

# NAME OF ULB - ALIGARH

## 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)

**Master plan of city with ADA and CSP of Aligarh with NN Aligarh and DPR of water supply system is available 2007-08 the DPR consists existing water supply system with reference to water supply production, treatment and distribution of water supply lines and it has been divided into 15 zones.**

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 Aligarh. Nagar Nigam Aligarh is aware of MoUD survey data. The data available is being used as reference to develop the slip.**

	Location of source of drinking water Population	Total Number of Households	Tapwater from treated source
Total Population (Census, 2011)	874408		
	Total	143062	53380
	Within the premises	106357	44223
	Near the premises	27480	6825
	Away	9225	2332
Departmental Data (2015)	979336	127789	52830

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	<u>Coverage of water supply connections</u> <u>52830/143062</u>	36.9%	100%	D
2	<u>Per capita supply of water-</u> <u>88.32 MLD /.979</u>	90 LPCD	135 LPCD	D
3	<u>Extent of metering of water connections</u>	0%	100%	A
4	<u>Extent of non-revenue water</u>	21.4%	20%	D
5	<u>Quality of water supplied</u>	88.32%	100%	D
6	<u>Cost recovery in water supply services</u>	78.3%	100%	D
7	<u>Efficiency in collection of water supply related charges</u>	87%	90%	D

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 64.2 %
2. Per capita supply of water gap is 44.82 LPCD
3. Extend of metering of water connections gap is 100 %
4. Extend of non-revenue water gap is 1.4 %
5. Quality of water supplied gap 11.68%
6. Cost recovery in water supply services gap is 21.7 %
7. Efficiency in collection of water supply related charges gap is 3 %

## 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 is underground water, total no of tubwell is 92 the capacity is 92x 16hr x 1000lpm x 60 = 88.32 MLD (total)**

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?

**Underground water chlorination is being done. Total treatment capacity of water is 88.32 MLD**

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.?

**Total water capacity 88.32 MLD, per capita water supply is =88.32 / 0.979336 =90.18 LPCD**

## 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 into 15 Zones.**

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

<b>Zone No.</b>	<b>Total No. of Households/Properties</b>	<b>Households with Water tap Connection</b>	<b>Households without Water tap Connection</b>
1	4426 HH	200 HH	4226 HH
2	10142 HH	4225 HH	5917 HH
3	6228 HH	5295 HH	933 HH
4	6193 HH	5330 HH	863 HH
5	8376 HH	5844 HH	2532 HH
6	7922 HH	2539 HH	5383 HH
7	12159 HH	894 HH	11265 HH
8	13143 HH	5836 HH	7307 HH
9	4968 HH	2631 HH	2337 HH
10	7011 HH	5689 HH	1322 HH
11	16153 HH	6636 HH	9517 HH
12	5951 HH	4567 HH	1384 HH
13	8564 HH	479 HH	8085 HH
14	10079 HH	2356 HH	7723 HH
15	6473 HH	309 HH	6164 HH

<b>Zone No.</b>	<b>Total No. of Households/Properties</b>	<b>Households with Water tap Connection</b>	<b>Households without Water tap Connection</b>
Total	127789 HH	52830 HH	74959 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 storage capacity of NNA is 18 OHT (21350 KL) and 5 underground storage (3680 KL) total capacity is 25030 KL.**

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

**There is no arrangement of surface water in NNA.**

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

**Water supplied through direct pumping and through elevated reservoirs.**

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

**In Nagar Nigam Aligarh has 88.32 MLD capacity of water and storage capacity is 25030 KL, so there is 4410 KL gap in storage capacity in NNA.**

## 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?

**NNA has total length of water supply pipeline is 721 and total road length is 811 km there is gap of 90 km in city level.**

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?

**City Road Length of Aligarh is 811 Km. No, all streets are not covered with pipe lines. There is required 90 km pipeline for universal coverage of water supply.**

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

**PVC, AC, GI, DI and CI pipes are used in distribution system of water supply scheme.**

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

Table: Zone Wise length of distribution network

<b>Zone No.</b>	<b>Total Street Length</b>	<b>Street length with water distribution pipe line</b>	<b>Street length without water distribution pipe line</b>
1	42.9 KM	38.14 KM	4.76 KM
2	38.63 KM	34.35 KM	4.28 KM
3	50.44 KM	44.844 KM	5.596 KM
4	68.78 KM	61.15 KM	7.63 KM
5	89.27 KM	79.369 KM	9.901 KM
6	48.57 KM	43.18 KM	5.39 KM
7	51.29 KM	45.606 KM	5.684 KM
8	98.17 KM	87.279 KM	10.891 KM
9	37.27 KM	33.134 KM	4.136 KM
10	30.38 KM	27.014 KM	3.366 KM
11	79.16 KM	70.304 KM	8.856 KM
12	58.45 KM	51.97 KM	6.48 KM
13	32.55 KM	28.94 KM	3.61 KM
14	52.38 KM	46.57 KM	5.81 KM
15	32.76 KM	29.15 KM	3.61 KM
<b>Total</b>	<b>811 KM</b>	<b>721 KM</b>	<b>90 KM</b>

## 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

<b>Planning and Design</b>	<b>Construction/ Implementation</b>	<b>O&amp;M</b>
UP Jal Nigam Aligarh	UP Jal Nigam Aligarh	Nagar Nigam Aligarh

Question: How city is planning to execute projects ?

**The execution of the projects will be done by nodal agency Jal Nigam Aligarh as per instructions given by the state government as well as Gol& smaller projects like branch lines ,gaps in pipe lines will be done by Nagar Nigam Aligarh.**

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 parastatal agencies as per instructions of state government as well as Gol.Smaller projects like branch lines, gaps in pipe lines will be done byNagar Nigam Aligarh.**

## 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

<b>S.No.</b>	<b>Name of Project</b>	<b>Scheme Name</b>	<b>Cost</b>	<b>Month of Compilation</b>	<b>Status (as on dd mm 2015)</b>
1	24New Tube well 3Rebore	SFC/TFC	9.29 Cr	2017	20 %

Question: How much the existing system will be 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)

**The existing infrastructure is not sufficient to meet the requirements up to year 2015 as far as water source 43.88 MLD gap in lpcd, this new tube-well project contribute 27.6 ML in water supply source, after completion of this project water capacity will improve 88.32 MLD to 114.24 MLD = 90.18 lpcd to 116.65 LPCD.**

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

**Yes, In water resource 17.96 MLD, 90 km new pipe line, storage required 13050KL**

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?

**Nigam Nigam Aligarh will make its people aware of the importance of drinking water and make efforts by meetings & registering water connections by advertisements through IEC activities.**

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

**Yes, NRW level is 21.40. Pursuance will be on going to reduce the NRW level.**

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	88.32 MLD	25.92	114.24 MLD	147.55 MLD	33.31 MLD
Treatment capacity	88.32 MLD	25.92	114.24 MLD	147.55 MLD	33.31 MLD
Elevated Storage capacity	25030 KL	-	25030 KL	49180 KL	24130 KL
Distribution network coverage	721 KM	-	721KM	811KM	90KM

## 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?

Objective	Activities to be performed to bridge the gap
To achieve universal coverage	Identification of illegal connection – 550HH Household connection line -20655@2125 Rs Expansion of water supply network
To make system efficient	Leakage detection and 200 Km replacement of old pipeline Water supply Zoning of service area Automation of tube well through SCADA
To increase per capita water supply LPCD	Rebore of tubewell-2 Augmentation of new water production system Tube well- 61 (45 tube well for 2015 & 16 tube well for demand of 2021) New OHT 16 nos.
Improve the water quality of water	Establishment of water testing lab Implementation of online water testing & monitoring system Water testing van 5 nos.
Efficiency in charges collection	Online billing, tracking system & Spot billing machine
To resuce NRW	Water meter to every HH

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

Yes,
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## 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 source of funding of activities shall be: AMRUT, funding pattern is 50% from Gol and rest 50% from State and NNA**

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

**24 New, 3Rebore of tube well ongoing project with state finance commission and 13<sup>th</sup> finance commission**

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

**Project has covered with state finance commission and 13<sup>th</sup> finance commission**

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

**The main bottleneck of this project is non-availability of land so NNA has realized and take all land clearance will take before the any project started.**

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

**Increase in the water users and water charges may be adopted to recover the O & M cost by:**  
**1. Increasing the coverage of water supply to unserved areas,**  
**2. By increasing user charges**  
**3. By reducing NRW.**

Question: Will metering system for billing introduced?

**Yes. NNA will introduce metering system for billing amrut scheme.**

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

**Yes, NRW levels will be reduced to enhance O&M Cost.**

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

**Yes, objectives have been identified to bridge the current service level gaps**

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

Table: Alternative Activities To Meet Objectives

S.N.	Objective	Activities to be performed to bridge the gap	Cost (Cr)	Financing Source
0	Completion of ongoing project	24 New and 3 Rebores Tube well	9.29	State
1	To achieve universal coverage	Identification of illegal connection – 550HH @ 500 Rs/ HH Expansion of water supply network for HH connection- 20655 @ 2125	0.027 4.39cr	Amrut/state and ulb
2	To make system efficient	Leakage detection and removal – 300 Km @ 0.025 Cr/ km  200 Km replacement of old pipeline @ 0.30 Cr/ km  Water Supply Zoning of service area @ 0.3 Cr/ zone, Automation of tube well through SCADA	7.5cr  60.00cr  4.5	Amrut/state and ulb
3	To increase per capita water supply LPCD	Rebores of tubewell-2 @ 0.29 Cr/ tubewell Augmentation of new water production system Tube well- 61 (45+16) @ 0.35 Cr/ tubewell  Construction of pump house, water recharge unit, boundary wall approach road & gate New OHT 16 nos. @ 1.8 Cr / OHT	0.58  21.35 (15.75+5.6)  1.5  28.8	Amrut/state and ulb
4	Improve the water quality of water	Renovation of existing establishment of water testing lab Implementation of online water testing & monitoring system  Water testing van 2 nos. @ .20 Cr/ van	0.15  0.40	Amrut/state and ulb
5	Efficiency in charges collection	Online billing, tracking system & Spot billing machine	1.2	Amrut/state and ulb
6	Water meter	HH water meter connection @ 2000 Rs / 127789HH	25.55CR	Amrut/state and ulb
7	Protnot surface water--To improve and augmentation of per capita water supply LPCD	Augmentation of water supply through surface water by surface water from upper Ganga canal approximate 13 km from Aligarh	500CR	Amrut/state and ulb
	<b>Total</b>		<b>655.94 Cr</b>	

#### 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, Nagar Nigam Aligarh has conducted mission mode awareness from 25 September to 11 October, 2015 regarding SBM, AMRUT, Smart cities with citizen, board member, and ward elected member**

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

**Yes, ward/ zone level consultations is being held in the city**

Question: Has alternative proposed above are crowd sourced?

**No**

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

**Feedback on the suggested alternatives and innovations are being considered like connection of water to HH level.**

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

**Yes, Increase & regularization of water connection**

Question: What methodology adopted for prioritizing the alternatives?

**Alternatives have been prioritized based on demand raised through consultation with citizens, officials and parastatal agencies made in Nagar Nigam Aligarh board meetings. Firstly regularisation of water connections then metering of water connections.**

## 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. State Government Funds.**

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

**The convergence factor has been considered while designing and funding of project.**

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 indicated in AMRUT guidelines followed for prioritization of activities?

**Yes, universal coverage approach indicated in AMRUT guidelines has been followed for prioritization of activities**

## 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.

**Yes, the Conditionalities of each project will be taken at the time of execution of the project by coordination between the executing agency, related department and ULBs no land & clearance required.**

## 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.

**Yes, resilience factor would be built in to ensure environmentally sustainable water supply scheme.**

## 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. In which 50% from GOI and remaining by STATE and ULB.**

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

**24 New, 3 Rebores of tube well ongoing project with state finance commission and 13th finance commission and proposed project will be financed as per AMRUT guidelines.**

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, STATE and ULB.**

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

**Yes,**

Question: Have the financial assumptions been listed out ?

**Yes,**

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)

**Yes, financial plan include percentage share of different stakeholders, Centre- 50%, (State and ULB)-50%**

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

**No**

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

**Yes,**

**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 2.1 of AMRUT guidelines)

(Amount in Rs. Cr)

S.No.	Project Name	Priority number	Year in which to be implemented	Year in which to be completed	Estimated Cost
1	<p>Identification of illegal connection – 550HH @ 500 Rs/ HH</p> <p>Expansion of water supply network for HH connection- 20655 @ 2125</p>	1	2015	2016	<p>0.027cr</p> <p>4.39cr</p>
2	<p>Leakage detection and removal – 300 Km @ 0.025 Cr/ km</p> <p>200 Km replacement of old pipeline @ 0.30 Cr/ km</p> <p>Water Supply Zoning of service area @ 0.3 Cr/ zone,</p> <p>Automation of tube well through SCADA</p>	2	2015	2017	<p>7.5</p> <p>60.00</p> <p>4.5</p>
3	<p>Rebore of tubewell-2 @ 0.29 Cr/ tubewell</p> <p>Augmentation of new water production system Tube well- 61 (45+16) @ 0.35 Cr/ tubewell</p> <p>Construction of pump house, water recharge unit, boundry wall approach road&amp; gate</p> <p>New OHT 16 nos. @ 1.8</p>	3	2015	2017	<p>0.58</p> <p>21.35 (15.75+5.6)</p> <p>1.5</p>

S.No.	Project Name	Priority number	Year in which to be implemented	Year in which to be completed	Estimated Cost
	Cr / OHT				28.8
4	Renovation of existing establishment of water testing lab  Implementation of online water testing & monitoring system  Water testing van 2 nos.@ .20 Cr/ van	4	2015	2016	0.15   0.40
5	Online billing, tracking system & Spot billing machine	5	2015	2017	1.2
6	HH water meter connection @ 2000 Rs / 127789HH	6	2016	2018	25.55
7	Augmentation of water supply through surface water by surface water from upper Ganga canel approximate 13 km from Aligarh	7	2016	2018	500
<b>Total</b>					<b>655.94 Cr</b>

## 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
			Indicator	Existing (As-Is)	After (To-be)	
1	<p>Identification of illegal connection – 550HH @ 500 Rs/ HH</p> <p>Expansion of water supply network for HH connection- 20655 @ 2125</p>	Survey	To achieve universal coverage	35.8	100	<p>0.027</p> <p>4.39</p>
2	<p>Leakage detection and removal – 300 Km @ 0.025 Cr/ km</p> <p>200 Km replacement of old pipeline @ 0.30 Cr/ km</p> <p>Water Supply Zoning of service area @ 0.3 Cr/ zone, Automation of tube well through SCADA</p>	Replacement of old pipe line , zoning of water supply area	To make system efficient	21.4	20	<p>7.5</p> <p>60.00</p> <p>4.5</p>
3	<p>Rebore of tubewell-2 @ 0.29 Cr/ tubewell</p> <p>Augmentation of new water production system Tube well- 61 (45+16) @ 0.35 Cr/ tubewell</p> <p>Construction of pump house, water recharge unit, boundry wall approach road&amp; gate</p>	Rebore / new Tube well	To increase per capita water supply LPCD	90.18	135	<p>0.58</p> <p>21.35 (15.75+ 5.6)</p> <p>1.5</p>



Sr. No.	Project Name	Physical Components	Change in Service Levels			Estimated Cost
			Indicator	Existing (As-Is)	After (To-be)	
	New OHT 16 nos. @ 1.8 Cr / OHT					28.8
4	Renovation of existing establishment of water testing lab, Implementation of online water testing & monitoring system  Water testing van 2 nos.@ .20 Cr/ van	implementation of online water testing	Improve the water quality of water	88.32	100	0.15  0.40
5	Online billing, tracking system & Spot billing machine	Spot billing maching	Efficiency in charges collection	78.3	100	1.2
6	HH water meter connection @ 2000 127789HH	Metering	Water meter	0	100	25.55cr
7	Augmentation of water supply through surface water by surface water from upper Ganga canel approximate 13 km from Aligarh	Augmentation of surface water	To improve and augmentation of per capita water supply LPCD	90.18	135	500
<b>Total</b>						<b>655.94</b>

## ANNUAL FUND SHARING PATTERN FOR WATER SUPPLY PROJECTS

(As per Table 2.3.1 of AMRUT guidelines)

(Amount in Rs. Cr)

Sr. No.	name of Project	Total Project Cost	Share				
			GOI	State	ULB	Others	Total
1	Identification of illegal connection – 550HH @ 500 Rs/ HH	0.027	.013	.013		-	0.027
	Expansion of water supply network for HH connection-20655 @ 2125	4.39	2.195	2.195	-	-	4.39
2	Leakage detection and removal – 300 Km @ 0.025 Cr/ km	7.5	3.75	3.75	-	-	7.5
	200 Km replacement of old pipeline @ 0.30 Cr/ km	60.00	30	30	-	-	60.00
	Water Supply Zoning of service area @ 0.3 Cr/ zone, Automation of tube well through SCADA	4.5	2.25	2.25	-	-	4.5
3	Rebore of tubewell-2 @ 0.29 Cr/ tubewell	0.58	0.29	0.29	-	-	0.58
	Augmentation of new water production system Tube well-61 (45+16) @ 0.35 Cr/ tubewell	21.35 (15.75+5.6)	10.675	10.675	-	-	21.35 (15.75+5.6)
	Construction of pump house, water recharge unit, boundry wall approach road& gate	1.5	0.75	0.75	-	-	1.5
	New OHT 16 nos. @ 1.8 Cr / OHT	28.8	14.4	14.4	-	-	28.8
4	Renovation of existing establishment of water testing lab, Implementation of online water testing & monitoring system	0.15	0.075	0.075	-	-	0.15

Sr. No.	name of Project	Total Project Cost	Share				
			GOI	State	ULB	Others	Total
	Water testing van 2 nos.@ .20 Cr/ van	0.40	0.20	0.20	-	-	0.40
5	Online billing, tracking system & Spot billing machine	1.2	0.6	0.6	-	-	1.2
6	HH water meter connection @ 2000 Rs / 127789HH	25.55	12.75	12.75	-	-	25.55
7	Augmentation of water supply through surface water by surface water from upper Ganga canal approximate 13 km from Aligarh	500	250	250	-	-	500
<b>Total</b>		<b>655.94CR</b>					<b>655.94CR</b>

## ANNUAL FUND SHARING BREAK-UP FOR WATER SUPPLY PROJECTS

(As per Table 2.3.2 of AMRUT guidelines)

Sr. No.	Project	GOI	State			ULB			Convergence	others	Total
			14th FC	Others	Total	14th FC	Others	Total			
1	Identification of illegal connection – 550HH @ 500	50%	-	<b>50%</b>	<b>50%</b>	-	-	-	-	-	100%

Sr. No.	Project	GOI	State			ULB			Convergence	others	Total
			14th FC	Others	Total	14th FC	Others	Total			
	Rs/ HH Expansion of water supply network for HH connection-20655 @ 2125 Expansion of water supply network for HH connection-20655@2000RS										
2	Leakage detection and removal – 300 Km @ 0.025 Cr/ km  200 Km replacement of old pipeline @ 0.30 Cr/ km  Water Supply Zoning of service area @ 0.3 Cr/ zone, Automation of tube well through SCADA	50%	-	50%	50%	-	-	-	-	-	100%
3	Rebore of tubewell-2 @ 0.29 Cr/ tubewell Augmentation of new water production	50%	-	50%	50%	-	-	-	-	-	100%

Sr. No.	Project	GOI	State			ULB			Convergence	others	Total
			14th FC	Others	Total	14th FC	Others	Total			
	<p>system Tubewell- 61 (45+16) @ 0.35 Cr/ tubewell</p> <p>Construction of pump house, water recharge unit, boundary wall approach road &amp; gate</p> <p>New OHT 16 nos. @ 1.8 Cr / OHT</p>										
4	<p>Renovation of existing establishment of water testing lab, Implementation of online water testing &amp; monitoring system</p> <p>Water testing van 2 nos. @ .20 Cr/ van</p>	50%	-	50%	50%	-	-	-	-	-	100%
5	<p>Online billing, tracking system &amp; Spot billing machine</p>	50%	-	50%	50%	-	-	-	-	-	100%
6	<p>HH water meter connection @ 2000 Rs /</p>	50%	-	50%	50%	-	-	-	-	-	100%

Sr. No.	Project	GOI	State			ULB			Convergence	others	Total
			14th FC	Others	Total	14th FC	Others	Total			
	127782HH										
7	Augmentation of water supply through surface water by surface water from upper Ganga canal approximate 13 km from Aligarh	50%	-	50%	50%	-	-	-	-	-	100%

## YEAR WISE PLAN FOR SERVICE LEVELS IMPROVEMENTS

(As per Table 2.5 of AMRUT guidelines)

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				
Identification of illegal connection – 550HH @ 500 Rs/HH	0.027 Cr	100%	35.8%	40	60	80	100	100	100
Expansion of water supply network for HH connection- 20655 @ 2125	4.39 Cr								
Leakage detection and removal – 300	7.5	To make system	21.4	21	20	20	20	20	20

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				
Km @ 0.025 Cr/ km  200 Km replacement of old pipeline @ 0.30 Cr/ km  Water Supply Zoning of service area @ 0.3 Cr/ zone, Automation of tube well through SCADA	60.00  4.5	efficient							
Rebore of tubewell- 2 @ 0.29 Cr/ tubewell  Augmentation of new water production system Tube well- 61 (45+16) @ 0.35 Cr/ tubewell  Construction of pump house, water recharge unit, boundry wall approach road& gate  New OHT 16 nos. @ 1.8 Cr / OHT	0.58  21.35 (15.75+5.6)  1.5  28.8	To increase per capita water supply LPCD	90.18	95	100	120	135	135	135

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				
Renovation of existing establishment of water testing lab, Implementation of online water testing & monitoring system  Water testing van 2 nos. @ .20 Cr/ van	0.15  0.40CR	Improve the water quality of water	88.32	90	95	100	100	100	100
Online billing, tracking system & Spot billing machine	1.2	Efficiency in charges collection	78.3	80	100	100	100	100	100
HH water meter connection @ 2000 Rs /127789 HH	25.55CR	Water meter	0	0	20	30	50	80	100
Augmentation of water supply through surface water by surface water from upper Ganga canal approximate 13 km from Aligarh	500CR	To improve and augmentation of per capita water supply LPCD	90.18	95	100	120	135	135	135



