CITY- AGRA

SECTOR WISE SLIP TEMPLATE: 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)

CITY DEVELOPMENT PLAN OF AGRA ,AGRA WATER SUPPLY PROJECT (JICA) ,COMPREHENSIVE ENVIRONMENTAL MANAGEMENT PLAN ,SPECIAL ASSISTANCE FOR PROJECT INFORMATION FOR AGRA WATER SUPPLY 2006 , DPR OF AGRA WATER SUPPLY JAL NIGAM jnNURM ,MASTER PLAN OF AGRA 2021 Yes 25 ZONE WARD WISE information is available.

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 NAGAR NIGAM AGRA IS AWARE OF MOUD SURVEY DATA. THE DATA AVAILABLE IS BEING USED AS REFERENCE TO DEVELOP THE SLIP.

Total Population (Census, 2011)	Location of source of drinking water Population	Total Number of Households	Tap Water from treated source
	1,14,383		
15,74,542	Total	2,40,831	1,36,307
	Within the premises	1,86,465	1,18,641
	Near the premises	42,991	15728
	Away	11,375	1,938
Departmental Data (2015)	1574542	3,52,850	1,70,000

Yes we have collected the information from census 2011 data. As per Census 2011 AGRA have the population of (Municipal Data), House hold 2,40,831 (Census Data), and out of which 1,86,465 HH lies within the premises of water supply line and only 1,18,641 HH have the tapped water supply connection. Yes we have correlated with DPR data and data available with the Jal Nigam. As per Municipal record of Agra Nagar Nigam at present 352850 HH and 1,70,000 HH with water supply connection. Near the premise HH is

QUESTION: 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 1.1

Table 1.1 Status of Water Supply service levels

Sr. No.	Indicators	Present status	MOUD Benchmark	RELIBILTY
1	Coverage of water supply connections	48%=1,70,000/ 3,52,850	100%	D
2	a)Per capita supply of water with NRW	176 LPCD	135 LPCD	D
3	Extent of metering of water connections	0%	100%	A
4	Extent of non-revenue water	40%	20%	D
5	Quality of water supplied	100%	100%	D
6	Cost recovery in water supply services	63.6 %	100%	D
7	Efficiency in collection of water supply related charges	84 %	90%	D

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

As per above table it is clear that gap in service levels is as under:

1. Gap in coverage of water supply is 52 %
2. NO Gap in Per capita water availability is about 235 LPCD, additional 100 LPCD .
3. Gap in Metering is 100%.
4. Gap in NRW is 20 %
5. Gap in Quality of supplied water as per PHE norms is 20%
6. Gap in Cost recovery is 36.4% with expenditure on electricity and power.
7. Gap in efficiency of water charges/tax collection is about 16 %.

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 underground water source? What is the capacity of these sources?

EXISTING SOURCE OF WATER 2015 IS SURFACE WATER FROM YAMUNA RIVER **225 MLD** (WATER WORKS JEEVNI MANDI) +**144 MLD** (SIKANDRA WTP) . GANGA RIVER(PROPOSED) , TOTAL **369 MLD** surface water available in which Agra Municipal Corporation gives bulk supply **91 MLD** to **cantonment board ,railway stations ,railways colony**,kheria air port authority .No ground water is available .

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, surface water chlorination is being done by chlorinator at source

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.

Per Capita water supply by surface=369-91(cantonment+railways,airbase+bulk)MLD= /15,74,542 (Census 2011)=176 LPCD.
Reference ulb handbook,comprehensive environmental management plan(CEMP)NEERI.

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?

Currently city is divided in 25 ZONES for water supply .

QUESTION: Provide details of total no of Households (HH) in each zone, no of HH with and without water tap connections in the Table 1.2

Table 1.2: ZONE Wise Coverage of Households

Wards No	Total No of Households(As per municipal)	Households with Water tap Connection	Households without water tap connections
Zone 1	**23590**	**11300**	**12290**
Zone 2	**33067**	**5800**	**27267**
Zone 3	**5936**	**4100**	**1836**
Zone 4	**21649**	**11500**	**10149**
Zone 5	**15425**	**7500**	**7925**
Zone 6	**4750**	**3300**	**1450**
Zone 7	**10066**	**5300**	**4766**
Zone 8	**3074**	**0**	**3074**
Zone 9	**7539**	**4500**	**3039**
Zone 10	**13603**	**9300**	**4303**
Zone 11	**16119**	**6300**	**9819**
Zone 12	**13725**	**2500**	**11225**
Zone 13	**13927**	**9600**	**4327**
Zone 14	**28097**	**15700**	**12397**
Zone 15	**7117**	**3900**	**3217**
Zone 16	**11156**	**7600**	**3556**
Zone 17	**6466**	**4500**	**1966**
Zone 18	**14362**	**9600**	**4762**
Zone 19	**16524**	**11200**	**5324**
Zone 20	**11174**	**7500**	**3674**
Zone 21	**7856**	**5200**	**2656**
Zone 22	**21649**	**8000**	**13649**
Zone 23	**13401**	**3700**	**9701**
Zone 24	**2480**	**700**	**1780**
Zone 25	**30099**	**11400**	**18699**
Total HH	**352850**	**170000**	**182850**

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?

Total Water Storage Capacity--100.44 ML

Elevated Water Reservoirs----- 19 O.H.T ---- 39.68 ML capacity

Ground Water Reservoir-------- 21 (C.W.R) Nos---60.36 ML (AMC + cantonment C.W.R 7.95 ML) capacity

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

Currently storage capacity of surface water reservoirs is 60.36 ML(2015),YES CITY NEED 43.98 (10 ML C.W.R + 33.98 ML O.H.T) additional capacity is required for the perspective year 2021 under Amrut .

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

Water is supplied to consumers by both the means of direct pumping ,O.H.T and C.W.R as well

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

Storage capacity is not sufficient to meet city demand for 2021 ,additional capacity required is 43.98ML (C.W.R+O.H.T)

DISTRIBUTION NETWORK –

Please provide information in 150 words on the above responding

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

Total Length of water supply distribution pipe line of 25 ZONES is 1280 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 line is achieved?

Total road Length-----1728 KM., 528 KM streets are not having pipelines in the city.

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

PVC,AC,DI and HDP(Pipe to be proposed)materials are being used.

QUESTION: Provide zone wise details of street length with and without water distribution lines

Total ZONE No	Total Street Length (As PER AGRA data)	Street length with water distribution pipe line(data)	Street length without water distribution pipe line
Zone 1	180	51	129
Zone 2	309	126	183
Zone 3	23	22	1
Zone 4	19	15	4
Zone 5	74	60	14
Zone 6	13	12	1
Zone 7	25	25	0
Zone 8	148	140	8
Zone 9	116	110	6
Zone 10	90	77	13
Zone 11	44	35	9
Zone 12	69	55	14
Zone 13	43	30	13
Zone 14	27	25	2
Zone 15	33	32	1
Zone 16	12	10	2

Zone 17	34	33	1
Zone 18	33	35	4
Zone 19	101	95	6
Zone 20	63	56	7
Zone 21	74	60	14
Zone 22	46	43	3
Zone 23	83	75	8
Zone 24	14	12	2
Zone 25	49	46	3
TOTAL	1728 KM	1280 KM	448 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 1.4.

Table 1.4: Functions, roles, and responsibilities

Planning and Design	Construction/ Implementation	O&M
UP jal Nigam Agra	**UP jal Nigam Agra & ULB's**	**JAL KAL NAGAR NIGAM AGRA**

QUESTION: How city is planning to execute projects ?

BY NODAL AGENCY U.P JAL NIGAM. THE EXECUTION OF THE PROJECTS WILL BE DONE AS PER INSTRUCTIONS GIVEN BY THE STATE GOVERNMENT AS WELL AS MOUD & SMALLER PROJECTS LIKE BRANCH LINES ,GAPS IN PIPE LINES WIL BE DONE .

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

THE IMPLEMENTATION OF THE PROJECTS WILL BE DONE BY PARA STATAL AGENCIES AS PER INSTRUCTIONS OF STATE GOVERNMENT AS WELL AS MoUD. SMALLER PROJECTS LIKE BRANCH LINES ,GAPS IN PIPE LINES WILL BE DONE BY NAGAR NIGAM AGRA.

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 1.4

Table 1.4: Status of Ongoing/ Sanctioned NA

S. No.	Name of Project	Scheme Name	Cost IN CR	Month of Completion	Status (as on dd mm 2015)
1	Agra Water Supply	JnNURM/ JICA/ ADB etc	102.99cr	December 2015	93%
2	Ganga Jal Project	JICA	2888.88cr	July 2016	22%
3	Trans Yamuna Immediate Relief Scheme	State	33.79cr	December 2015	55%

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)

At present available total storage capacity is 100.44 ML which will be adjusted against required total storage capacity is 43.98(10 ML C.W.R + 33.98 ML O.H.T)

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

Yes, City require additional infrastructure to improve the services storage reservoirs 43.98 ,distribution system ,replacement of old line to increment in per capita NRW reduction .metering to improve cost recovery ,rising mains for equitable distribution.

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

Yes, optimum use of existing assets are being consider in DPR.

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

No, NRW Level 45%. Yes city is planning to reduce NRW in AMRUT. Old Pipe line replacement and regularization of illegal connections , Replacement of old rising mains Promote of water connection Programs

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 1.5 . Demand Gap Assessment for Water Supply Sector

Component	2015			2021	
	Present	Ongoing projects	Total	Demand	Gap
SOURCE AUGMENTATION MLD)	SURFACE WATER 369 MLD	AGRA WATER SUPPLY 144MLD	SURFACE WATER 513 MLD	513 MLD	-
TREATMENT CAPACITY(MLD)	369 MLD	0	369MLD	436.74MLD	0

ELEVATED STORAGE CAPACITY (ML) SURFACE STORAGE	39.68 ML (19 O.H.T) +60.36ML (21 NOS)	-	39.68 ML +60.36ML=100.04 ML	144.40 ML	43.6ML(C.WR OHT)
DISTRIBUTION NETWORK COVERAGE (KM)	1280KM	0KM	1280	1728 KM	448 KM

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.

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

1 To universal coverage by regularizing – 352850 HH, water connection for- 182850.HH.

2- Expansion of new distribution network 340 Km with house- hold (182850 HH) connection in uncovered pockets.

3- New Over Head Tanks (OHT) 33.6 ML

3B -New C.W.R 10 ML

4- Renovation/ Strengthening of existing OHT AND CWR

5-REPLACEMENT OF OLD PUMPING PLANTS & chlorinating plants AT Existing CWR

5 b Near the premises

6- Distribution network 448 KM to cover the house hold line away the premises 182850 HH connections in uncovered pockets.

7- Replacement of old rising main 10 KM

8- New Rising Main 100 Km

9- to make the system efficient by reduction of nrw by providing replacement of old pipe line, zoning and leakage detection ,making new HC and regularization of unauthoriseds, Metering of new & unauthorised HC.

10-. To improve the quality of water establishment

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

yes

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

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)

GOI, State Govt. and ULB are the source of funding for meeting out the objectives. The possible activities and source of funding for O&M is tax revenue.

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

At present, Agra Water Supply (JICA) financed by JICA/ ADB is ongoing project in the city.

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

NA

QUESTION: What are the lessons learnt during implementation of similar projects? (100 words)

NA.

QUESTION: Have you analyzed best practices and innovative solutions in sector? Is any of the practice be replicated in the city? (75 words)

NA

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

Regularize of illegal connection, enhancement of coverage area, house hold connections ,adopting metering at every house holds and use of ICT in collection of tax/charges

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

yes, leakage detection and its removal, replacement of old lines (damaged,leaked, defunged, chocked,sluice valve etc) with house hold connection, water supply zoning of service area , 100% implementation of metering, replacement of pumping plants at existing cwr.

QUESTION: Are different options of PPP such as Design-build-Operate-Transfer (DBOT), Design Built Finance Operate and Transfer (DBFOT) are considered? (100 words)

These options will be explored while framing the DPR

The alternative activities to meet these activities be defined as per Table 1.6

Table1.6 Alternative Activities To Meet Objectives

Sr. No.	Objective	Activities	Cost	Financing Source
1	**COVERAGE OF HOUSE HOLD WATER CONNECTIONS**	**Providing house hold level connections to increase coverage (27263 H.H x Rs. 5000/- per connection)**	**13.63CR**	AMRUT/State and ULB
2	**COVERAGE OF WATER SUPPLY CONNECTIONS**	**Branching & sub branching distribution network to cover the house hold line near the premises 67824 H.H connections in uncovered pockets lying near the premises.** **A. NEW PIPE LINE 125 KM @ 0.2 CR=25.00CR**	**25.47 CR**	AMRUT/State and ULB
3	**COVERAGE OF WATER SUPPLY CONNECTIONS**	**Expansion of New distribution network with household (87026 HH) connection in uncovered pockets. Away from premises. (323km) @0.38 cr Per km**	**122.74CR**	AMRUT/State and ULB
4	**PER CAPITA SUPPLY OF WATER LPCD**	**1- New Over Head Tanks – 33.98 ML CAPACITY =50.97cr** **2- NEW C.W.R.-10ML = 14.50cr** **3- NEW RISING MAIN 100KM =109.62cr (300MM-900MM)**	**175.09CR**	AMRUT/State and ULB
5	**PER CAPITA SUPPLY OF WATER LPCD**	**<u>Augmentation of new water production systems</u>** **1- Renovation/Strengthening of existing OHT AND CWR = 15.00cr** **2-REPLACEMENT OF OLD PUMPING PLANTS & chlorinating plants at Existing CWR = 8.00cr**	**23.00 CR**	AMRUT/State and ULB

7	**PER CAPITA SUPPLY OF WATER LPCD**	**Replacement of old Rising Main(600mm-1200mm dia) -11.50KM = 99.69**	**99.69 CR**	AMRUT/State and ULB
8	**NRW**	**Water supply zoning of service area (25 zone)**	**10.00 CR**	State and ULB
9	**NRW+ PER CAPITA SUPPLY OF WATER**	**Replacement of old lines (damaged, leaked, Defunged, chocked, sluice valve etc) with house hold connection - old pipe line laid about 50-60 year ago. 348km@0.38cr/km**	**132.24 CR**	AMRUT/State and ULB
10	**REVENUE COLLECTION IMPROVEMENT**	**Atomisation/computerisation of Metering system and installation of new water meters for optimization of use of water and enhance the revenue collection 352850HH@Rs4000.00**	**141.14**	State and ULB
	Total		**743.00**	

2. 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, all stakeholders is being involved in the consultation, ELECTED MAYOR, ELECTED BOARD MEMBER, CITIZEN.

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

Yes, ward consultations is being held in the city by Nagar NIGAM AGRA has conducted at various levels ON AMRUT YOGANA, SBM.

QUESTION: Has alternative proposed above are crowd sourced?

No, for other alternatives NAGAR NIGAM AGRA invited the suggestion of consultation through newspaper, mass media.

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

Yes, Feedback on the suggested alternatives and innovations are being considered.

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

Yes, alternatives taken up for discussions are prioritized on the basis of consultation

QUESTION: What methodology adopted for prioritizing the alternatives?

Through departmental and public consultation.

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?

GOI, State Govt. & ULB. AMRUT

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

Not covered in ongoing project

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

YES

QUESTION: Has the universal coverage approach indicated in AMRUT guidelines followed for prioritization of activities?

Yes our priority is to firstly increase coverage with minimum cost ,then household level connections followed by laying of branching and sub branching .

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.

GOVERNMENT LAND OF NAGAR NIGAM AGRA IS AVAILABLE FOR CONSTRUCTION OF OHT & CWR . ANY CLEARANCE REQUIRED SHALL BE POSSESS BEFORE ISSUING THE LETTER OF INTENT.

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.

YES. DISASTER AND ENVIRONMENTAL RELATED FACTOR WILL BE CONSIDERED WHILE PREPARATION OF DPRS

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 has been developed.

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

There is no such individual project.

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.

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 have been listed out

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

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

Yes, financial plan include percentage share of different stakeholders (Centre, State and ULB)

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 1.7,1.8,1.9,1.10 and 1.11. These tables are based on AMRUT guidelines tables 2.1, 2.2, 2.3.1, 2.3.2, and 2.5.

Table 1.7 Master Plan of Water Supply Projects for Mission period

(As per Table 2.1of AMRUT guidelines)

(Amount in Rs. Cr)

Sr. No.	Project Name	Priority number	Year in which to be implemented	Year in which proposed to be completed	Estimated Cost
1	Providing house hold level connections to increase coverage (27263 H.H x Rs. 5000/- per connection)	2	2015	2017	13.63CR
2	Branching & sub branching distribution network to cover the house hold line near the premises 67824 H.H connections in uncovered pockets lying near the premises. NEW PIPE LINE 125 KM @ 0.2 CR=25.00CR	3	2016	2018	25.47 CR
3	Expansion of new distribution network with household (87026 HH) connection in uncovered pockets. Away from premises. 323km @0.38 cr Per km	4	2016	2018	122.74CR
4	1-New Over Head Tanks – 8 ML CAPACITY =50.97cr 2-NEW C.W.R.-10ML = 14.50cr 3-NEW RISING MAIN 100KM =109.61cr (300MM-900MM)	5	2016	2018	175.09CR
5	<u>Augmentation of new water production systems</u> 1- Renovation/Strengthening of existing OHT AND CWR = 15.00cr 2-REPLACEMENT OF OLD PUMPING PLANTS & Chlorinating plants at Existing CWR = 8.00cr	6	2016	2018	23.00 CR

6	**Replacement of old Rising Main Including trenchless work (600mm-1200mm dia) -11.50KM = 99.68**	**4**	**2016**	**2017**	**99.69 CR**
7	**Water supply zoning of service area (25 zone**	**8**	**2016**	**2019**	**10**
8	**Atomisation/computerisation of Metering system and installation of new water meters for optimization of use of water and enhance the revenue collection 352850HH@.04cr**	**9**	**2016**	**2019**	**141.14 CR**
9	**Replacement of old lines (damaged, leaked, Defunged, chocked, sluice valve etc) with house hold connection - old pipe line laid about 50-60 year ago. 348km@0.38cr/km)**	**6**	**2016**	**2019**	**132.24 CR**
Total					**743.00 CR**

Table 1.8 Master Service Levels Improvements during Mission Period

(As per Table 2.2 of AMRUT guidelines)

(Amount in Rs. Cr)

Sr. No.	Project Name	Physical Components	Change in Service Levels			Estimated Cost (Cr)
			Indicator	Existing (As-Is)	After (To-be)	
1	**Providing house hold level connections to increase coverage (27263 H.H x Rs. 5000/- per connection)**	**HH connection**	**Coverage of house hold water connections**	**48%**	**60%**	**13.63CR**

Sr. No.	Project Name	Physical Components	Change in Service Levels			Estimated Cost (Cr)
			Indicator	Existing (As-Is)	After (To-be)	
2	**Branching & sub branching distribution network to cover the house hold line near the premises 67824 H.H connections in uncovered pockets lying near the premises. NEW PIPE LINE 125 KM @ 0.2 CR=25.00CR**	**Pipe line**	**Coverage of water supply connections**	**48%**	**85%**	**25.47 CR**
3	**Expansion of new distribution network with household (87026 HH) connection in uncovered pockets. Away from premises. 323km @0.38 cr Per km**	**NEW Pipe line**	**Coverage of water supply connections**	**48%**	**100%**	**122.74CR**
4	**1-New Over Head Tanks – 99 ML CAPACITY =50.97cr 2-NEW C.W.R.-10ML = 14.50cr 3-NEW RISING MAIN 100KM =109.61cr (300MM-900MM)**	**RESERVOIR/ RISING MAIN**	**Per capita supply of water**	**176 LPCD**	**135 LPCD**	**175.09CR**
5	**<u>Augmentation of new water production systems</u> 1- Renovation/Strengthening of existing OHT AND CWR = 15.00cr 2-REPLACEMENT OF OLD PUMPING PLANTS & Chlorinating plants at Existing CWR = 8.00cr**	**Augmentation**	**Per capita supply of water,**	**176 LPCD**	**135 LPCD**	**23.00 CR**

Sr. No.	Project Name	Physical Components	Change in Service Levels			Estimated Cost (Cr)
			Indicator	Existing (As-Is)	After (To-be)	
6	**Replacement of old Rising Main Including trenchless work (600mm-1200mm dia) -11.50KM = 99.68**	**Replacement of old Rising Main**	**NRW , Per capita supply of water**	**176 LPCD,40 %**	**135 LPCD,20 %**	**99.69 CR**
7	**Water supply zoning of service area (25 zone)**		**NRW**	**40% N.R.W**	**20% N.R.W**	**10.00 CR**
8	**Replacement of old lines (damaged, leaked, Defunged, chocked, sluice valve etc) with house hold connection - old pipe line laid about 50-60 year ago. 348km@0.38cr/km**	**NEW Pipe line (Replacement)**	**NRW+ Per capita supply of water**	**40 %**	**20% -**	**132.24 CR**
9	**Atomisation/computerisation of Metering system and installation of new water meters for optimization of use of water and enhance the revenue collection 352850HH@.04cr**		**NRW**	**40% N.R.W**	**20% N.R.W**	**141.14 CR**
Total						**743.00 CR**

Table1.9 Annual Fund Sharing Pattern for Water Supply Projects

(As per Table 2.3.1of AMRUT guidelines)

(Amount in Rs. Cr)

Sr. No.	Name of Project	Total Project Cost	Share				
			GOI	State67	UL	Others	Total
1	**Providing house hold level connections to increase coverage 27263 H.H x Rs. 5000/- per connection)**	**13.63CR**	4.50	9.13		--	**13.63CR**
2	**Branching & sub branching distribution network to cover the house hold line near the premises 67824 H.H**	**25.00 CR**	8.25	16.75		--	**25.47 CR**
3	**Expansion of new distribution network with household (87026 HH) connection in uncovered pockets. Away from premises (333km) @0.38**	**122.74CR**	40.50	82.24		--	**122.74CR**
4	**1- New Over Head Tanks – 33.98 ML CAPACITY =50.97cr 2- NEW C.W.R.-10ML = 14.50cr**	**175.09CR**	57.58	117.31		--	**175.09CR**
5	**<u>Augmentation of new water production systems</u> 1- Renovation/Strengthening of existing OHT AND CWR = 15.00cr 2-REPLACEMENT OF OLD PUMPING**	**23.00 CR**	7.59	15.41		--	**23.00 CR**
6	**Replacement of old Rising Main(600mm-1200mm dia) -11.50KM = 99.69**	**99.69 CR**	32.90	66.79		--	**99.69 CR**
7	**Water supply zoning of service area (25 zone)**	**10.00 CR**	3.30	6.7		--	**10.00 CR**
8	**Replacement of old lines (damaged, leaked, Defunged, chocked, sluice**	**132.24 CR**	43.64	88.60			**132.24 CR**
9	**Atomisation/computerisation of Metering system and installation of**	**141.14 CR**	46.58	94.56		--	**141.14 CR**
		743.00 Cr	**245.19**	**497.81**			**743.00 Cr**

Sr. No.	Project	GoI	State			UB			Convergence	Others	Total
			14th FC	Others	Total	14th FC	Others	Total			
1	**Providing house hold level connections to increase coverage (27263 H.H x Rs. 5000/- per connection)**	**33%**	--	67%	67%	--	--	--	--	--	**100%**
2	**Branching & sub branching distribution network to cover the house hold line near the premises 67824 H.H connections in uncovered pockets lying near the premises. NEW PIPE LINE 125 KM @ 0.2 CR=25.00CR**	**33%**	--	67%	67%	--	--	--	--	--	**100%**
3	**Expansion of new distribution network with household (87026 HH) connection in uncovered pockets. Away from premises. (323km) @0.38 cr Per km**	**33%**	--	67%	67%	--	--	--	--	--	**100%**
4	**New Over Head Tanks – 33.98 ML CAPACITY =50.97cr NEW C.W.R.-10ML = 14.50cr NEW RISING MAIN 100KM =109.62cr (300MM-900MM)**	**33%**	--	67%	67%	--	--	--	--	--	**100%**

5	**Augmentation of new water production systems 1- Renovation/Strengthening of existing OHT AND CWR = 15.00cr 2-REPLACEMENT OF OLD PUMPING PLANTS & chlorinating plants at Existing CWR = 8.00cr**	**33%**	--	67%	67%	--	--	--	--	--	**100%**
6	**Replacement of old Rising Main(600mm-1200mm dia) -11.50KM = 99.69**	**33%**	--	67%	67%	--	--	--	--	--	**100%**
7	**Water supply zoning of service area (25 zone)**	**33%**	--	67%	67%	--	--	--	--	--	**100%**
8	**Replacement of old lines (damaged, leaked, Defunged, chocked, sluice valve etc) with house hold connection - old pipe line laid about 50-60 year ago. 348km@0.38cr/km**	**33%**	--	67%	67%	--	--	--	--	--	**100%**
9	**Atomisation/computerisation of Metering system and installation of new water meters for optimization of use of water and enhance the revenue collection 352850HH@.04cr**	**33%**	--	67%	67%	--	--	--	--	--	**100%**
		743.00 Cr									

Table 1.11 Year wise Plan for Service Levels Improvements
(As per Table 2.5 of AMRUT guidelines)

Proposed Projects	Project Cost	Indicator	Base line	Annual Targets (Increment from the Baseline Value)					
				FY 2016		FY 2017	FY 2018	FY 2019	FY 2020
				H1	H2				
Water Supply									
Providing house hold level connections to increase coverage (27263 H.H x Rs.	**13.63CR**	**Coverage of House hold water connecti**	**48%**	**--**	**60**	**70**	**85**	**100**	
Branching & sub branching distribution network to cover the house hold line near the premises 67824 H.H connections in uncovered pockets lying near the premises. NEW PIPE LINE 125 KM @ 0.2 CR=25.00CR	**25.47 CR**	**Coverage of water supply connections**	**48%**	**--**		**70**	**85**	**100**	
Expansion of new distribution network with household (87026 HH) connection in uncovered pockets. Away from premises. (323km) @0.38 cr Per km	**122.74CR**	**Coverage of water supply connections**	**48%**	**--**	**50**	**70**	**85**	**100**	

New Over Head Tanks – 33.98 ML CAPACITY =50.97cr NEW C.W.R.-10ML = 14.50cr NEW RISING MAIN 100KM =109.62cr (300MM-900MM)	**175.09CR**	**Per capita supply of water,**	**176 LPCD**	**--**	**-**	**-**	**135**		
<u>Augmentation of new water production systems</u> 1-Renovation/Strengthening of existing OHT AND CWR = 15.00cr 2-REPLACEMENT OF OLD PUMPING PLANTS & chlorinating plants at Existing CWR = 8.00cr	**23.00 CR**	**Per capita supply of water,**	**176 LPCD**		**-**	**-**	**135**		
Replacement of old Rising Main(600mm-1200mm dia) -11.50KM = 99.69	**99.69 CR**	**NRW REDUCTION Per capita supply of water,**	**40% 176 LPCD**	**--**	**-**	**-**	**20 % 135**		
Water supply zoning of service area (25 zone)	**10.00 CR**	**NRW**	**40%**	**--**	**30%**	**25**	**20**		

Replacement of old lines (damaged, leaked, Defunged, chocked, sluice valve etc) with house hold connection - old pipe line laid about 50-60 year ago. 348km@0.38cr/km	**132.24 CR**	**NRW+ Per capita supply of water**	**40%**	**--**	**30**	**25**	**20**		
Atomisation/computerisation of Metering system and installation of new water meters for optimization of use of water and enhance the revenue collection 352850HH@.04cr	**141.14 CR**	**NRW**	**40%**	**--**	**30%**	**25**	**20**		
	743 Cr								