Information required for Preparation of Master Plan for Sewerage

Name of City ---------- **State ----------**

1	**Chapter 3.1: Profile of Town: Location**			
	Latitude		Approachability by Rail	
	longitude		Approachability by Air	
	Distance from important Cities		Map showing location and approachability	
	Approachability by Road			
2	**Chapter 3.2: Profile of Town:Climate**			
	Maximum temperature:		Average yearly rainfall	
	Average temperature:		Raifall intensity	
	Minimumtemperature:		Rainfall Period/Duration	
	Wind direction		Humidity	
3	**Chapter 3.3 : Profile of Town:Topography**			
	Height above MSL		survey of India map scale 1:25000 whether prepared by SOI? Attach copy	
	Whether Topographical Map of city with levels are available?		survey of India map scale 1:50000, attach copy	
	If yes what is scale			
	How much area map covers			
	Year of Survey			
4	**Chapter 3.4 : Profile of Town:Under ground Soil Strata & Water Table**			
	Type of rock/soil at surface at ---------- place		Depth of WT: metre	
	Type of rock/soil at surface at ---------- place		seasonal variation in water table	
	Type of rock/soil at surface at ---------- place		Variation in water table during last 20 or 30 years	
	Strata at different depths upto 10 m, Also attach strata charts at different locations		Soil bearing capacity at different locations	
5	**Chapter 3.5 : Profile of Town:Socio Economic conditions**			
a	**Name of heavy indusry**	i)	ii)	iii)
	Product			
	Quantity Manufactured			
	location			
	Quantity of waste water			
	Quantity of water supply			
	How waste water disposed			
	Heavy industry Proposed in future			
b	**Medium and small scale Industries: Area/location**	i)	ii)	iii)
	No of Units			

	Item & Quantity Manufactured			
	Quantity of waste water			
	Quantity of water supply			
	How waste water disposed			
	Industries proposed in future			
c	**Name of big institutions/hotels/Hospitals**	i)	ii)	iii)
	No of persons working/rooms/beds			
	location			
	Quantity of waste water			
	Quantity of water supply			
	How waste water disposed			
	Proposed in future			
	Note: Attach waste water quality before treatment and after treatment for a,b,c			
d	**Trade and Commerce activities**			

6	**Chapter 3.6.1: Profile of Town : Urban Infrastructure : Water Supply**			
a	**Source of water supply**	Quantity of water supply MLD		
	i) Ground Water		Note: Attach list of tube wells with location, depth, dia, pump KW, discharge, head,draw down, ii) Attach Assembly detail, strata chart and water quality of tube wells	
	ii) Surface Source		Note: Enclose Quality of Raw Water	
	iii)Other source----------			
	Total water Drawal by Public Water Supply Scheme			
	Quantity of water Supply other than Public system			
b	**Water Supply coverage**			
	Municipal Area		Present Population	
	Municipal Area covered		Population covered	
	% coverage		% coverage	
	Wards Covered fully		Wards uncovered totally	
c	**Distribution System: Dia**	**Length**	**Material**	
d	**Clear Water Reservoirs/Ground Level Reservoirs: Location**	**Capacity :ML**	**Type**	**Material**
	i)			
	ii)			
	iii)			
	iv)			
	Total		**% CWR capacity to dailly supply**	
e	**Over Head Service Reservoir: Location**	**Capacity : ML**	**Staging meters**	**Type & Material**
	i)			
	ii)			
	iii)			
	iv)			
	Total		**% OHSR capacity to dailly supply**	
f	**RWPS: Location**	**No of Pumps & KW**	**Dischrge & Head**	**Total quantity Pumped**
	i)			
	ii)			
g	**CWPS: Location**	**No of Pumps & KW**	**Dischrge & Head**	**Total quantity Pumped**
	i)			

	ii)			
h	**WTP: Location**	**Capacity MLD**	**Main Features**	**Main Features**
	i)			
	ii)			
	Note: Enclose quality of treated water and water at consumer end			
i	**Tariff/water tax**		Noi of PSPs	
	No of domestic connections		No of Hand pumps	
	No of Commercial connections		Revenue Assesment for last FY	
	No of industrial Connections		Revenue realization in last FY	
	No of metered connections		No of meters functional	
j	**Operation & Maintenance**			
	Staff available		Expenditure in last FY on Power	

	Expenditure in last Fy on staff		Expenditure in last FY on Repairs	
	Other expenditure		Total expenditure on O & M	
k	**Organization: for O & M**		Organization for expansion and rehabilitation	
	Note: Enclose map showing water supply system			
7	**Chapter 3.6.2 : Profile of Town:Urban Infrastructure : Road Net work**			
a	Organization responsible for expansion		Length of WBM road	
	Organization responsible for O & M		Length of brick road	
	Length of NHW		Length of Katcha road	
	Length of state highway		Proposed Roads	
	Length of other metaled road			
	Note : Attach map showing road net work			
8	**Chapter 3.6.3 : Profile of Town:Urban Infrastructur : Drainage**			
	Organization responsible for expansion		O & M expenditure in last FY	
	Organization responsible for O & M		Expenditure on capital new works	
	Note: i) Give list of major and minor drains with their lengths; ii) Quality & discharge of waste water in drains; iii) list of points where sewer lines are connected to drains; iv) list of points where drain are connected to sewer line; v) A map showing drains, their sections and problem points in city with respect to drainage			
9	**Chapter 3.6.4 : Profile of Town:Urban Infrastructure : SWM**			
a	**Organization** responsible for expansion		Staff available	
	Organization responsible for O & M		Privatization if any	
b	**O & M** expenditure in last FY		Expenditure on capital works new works	
c	**Collection**:Area under door to door collection		extent of segregation at source	
	Equipment for collection from house :type & No.	capacity	Trips/day	
	i)			
	ii)			
	iii)			
	iv)			
	Bins: Type	No	Capacity	Material
	i)			
	ii)			
	iii)			

	iv)			
d	**Quantity** waste generated: tons/day		**Quantity** waste Transported: tons/day	
e	**Transportatiuon:** Vehicle Type	Nos	Capacity	Trips per day
	i)			
	ii)			
	iii)			
	iv)			
	Private Vehicles: Type	Nos	Capacity	Trips per day
	i)			
	ii)			
	iii)			
f	**Transfer Station**:location	Capacity	Type	
	i)			
	ii)			
g	**Disposal**: Existing :location	Quantity disposed dailly	Capacity of site	Type: sanitary land fill/semi sanitary/dumping
	i)			
	ii)			
	iii)			
	Disposal site proposed:location	Area	Status of Acquisition	Govt/Private

10	**Chapter 3.6.5 : Profile of Town:Urban Infrastructure : Power**			
	Organization responsible for----------		Power available hours per day as per record	
	Organization responsible for----------		Tarriff	
	Location of 132 KV sub Station		Location of 33 kv sub station	
	Proposed expansion			
11	**Chapter 4.1 : Review of existing Sewerage System : History of Development**			
	Year of commissioning of first scheme		Year of commissioning of Subsequent scheme	
	Sewer line laid		Sewer line laid	
	SPS: No & capacity		SPS: No & capacity	
	STP No, Capacity & Process		STP No, Capacity & Process	
	Future expansion in sewerage proposed if any			
12	**Chapter 4.2 : Review of Existing Sewerage System : Sewer network and condition**			
a	**Sewer network:** Dia & material	length metres	Dia & Material	length in meters
	150 mm-RCC NP2		400 mm	
	200 mm			
	250 mm			
	300 mm			
	350 mm			
b	**Man Holes**: Size	No	Type	Material
c	**Ventilating Shaft**	No	Type	Material
d	**Bedding :**	Type	Length	
	Note: i) Attach a map showing sewer pipe dia, material, rising main, SPS, STP; ii) Condition of sewer pipes, Mechanical, electrical equipment and civil works, iii) quality of raw waste and treated waste			
13	**Chapter 4.3 : Review of existing Sewerage System : Sewage Pumping Stations**			
	SPS: Location/ Screen type/Stand by power	Pump KW, Head, No, Working-Stand by/Pump type, efficiency of pump	Pumping hours/total waste pumped dailly/ Staff working/Expenditure on power	Sump capacity, depth, type

	Chapter 4.4 : Review of existing Sewerage System : Sewage Treatment Plants			
14	**STP:** Location/Design Capacity/Process	Detail of screening/grit removal system	Influent quantity	staff/expenditure on staff, power, chemicals
	i)			
	ii)			
	Mechanical equipment & details	Electrical equipment & details	Details of civil works, capacity, condition etc	
	Chapter 4.5 : Review of existing Sewerage System : Effluent and Sludge Disposal			
15	How effluent is disposed		Revenue recd if any	
	How sludge is disposed		Potential for reuse of effluent	
	Chapter 4.6 : Review of Existing Sewerage System : Institutional Set Up			
16	Organization responsible for expansion		staff available, qualification/ experience	
	Organization responsible for O & M		Capital Works done during last 3-5 years	
	Delegation of powers			
	Note: Attach Organization structure of the institution			
	Chapter 4.7 : Review of existing Sewerage System : O & M			
17	Equipment/Vehicles available for Maintenance		Expenditure Head Wise	
	Break down frequency and stopages		Staff	
	Privatisation in O & M		Power	
			Repairs	
			chemicals	
	Chapter 4.8 : Review of existing Sewerage System : Revenue			
18	Tariff		No of Connections	
	Tariff effectve from		New connection charges	
	Taxes		Procedure to sanction connection	
	Taxes effectve from		Revenue/ tax collection system	
	Who can revise tariff/tax		Who collects	
		Last FY	Year before last FY	two years before last FY
	Revenue Assesment			
	Revenue Realization			
	Chapter 4.9 : Review of existing Sewerage System : On site Sanitation			

19	No of houses having toilet and no of houses without toilets (this will indicate extent of open defecation		No. of toilets with septic tanks and no. of toilets without septic tank (This will indicate waste going to drain)	
	Suction machine for emptying septic tanks-No and capacity. Amt charged for cleaning septic tanks		No. of community toilets and seats, who maintains community toilets, status of maintenance, any demand for CT	
	Chapter 5.1 : Land Use			
20	Master Plan for which year available. Attach copy of Master plan		If master plan gives future density for different areas then attach map showing future densities	
	Chapter 5.2.1 : Population forecast : City			
21	Decadal census population of city: year	Population	Year	Population
	Year 1901		Year 1951	
	Year 1911		Year 1961	
	Year 1921		Year 1971	
	Year 1931		Year 1981	
	Year 1941		Year 1991	
			Year 2001	
		Population of city forecasted in Master Plan	Population of city forecasted in NCR Regional Plan 2021	Population of city forecasted in other documents if any
	Year 2011			
	year 2021			
	Year 2031			
22	**Chapter 5.2.2 : Population forecast : Ward wise**			
	Whether ward is same as in census 2001 or changed since then			
	Note: Enclose ward population and area from census 2001. In case ward boundary changed after 2001 then enclose map of city showing ward boundary & take ward population from local ULB			
23	**Chapter 5.2.3 : Population forecast : Outside Municipal Area**			
	Enclose map showing likely geographical spread of city after 20 years			
24	**Chapter 7.7 : Master Plan: Low Cost Sanitation**			
	Note: Enclose list of slums with population and status ofsanitation. Enclose map showing location of slums			
25	**Chapter 8: Cost Estimate**			
	Which Schedule of Rates used for estimation		Year SORs effective	
	Cost per KW of Pumping Station		Tender Premiums received	
26	**Chapter 7.4 : Master Plan: Trunk Mains & Outfall Sewer**			
	Rates of Pipe for supply and transportation,		Cost of land for SPS/STP	
	Per MLD Cost of STPs for different processes		Coarse screen options and unit costs	

	Fine Screen options & unit costs		Grit Removal options & unit costs	
	Note: Enclose cost of different types of sewer pipes, places near city where manufacturing places ne			