

FSSM VALUE CHAIN

The city in consideration is a coastal city located in the delta region of the river. The total area of the city is 16.80 sq km. city has been divided into 32 administrative wards. In 2001, the population of the city was 1,57,837. The decade population growth is approximately 30%. The average ground water table depth is 5 m in most part of the city.

According to the census of 2011, the population of the city was recorded 2,00,564 with total number of 41,140 households. There are 24 notified slums in the city and up to 32% of the population resided in the slums. The main source of water for the city is ground water aquifer. The total water demand (including the losses) is estimated to be 31 MLD.

CENSUS DATA ON USER INTERFACE & CONTAINMENT UNIT AS IN 2011

- Household practicing open defecation - 19%
- Individual household toilet coverage - 58%
- Community toilet coverage - 23%
- Number of community toilets block - 9
- Number of public toilet block - 15

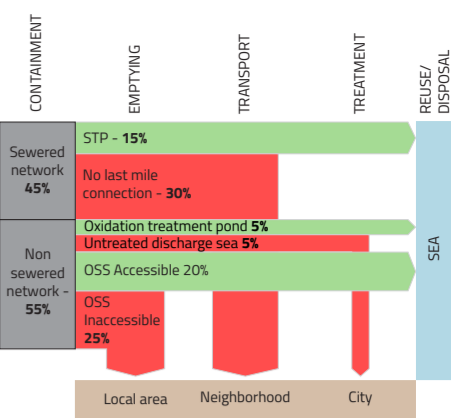
CENSUS DATA ON CONVEYANCE & TREATMENT AS IN 2011

- Sewerage connections - 57%
- Area covered by pucca drain - 81%
- Waste water generated - 12 MLD
- STP designed capacity - 15 MLD
- Water flowing through storm water drains - 10 MLD

Typology - A
Landuse - Clustered settlement (Residential)
Area - 0.5 km²
Population density - 5,000 per km²
Water consumption - 337.5 m³/d
Waste generation - 270 m³/d
Treated disposal - 108 m³/d
Untreated disposal - 162 m³/d

Typology - B
Landuse - Plotted (Residential)
Area - 0.83 km²
Population Density - 25,000 per km²
Water consumption - 2801.25 m³/d
Waste generation - 2241 m³/d
Treated disposal - 1345 m³/d
Untreated disposal - 896 m³/d

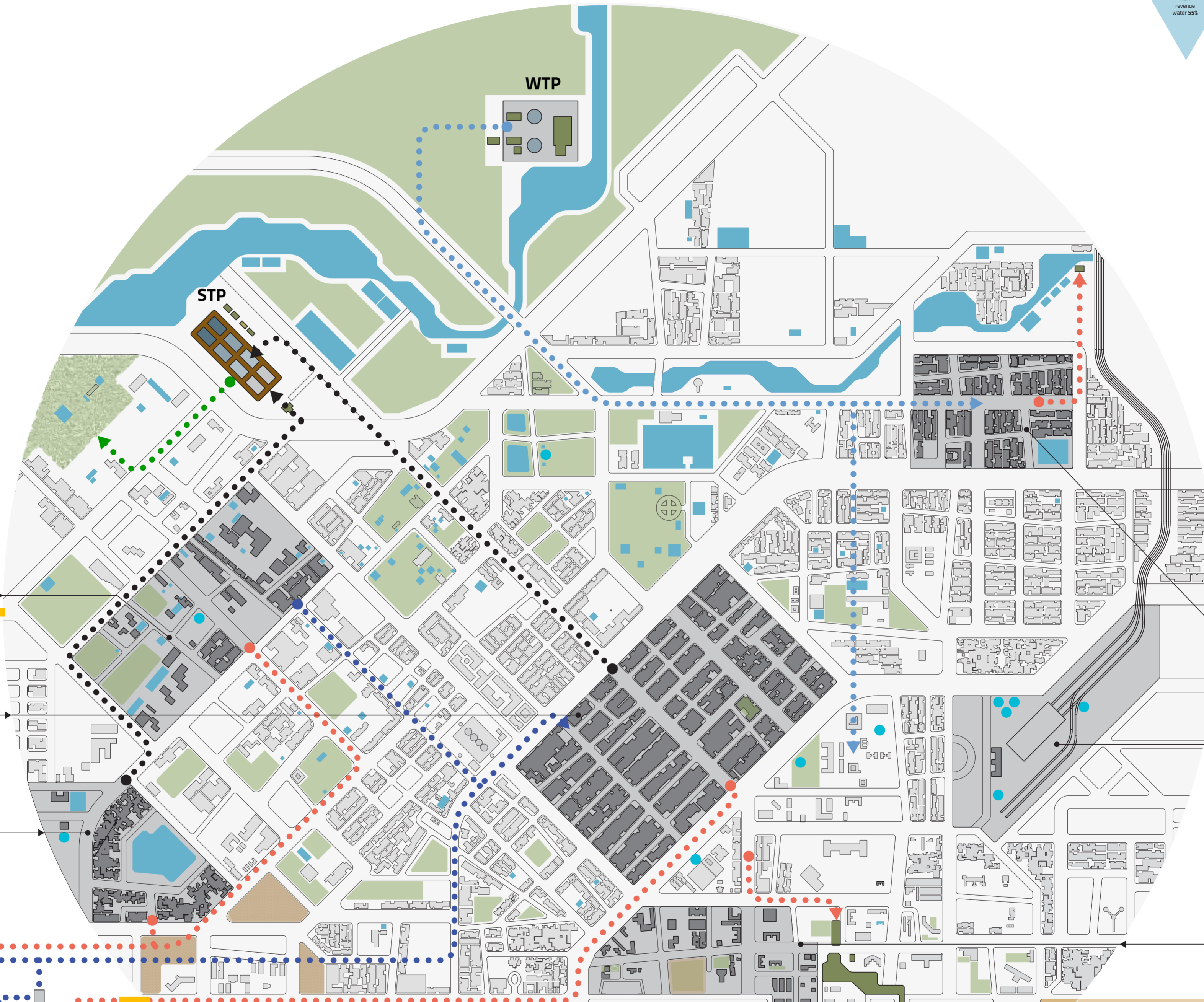
Typology - C
Landuse - Slum (Residential)
Area - 0.35 km²
Population density - 15,000 per km²
Water consumption - 365 m³/d
Waste generation - 294 m³/d
Treated disposal - 0 m³/d
Untreated disposal - 294 m³/d



URBAN WATER CYCLE

LEGENDS

- Piped water supply
- Raw water supply
- Open drain discharge
- Treated water discharge
- Cesspool Vehicle
- Solid discharge to green field



Typology - D
Landuse - Housing scheme (Residential)
Area - 0.32 km²
Population density - 15,000 per km²
Water consumption - 648 m³/d
Waste generation - 518.4 m³/d
Treated disposal - 518.4 m³/d
Untreated disposal - 0 m³/d

Typology - E
Landuse - Rail lines (Transport)
Floating population - 75,000 per day
Water consumption - 1,875 m³/d
Waste generation - 300 m³/d
Treated disposal - 300 m³/d
Untreated disposal - 0 m³/d

Typology - F
Landuse - Public/Semi Public Commercial
Area - 0.35 km²
Population Density - 15,000 per km²
Water consumption - 367.5 m³/d
Waste generation - 294 m³/d
Treated disposal - 117.6 m³/d
Untreated disposal - 176.4 m³/d

FAECAL SLUDGE & SEPTAGE MANAGEMENT

DESCRIPTION	NUMBER	UNIT
Person per household	5	No.
Household connected to septic tank	58%	
Number of community toilets (2020)	16	
Number of Public toilets (2020)	21	

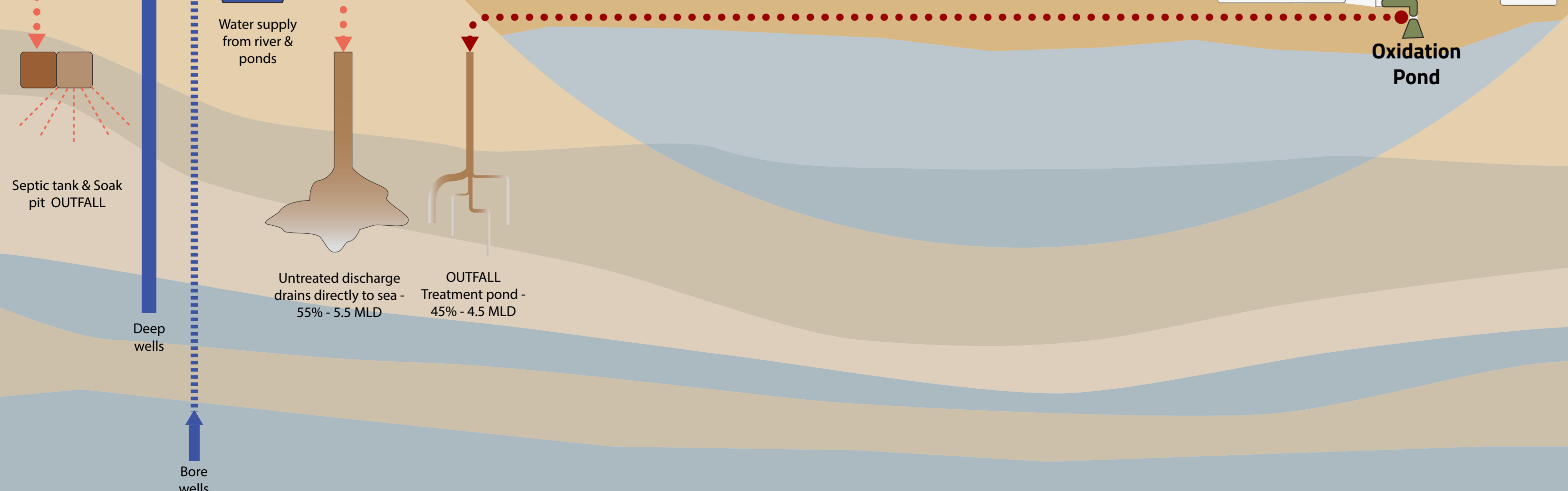
SIZE OF SEPTIC TANK		
Households	3	KL
Community toilet blocks	7	KL
Public toilet blocks	4	KL

DE-SLUDGING FREQUENCY		
Households	3	Years
Community toilet blocks	7	Months
Public toilet blocks	4	Months

TRUCK SIZE AVAILABLE - 3000 L & 8000 L		
Trips per day		
3000 L	3	No.
8000 L	1	No.

Assumptions - Number of working days in a year = 290

Inferences drawn from the stakeholder consultation for planning of FSSM



Septic tank & Soak pit OUTFALL

Deep wells

Bore wells

Untreated discharge drains directly to sea - 55% - 5.5 MLD

OUTFALL Treatment pond - 45% - 4.5 MLD

Oxidation Pond