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.

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 (CDP), and DPR related to water supply are available with Nagar Nigam Allahabad.

Yes Zone wise information is available with Municipal CorporationAllahabad and parastatal organization (UPJal Nigam Allahabad).

 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 we have collected the information from census 2011 data. As per Census 2011 Allahabad have the population of 11.12 Lakhs, 1,55,017 HH and out of which 1,37,430 HH lies within the premises of water supply line and only 1,26,903 HH have the tapped water supply connection. Yes we have correlated census data with DPR data and data available with the nagarnigam. As per Municipal record, at present total No. of HH are 1,95,259 and 1,52,617HH with water supply connection. Near and away the premise, HH are 42642.

	Location of source of drinking water Population	Total number of house holds	Tap water from treated source
Total population	Total	155071	135988
(census 2011)	Within the premises	137430	126903
	Near the premises	13518	7425
	Away	4123	1660
Departmental data 2015		195259	152617

 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.	Indicators	Present	MOUD
No.		status	Benchmark
1	Coverage of water supply connections - 152617/195259	78%	100%
2	Per capita supply of water with NRW-316.4/1.4	226LPCD	135 LPCD
3	Extent of metering of water connections	0%	100%
4	Extent of non-revenue water	37%	20%
5	Quality of water supplied	95%	100%
6	Cost recovery in water supply services	70%	100%
7	Efficiency in collection of water supply related charges	70%	90%

• 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 22%
- 2. Gap in Per capita water availability is about NONE.
- 3. Gap in Metering is 100%.
- 4. NRW is about 17% which include leakage and free water supply to social gathering festivals along with water supply through stand posts.
- 5. 5% gap in Quality of supplied water as per PHE norms.
- 6. Gap in Cost recovery is 30% with expenditure on electricity and power.
- 7. Gap in efficiency of water charges/tax collection is about 20%.

Source of Water and Water Treatment System

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

 What is the existing source of water? Is it surface water source or underground water source? What is the capacity of these sources?

Source of water-Surface water(Yamuna River)-----135MLD

Ground Water -252 Tube wells-Avg. Discharge- 0.72MLD-Total -----181.4 MLD

• 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. For surface water, ANN has one water works and for underground water chlorination is being done. Treatment capacity of surface water is 135 MLD.

 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= 316.4/1.4=226 LPCD (*present population 14 lakhs and with NRW)

Distribution Zones

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

City is divided in how many zones for water supply?

Yes Divided in 12 Zones (only for water supply purposes)

 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

Zone No	Total No of Households(As per municipal)	Households with Water tap Connection	Households without water tap connections
Khusroobagh	13025	10206	2819
Atala	33638	26315	7323

Lukerganj	6957	5473	1484
Civil lines	16906	13233	3673
Colonel Ganj	20168	15778	4390
DaraGanj	16703	13075	3628
Kyd Ganj	23372	18277	5095
Sulemsarai 1	20504	16040	4464
Sulemsarai 2	3397	2420	977
Naini	17206	13468	3738
Phaphamau	3148	2502	646
Rasulabad	20235	15830	4405
Total	1,95,259	1,52,617	42642

Storage of Water

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

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

Total Water Storage Capacity- 77.83 ML

Elevated Water Reservoirs-----45Nos------capacity-----72.98 ML

Ground Water Reservoir-----07Nos-----capacity ---4.85 ML

 In case of surface water, does city need to have ground level reservoirs to store raw treated water? Yes city require ground level reservoir to store raw treated water.

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

Water is supplied to consumers through direct pumping and elevated reservoir both.

Is storage capacity sufficient to meet the cities demand?

No, capacity is not sufficient if the water works runs at its full installed capacity and existing reservoir are not informally distributed across the city.

Distribution Network

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

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

Total Length-----1943.44 KM

• 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-----2357KM(CDP 2011) and 2235.077Km(2010-11 Annual Report of Nagar Vikas UP). No, 413.56 KM streets are not having pipelines in the city .No

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

PVC,GI,DI and AC Pipe materials are being used.

 Provide zone wise details of street length with and without water distribution lines in the Table 1.3.

Table 1.3: Zone Wise length of distribution network

Zone No	Total Street Length(As per ANN data)	Street length with water distribution pipe line(ANN data)	Street length without water distribution pipe line
Khusroobagh	157.97 Km	129.50 Km	28.47 Km
Atala	407.47 Km	333.99 Km	73.48 Km
Lukerganj	84.74 Km	69.46 Km	15.28 Km

Civil lines	204.92Km	167.96 Km	36.96 Km
Colonel Ganj	244.30 Km	200.25 Km	44.05 Km
DaraGanj	202.46 Km	165.95 Km	36.51 Km
Kyd Ganj	238.81 Km	175 Km	63.81 Km
Sulemsarai 1	208.58 Km	203.58 Km	5 Km
Sulemsarai 2	115.00 Km	94.00 Km	21.00 Km
Naini	209.00 Km	171.00 Km	38.00 Km
Phaphamau	38.75 Km	31.75 Km	7.00 Km
Rasulabad 245.00 Km		201.00 Km	44.00 Km
Total	2357KM (100 %)	1943.44 KM (82.45%)	413.56KM (17.55%)

Institutional Framework

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

• 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
UPjal Nigam & Allahabad	UP jal Nigam & Allahabad	Allahabad Municipal
Municipal Corporation	Municipal Corporation	Corporation

How city is planning to execute projects?

Smaller Projects like branch lines ,gaps in pipe lines and metering will be executed by Allahabad Municipal corporation and capital projects will be executed by UP Jal Nigam.

• 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 Allahabad Municipal Corporation as well as State Level Parastatal Agency U.P. Jal Nigam. Allahabad Municipal Corporation 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.

 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	Month of Completio n	Status (as on ddmm 2015)
1	Nil	Nil	Nil	Nil	Nil

 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)

NA

 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 universal coverage, reduce NRW, water quality, energy efficiency and efficiency of cost recovery.

 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?

We are planning to maximize the use the existing resources and minimize the investment on expensive assets to achieve service level bench mark of water supply system as per MoUD.

Has city conducted assessment of Non RevenueWater ?if yes, what is the NRW level?
 Is city planning to reduce NRW ?

No,NRW Level 37%. Yes city is planning to reduce NRW in AMRUT.

 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.

Table 1.5 . Demand Gap Assessment for Water Supply Sector

Component		2015		2021	
	Present	Ongoing projects	Total	Demand	Gap
Source (MLD) Surface +Ground	316.4	0	316.4	195.16 as per Population (14.456 Lakh)	Nil
Treatment capacity(MLD)	135 surface water	0	135	135	Nil
Elevated +under groundStorage capacity (ML)	77.83ML	0	77.83ML	58.5ML	Nil
Distribution network coverage (KM)	1943.44KM	0	1943.44KM	2357+707(30% growth)=3064	1120.56

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.

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

Objects are identified from the gap and these objectives will be evolved from the outcome of the assessment. Details are in table

Does each objective meet the opportunity to bridge the gap?

yes

1. TO ACHIEVE UNIVERSAL COVERAGE

To achieve universal coverage done by household connectivity which will cost approximately Rs. 3.00 crore and Laying of pipe line costing Rs. 392.00 crore and domestic connections costing Rs. 56.00 crore, Total Expenditure is expected Rs. 451.00 crore which will be financed by Amrut / State / ULB

2. TO MAKE SYSTEM EFFICIENT BY NRW REDUCTION

This can be done by metering, replacement of old pipe line networks and repairing of leakages to check wastage at OHT/CWR/ZPS etc. SCADA system should also be introduced. The expenditure is expected to be Rs. 172.00 crore. The financing source may be Amrut / State / ULB.

3. TO INCREASE PER CAPITA SUPPLY (LPCD)

Old pumps do not run at installed capacity, so they need to be replaced to maintain LPCD. This may cost Rs. 10.00 croreThe financing source may be Amrut / State / ULB.

4. TO IMPROVE THE QUALITY OF WATER

This can be done by rehabilitation of old laboratory already established at Khusroobagh water works and by establishing a new one. Mobile vans should be procured and cholorination system at water works as well as tubewells be established. This will cost approximately Rs. 10.00 crore. The financing source may be Amrut / State / ULB.

5. TO MAKE SYSTEM ENERGY EFFICIENT

This can be achived by replacing old pumps/starters/switch gears as already mentioned in above s.no. 3. The financing source may be Amrut / State / ULB.

6. TO REHABILITATE WATER BODIES

This can be achived by rehabilitation of old water works, tanks intake river side pumping station etc., which will cost approximately Rs. 20.00 crore. The financing source may be Amrut / State / ULB.

7. EFFICIENCY IN CHARGES COLLECTION

This can be achived by Online billing/ computerization/ rehabilitation of old collection centres with modern equipments and by increasing the no. of collection centres. This may cost approximately Rs. 15.00 crore. The financing source may be Amrut / State / ULB.

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

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. (AMRUTGuidelines; 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.

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

Above information provided in the below table

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

At present, There is no ongoing project in the city

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

NA

- What are the lessons learnt during implementation of similar projects? (100 words)
 - In earlier projects, there was a focus on increasing the capital infrastructure and no effort has been made to enhance service level.
- Have you analysed best practices and innovative solutions in sector? Is any of the practice be replicated in the city?(75 words)

Yes, We have analysed best practices in automation of Tube wells. Therefore, there is need to replicate these practices.

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

Regularize of illegal connection, enhancement of coverage area, house hold connections and use of ICT in collection of tax/charges

• 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, AUTOMISATION OF TUBE WELL THORUGH SCADA

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

These option s will be explored while framing the DPR

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

Table 1.6 Alternative Activities To Meet Objectives

Objectives	Activities to be performed to bridge the	Financing
	gap	Source
TO ACHIEVE UNIVERSAL	1- INCREASE HOUSE HOLD CONNECTIONS ,	AMRUT/State/ULB
COVERAGE	ASSESSMENT STUDY FOR AUTHORISED /ILLEGAL	
	CONNECTIONS AND UPTAPPED/SUBMERSIBLE HOUSE	
	HOLD ETC- AMRUT	
	2- GAP IN EXISTING WATER SUPPLY NETWORK WITH	
	HOUSEHOLD CONNECTIONS	
	3- EXPANSION OF WATER SUPPLY DISTRIBUTION	
	NETWORK WITH HOUSEHOLD CONNECTION IN	
	UNCOVERED POCKETS	
TO MAKE SYSTEM EFFICIENT	1-LEAKAGE DETECTION AND ITS REMOVAL,	AMRUT/State/ULB
BY NRW REDUCTION	2- REPLACEMENT OF OLD LINES (DAMAGED, LEAKED,	
	DEFUNGED, CHOCKED, SLUICE VALVE ETC) WITH HOUSE	
	HOLD CONNECTION	

Objectives	Activities to be performed to bridge the	Financing
	gap	Source
	3- WATER SUPPLY ZONING OF SERVICE AREA .	
	4-100% IMPLEMENTATION OF METERING .	
	5- AUTOMISATION OF TUBE WELL THORUGH SCADA	
TO INCREASE PER CAPITA	1-REBORE TUBE WELLS	AMRUT/State/ULB
SUPPLY (LPCD)	2- AUGMENTATION OF NEW WATER PRODUCTION	
	SYSTEMS (TUBE WELL)	
	3- REHABILITATION OF EXISTING OVER HEAD TANKS	
	4- REHABILITATION OF EXISTING ZPS & CWR FOR ONLY	
	SURFACE WATER SUPPLY	
	5- ENHANCEMENT IN EFFICIENCY OF EXISTING WATER	
	WORKS	
	6- NEW OVER HEAD WATER TANKS (O.H.T) 1850 KL	
	7- NEW ZPS & CWR	
	8- AUGMENTATION OF NEW WATER WORKS	
TO IMPROVE THE QUALITY OF	1-ESTABLISHMENT/REHAB OF WATER TESTING LAB	AMRUT/State/ULB
WATER	2- IMPLEMENTATION OF ONLINE WATER TESTING &	
	MONITORING SYSTEMS	
	3- WATER TESTING Vans	
TO MAKE SYSTEM ENERGY	REPLACEMENT OF INEFFICIENT PUMPS.	AMRUT/State/ULB
EFFICIENT		
TO REHABILITATE WATER	1-REHABILITATION OF EXISTING WATER SOURCES	AMRUT/State/ULB
BODIES	(SURFACE SUBSURFACE)	
	2- RESTORATION OF WATER BODIES	
	(LAKE,PONDS,TALABS)	
EFFICIENCY IN CHARGES	1-ONLINE BILLING , TRACKING SYSTEM & SPOT BILLING	AMRUT/State/ULB/
COLLECTION	MACHINE	PPP
	2- REHABILITATION AND EXPANSION OF PAYMENT	
	COLLECTION CENTER	

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.

Has all stakeholders involved in the consultation?

Yes, all stakeholders is being involved in the consultation

Has ward/ zone level consultations held in the city?

Yes, ward/ zone level consultationsis being held in the city

Has alternative proposed above are crowd sourced?

No, for the alternatives Nagar Nigam invited the suggestion of consultation through newspaper, mass media and face book.

What is feedback on the suggested alternatives and innovations?

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

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

What methodology adopted for prioritizing the alternatives?

Through departmental and public consultation.

SI.NO.	TYPE OF CONSULTATION	DATE OF THE CONSULTATION	MODE OF CONSULTATION
1	Consultation Regarding Smartcity including AMRUT	17-09-2015	Throughmedia and workshops
2	Nagar NigamSadan	18-09-2015	Through discussion
3	consultation with ibm team comprisingforeigndelegates, corporators and officials	30-09-2015	through workshops/seminar and presentations etc

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.

What are sources of funds?

AMRUT/State/ULB/PPP

Has projects been converged with other program and schemes?

Yes

Has projects been prioritized based on "more with less" approach?

Yes

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

Yes

6. Conditionalities

Describe in not more than 300 wordstheConditionalities 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.

No need of Land, environmental clearance and NOC. Financial commitment of State and ULB already provided in the following tables.

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 related factor will be considered while preparation of DPR.

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

 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.

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

There is no such individual project.

 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.

• 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.

Have the financial assumptions been listed out?

Yes, financial assumptions have been listed out

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

 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)

does it include financial convergence with various ongoing projects.

Yes, it includes financial convergence with various ongoing projects

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.

S.No.	Project Name	Priority number	Year in which to be implemented	Year in which to be completed	Estimat e cost (Cr)
1	TO ACHIEVE UNIVERSAL COVERAGE (PUBLIC AWARENESS, GAP IN EXISTING	1	2015	2017	56 Cr
	WATER SUPPLY NETWORK, EXPANSION OF WATER SUPPLY DISTRIBUTION NETWORK etc)	1	2017	2018	395 Cr
2	TO MAKE SYSTEM EFFICIENT BY NRW REDUCTION (LEAKAGE DETECTION AND ITS REMOVAL, REPLACEMENT OF OLD LINES, WATER SUPPLY ZONING, METERING, AUTOMISATION etc)	2	2015	2020	172
3	TO INCREASE PER CAPITA SUPPLY MAKE SYSTEM ENERGY EFFICIENT (LPCD REBORE, REHABILITATION OF EXISTING OHT, ZPS & CWR ENHANCEMENT IN EFFICIENCY OF EXISTING WATER WORKS, NEW OHT, ZPS,CWR, REPLACEMENT OF INEFFICIENT PUMPS.)	3	2016	2018	16
4	TO IMPROVE THE QUALITY OF WATER (ESTABLISHMENT/REHAB OF WATER TESTING LAB, ONLINE WATER TESTING, WATER TESTING Vans)	4	2016	2017	10
5	TO REHABILITATE WATER BODIES (REHABILITATION OF EXISTING WATER SOURCES, RESTORATION OF WATER BODIES (LAKE,PONDS,TALABS))	6	2017	2019	20
6	EFFICIENCY IN CHARGES COLLECTION (ONLINE BILLING, REHABILITATION AND EXPANSION OF PAYMENT COLLECTION CENTER)	7	2015	2016	15

Total Cost	684 Cr
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Table 1.8 Master Service Levels Improvements during Mission Period

(As per Table 2.2 of AMRUT guidelines) (AmountinRs. Cr)

		Physical	Change	in Service Lev	els	Estimat
Sr.	Project Name	Compone	Indicator	Existing	After	ed Cost
No.		nts	indicator	(As-Is)	(To-be)	(Cr)
1	TO ACHIEVE UNIVERSAL COVERAGE (PUBLIC AWARENESS, GAP IN EXISTING WATER SUPPLY NETWORK, EXPANSION OF WATER SUPPLY DISTRIBUTION NETWORK etc)	Connecti on	Coverage of water supply connection	3.170%	1100%	56 Cr
	,	Laying of pipe line				395 Cr
2	TO MAKE SYSTEM EFFICIENT BY NRW REDUCTION (LEAKAGE DETECTION AND ITS REMOVAL, REPLACEMENT OF OLD LINES, WATER SUPPLY ZONING, METERING, AUTOMISATION etc)	Replacem ent of old line, meter,sca da	NRW	37%	20%	172
3	TO INCREASE PER CAPITA SUPPLY MAKE SYSTEM ENERGY EFFICIENT (LPCD REBORE, REHABILITATION OF EXISTING OHT, ZPS & CWR ENHANCEMENT IN EFFICIENCY OF EXISTING WATER WORKS, NEW OHT, ZPS,CWR, REPLACEMENT OF INEFFICIENT PUMPS.)	Tube well, OHT, ZPS etc	LPCD	226	226	16
4	TO IMPROVE THE QUALITY OF WATER (ESTABLISHMENT/REHAB OF WATER TESTING LAB, ONLINE WATER TESTING, WATER TESTING Vans)	Lab	Water quality	95%	100%	10

5	TO REHABILITATE WATER BODIES (REHABILITATION OF EXISTING WATER SOURCES, RESTORATION OF WATER BODIES (LAKE,PONDS,TALABS)	Water bodies	Cost recovery	70%	100%	20
6	EFFICIENCY IN CHARGES COLLECTION (ONLINE BILLING , REHABILITATION AND EXPANSION OF PAYMENT COLLECTION CENTER)	Online	Efficiency in collection of water supply	70%	90%	15

Table 1.9 Annual FundSharing Pattern for Water Supply Projects (As per Table 2.3.1 of AMRUT guidelines)

Sr.	Name of Project	Total Project		,	Share		
No.		Cost	GOI	State	ULB	Other	Total
1	Connection of HH	56 Cr	33%	67%			100%
	ACHIEVE UNIVERSAL COVERAGE (PUBLIC AWARENESS, GAP IN EXISTING WATER SUPPLY NETWORK, EXPANSION OF WATER SUPPLY DISTRIBUTION NETWORK etc)	395 Cr					
2	TO MAKE SYSTEM EFFICIENT BY NRW REDUCTION (LEAKAGE DETECTION AND ITS REMOVAL, REPLACEMENT OF OLD LINES, WATER SUPPLY ZONING, METERING, AUTOMISATION etc)	172	33%	67%		J	100%
3	TO INCREASE PER CAPITA SUPPLY MAKE SYSTEM ENERGY EFFICIENT (LPCD REBORE, REHABILITATION OF EXISTING OHT, ZPS & CWR ENHANCEMENT IN EFFICIENCY OF EXISTING WATER WORKS, NEW OHT, ZPS,CWR, REPLACEMENT OF INEFFICIENT PUMPS.)	16	33%	67%			100%

2	TO IMPROVE THE QUALITY OF WATER (ESTABLISHMENT/REHAB OF WATER TESTING LAB, ONLINE WATER TESTING, WATER TESTING Vans)	10	33%	67%		100%
	TO REHABILITATE WATER BODIES (REHABILITATION OF EXISTING WATER SOURCES, RESTORATION OF WATER BODIES (LAKE,PONDS,TALABS)	20	33%	67%		100%
	EFFICIENCY IN CHARGES COLLECTION (ONLINE BILLING , REHABILITATION AND EXPANSION OF PAYMENT COLLECTION CENTER)	15	33%	67%		100%

Table 1.10 Annual Fund Sharing Break-up for Water Supply Projects (As per Table 2.3.2 of AMRUT Guidelines) (AmountinRs.Cr)

Sr.				State			ULB		Conver		
No.	Project	Gol	14 th FC	Others	Total	14 th FC	Others	Total	gence	Othe rs	Total
1	CONNECTION	18.66 Cr		37.34 Cr							56 Cr
•	TO ACHIEVE UNIVERSAL COVERAGE (PUBLIC AWARENESS, GAP IN EXISTING WATER SUPPLY NETWORK, EXPANSION OF WATER SUPPLY DISTRIBUTION NETWORK etc)	150.33		300.67				ł			395 Cr
2	TO MAKE SYSTEM EFFICIENT BY NRW REDUCTION (LEAKAGE DETECTION AND ITS REMOVAL, REPLACEMENT OF OLD LINES, WATER SUPPLY ZONING, METERING, AUTOMISATION etc)	57.33		114.67							172
3	TO INCREASE PER CAPITA SUPPLY MAKE SYSTEM ENERGY EFFICIENT (LPCD REBORE, REHABILITATION OF EXISTING OHT, ZPS & CWR ENHANCEMENT IN EFFICIENCY OF EXISTING WATER WORKS, NEW OHT, ZPS,CWR, REPLACEMENT OF INEFFICIENT PUMPS.)	5.33		10.67							16

4	TO IMPROVE THE QUALITY OF WATER (ESTABLISHMENT/REHAB OF WATER TESTING LAB, ONLINE WATER TESTING, WATER TESTING Vans)	3.33	6.67		 	 	 10
5	TO REHABILITATE WATER BODIES (REHABILITATION OF EXISTING WATER SOURCES, RESTORATION OF WATER BODIES (LAKE,PONDS,TALABS))	6.67	13.3	3	 	 	 20
6	EFFICIENCY IN CHARGES COLLECTION (ONLINE BILLING , REHABILITATION AND EXPANSION OF PAYMENT COLLECTION CENTER)	5	10		 	 	 15

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

				An	nualT	argets				
				(IncrementfromtheBaselineValue)						
Proposed	Project	Indicator	Baseli ne	FY2	2016	FY	FY	FY	FY	
Projects	Cost	mulcator	116			2017	201	2019	2020	
				H1	H2	7	8			
WaterSupply										
CONNECTION	56 Cr									
	205.0-				00	00	400			
TO ACHIEVE UNIVERSAL	395 Cr	Coverag	70%		80	90	100		-	
COVERAGE (PUBLIC AWARENESS, GAP IN EXISTING		e of								
WATER SUPPLY NETWORK, EXPANSION OF WATER SUPPLY		water								
DISTRIBUTION NETWORK etc)		supply connecti								
		on								
	172				35	30	27	22	20	
TO MAKE SYSTEM EFFICIENT BY NRW REDUCTION (LEAKAGE		NRW	37%							
DETECTION AND ITS REMOVAL,										
REPLACEMENT OF OLD LINES, WATER SUPPLY ZONING,										
METERING, AUTOMISATION etc)										

TO INCREASE PER CAPITA SUPPLY MAKE SYSTEM ENERGY EFFICIENT (LPCD REBORE, REHABILITATION OF EXISTING OHT, ZPS & CWR ENHANCEMENT IN EFFICIENCY OF EXISTING WATER WORKS, NEW OHT, ZPS,CWR, REPLACEMENT OF INEFFICIENT PUMPS.)	16	LPCD	226	 6	226	226		
TO IMPROVE THE QUALITY OF WATER (ESTABLISHMENT/REHAB OF WATER TESTING LAB, ONLINE WATER TESTING, WATER TESTING Vans)	10	Water quality	95%	 97	100			
TO REHABILITATE WATER BODIES (REHABILITATION OF EXISTING WATER SOURCES, RESTORATION OF WATER BODIES (LAKE,PONDS,TALABS)	20	Cost	70%	 70	80	90	100	
EFFICIENCY IN CHARGES COLLECTION (ONLINE BILLING , REHABILITATION AND EXPANSION OF PAYMENT COLLECTION CENTER)	15	Efficiency in collection of water supply	70%	100				