

## Information required for Preparation of Master Plan for Water supply

Name of City -----

State -----

<b>1</b>	<b>Chapter 3.1: Profile of Town: Location</b>		
	Latitude		Approachability by Rail
	Longitude		Approachability by Air
	Distance from important Cities		Map showing location and approachability
	Approachability by Road		
<b>2</b>	<b>Chapter 3.2: Profile of Town: Climate</b>		
	Maximum temperature:		Average yearly rainfall
	Average temperature:		Rainfall intensity
	Minimum temperature:		Rainfall Period/Duration
	Wind direction		Humidity
<b>3</b>	<b>Chapter 3.3 : Profile of Town: Topography</b>		
	Whether Topographical Map of city with levels are available?		Height above MSL
	If yes what is scale		Survey of India map scale 1:25000 whether prepared by SOI? Attach copy
	How much area of city, map covers		survey of India map scale 1:50000, attach copy
	Year of Survey		
<b>4</b>	<b>Chapter 3.4 &amp; 3.5 : Profile of Town: Under ground Soil Strata &amp; Under Ground Water</b>		
	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
	Attach strata charts upto depth of 3 m		Ground Water Potential/Yield
	Soil bearing capacity at different locations		Ground Water Quality
<b>5</b>	<b>Chapter 3.6 : Profile of Town: Available Surface Sources</b>		
	Surface Source Name & type		Surface Source Name & type
	Distance of source from City		Distance of source from City
	Quality of raw water		Quality of raw water
	Quantity available for extraction		Quantity available for extraction
<b>6</b>	<b>Chapter 3.7 : Profile of Town: Socio Economic conditions</b>		
<b>a</b>	<b>Name of heavy industry</b>	i)	ii) iii)
	Product		
	Quantity Manufactured		
	location		
	Quantity of water supply		
	Heavy industry Proposed in future		
<b>b</b>	<b>Medium and small scale Industries: Area/location</b>	i)	ii) iii)
	No of Units		
	Item & Quantity Manufactured		
	Quantity of water supply		
	Industries proposed in future		

<b>c</b>	<b>Name of big institutions/hotels/Hospital</b>	i)	ii)	iii)
	No of persons working/rooms/beds			
	location			
	Quantity of water supply			
	Proposed in future			
<b>d</b>	<b>Trade and Commerce activities</b>			
<b>e</b>	<b>No of notified slums, attach map showing location</b>		Population of Notified Slums	
<b>7</b>	<b>Chapter 3.8.1: Profile of Town : Urban Infrastructure : Water Supply</b>			
	Total Quantity of water supplied in MLD		Type of source	
	Municipal Area		Present Population	
	Municipal Area covered		Population covered	
	% area coverage		% population coverage	
	Wards Covered fully		Wards totally uncovered	
	Duration of water supply		LPCD	
	No of domestic connections		No. of PSPs	
	No of Commercial connections		No of Hand pumps	
	No of industrial Connections			
<b>8</b>	<b>Chapter 3.8.2 : Profile of Town:Urban Infrastructure : Road Net work &amp; Traffic</b>			
	Organization responsible for expansion		Length of WBM road	
	Organization responsible for O & M		Length of brick road	
	Length of NHW in city		Length of Katcha road	
	Length of state highway		Proposed Roads	
	Length of other metaled road			
	Note : Attach map showing road net work			
<b>9</b>	<b>Chapter 3.8.3 : Profile of Town:Urban Infrastructur : Drainage</b>			
	Organization responsible for expansion		O & M expenditure in last FY	
	Organization responsible for O & M		Expenditure on capital/ new works in last FY	
	Note: Attach map showing drains, their sections and problem points in city with respect to drainage			
<b>10</b>	<b>Chapter 3.8.4 : Profile of Town: Urban Infrastructure : SWM</b>			
	Organization responsible for expansion		Staff working for SWM	
	Organization responsible for O & M		Privatization if any	
	O & M expenditure in last FY		Expenditure on capital works/ new works in last FY	
	Collection:No of houses under door to door collection		No of houses from where segregated waste received at disposal point	
	Quantity of waste generated: tons/day		Quantity of waste Transported: tons/day	
	Transfer Station:location	Capacity	Type	
	i)			
	ii)			

	Disposal: Existing :location	Quantity disposed dailly	Capacity of site	Type: sanitary land fill/semi sanitary/dumping
	i)			
	ii)			
	Disposal site proposed:location	Area	Status of Acquisition	Govt/Private
<b>11</b>	<b>Chapter 3.8.5 : Profile of Town:Urban Infrastrucure : Power</b>			
	Organization responsible for providing power		Power available hours per day as per record	
	Location of 132 KV sub Station		Tarriff	
	Location of 33 kv sub station		Proposed expansion	
<b>12</b>	<b>Chapter 3.8.6 : Urban Infrastrucure: Sewerage/Sanitation System</b>			
	Organization responsible for expansion		Organization responsible for O & M	
	Year of commissioning		Staff working for O & M	
	Length of Sewer line laid		Coverage with Sewerage system: Area	
	Material of Sewer lines		Coverage with Sewerage system: Population	
	Size of sewer lines		No of sewer connections	
	SPS : No & capacity		Expenditure On Sewerage System	
	STP : No, Capacity		Tarriff for sewerage	
	STP Process		Revenue from Sewerage system	
	Future expansion in sewerage proposed if any		No of houses resorting to open defecation	
	Any O & M activity Privatised		No of functional Community Toilets & Seats	
	Reuse of treated waste water :Quantity		Where reused waste water used	
<b>13</b>	<b>Chapter 4.1 : Review of Existing Water Supply System: History of Development</b>			
	Year of initial commissioning of water supply system & works done			
	Subsequent works done with year			
	Subsequent works done with year			
<b>14</b>	<b>Chapter 4.2 : Review of Existing Water Supply System: Source of water Supply</b>			
	Source of water supply		Quantity of water supply in MLD :surface Source	
	Quantity of water supply in MLD :Ground water		Quantity of water supply in MLD :other Source	
	Total water Drawal by Public Water Supply Scheme		Quantity of water Supply other than Public system	
	Note: i) 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) Enclose Quality of ground Water and surface water			
<b>15</b>	<b>Chapter 4.3 : Review of Existing Water Supply System: Pumping Units</b>			
<b>a</b>	<b>RWPS:</b> Location	Pump KW, Head, No, Working-Stand by/Pump type, efficiency of pump	Pumping hours/total water pumped dailly/ Staff working/Expenditure on power	Sump capacity, depth, type
	i)			
	ii)			
<b>b</b>	<b>CWPS:</b> Location	Pump KW, Head, No, Working-Stand by/Pump type, efficiency of pump	Pumping hours/total water pumped dailly/ Staff working/Expenditure on power	Sump capacity, depth, type
	i)			
	ii)			
	iii)			

<b>16 Chapter 4.4 : Review of Existing Water Supply System: Distribution System</b>			
Distribution System: Pipe Dia, type & material	Length	Pipe Dia, type & material	Length
i)		viii)	
ii)		ix)	
iii)		x)	
iv)		xi)	
v)		xii)	
vi)		xiii)	
vii)		ivx)	
No of Distribution zones		Zones discrete or mixing	
Pressure in Distribution			
Condition of distribution pipes			
Note: Attach map of distribution System			
<b>17 Chapter 4.5 : Review of Existing Water Supply System: Rising Main</b>			
Rising Main: Pipe Dia, type & material	Length	Pipe Dia, type & material	Length
i)		iv)	
ii)		v)	
iii)		vi)	
Condition of Rising Main pipes			
<b>18 Chapter 4.6 : Review of Existing Water Supply System: Appurtenances</b>			
<b>a Sluice valves chamber:</b> Size	Condition	Type	Material
i)			
ii)			
<b>b Air Valve Chamber</b>	Condition	Type	Material
i)			
ii)			
iii)			
<b>19 Chapter 4.7&amp; 4.8 : Review of Existing Water Supply System: Raw Water Tanks &amp; Clear Water Tanks</b>			
<b>a CWR/GLR:</b> Location	Capacity :ML	Raw water or Clear Water	Material
i)			
ii)			
iii)			
iv)			
Total		% CWR capacity to dailly supply	
<b>b Over Head Service Reservoir:</b>	Capacity : ML	Staging meters	Type & Material
Location			
i)			
ii)			
iii)			
iv)			
Total capacity		% OHSR capacity to dailly supply	
<b>20 Chapter 4.9 : Review of Existing Water Supply System: Water Treatment Plant</b>			
<b>WTP:</b> Location/Design	Actual quantity treated	Condition, main problem	Quantity of water lost in WTP
Capacity			
i)			
ii)			
Mechanical equipment & details	Electrical equipment & details	Details of civil works, capacity, condition etc	expenditure on staff, power, chemicals
i)			
ii)			
Note: Enclose quality of raw water, treated water from WTP and water at consumer end			

<b>21</b>	<b>Chapter 4.11 : Review of Existing Water Supply System: Metering</b>			
	Bulk meters :Type	Location	Size	Number
	No of Domestic meters installed	No of Domestic meters functional	Type	Size
	No of Commercial meters installed	No of Commercial meters functional	Type	Size
	No of Industrial meters installed	No of Industrial meters functional	Type	Size
<b>22</b>	<b>Chapter 4.12 : Review of Existing Water Supply System: Institution</b>			
	Organisation responsible for augmentation/expansion/capital works		Organisation responsible for O & M	
	Engineers working and designation		Technical Staff working	
	Delegation of powers		Capital Works done during last 3-5 years	
	Note: Attach organization structure of organizations			
<b>23</b>	<b>Chapter 4.13 : Review of Existing Water Supply System: Operation and Maintenance</b>			
	Supervisory engineering Staff		Technical staff for O & M	
	Any activity privatised		Expenditure in FY---on Power	
	Expenditure on Repairs		Expenditure in FY---Staff	
	Total Expenditure		Expenditure on chemicals	
	Equipment/Vehicles available for Maintenance		Privatisation in O & M	
	Note: Give expenditure head wise for last 3 years			
<b>24</b>	<b>Chapter 4.14 : Review of Existing Water Supply System: Tariff- Water Tax</b>			
	Tariff at present		Present Tariff effective from	
	Tax at present		Present Tax effective from	
	Agency competent to revise tariff		Agency competent to revise tax	
<b>24</b>	<b>Chapter 4.15 : Review of Existing Water Supply System: Connections,Revenue</b>			
	Revenue Assesment for last FY		Revenue Received in last FY	
	Revenue Assesment for Previous FY		Revenue Received in Previous FY	
	Revenue Assesment for year before previous FY		Revenue Received in year before previous FY	
	Note: i) Attach a map showing distribution system pipe dia, material, rising main, RWPS, CWPS, WTP			
<b>25</b>	<b>Chapter 5.1 : Land Use Forecast</b>			
	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	
<b>26</b>	<b>Chapter 5.2 : Population forecast : City Population</b>			
	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			

<b>27</b>	<b>Chapter 5.2.2 : Population forecast : Ward Population</b>		
	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		
<b>28</b>	<b>Chapter 5.2.3 : Population forecast : Outside Municipal Area</b>		
	Enclose map showing likely geographical spread of city after 20 years		
<b>29</b>	<b>Chapter 8: Cost Estimate</b>		
	Which Schedule of Rates used for estimation		Year SORs effective
	Cost per KW of Pumping Station		Tender Premiums received
	Rates of Pipe for supply and transportation,		Cost of land for RWPS/CWPS/WTP
	Per MLD cost of WTP		
	Note: Enclose cost of different types of water supply pipes, places near city where manufacturing of pipes done		