NAME OF ULB– CHANDIGARH

Water Supply

1. Assess the Service Level Gap

The first step is to assess the existing situation and service levels gaps for Water Supply (AMRUT Guidelines; para 3 & 6). This will also include existing institutional framework for the sector. AMRUT is focused on improvement in service levels. The zone wise data shall be used in identifying the gaps. These zone-wise gaps will be added to arrive at city level service gaps. While assessing service level gap reply following questions not more than word indicated against each question.

Question: What kind of baseline information is available for water supply system of the city? Detail out the data, information, plans, reports etc related to sector. Is zone wise information available? (75 words)

Water supply data is available with Municipal Corporation of Chandigarh. The data related to existing water supply connection and with reference to water supply production, Storage capacity, water demand and distribution of water supply is also available with MCC. Zone wise information is also available with Municipal Corporation Chandigarh. In this regard following documents are available with Municipal Corporation: - DPR related to Water Supply, Master plan 2031 and City development plan prepared under JnNURM and White Paper published by MCC.

Question: Have you collected census 2011 data? Are you aware of baseline survey data of MoUD? Have you correlated data from these and other sources? (75 words)

Yes. Data of census 2011 is available with MCC. The data related to census and MCC have also been correlated. As per Census 2011 there was 201841 HHs Water Connections in the city, however records of the Municipal Corporation shows only 156434 HH connections in the city.

Population Data	Location of source of drinking water Population	Total Number of Households	Tapwater from treated source
Census Data – 2011 Population as per Census 2011 - 1054686 (Municipal Corporation + Out Growth)	Total HHs	214973	201841
	Within the premises HHs	184556	180817
	Near the premises HHs	25588	18407
	Away HHs	4829	2617
Departmental Data (2015) 1257456 with Floating Population Source white paper published by Municipal Corporation	As per Departmental Data 2015 –		
	Total	176434	156434

Note: Census data includes Municipal Corporation and Out Growths. Total No. of HHs in Municipal Area is 176434

What are existing service levels for water supply in the city? What is the coverage of water supply Connections? What is per capita supply of water? How much is the extent of metering? How much is non-revenue water? Provide information in table

Table: Status of Water Supply service levels

Sr. No.	Indicators	Present Status	MOUD Benchmark	Reliability
1	**Coverage of water supply connections** (156434/176434)	88.66%	100%	B
2	**Per capita supply of water** **(** 308.5 MLD/1.257)	245 LPCD	135 LPCD	B
3	**Extent of metering of water connections 150802/176434**	85.47%	100%	B
4	**Extent of non-revenue water 166 MLD/308.5 MLD (Volumetric data of Water Supply at Consumer end = 142 MLD)**	53 %	20%	B
5	**Quality of water supplied**	100%	100%	A
6	**Cost recovery in water supply services 65 Cr/125 Cr**	52%	100%	B
7	**Efficiency in collection of water supply related charges**	80%	90%	B

Question: What is the gap in these service levels with regard to benchmarks prescribed by MoUD? (75 words)

1. Coverage of water supply connections gap is 11 %
2. Per capita supply of water gap is 0 LPCD
3. Extend of metering of water connections gap is 14.53%
4. Extend of non-revenue water gap is 33 %
5. Quality of water supplied gap 0%
6. Cost recovery in water supply services gap is 48%
7. Efficiency in collection of water supply related charges gap is 10%

SOURCE OF WATER AND WATER TREATMENT SYSTEM.

Please provide information in 150 words on the above responding to (however not limited to) following questions.

Question: What is the existing source of water? Is it surface water source or under ground water source? What is the capacity of these sources?

The existing source of water is surface water and underground water. The capacity of these sources is: - Surface water (Bhakhra Main Line (canal) at Kajauli) - 229.5 MLD
Ground Water – Number of 248 Tube wells-Avg. Discharge-0.5 MLD-Total 124 MLD
Total Capacity = 229.5 MLD Surface Water + 124 MLD Ground Water = 353.5 MLD – 45 MLD Water is being used for Industrial Purpose and balance of water is 308.5 MLD

Question: Is there any treatment provided to water from these sources? How much water is required to be treated daily? What is the treatment capacity installed in the city?

Yes. Treatment of surface water is provided at sector 39. Treatment capacity of plant at sector 39 is 360 MLD while treated is only 229.5 MLD and treatment capacity of plant at Sector 12 is 22.5 MLD while only 22.5 MLD is treated. For surface water MCC has Raw Water Reservoir of 162 ML at Sector 39 and clear water reservoirs at 7 different zones of total capacity of 279 ML.

Question: What per capita water supply in LPCD (liter per capita per day) comes out, if you divide total water supply by the total population?

Availability of drinking water for HHs from both the treatment plants is 308 MLD and Per Capita of Water Supply is = 308 MLD/1.257= 245 LPCD with NRW.

DISTRIBUTION ZONES

Please provide information in 150 words on the above responding to (however not limited to) following questions.

Question: City is divided in how many zones for water supply?

There are 7 zones for water supply in Municipal Corporation Chandigarh.

Table: Zone Wise Coverage of Households

Question: Provide details of total no of Households (HH) in each zone, no of HH with and without water tap connections in the Table

Zone No.	Total No. of Households	Households with Water tap Connection	Households without Water tap Connection
1	10202 HH	10202HH	0 HH
2	8498 HH	8498 HH	0 HH
3	32296 HH	16296HH	16000HH
4	35300 HH	35300 HH	0 HH
5	47741 HH	46741HH	1000HH
6	19542 HH	18542 HH	1000HH
7	22855 HH	20855HH	2000HH
Total	**176434 HH**	**156434 HH**	**20000 HH**

STORAGE OF WATER

Please provide information in 150 words on the above responding to (however not limited to) following questions.

Question: What is the total water storage capacity in the city? What is capacity of elevated and ground water reservoirs?

The total water storage capacity in the city is mention below:-
For clear water total number of 46 ground water reservoirs and storage capacity is 281.25 ML + For Raw water total number of 06 ground water reservoirs and storage capacity is 162 ML = 443.25 ML

S.NO	WATERWORKS	RAW WATER STORAGE CAPACITY(ML)	CLEAR WATER STORAGE CAPACITY(MG)
1.	WATERWORKS-39	162ML	49.5 ML
2.	WATERWORKS-26	-	49.5 ML
3.	WATERWORKS-12	-	18 ML
4.	WATERWORKS-32	-	51.75 ML
5.	WATERWORKS-37	-	49.5 ML
6.	WATERWORKS-52	-	36 ML
7.	MANIMAJRA	-	27 ML
Total		162ML	281.25 ML

Question: In case of surface water, does city need to have ground level reservoirs to store raw treated water?

Yes city needs additional ground level reservoirs to store raw water. At present raw water reservoir capacity is 162 ML and it requires enhancement up to 45 ML due to increase in Canal Water share for Chandigarh city as well as to completely shift the water supply from ground water to surface water, water supply from the tube wells will be kept only for emergency .

Question: Is water being supplied to consumers through direct pumping or through elevated reservoirs?

Corporation supplies the water to consumers through direct pumping.

Question: Is storage capacity sufficient to meet the cities demand?

Treatment capacity of water treatment plant at sector 39= 360 MLD and at sector 12 = 22.5 MLD and 248 Tube wells with avg discharge 0.5 MLD = 124 MLD Total Capacity = 506.5 MLD. Therefore clear water reservoir capacity required = 168 ML.

DISTRIBUTION NETWORK

Please provide information in 150 words on the above responding to (however not limited to) following questions.

Question: What is the total length of water supply distribution pipe line laid in the city?

The total length of water supply distribution pipe line is 1202 KM.

Question: What is the total road length in the city? Is the pipe lines are laid in all streets? Is the objective of universal coverage of water supply pipe is achieved?

The total road length is 864.82 KM. Only 20 KM pipe line is required to achieve universal coverage of water supply.

Question: What are the kind of pipe materials used in distribution lines?

PVC, DI, CI and GI pipe materials used in distribution lines.

Question: Provide zone wise details of street length with and without water distribution lines in the Table?

Table: Zone Wise length of distribution network

Zone No.	Total Street Length	Street length with water distribution pipe line	Street length without water distribution pipe line
1	90.07 KM	127.9 KM	-
2	96.76 KM	168 KM	-
3	102.07 KM	180 KM	5 KM
4	184.1 KM	177.1 KM	7 KM
5	207.75 KM	296 KM	5 KM
6	69.14 KM	118 KM	5 KM
7	115 KM	135 KM	5 KM
Total	864.82 KM	1202 KM	27 KM

INSTITUTIONAL FRAMEWORK

Please provide information in 150 words on the above responding to (however not limited to) following questions.

Question: Define role and responsibilities in terms of O&M, policy planning, funding, service provision in table

Table: Functions, roles, and responsibilities

Planning and Design	Construction/ Implementation	O&M
Municipal Corporation Chandigarh	Municipal Corporation Chandigarh	Municipal Corporation Chandigarh

Question: How city is planning to execute projects?

Project will be executed by MCC.

Question: Shall the implementation of project be done by Municipal Corporation or any parastatal body? Please refer para 8.1 of AMRUT guidelines.

Implementation of the project shall be done by Municipal Corporation Chandigarh and will follow the para 8.1 of the AMRUT Guidelines while execution of the project.

2. Bridge the Gap

Once the gap between the existing Service Levels is computed, based on initiatives undertaken in different ongoing programs and projects, objectives will be developed to bridge the gaps to achieve universal coverage. (AMRUT Guidelines; para 6.2 & 6.3, Annexure-2; Table 2.1). Each of the identified objectives will be evolved from the outcome of assessment and meeting the opportunity to bridge the gap.

Question: List out initiatives undertaken in different ongoing programs and projects to address these gaps. For this provide details of ongoing projects being carried out for sector under different schemes with status and when the existing projects are scheduled to be completed? Provide information in Table

Table: Status of Ongoing/ Sanctioned

S. No.	Name of Project	Scheme Name	Cost	Month of Compilation	Status (as on dd mm 2015)
1.	Laying of 7 KM New Pipe line in uncovered areas (Deep Complex)	Municipal Corporation Chandigarh	1.61 Cr	19-07-2016	30%

Question: How much the existing system will able to address the existing gap in water supply system? Will completion of above will improve the coverage of network and collection efficiency? If yes, how much. (100 words)

Existing system will be able to address the existing gap in water supply system and coverage will improve upto 90%.

Question: Does the city require additional infrastructure to improve the services? What kind of services will be required to fulfill the gap?

Yes. City requires additional infrastructure to improve the service like laying of pipe line 20 KM to achieve universal coverage , replacement of 43 Km pipe line to Reduce NRW, enhancement of water treatment capacity as well as raw water storage at Sector 39 water works and to implement the 24 X 7 Water supply Scheme in the city.

Question: How does the city visualize taking the challenge to rejuvenate the projects by changing their orientation, away from expensive asset replacement programs, to focusing on optimum use of existing assets?

Municipal Corporation Chandigarh is planning to shift from ground water to surface water to prevent ground water level depletion. As per sharing pattern decided by MHA in 1983 for each phase of 90 MLD Chandigarh administration will get 62.5 MLD canal water supply. However up to last month 4 phase has been completed, therefore canal water supply of 360 MLD the share of Chandigarh was 250 MLD but the entire water 360 MLD was being used by Chandigarh and was being treated at sector 39 upto November 2015. Now as per agreement Mohali, Panchkula and Chandi Mandir is taking their share. So for optimum use of asset at Sector 39 there is need to channelize more raw water from Kajauli Water works. Therefore enhancement of raw water capacity has been proposed at Sector 39.

Question: Has city conducted assessment of Non Revenue Water? If yes, what is the NRW level? Is city planning to reduce NRW?

City has not conducted any assessment related to NRW. However the NRW of MCC ranges between 50-53% approximately.

Question: Based on assessment of existing infrastructure and ongoing / sanctioned projects, calculate existing gaps and estimated demand by 2021 for water supply pipe network, number of household to be provided with tap connections, and required enhancement in capacity of water source/ treatment plant (MLD). Gaps in water supply service levels be provided as per Table

Component		2015			2021	
		Present	Ongoing	Total	Demand	Gap
Source	Surface Water	229.5 MLD		229.5 MLD	229.5 MLD	Surplus
	Ground Water	124 MLD	-	124 MLD	124 MLD	
Treatment capacity	Surface Water	382.5 MLD	-	382.5 MLD	382.5 MLD	Surplus
	Ground Water	124 MLD		124 MLD	124 MLD	
Storage capacity	Clear water	281.25 ML	-	281.25 ML	299.25 ML	18 ML
	Raw water	162 ML	-	162 ML	207 ML	45 ML
Distribution network coverage		1202 KM	-	1202 KM	1229 KM	27 KM

*124 MLD water supply received from ground water will be replaced by surface water therefor 25 mg water treatment is required.

OBJECTIVES

Based on above, objectives will be developed to bridge the gaps to achieve universal coverage. While developing objectives following question shall be responded so as to arrive at appropriate objective.

Please provide List out objectives to meet the gap in not more than 100 words.

Question: Does each identified objectives will be evolved from the outcome of assessment?

Objectives and its respective activities:-

- **To achieve universal coverage by bridging the gaps in existing distribution network and expansion of distribution network in uncovered area.**
- **To make system efficient by NRW reduction through leakage detection and its removal, replacement of damage, leaked defunct, choked water supply lines, sluice valve and reorganization of water supply system in Maloya, Dadu Majra, Ramdarbar & Indra Colony,**
- **To make system efficient by implementation of 24 x 7 water supply scheme.**
- **To improve the quality of water by improvement & modernization of water testing lab, online water testing and monitoring system and testing vans.**
- **To enhance Efficiency in collection of water charges by implementing online billing system, spot billing, rehabilitation and expansion of payment collection centers.**

Question: Does each objective meet the opportunity to bridge the gap?

YES,

3. Examine Alternatives and Estimate Cost

The objective will lead to explore and examine viable alternatives options available to address these gaps.. These will include out of box approaches. (AMRUT Guidelines; Para 6.4 & 6.8 & 6.9). This will also include review of smart solutions. The cost estimate with broad source of funding will be explored for each. While identifying the possible activities, also examine the ongoing scheme and its solutions including status of completion, coverage and improvement in O&M. Please provide information on the above responding to (however not limited to) following questions.

Question: What are the possible activities and source of funding for meeting out the objectives? (75 words)

The funding for meeting out the each objective will 1/3 from AMRUT and remaining 2/3 from UT and Municipal Corporation Chandigarh.

Question: How can the activities be converged with other programme like JICA/ ADB funded projects in the city etc? (100 words)

There are no ongoing project under JICA/ADB.

Question: What are the options of completing the ongoing activities? (75 words)

The ongoing activities will be financed by Municipal Corporation Chandigarh

Question: How to address the bottlenecks in the existing project and lessons learnt during implementation of these projects? (75 words)

In Municipal Corporation Chandigarh there is shortage of technical staff for planning, execution, monitoring and O&M of the project.

Question: What measures may be adopted to recover the O&M costs? (100 words)

Municipal Corporation Chandigarh will minimize non-revenue water and enhance collection efficiency to recover the O & M cost.

Question: Will metering system for billing introduced?

Already MCC is using metering system for water billing.

Question: Whether reduction in O&M cost by addressing NRW levels be applied? (75 words)

Yes, MCC is planning to reduce NRW for O&M

Question: Does each objective meet the opportunity to bridge the gap?

YES.

THE ALTERNATIVE ACTIVITIES TO MEET THESE ACTIVITIES BE DEFINED AS PER TABLE

Table: Alternative Activities to Meet Objectives

Sr.N	Objective	Activities	Cost (Cr)	Financing Source
1	To achieve the universal coverage	New water supply line in uncovered Area 20 KM x 0.23 Cr	4.6 Cr	AMRUT/State & ULB
2	To make the system efficient by reduction of NRW water	Replacement of old-line 8 KM X0.23 Maloya	1.83Cr	AMRUT/State & ULB
		Replacement of old pipe line 5 KM X 0.254 Cr at Dadu Majra	1.27 Cr	AMRUT/State & ULB
		Replacement of old- line in Ramdarbar & Indra Colony 30 KM X 0.23	7Cr	AMRUT/State & ULB
3	To improve the quality of water	Improvement & Modernization of water testing lab and implementation of online water testing & monitoring systems and water testing van	2 Cr	AMRUT/State & ULB
4	Efficiency of Water Charges collection	MIS & GIS System for collection and Efficiency of Water Supply System	5 Cr	AMRUT/State & ULB
5	Cost recovery in water supply services	To shift from ground water to surface water to prevent ground water level depletion Reorganization Scheme Sector 39 Pumping Station 157.5 MLD X 0.104 Cr = 16.5 Rising Main 5.8 KM 1500 MM Size X 5.73 Cr =33.26, S&S tank 27 ML X 0.31 Cr = 8.38 Cr Recycling System =4 Cr,(Sump well 8 Meter x 4 Meter, Pumping machinery & other electrical works),water treatment plant 112.5 MLD X 0.12 Cr = 13.5 Cr Clear water System 18 MLD x 0.93 Cr= 16.72 Cr Site Development like road and light + Contingence = 2Cr	94.36Cr	AMRUT/State & ULB
		Implementation of 24 X 7 Water Supply= 90 Cr	90Cr	AMRUT/State & ULB
	Total		**206.06 Cr**	

4. Citizen Engagement

ULBs will organize and conduct city level citizen consultation and receive feedback on the suggested alternatives and innovations. Each alternative will be discussed with citizens and activities to be taken up will be prioritized to meet the service level gaps. ULB will prioritize these activities and their scaling up based on the available resources. (AMRUT Guidelines; Para 6.6, 6.7 & 7.2). Please explain following questions in not more than 200 words detailing out the needs, aspirations and wishes of the local people.

Question: Has all stakeholders involved in the consultation?

Yes. MCC, UT, Public Representatives have been consulted.

Question: Has ward/ zone level consultations held in the city?

In Municipal Corporation Chandigarh zone level consultations has held under the chairmanship of ward members on ……..

Question: Has alternative proposed above are crowd sourced?

No

Question: What is feedback on the suggested alternatives and innovations?

Since water level is depleting a day by day in the city, hence MCC plans has planned to shift domestic water supply from ground water to surface water.

Question: Has alternative taken up for discussions are prioritized on the basis of consultations?

Yes.

Question: What methodology adopted for prioritizing the alternatives?

The methodology adopted for prioritizing the alternatives are based on consultation within the MCC as well as public consultations.

5. Prioritize Projects

Based on the citizen engagement, ULB will prioritize these activities and their scaling up based on the available resources to meet the respective objectives. While prioritizing projects, please reply following questions in not more than 200 words.

Question: What are sources of funds?

The source of funding of activities shall be: 1. AMRUT, 2. 14th Finance Commission 3. UT Funds 4. MCC Funds.

Question: Has projects been converged with other program and schemes?

There is no other scheme running in the city.

Question: Has projects been prioritized based on “more with less” approach?

Yes the projects are being prioritized based on "more with less" approach.

Question: Has the universal coverage approach indiated in AMRUT guidelines followed for prioritization of activities?

YES

6. Conditionalities

Describe in not more than 300 words the Conditionalities of each project in terms of availability of land, environmental obligation and clearances, required NOC, financial commitment, approval and permission needed to implement the project.

Land is available for raw water reservoir and clear water reservoir at sector 39. Already waterworks is in operation only capacity enhancement is proposed.

7. Resilience

Required approvals will be sought from ULBs and competent authority and resilience factor would be built in to ensure environmentally sustainable water supply scheme. Describe in not more than 300 words regarding resilience built in the proposals.

Disaster and environmental related factor will be considered while preparation of DPRs

8. Financial Plan

Once the activities are finalized and prioritized after consultations, investments both in terms of capital cost and O&M cost has to be estimated. (AMRUT Guidelines; para 6.5) Based on the investment requirements, different sources of finance have to be identified. Financial Plan for the complete life cycle of the prioritized development will be prepared. (AMRUT Guidelines; para 4, 6.6, 6.12, 6.13 & 6.14). The financial plan will include percentage share of different stakeholders (Centre, State and City) including financial convergence with various ongoing projects. While preparing finance plan please reply following questions in not more than 250 words

Question: How the proposed finance plan is structured for transforming and creating infrastructure projects?

As per the guidelines of the AMRUT, the structured plan of the project will be developed. 1/3rd of the project cost will be financed by GOI and remaining by UT and MCC.

Question: list of individual projects which is being financed by various stakeholders?

Individual projects will be financed as per the AMRUT Guidelines, 1/3rd of the project cost will be financed by GOI and remaining by UT and MCC.

Question: Has financial plan prepared for identified projects based on financial convergence and consultation with funding partners?

Yes, financial plan prepared for identified projects are based on financial convergence and consultation with funding partners. GOI, UT and MCC

Question: Is the proposed financial structure is sustainable? If so then whether project has been categorized based on financial considerations?

Yes, the proposed financial structure is sustainable and project has been categorized based on financial considerations.

Question: Have the financial assumptions been listed out?

Yes, financial assumptions are as per the AMRUT Guidelines, 1/3rd of the project cost will be financed by GOI and remaining by UT and MCC.

Question: Does financial plan for the complete life cycle of the prioritized development?

Yes, financial plan has been done for the complete life cycle of the prioritized development. O&M of 5 years will also be considered while preparing the DPR

Question: does financial plan include percentage share of different stakeholders (Centre, State, ULBs)

Yes, financial plan include percentage share of different stakeholders (Centre, UT and MCC)

Question: Does it include financial convergence with various ongoing projects.

Yes, it includes financial convergence with various ongoing projects

Question: Does it provide year-wise milestones and outcomes?

Yes, year-wise milestones and outcomes have been provided.

DETAILS IN FINANCIAL PLAN SHALL BE PROVIDED AS PER TABLE 8.1, 8.2, 8.3, 8.4 AND 8.5. THESE TABLES ARE BASED ON AMRUT GUIDELINES TABLES 2.1, 2.2, 2.3.1, 2.3.2, AND 2.5.

Table 8.1 Master Plan of Water Supply Projects for Mission period
(As per Table 2.1of AMRUT guidelines)

(Amount in Rs. Cr)

S.No.	Objective	Project Name	Priority number	Year in which to be implemented	Year in which to be completed	Estimated Cost Cr
1	To achieve the universal coverage	Laying of New Pipe line in uncovered areas Deep Complex 20 KM X 0.23 Cr	1	2016	2017	4.6 Cr
2	To make the system efficient by reduction of NRW water	Replacement of old-line 8 KM X0.23 Maloya	2	2016	2018	1.83Cr
		Replacement of old pipe line 5 KM X 0.254 Cr at Dadu Majra		2016	2018	1.27 Cr

S.No.	Objective	Project Name	Priority number	Year in which to be implemented	Year in which to be completed	Estimated Cost Cr
		Replacement of old- line in Ramdarbar & Indra Colony 30 KM X 0.23		2016	2018	7Cr
3	To improve the quality of water	Establishment/rehab of water testing lab and implementation of online water testing & monitoring systems and water testing van	4	2017	2019	2 Cr
4	Efficiency of charges collection	MIS & GIS System for collection and Efficiency of Water Supply System	4	2017	2020	5 Cr
5	Cost recovery in water supply services	To shift from ground water to surface water to prevent ground water level depletion Reorganization Scheme Sector 39 Pumping Station 157.5 MLD X 0.104 Cr = 16.5 Rising Main 5.8 KM 1500 MM Size X 5.73 Cr =33.26, S&S tank 27 ML X 0.31 Cr = 8.38 Cr Recycling System =4 Cr (Sump well 8 Meter x 4 Meter, Pumping machinery & other electrical works) water treatment plant 112.5 MLD X 0.12 Cr = 13.5 Cr, Clear water System 18 MLD x 0.93 Cr= 16.72 Cr, Site Development like road and light + Contingence = 2 Cr	3	2016	2019	94.36Cr
		Implementation of 24 X 7 Water Supply= 90 Cr Operation and		2016	2019	90 Cr
Total						**206.06 Cr**

MASTER SERVICE LEVELS IMPROVEMENTS DURING MISSION PERIOD

(As per Table 2.2 of AMRUT guidelines)
(Amount in Rs. Cr)

Sr. No.	Objective	Project Name	Physical Components	Change in Service Levels			Estimated Cost
				Indicator	Existing(As-ls)	After (To-be)	
1	To achieve the universal coverage	Laying of New Pipe line in uncovered area(DeepComplex) 20 KM X 0.23 Cr	20 KM Pipe line	100%	88.12 %	100%	4.6 Cr
2	To make the system efficient by reduction of NRW water	Replacement of old-line 8 KM X0.23 Maloya	8 KM Pipe Line	20%	53%	20%	1.83Cr
		Replacement of old pipe line 5 KM X 0.254 Cr at Dadu Majra	5 KM Pipe Line				1.27 Cr
		Replacement of old- line in Ramdarbar & Indra Colony 30 KM X 0.23	30 KM Pipe Line				7Cr
3	To improve the quality of water	Establishment/rehab of water testing lab and implementation of online water testing & monitoring systems and water testing van	water testing lab, online water testing & monitoring systems and testing van	100%	100%	100%	2 Cr
4	Efficiency of charges collection	MIS System for collection and Efficiency of Water Spply System	MIS System for collection and Efficiency of Water Supply System	90%	80 %	90%	5Cr
5	Cost recovery in water supply services	To shift from ground water to surface water to prevent ground water level depletion Reorganization Scheme Sector 39 ,Pumping Station 157.5 MLD X 0.104 Cr = 16.5 Rising Main 5.8 KM 1500 MM Size X 5.73 Cr =33.26, S&S tank 27 ML X 0.31 Cr = 8.38 Cr, Recycling System =4 Cr(Sump well 8 Meter x 4 Meter, Pumping machinery & other electrical works), water treatment plant 112.5 MLD X 0.12 Cr = 13.5 Cr,Clear water System 18 MLD x 0.93 Cr= 16.72 Cr, Site Development like road and light + Contingence = 2 Cr,	Pumping Station 157.5 MLD, Rising Main 5.8 KM, S&S tank 27 ML, Recycling System, water treatment plant 112.5 MLD, Site Development	100%	52%	100%	94.36 Cr
		Implementation of 24 X 7 Water Supply= 90 Cr					90 Cr
Total							**206.06 Cr**

ANNUAL FUND SHARING PATTERN FOR WATER SUPPLY PROJECTS

(As per Table 2.3.1 of AMRUT guidelines)

(Amount in Rs. Cr)

Sr. No.	Objective	NAME OF PROJECT	Total Project Cost	Share				
				GOI	State	ULB	Oth es	Total
1	To achieve the universal coverage	Laying of New Pipe line in uncovered area (Deep Complex) 20 KM X 0.23 Cr	4.6 Cr	1.53 Cr	1.53 Cr	1.54 Cr	-	4.6 Cr
2	To make the system efficient by reduction of NRW water	Replacement of old-line 8 KM X0.23 Maloya	1.83 Cr	0.61 Cr	0.61 Cr	0.61 Cr	-	1.83 Cr
		Replacement of old pipe line 5 KM X 0.254 Cr at Dadu Majra	1.27 Cr	0.42 Cr	0.43 Cr	0.42 Cr	-	1.27 Cr
		Replacement of old- line in Ramdarbar & Indra Colony 30 KM X 0.23	7Cr	2.34 Cr	2.33 Cr	2.33 Cr		7 Cr
3	To improve the quality of water	Establishment/rehab of water testing lab and implementation of online water testing & monitoring systems and water testing van	2 Cr	0.66 Cr	0.67 Cr	0.66 Cr	-	2 Cr
4	Efficiency of charges collection	MIS & GIS System for collection and Efficiency of Water Supply System	5 Cr	1.67 Cr	1.66 Cr	1.66 Cr	-	5 Cr
5	Cost recovery in water supply services	Reorganization Scheme Sector 39 Pumping Station 157.5 MLD X 0.104 Cr = 16.5 Rising Main 5.8 KM 1500 MM Size X 5.73 Cr =33.26, S&S tank 27 ML X 0.31 Cr = 8.38 Cr, Recycling System =4 Cr (Sump well 8 Meter x 4 Meter, Pumping machinery & other electrical works) water treatment plant 112.5 MLD X 0.12 Cr = 13.5 Cr, Clear water System 18 MLD x 0.93 Cr= 16.72 Cr, Site Development like road and light + Contingence = 2 Cr	94.36Cr	31.45 Cr	31.45 Cr	31.46 Cr		94.36 Cr
		Implementation of 24 X 7 Water Supply= 90 Cr	90 Cr	30 Cr	30 Cr	30 Cr		90 Cr
		TOTAL	**206.06 Cr**	68.68Cr	68.68 Cr	68.68 Cr	-	**206.06 Cr**

ANNUAL FUND SHARING BREAK-UP FOR WATER SUPPLY PROJECTS

(As per Table 2.3.2 of AMRUT guidelines)

(Amount in Rs. Cr)

Sr. No.	Objective	Project	GOI	State			ULB			Convergence	others	Total
				14th FC	Others	Total	14th FC	Others	Total			
1	To achieve the universal coverage	Laying of New Pipe line in uncovered area (Deep Complex) 20 KM X 0.23 Cr	1.53 Cr	-	1.53 Cr	1.53 Cr	-	1.54 Cr	1.54 Cr	-	-	4.6 Cr
2	To make the system efficient by reduction of NRW water	Replacement of old-line 8 KM X0.23 Maloya	0.61 Cr	-	0.61 Cr	0.61 Cr	-	0.61 Cr	0.61 Cr	-	-	1.83 Cr
		Replacement of old pipe line 5 KM X 0.254 Cr at Dadu Majra	0.42 Cr	-	0.43 Cr	0.43 Cr	-	0.42 Cr	0.42 Cr	-	-	1.27 Cr
		Replacement of old- line in Ramdarbar & Indra Colony 30 KM X 0.23	2.34 Cr	-	2.33 Cr	2.33 Cr	-	2.33 Cr	2.33 Cr	-	-	7 Cr
3	To improve the quality of water	Establishment/rehab of water testing lab and implementation of online water testing & monitoring systems and water testing van	0.66 Cr	-	0.67 Cr	0.67 Cr	-	0.66 Cr	0.66 Cr	-	-	2 Cr
4	Efficiency of charges collection	MIS & GIS System for collection and Efficiency of Water Supply System	1.67 Cr	-	1.66 Cr	1.66 Cr	-	1.66 Cr	1.66 Cr	-	-	5Cr
5	Cost recovery in water supply services	Reorganization Scheme Sector 39 Pumping Station 157.5 MLD X 0.104 Cr = 16.5 Rising Main 5.8 KM 1500 MM Size X 5.73 Cr =33.26, S&S tank 27 ML X 0.31 Cr = 8.38 Cr Recycling System =4 Cr (Sump well 8 Meter x 4 Meter, Pumping machinery & other electrical works) water treatment plant 112.5 MLD X 0.12 Cr =	31.45 Cr	-	31.45 Cr	31.45 Cr	-	31.46 Cr	31.46 Cr	-	-	94.36Cr

Sr. No.	Objective	Project	GOI	State			ULB			Convergence	others	Total
				14th FC	Others	Total	14th FC	Others	Total			
		13.5 Cr,Clear water System 18 MLD x 0.93 Cr= 16.72 Cr ,Site Development like road and light + Contingence = 2 Cr										
		Implementation of 24 X 7 Water Supply= 90 Cr Operation and maintenance cost for 5 years =10Cr	30Cr	-	30Cr	30 Cr	-	30 Cr	30Cr			90 Cr

YEAR WISE PLAN FOR SERVICE LEVELS IMPROVEMENTS

(As per Table 2.5of AMRUT guidelines)

Objective	Proposed Projects	Project Cost	Indicator	Baseline	Annual (Increment from the Baseline Value) Targets					
					FY 2016		FY 2017	FY 2018	FY 2019	FY 2020
					H1	H2				
To achieve the universal coverage	Laying of New Pipe line in uncovered area (Deep Complex) 20 KM X 0.23 Cr	4.6 Cr	100%	88.66	90%	92%	100%			
To make the system efficient by reduction of NRW water	Replacement of old-line 8 KM X0.23 Maloya	1.83Cr	20%	53 %	50%	45%	30%	20%		
	Replacement of old pipe line 5 KM X 0.254 Cr at Dadu Majra	1.27 Cr								
	Replacement of old-line in Ramdarbar & Indra Colony 30 KM X 0.23	7Cr								

Objective	Proposed Projects	Project Cost	Indicator	Baseline	Annual Targets (Increment from the Baseline Value)					
					FY 2016		FY 2017	FY 2018	FY 2019	FY 2020
					H1	H2				
To improve the quality of water	Establishment/rehab of water testing lab and implementation of online water testing & monitoring systems and water testing van	2 Cr	100%	100%						
Efficiency of charges collection	MIS & GIS System for collection and Efficiency of Water Supply System	5 Cr	90 %	80 %			82%	84%	86%	90%
Cost recovery in water supply services	Reorganization Scheme Sector 39 Pumping Station 157.5 MLD X 0.104 Cr = 16.5 Rising Main 5.8 KM 1500 MM Size X 5.73 Cr =33.26, S&S tank 27 ML X 0.31 Cr = 8.38 Cr Recycling System =4 Cr (Sump well 8 Meter x 4 Meter, Pumping machinery & other electrical works) water treatment plant 112.5 MLD X 0.12 Cr = 13.5 Cr, Clear water System 18 MLD x 0.93 Cr= 16.72 Cr, Site Development like road and light + Contingence = 2 Cr,	94.36Cr	100%	52%	55%	60%	75%	80%	100%	
	Implementation of 24 X 7 Water Supply= 90 Cr	90Cr								
	TOTAL	**206.06 Cr**								