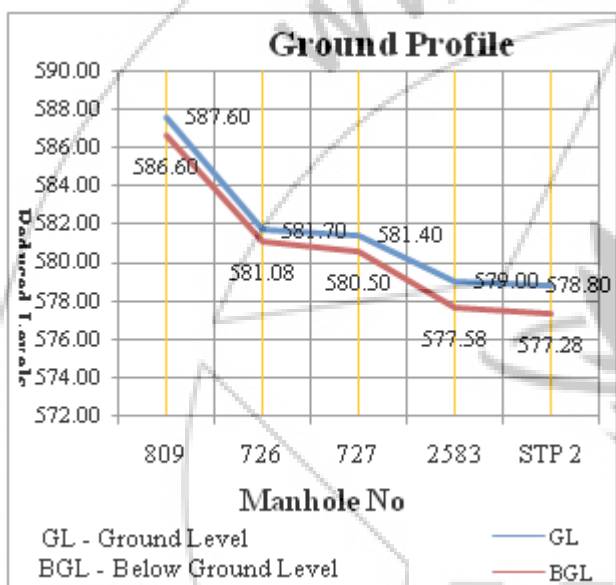


754-760	767-760	781-776
754	767	781
760	760	776
592.70	592.20	591.70
585.90	585.90	588.20
197.70	157.20	181.80
685	640	1090
0.150	0.100	0.123
0.30	0.30	0.30
2.43	1.93	1.81
0.035	0.025	0.018
2.25	2.25	2.25
Secondary Lines		
776-775	873-775	776-775
776	873	776
775	775	775
588.20	588.35	588.20
588.00	588.00	588.00
27.80	118.20	27.80
3045	1555	3045
0.190	0.097	0.190
0.40	0.35	0.40
1.61	1.36	1.61
0.010	0.010	0.010
2.25	2.25	2.25
875-843	775-843	873-775
875	775	873
843	843	775
588.00	588.00	588.35
583.70	583.70	588.00
179.30	140.90	118.20
5405	8960	1555
0.676	1.120	0.097
0.55	0.70	0.35
2.88	3.26	1.36
0.020	0.020	0.010
2.25	2.25	2.25
867-843	843-844	875-843
867	843	875
843	844	843
587.90	583.70	588.00
583.70	583.20	583.70
140.90	42.00	179.30
8960	14365	5405
1.120	0.898	1.120
0.70	0.70	0.55
3.26	2.38	2.88
0.020	0.010	0.020
2.25	2.25	2.25
2213-844	882-776	867-843
2213	882	867
844	776	843
584.00	590.75	587.90
583.20	588.20	583.70
160.70	185.40	140.90
175	1955	8960
0.011	0.159	1.120
0.20	0.35	0.70
0.76	1.71	3.26
0.010	0.013	0.020
2.25	2.25	2.25
760-719	882-776	843-844
760	882	843
719	776	844
585.90	590.75	583.70
583.75	588.20	583.20
82.90	185.40	42.00
1490	1955	14365
0.233	0.159	0.898
0.40	0.35	0.70
2.39	1.71	2.38
0.025	0.013	0.010
2.25	2.25	2.25
Tertiary Lines		
1061-844	844-847	847-858
1061	844	847
844	847	858
584.75	583.20	582.00
583.20	582.00	582.30
210.30	104.60	52.80
5310	20025	20565
0.332	1.252	0.643
0.50	0.80	0.70
1.85	2.59	1.69
0.010	0.010	0.005
2.25	2.25	2.25
858-821	821-818	818-727
858	821	818
821	818	727
582.30	583.00	582.20
583.00	582.20	581.40
159.30	81.60	65.10
22000	22500	23000
0.688	1.406	1.438
0.75	0.85	0.85
1.71	2.66	2.68
0.005	0.010	0.010
2.25	2.25	2.25
821-818	818-727	727-2583
821	818	727
818	727	2583
583.00	582.20	581.40
582.20	581.40	579.00
81.60	65.10	106.20
22500	23000	23000
1.406	1.438	1.438
0.85	0.85	0.85
2.66	2.68	2.68
0.010	0.010	0.010
2.25	2.25	2.25
727-2583	818-727	821-818
727	818	821
2583	727	818
581.40	582.20	583.00
579.00	581.40	582.20
106.20	65.10	81.60
23000	23000	22500
1.438	1.438	1.406
0.85	0.85	0.85
2.68	2.68	2.66
0.010	0.010	0.010
2.25	2.25	2.25
738-2583	818-727	821-818
738	818	821
2583	727	818
580.00	581.40	583.00
579.00	579.00	582.20
50.70	106.20	81.60
9430	23000	22500
0.884	1.438	1.406
0.65	0.85	0.85
2.76	2.68	2.66
0.015	0.010	0.010
2.25	2.25	2.25

723-726	723	726	582.70	581.70	132.30	3350	0.105	0.40	1.07	0.005	2.25
719-723	719	723	583.75	582.70	187.50	3290	0.103	0.35	1.07	0.005	2.25
726-727	726	727	581.70	581.40	28.80	4195	0.524	0.50	2.71	0.020	2.25
2583-STP No. 2	2583	STP No. 2	579.00	578.80	30.00	32430	2.027	0.95	2.92	0.010	2.25



Graph of Geometry of Sewer Line (From 809 to STP)

This graph shows the ground profile of the one sewer line from the network.

8. Data Representation

The most common form of presentation of project work data is in image form for continuous information (e.g. classified data). Presentation of data in a GIS in tabular or diagram form is desired. A GIS makes it possible to link or integrate information that is difficult to associate through any other mean.

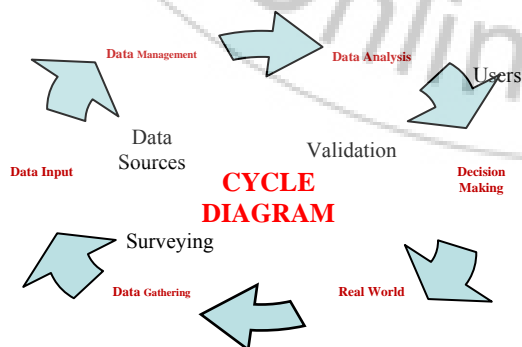


Figure 2: GIS as a Management Tool

9. Mapping of Sewerage Network

Data was collected in the form of Way Points using GPS; each point was taken at 30 m interval on straight path and at every change in connection point. GIS was used to generate a map which is shown in figure no 3 as below:

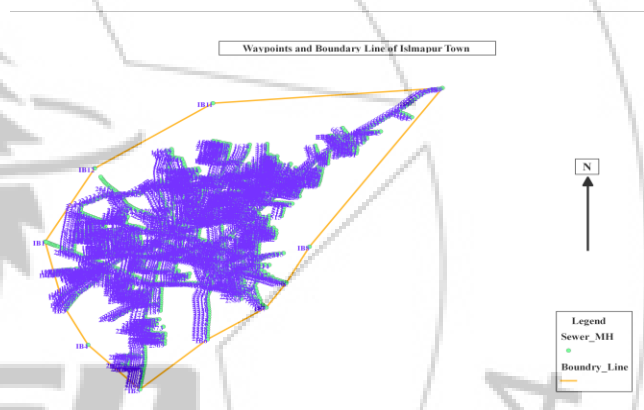


Figure 3: Map of Islampur Town

Figure no. 4 shows the selected yellow lines, these yellow lines indicate the sequence of network. It means from House Sewer to Lateral Sewer to Sub-main Sewer to Main Sewer to STP.

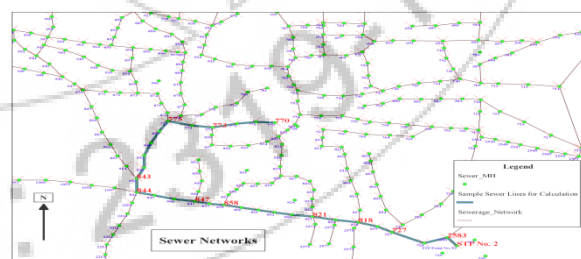


Figure 4: Sewer Network of Islampur Town

10. Results and Discussion

In this project, design of sewer line is one part of work which is done. And another part is mapping in GIS software. The main objective of this project is to prepare a base map of Islampur town, contour road network which is also useful for sewer line as sewer lines are located in the centre of road. Calculated total length of sewer line is 95.005 Kms

and the range of diameter of sewer line is about 200 – 1000 mm. and also calculated total discharge quantity of wastewater of Islampur town is 34.13 cum/sec. The proposed STP locations are five in Islampur town. In that five STP, two STP such as STP Point No. 1 and 4 are more economical than other because it's in low area, more space and existence of the town and also covered more area to collect wastewater. And the STP Point No. 1 is near to Krishna River as compare to other STP Points. It means treated of wastewater is poured into the river also.

11. Conclusion

- The available population data of Islampur town from year 1951 to 2011, the population growth rate is 0.272.
- Do not have proper drainage system, so underground sewerage system is required due to less pollution and diseases.
- As per design and analysis, the total sewage of all STP's generated is about 34.13 cum/sec.
- Five STP's are required for collection of wastewater.
- Total length of sewer line is 95.005 Kms and the range of diameter of sewer line is about 200 – 1000 mm.
- Sewerage System of Islampur Town map is attached.

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