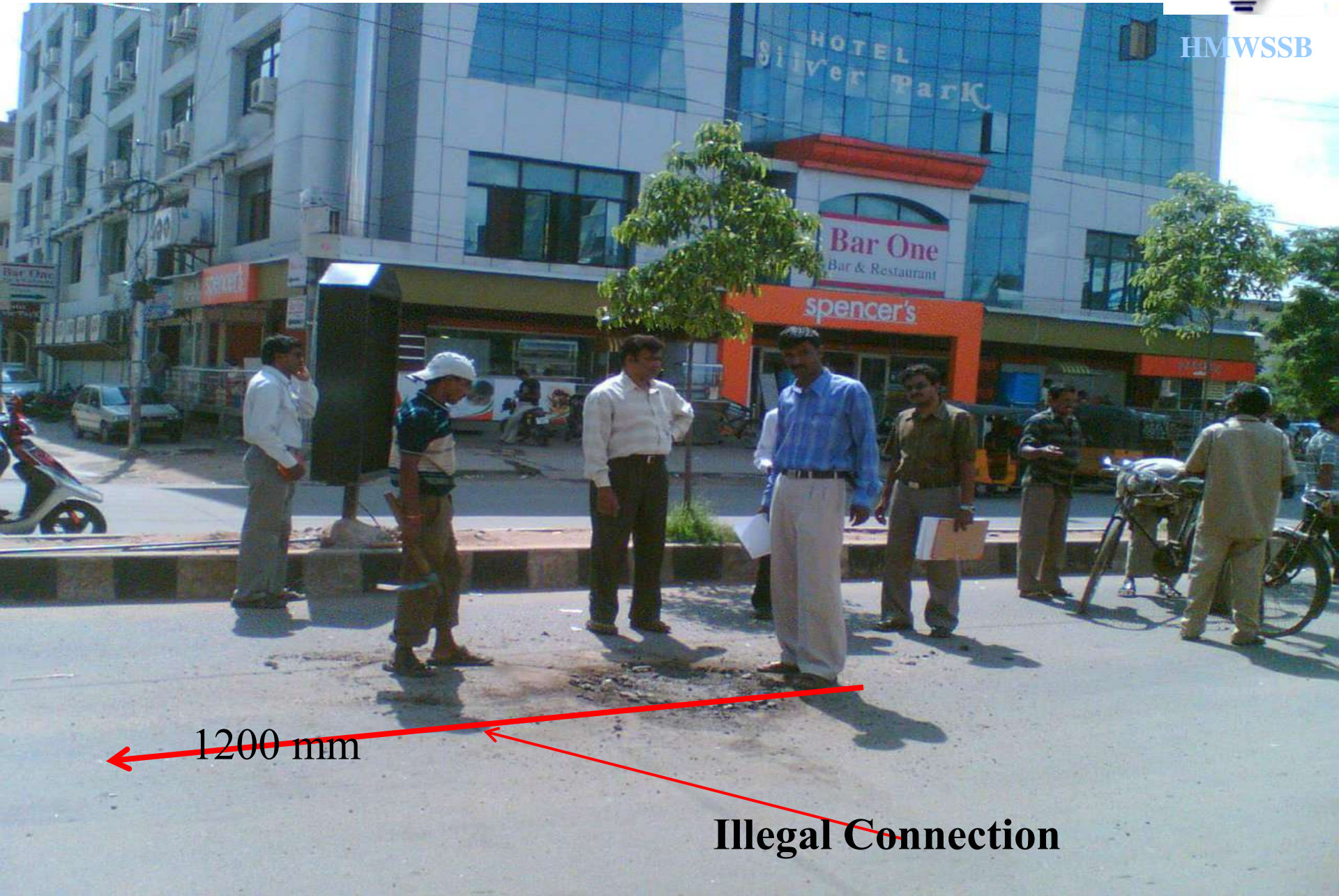
HMWSSB



Illegal connection – found during survey



HMWSSB



1200 mm

Illegal Connection

Length – Manhole to manhole



HMWSSB

Length on GIS map – 58 m



Length on ground -
58 m

SALIENT FEATURES OF THE PROJECT:

- **Manholes are identified uniquely with ID based on the administrative boundary**
 - **Retrieval of information is very easy – both specific and summary**
 - **History of works carried out is maintained and linked with ground/street location**
-



HMWSSB

- **GPS survey – can also be carried out for the utilities**
 - **Asset register**
 - **Pipelines**
 - **Water supply**
 - **Sewer**
 - **Sluice valve**
 - **Air valve**
 - **Manholes**
 - **Inline Boosters**
 - **Property details of HMWSSB**
 - **Sources (Catchment areas)**
 - **Water treatment plant**
 - **Reservoir**
 - **Pump house**
 - **Electrical substation**
-
- **And for many more assets**



HMWSSB

Manhole Information and Management System (MIMS)



HMWSSB

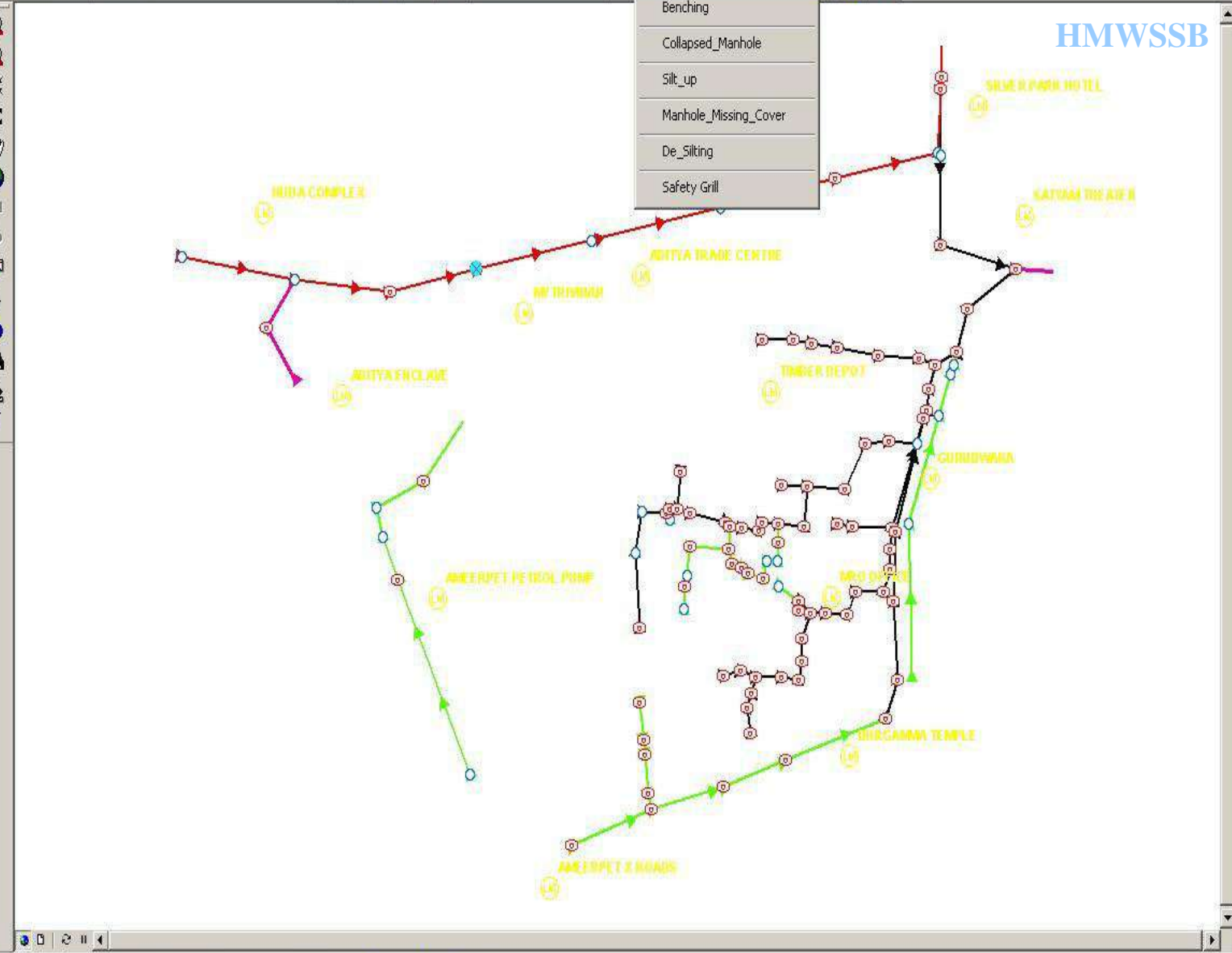
Task: Create New Feature Target: EXISTING_MANHOLE Spatial Adjustment

Events Report

- Raising
- Benching
- Collapsed_Manhole
- Silt_up
- Manhole_Missing_Cover
- De_Silting
- Safety Grill

Layers

- EXISTING_MANHOLE
- MISSING MANHOLE
- LANDMARKS
- SEWERAGE_PIPE



Display Source Selection

Drawing Arial 10 B I U A

Raising

Division SubDivision Section Area Code

Initiated By Manhole ID

Contract By Date

Name of The Agency Source of Complaint

Date of Mark Out Date of Completion

Estimated Amount Expenditure Amount

Remarks

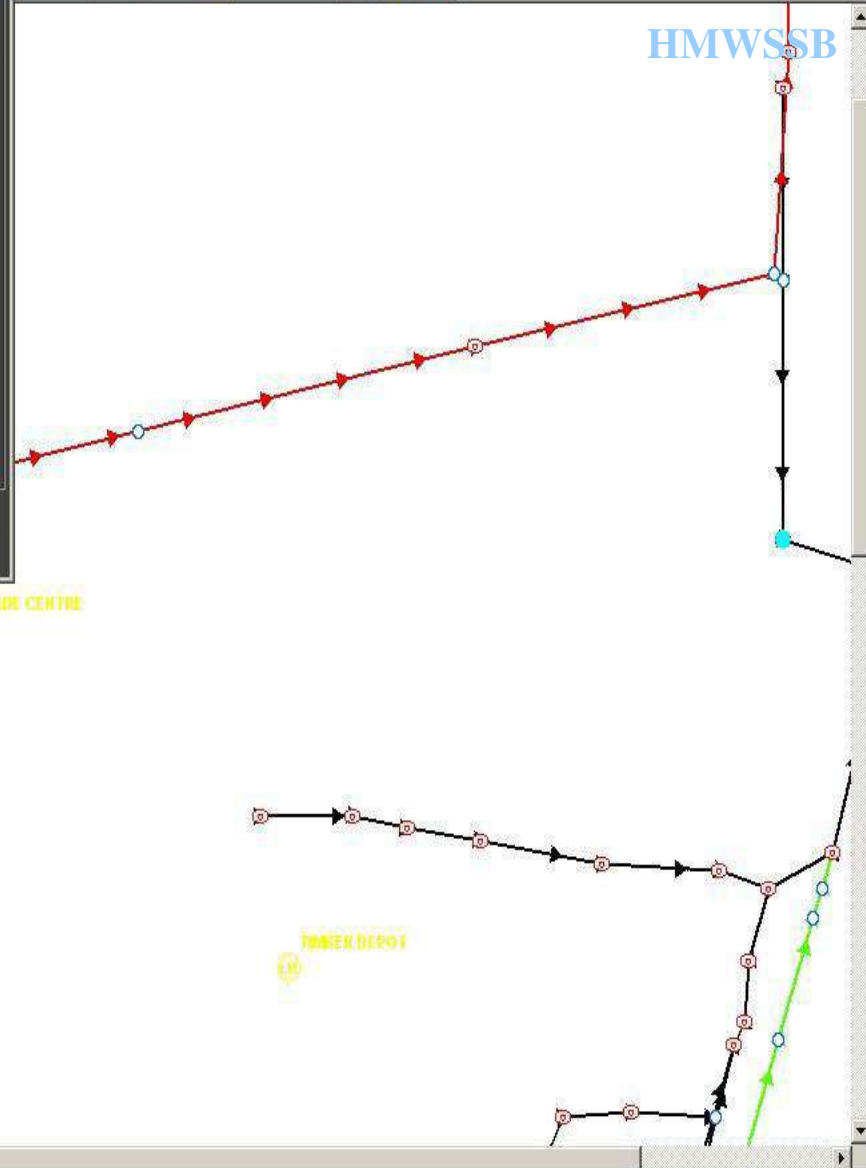
Clear Search Save Close



Events Report

stment

HMWSSB



Display Source Selection

Drawing

Arial 10 B I U A



0:0
Events
Report
Task: Create New Feature
Target: EXISTING_MANHOLE
Spatial Adjustment

HMWSSB

Layers

- EXISTING_MANHOLE

MANHOLE INFORMATION SYSTEM-HMW55B-Event Reports

Event: RAISING

Manhole ID: 0622-8

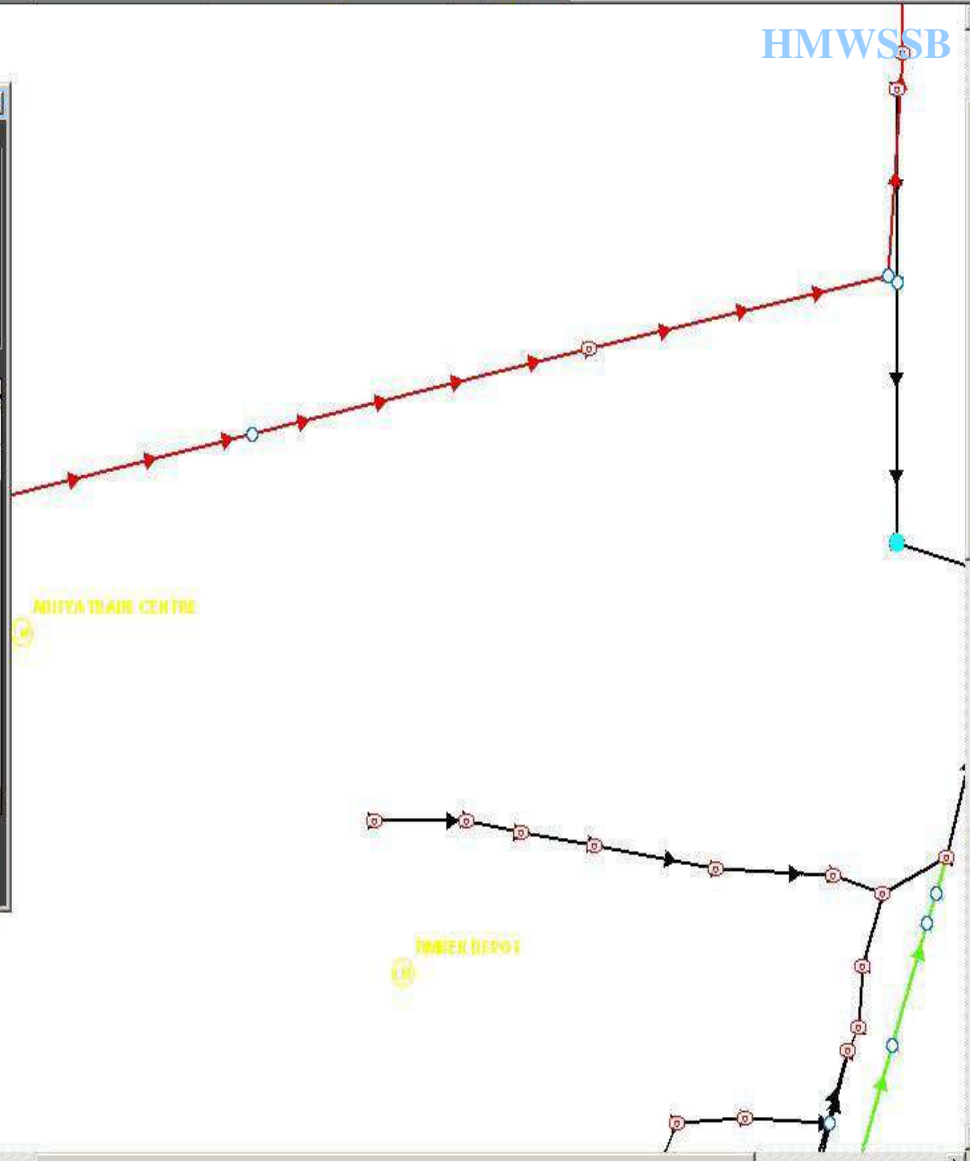
Advanced

From: To:

History Events

Initiated_By	Contract_By	MH_ID	Name_Agency	MarkOut_Date	Completion_Date	Expenditure
DGM	Nomination	0622-8	Surya consultancy	2/10/2008	9/10/2008	12658

Get Report Close



Display Source Selection

Drawing Arial 10 B I U



HMWSSB

0.0

Events Report

Editor Task: Create New Feature Target: EXISTING_MANHOLE Spatial Adjustment

Layers

- EXISTING_MANHOLE

MANHOLE INFORMATION SYSTEM-HMWSSB-Event Reports

Event: RAISING

Manhole ID: 0622-1

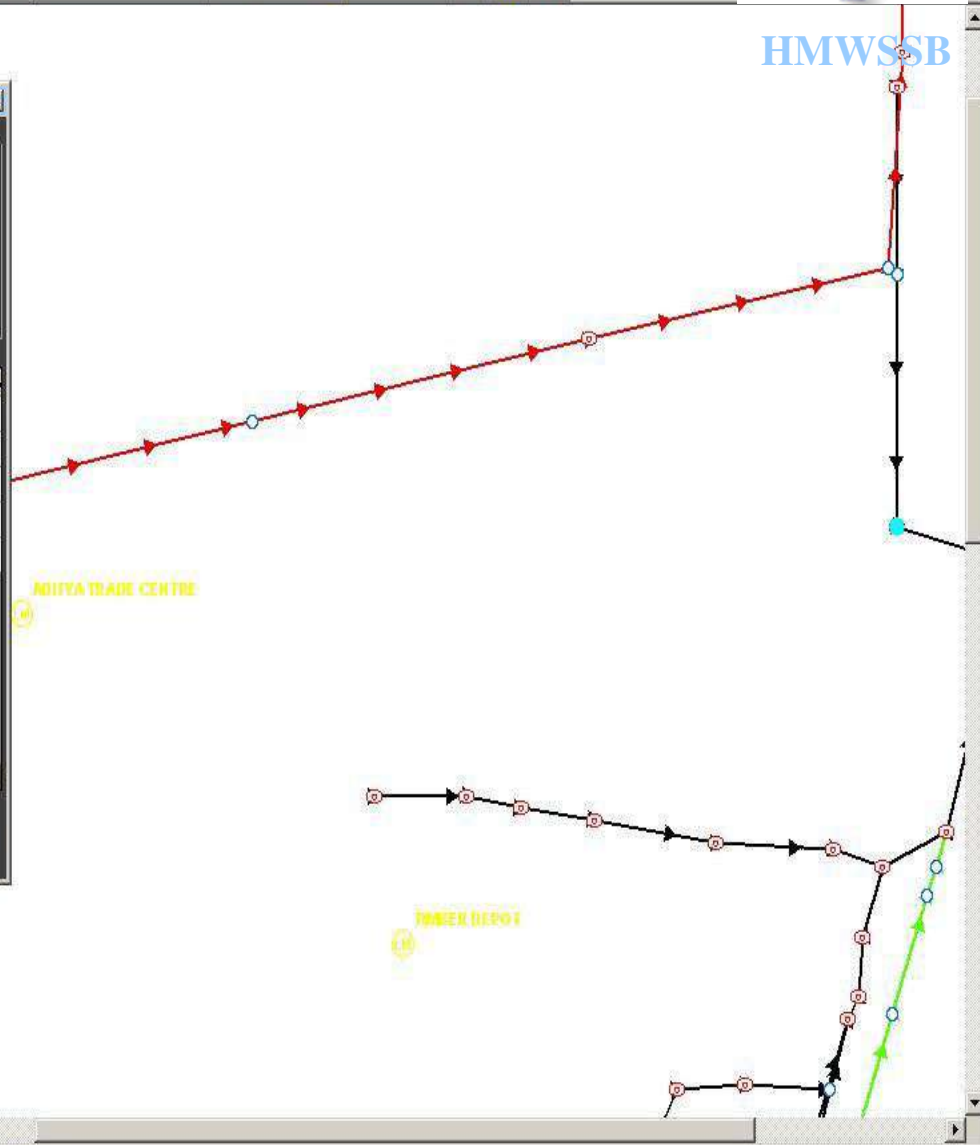
Advanced

From: To:

History Events

Initiated_By	Contract_By	MH_ID	Name_Agency	MarkOut_Date	Completion_Date	Expenditure_
Manager	Nomination	0622-1	GM	8/10/2008	8/10/2008	12300
DGM	Nomination	0622-1	AG3	10/10/2008	10/10/2008	1000
DGM	Tender	0622-1	AKR	10/10/2008	10/10/2008	9
Manager	Nomination	0622-1	Gmantis	2/10/2008	8/10/2008	12000

Get Report Close



Display Source Selection

Drawing Arial 10 B I U

78°26'46.891"E 17°26'10.871"N



HMWSSB



Layers

- EXISTING_MANHOLE
- MISSING_MANHOLE
- LANDMARKS
- SEWERAGE_PIPE

Manhole Inform...
Events Report





Create new manhole record

Manhole Creation

Division: VI

SubDivision: 2

Section: Yellareddiguda

Area Code: 0622

Location Details:

Latitude: 79.453627

Longitude: 18.9654234

Manhole-ID: 0622-56

Buttons: Clear, Generate New MH- ID, Create Manhole, Close



HMWSSB

Modify / Delete manhole record

Manhole Creation

Division: VI Area Code: 0622

SubDivision: 2 Manhole-ID: 0622-4

Section: Yellareddiguda

Property	Value
OBJECTID	249
NAME	004
LAYER	MANHOLE
DIAMETER	900
MATERIAL	FRC
ROADTYPE	CC
NO_OF_CONN	2
INVERT_LEV	0
GROUND_LEV	0
CONDITION	GOOD
DATE_OF_IN	<Null>
REL_POS	
LANDMARK	SARADHI STUDIOS TO SATYAM TH
LOCATION	AMEERPET
REMARKS	
MANHOLE_ID	0622-3
RAISING_REQ	YES
BENCHING_REQ	
MH_COLLAPSED	
SILTUP_REQ	<Null>
MH_MISSING	<Null>
SAFETY_GRILL_...	<Null>
DE_SILTING	<Null>
DE_FUNC	<Null>

Clear Modify Manhole Close

Manhole Creation

Division: VI Area Code: 0622

SubDivision: 2 Manhole-ID: 0622-2

Section: Yellareddiguda

Clear Delete Manhole Close



HMWSSB

Event

- RAISING
- BENCHING
- COLLAPSED MANHOLE
- SILT UP
- MISSING MANHOLE
- SAFETY GRILL
- DE SILTING
- DE FUNC

Manhole ID

History Event

Advanced

From

To

Get Report

Close



Division From TO

ID	Division	Sub-Divisor	Section	Count	Work Completed	Pending
5	I	I	1	3	3	0
6	III	II	6	3	2	1
7	V	I	9	2	1	1
8	V	III	5	9	5	4
9	VI	IV	12	5	2	3
10	VII	II	8	2	2	0
11	VIII	I	3	1	1	0
12	VIII	II	4	2	1	0



HMWSSB

Event

Manhole ID

History Events

Advanced

From To

Initiated_By	Contract_By	MH_ID	Name_Agency	MarkOut_Date	Completion_Date	Expenditure_
GM	Tender	0622-6	gmanits	2/10/2008	4/10/2008	10000
Manager	Nomination	0622-14	gmantis	6/10/2008	6/10/2008	120000
Manager	Nomination	0622-15	gmantis	6/10/2008	6/10/2008	120000
Manager	Tender	0622-19	KK	10/10/2008	10/10/2008	1000
Manager	Tender	0622-1	cdc	10/10/2008	10/10/2008	456
GM	Tender	0622-3	gmantis	2/10/2008	9/10/2008	2500
DGM	Nomination	0622-4	qewew	2/10/2008	3/10/2008	456456
DGM	Nomination	0622-8	Surya consultancy	2/10/2008	9/10/2008	12658



Get Report

Close

Report – Periodic event summary

MANHOLE INFORMATION SYSTEM-HMWSSB-Event Reports

Event: RAISING

Manhole ID:

History Events

Advanced

From: 2/10/08 To: 15/11/08

Date	Expenditure_Amount	Remarks	Estimated_Amount	Complaint_Source	Date	OBJECTID	Event
	10000	Test	15000	online	6/10/2008	3	Raising
	120000	verify	100000	internal	6/10/2008	6	Raising
	120000	verify	100000	internal	6/10/2008	7	Raising
	1000	Test	1000	Dept	10/10/2008	12	Raising
	2500	By Verification	2000	Online	11/10/2008	17	Raising
	456456	sdfdsfdf	456456	ewewew	10/10/2008	24	Raising
	12658	Test	12345	Online	10/10/2008	25	Raising

Get Report Close



HMWSSB

THANKS
