

NAME OF ULB- UNNAO

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)

Yes Zone wise information is available with Jal Nigam .

ULB LEVEL BASE LINE INFORMATION IS AVAILABLE and detailed project report of UNNAO and shuklaganj water supply scheme through Ganga barrage of Uttar Pradesh jal nigam year 2012-13 .

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 we have collected the information from census 2011 data. As per Census 2011 Unnao have the population of 1.78 Lakhs, House hold 31,042 and out of which 11,330 HH lies within the premises of water supply line and only 10,011 HH have the tapped water supply connection. Yes we have correlated with DPR data and data available with the nagar palika parishad Unnao. As per Municipal record at present 30,298 HH and 9,433 HH with water supply connection. Near the premise HH is 20,865.

What are existing service levels for water supply in the city? What is the coverage of water supply Connections? What is per capita supply of water? How much is

the extent of metering? How much is non-revenue water? Provide information in table

Table: Status of Water Supply service levels

Sr. No.	Indicators	Present Status	MOUD Benchmark	Reliability
1	Coverage of water supply connections 9433 HH/30298HH	31.13%	100%	D
2	Per capita supply of water 18 MLD/0.177	102	135 LPCD	D
3	Extent of metering of water connections	0	100%	A
4	Extent of non-revenue water	29	20%	D
5	Quality of water supplied	97	100%	D
6	Cost recovery in water supply services	59	100%	D
7	Efficiency in collection of water supply related charges	50	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 connection is 68.87%**
- 2. GAP- in per capita supply of water is 33 LPCD.**
- 3. GAP- extent of metering of water connection is 100%**
- 4.GAP- extent of no-revenue water is 9%.**
- 5. GAP- quality of water supplied is 3%**

6. GAP- cost recovery in water supply is 41%.

7. GAP- efficiency in collection of water supply related charges is 40%.

SOURCE OF WATER AND WATER TREATMENT SYSTEM.

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

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

Ground Water -24 Tube wells-Avg. Discharge-0.75 MLD-Total -----18 MLD

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

Treatment of water from these underground sources is done by chlorination. 18 MLD of water is to be treated on daily.

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.?

The Unnao nagar palika parishad has 24 Nos tubewell with total production of 18MLD when devided by total population – 1,77,658 (census 2011) the total LPCD comes out to be 101.69LPCD.

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 ?

Yes Divided in 12+1 Zones FOR WATER SUPPLY .

Table: Zone Wise Coverage of Households

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

Zone No.	Total No. of Households	Households with Water tap Connection	Households without Water tap Connection
1	2035 HH	752 HH	1283 HH
2	3067 HH	889 HH	2178 HH
3	1418 HH	476 HH	942 HH
4	2041 HH	694 HH	1347 HH
5A	3075 HH	1023 HH	2052 HH
5B	3026 HH	832 HH	2194 HH
6	2719 HH	996 HH	1723 HH
7	2092 HH	737 HH	1355 HH
8	2006 HH	566 HH	1440 HH
9	2048 HH	601 HH	1447 HH
10	4002 HH	989 HH	3013 HH
11	704 HH	178 HH	526 HH

Zone No.	Total No. of Households	Households with Water tap Connection	Households without Water tap Connection
12	2065 HH	700 HH	1365 HH
Total	30298HH	9433 HH	20865 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?

Total capacity of existing elevated reservoir is 9 O.H.T – 4725KL(as per Ulb information)

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

No Surface water in the Unnao City, but city is likely to propose surface water from GANGA river.

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

Water being supplied partly through OHT in 13 zones and by direct pumping in 13 zones.

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

No. Required total storage capacity is (17340)KL. Available total storage capacity is (4725) KL short fall is of (12615) KL.

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?

Total length of water supply distribution pipe line in the city is 92.00 Km . This network is old, inadequate and under size. Most of distribution is of 3" size while as per water supply manual minimum recommended size is of 4" dia. At present Ground water is the source of drinking water supply and ground water is contaminated by florid and heavy metals which is not fit for drinking. The existing tube wells cannot be abandon till the potable water supply from surface source is made available. After the potable supply made available the ground water source cab be used other than drinking through existing distribution network.

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?

The total road length in the city is 234.094 Km and only 92 km pipelines laid in the street .No the objective of universal coverage of water supply pipe line is not achieved yet.

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

In the distributors pipelines we use PVC pipe from 110 mm to 165 mm OD and DI K-7 from 200 mm ID to onwards.

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

Table: Zone Wise length of distribution network

Zone No.	Total Street Length	Street length with water distribution pipe line	Street length without water distribution pipe line
Z-1	20.677 KM	8.126Km	12.551Km
Z-2	7.782 km	3.058Km	4.724Km

Zone No.	Total Street Length	Street length with water distribution pipe line	Street length without water distribution pipe line
Z-3	11.741Km	4.614Km	7.127Km
Z-4	5.319Km	2.090Km	3.229Km
Z-5A	19.305Km	7.587Km	11.718Km
Z-5B	22.721Km	8.929Km	13.792Km
Z-6	19.748Km	7.761Km	11.987Km
Z-7	11.103Km	4.363Km	6.740Km
Z-8	15.280Km	6.005Km	9.275Km
Z-9	16.498Km	6.484Km	10.014Km
Z-10	29.466Km	11.580Km	17.886Km
Z-11	26.521Km	10.423Km	16.098Km
Z-12	27.936Km	10.980Km	16.956Km
Total	234.097Km	92.000Km	142.097Km

INSTITUTIONAL FRAMEWORK

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

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

Table: Functions, roles, and responsibilities

Planning and Design	Construction/ Implementation	O&M
U.P. Jal Nigam,	U.P. Jal Nigam/Nagar Palika	Nagar Palika Parishad

Planning and Design	Construction/ Implementation	O&M
Unnao	Parishad Unnao.	Unnao

Question: How city is planning to execute projects ?

Unnao city has been divided into 13 water supply zones depending upon the topography of the city to get economical design of water supply network.

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

Executive Engineer, U.P. Jal Nigam, Unnao will execute the whole project and after trial run, testing commissioning and three month maintenance it will be handed over to Nagar Palika Parishad Unnao for regular operation and maintenance.

2. Bridge the Gap

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

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

Table: Status of Ongoing/ Sanctioned

S.No.	Name of Project	Scheme Name	Cost	Month of Compilation	Status (as on dd mm 2015)
-	No Ongoing project	-	-	-	-

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)

At present available total storage capacity is (5007) KL which will be adjusted against required total storage capacity is (17340)KL Water Supply is being provided by 24 nos (Unnao) tube wells most of tube wells completing their life and also ground water depleting at the rate of 1.0m per year. Till these tube wells are discharging will be used. Because ground water is contaminated by fluoride and heavy metals so source of water has been switched over from tube well to surface source (Ganga barrage is the assured source of water supply).

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

Yes, City requires new infrastructure of water supply. Source of water supply is being switched over from ground water to surface source. Raw water will be pumped from left bank of Ganga barrage to Shuklaganj where it will be treated in water treatment plant and treated water will be supplied through feeder main to zonal reservoir of Unnao city. This will provide assured potable water to household.

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 considered in DPR.

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

Proposed Tariff & Revenue Generation is based on telescopic basis considering that 80% population will pay water charges at the initial stage 90% population will pay at middle stage and 100% population will pay the water charges at the ultimate stage with the provision that those who consume more water will pay more at higher rate compared to those who consume less water and pay lesser at subsidized rates.

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 augmentation (T.W)	18 MLD	18 MLD	18 MLD	36 MLD	18 MLD
Treatment capacity	18 MLD	18 MLD	18 MLD	36 MLD	18 MLD
Elevated Storage capacity As per 2015	4.725 MLD (9 O.H.T)	NIL	4.725MLD	12-15 MLD (18 O.H.T)	7.25 MLD
Distribution network coverage	92Km	-	92Km	234 Km	142 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.

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?

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

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

Yes, each objectives meets the opportunity to bridge the gap.

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

Objectives	Activities to be performed to bridge the gap	Financing Source
	100% IMPLEMENTATION OF METERING .	AMRUT/State/ULB
	AUTOMISATION OF TUBE WELL THOROUGH SCADA	AMRUT/State/ULB
TO INCREASE PER CAPITA SUPPLY (LPCD)		
	REBORE TUBE WELLS	AMRUT/State/ULB
	AUGMENTATION OF NEW WATER PRODUCTION SYSTEMS (TUBE WELL)	AMRUT/State/ULB
	REHABILITATION OF EXISTING OVER HEAD TANKS	AMRUT/State/ULB
	REHABILITATION OF EXISTING ZPS & CWR FOR ONLY SURFACE WATER SUPPLY	AMRUT/State/ULB
	ENHANCEMENT IN EFFICIENCY OF EXISTING WATER WORKS	AMRUT/State/ULB
	NEW OVER HEAD WATER TANKS (O.H.T) 1850 KL	AMRUT/State/ULB
	NEW ZPS & CWR	AMRUT/State/ULB
	AUGMENTATION OF NEW WATER WORKS	AMRUT/State/ULB
TO IMPROVE THE QUALITY OF WATER		
	ESTABLISHMENT/REHAB OF WATER TESTING LAB	AMRUT/State/ULB
	IMPLEMENTATION OF ONLINE WATER TESTING & MONITORING SYSTEMS	AMRUT/State/ULB
	WATER TESTING Vans	AMRUT/State/ULB
TO MAKE SYSTEM		

Objectives	Activities to be performed to bridge the gap	Financing Source
ENERGY EFFICIENT		
	REPLACEMENT OF INEFFICIENT PUMPS.	AMRUT/State/ULB
TO REHABILITATE WATER BODIES	REHABILITATION OF EXISTING WATER SOURCES (SURFACE SUBSURFACE)	AMRUT/State/ULB
	RESTORATION OF WATER BODIES (LAKE,PONDS,TALABS)	AMRUT/State/ULB
EFFICIENCY IN CHARGES COLLECTION		
	ONLINE BILLING , TRACKING SYSTEM & SPOT BILLING MACHINE	AMRUT/State/ULB/PPP
	REHABILITATION AND EXPANSION OF PAYMENT COLLECTION CENTER	AMRUT/State/ULB/ppp

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)

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)

Not applicable.

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

Not applicable.

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

Not applicable.

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

Annual expenditure (Rs. in lacs) for year 2018 - 463.83 for year 2033 - 890.02 for year 2048 - 1995.25 Annual income (Rs. in lacs) for year 2018 - 416.52 for year 2033 - 994.95 for year 2048 - 2232.82 Annual profit (Rs. in lacs) for year 2018 - - 47.32 for year 2033 - 104.93 for year 2048 - 269.57

Question: Will metering system for billing introduced?

Yes, metering system will be introduced.

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, AUTOMISATION OF TUBE WELL .

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

Yes. These option s will be explored while framing the DPR

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

Table: Alternative Activities To Meet Objectives

Objectives	Activities to be performed to bridge the gap	Financing Source
TO ACHIEVE UNIVERSAL COVERAGE	INCREASE HOUSE HOLD CONNECTIONS AUTHORISED OF ILLEGAL CONNECTIONS AND UPTAPPED/SUBMERSIBLE HOUSE HOLD ETC-AMRUT	AMRUT
	GAP IN EXISTING WATER SUPPLY NETWORK WITH HOUSEHOLD CONNECTIONS	AMRUT/State /ULB
	EXPANSION OF WATER SUPPLY DISTRIBUTION NETWORK WITH HOUSEHOLD CONNECTION IN UNCOVERED POCKETS	AMRUT/State /ULB
TO MAKE SYSTEM EFFICIENT BY NRW REDUCTION		
	LEAKAGE DETECTION AND ITS REMOVAL	AMRUT/State /ULB
	REPLACEMENT OF OLD LINES (DAMAGED,LEAKED, DEFUNGED, CHOCKED,SLUICE VALVE ETC) WITH HOUSE HOLD CONNECTION	AMRUT/State /ULB
	WATER SUPPLY ZONING OF SERVICE AREA .	AMRUT/State /ULB
	100% IMPLEMENTATION OF METERING .	AMRUT/State /ULB
	AUTOMISATION OF TUBE WELL THOROUGH SCADA	AMRUT/State /ULB

Objectives	Activities to be performed to bridge the gap	Financing Source
TO INCREASE PER CAPITA SUPPLY (LPCD)		
	REBORE TUBE WELLS	AMRUT/State /ULB
	AUGMENTATION OF NEW WATER PRODUCTION SYSTEMS (TUBE WELL)	AMRUT/State /ULB
	REHABILITATION OF EXISTING OVER HEAD TANKS	AMRUT/State /ULB
	REHABILITATION OF EXISTING ZPS & CWR FOR ONLY SURFACE WATER SUPPLY	AMRUT/State /ULB
	ENHANCEMENT IN EFFICIENCY OF EXISTING WATER WORKS	AMRUT/State /ULB
	NEW OVER HEAD WATER TANKS (O.H.T) 1850 KL	AMRUT/State /ULB
	NEW ZPS & CWR	AMRUT/State /ULB
	AUGMENTATION OF NEW WATER WORKS	AMRUT/State /ULB
TO IMPROVE THE QUALITY OF WATER		
	ESTABLISHMENT/REHAB OF WATER TESTING LAB	AMRUT/State /ULB
	IMPLEMENTATION OF ONLINE WATER TESTING & MONITORING SYSTEMS	AMRUT/State /ULB
	WATER TESTING Vans	AMRUT/State /ULB
TO MAKE SYSTEM ENERGY EFFICIENT		
	REPLACEMENT OF INEFFICIENT PUMPS.	AMRUT/State /ULB
TO REHABILITATE WATER	REHABILITATION OF EXISTING WATER SOURCES	AMRUT/State

Objectives	Activities to be performed to bridge the gap	Financing Source
BODIES	(SURFACE SUBSURFACE)	/ULB
	RESTORATION OF WATER BODIES (LAKE,PONDS,TALABS)	AMRUT/State /ULB
EFFICIENCY IN CHARGES COLLECTION		
	ONLINE BILLING , TRACKING SYSTEM & SPOT BILLING MACHINE	AMRUT/State /ULB/PPP
	REHABILITATION AND EXPANSION OF PAYMENT COLLECTION CENTER	AMRUT/State /ULB/ppp

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, all stakeholders will be involved through consultation.

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

Yes. ward and/ zone level consultation will be held

Question: Has alternative proposed above are crowd sourced?

No,

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

Switch over from ground water to surface source.

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

Yes.

Question: What methodology adopted for prioritizing the alternatives?

Not applicable.

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?

GOI, State Govt. & ULB.

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

No ongoing project

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

No.

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

yes.

6. Conditionalities

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

Land for water treatment plant and Zonal pumping stations are made available by Nagar Palika Unnao . To improve the environmental condition of the city the project has been prepared. Nagar Palika Unnao has committed for their financial part. Technical approval will be provided by the competent authority.

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.

Resilience factor will be built in the project components.

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 AMRUT guide lines finance plan is structured for transforming and creating infrastructure projects.

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

1. GOI 2. State Government. 3. ULB

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

Yes.

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 consideration.

Question: Have the financial assumptions been listed out ?

Yes.

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

Yes.

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

Yes.

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

Not applicable.

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

Yes it provide year-wise milestones and outcomes.

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)

Sr. No.	Project Name	Priority number	Year in which to be implemented	Year in which proposed to be completed	Estimated Cost
1	INCREASE HOUSE HOLD CONNECTIONS AUTHORISED OF ILLEGAL CONNECTIONS AND UPTAPPED/SUBMERSIBLE HOUSE HOLD ETC	1	2015	2016	1.00 Cr
2	GAP IN EXISTING WATER SUPPLY NETWORK WITH HOUSEHOLD CONNECTIONS	2	2015	2017	4.40 Cr

3	EXPANSION OF WATER SUPPLY DISTRIBUTION NETWORK WITH HOUSEHOLD CONNECTION IN UNCOVERED POCKETS	3	2015	2018	42.60 Cr
4	LEAKAGE DETECTION AND ITS REMOVAL	4	2015	2017	1.00 Cr
5	REPLACEMENT OF OLD LINES (DAMAGED,LEAKED, DEFUNGED,	5	2016	2018	8.00 Cr
6	AUTOMISATION OF TUBE WELL THOROUGH SCADA	6	2016	2017	4.00 Cr
7	WATER SUPPLY ZONING OF SERVICE AREA	7	2016	2019	6.00 Cr
8	REBORE TUBE WELLS	8	2016	2018	3.00 Cr
9	AUGMENTATION OF NEW WATER PRODUCTION SYSTEMS (TUBE WELL)	9	2016	2018	4.00 Cr
10	REHABILITATION OF EXISTING OVER HEAD TANKS	10	2016	2018	2.00 Cr
11	REHABILITATION OF EXISTING ZPS & CWR FOR ONLY SURFACE WATER SUPPLY	11	2016	2018	2.00 Cr
12	ENHANCEMENT IN EFFICIENCY OF EXISTING WATER WORKS	12	2016	2018	10.00 Cr

13	NEW OVER HEAD WATER TANKS (O.H.T) 1850 KL	13	2016	2019	7.00 Cr
14	NEW ZPS & CWR	14	2016	2019	10.00 Cr
15	AUGMENTATION OF NEW WATER WORKS	15	2016	2021	50.00 Cr
16	ESTABLISHMENT/REHAB OF WATER TESTING LAB	16	2016	2017	2.00 Cr
17	IMPLEMENTATION OF ONLINE WATER TESTING & MONITORING SYSTEMS	17	2016	2017	1.00 Cr
18	WATER TESTING Vans	18	2016	2016	0.50 Cr
19	REPLACEMENT OF INEFFICIENT PUMPS.	19	2016	2017	1.00 Cr
20	REHABILITATION OF EXISTING WATER SOURCES (SURFACE SUBSURFACE)	20	2016	2018	6.00 Cr
21	RESTORATION OF WATER BODIES (LAKE,PONDS,TALABS)	21	2016	2018	6.00 Cr
22	ONLINE BILLING , TRACKING SYSTEM & SPOT BILLING MACHINE	22	2016	2017	1.00 Cr

23	REHABILITATION AND EXPANSION OF PAYMENT COLLECTION CENTER	23	2016	2018	0.50 Cr
24	100% IMPLEMENTATION OF METERING.	24	2016	2020	20.00 Cr
	Total project cost				193 cr

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	Unnao water supply through Ganga Barrage.	Distribution of pipeline/Rising main from CWR to OHT and by pass	coverage of water supply	92km	260 km	50.4 Cr
2		reinstatement of Road cutting	-	-	800 mm to 150 mm dia 20.384 km.	20.00 Cr
3		RCC Over Head Tanks	coverage	5007KL	14190 KL capacity	17.59Cr
4		Boundry wall, approach road &	-	-	1378 m	1.10 Cr

Sr. No.	Project Name	Physical Components	Change in Service Levels			Estimated Cost
			Indicator	Existing (As-Is)	After (To-be)	
		gate etc.				
5		Site development	-	-		1.00 Cr
6		Cost Building Work				10.08 Cr
7		Specials T&P	-	-	1- set	0.61Cr
8		Leak detection	-	-	1- set	2.29Cr
9		Estimate of three month maintenance	-	-	Job	1.40Cr
		Sub total Civil works				104.47cr
B		E&M works				
1		Pumping plants	coverage	24	clear water & zonal PP	4.80 Cr
2		Sub stations and campus lighting .	-	-	clear water & sub station	2.00 Cr
		Sub total E&M works				6.80 Cr
C		Power connection and transmission line	-	-	UP-PCL	8.80Cr

Sr. No.	Project Name	Physical Components	Change in Service Levels			Estimated Cost
			Indicator	Existing (As-Is)	After (To-be)	
						193 cr = 120.07 Cr +other components

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	INCREASE HOUSE HOLD	1.00cr	50%	50%	-	-	1.00cr

Sr. No.	name of Project	Total Project Cost	Share				
			GOI	State	ULB	Others	Total
	CONNECTIONS AUTHORISED OF ILLEGAL CONNECTIONS AND UPTAPPED/SUBMERSIBLE HOUSE HOLD ETC						
2	GAP IN EXISTING WATER SUPPLY NETWORK WITH HOUSEHOLD CONNECTIONS	4.40cr	50%	50%			4.40cr
3	EXPANSION OF WATER SUPPLY DISTRIBUTION NETWORK WITH HOUSEHOLD CONNECTION IN UNCOVERED POCKETS	42.60 cr	50%	50%			42.60 cr
4	REBORE TUBE WELLS	3.00 cr	50%	50%			3.00 cr

Sr. No.	name of Project	Total Project Cost	Share				
			GOI	State	ULB	Others	Total
5	AUGMENTATION OF NEW WATER PRODUCTION SYSTEMS (TUBE WELL)	4.00 cr	50%	50%			4.00 cr
6	NEW OVER HEAD WATER TANKS (O.H.T) 1850 KL	7.00 cr	50%	50%			7.00 cr
7	NEW ZPS & CWR	10.00 cr	50%	50%			10.00 cr
8	AUGMENTATION OF NEW WATER WORKS	50.00 cr	50%	50%			50.00 cr
9	REHABILITATION OF EXISTING OVER HEAD TANKS	2.00 cr	50%	50%			2.00 cr
10	REHABILITATION OF EXISTING ZPS & CWR FOR ONLY SURFACE WATER SUPPLY	2.00 cr	50%	50%			2.00 cr
11	ENHANCEMENT IN EFFICIENCY OF EXISTING WATER WORKS	10.00 cr	50%	50%			10.00 cr
12	LEAKAGE DETECTION AND ITS REMOVAL	1.00 cr	50%	50%			1.00 cr

Sr. No.	name of Project	Total Project Cost	Share				
			GOI	State	ULB	Others	Total
13	REPLACEMENT OF OLD LINES (DAMAGED,LEAKED, DEFUNGED, CHOCKED,SLUICE VALVE ETC) WITH HOUSE HOLD CONNECTION	8.00 cr	50%	50%			8.00 cr
14	AUTOMISATION OF TUBE WELL THOROUGH SCADA	4.00 cr	50%	50%			4.00 cr
15	WATER SUPPLY ZONING OF SERVICE AREA	6.00 cr	50%	50%			6.00 cr
16	ESTABLISHMENT/REHAB OF WATER TESTING LAB	2.00 cr	50%	50%			2.00 cr
17	IMPLEMENTATION OF ONLINE WATER TESTING & MONITORING SYSTEMS	1.00 cr	50%	50%			1.00 cr
18	WATER TESTING Vans	0.50 cr	50%	50%			0.50 cr

Sr. No.	name of Project	Total Project Cost	Share				
			GOI	State	ULB	Others	Total
19	REPLACEMENT OF INEFFICIENT PUMPS.	1.00 cr	50%	50%			1.00 cr
20	REHABILITATION OF EXISTING WATER SOURCES (SURFACE SUBSURFACE)	6.00 cr	50%	50%			6.00 cr
21	RESTORATION OF WATER BODIES (LAKE,PONDS,TALABS)	6.00 cr	50%	50%			6.00 cr
22	ONLINE BILLING , TRACKING SYSTEM & SPOT BILLING MACHINE	1.00 cr	50%	50%			1.00 cr
23	REHABILITATION AND EXPANSION OF PAYMENT COLLECTION CENTER	0.50 cr	50%	50%			0.50 cr
24	100% IMPLEMENTATION OF METERING.	20.00 cr	50%	50%			20.00 cr
	Total Project cost	193 Cr	95.5 Cr	95.5 Cr			193 Cr

Sr · N o.	Project	GOI	State			ULB			Conve rgence	oth ers	Total
			14 th F C	Othe rs	Tot al	14 th F C	Oth ers	Tot al			
	ZONING OF SERVICE AREA	Cr		Cr							
14	REBORE TUBE WELLS	1.50 Cr		1.50 Cr						3.00 cr	
15	AUGMENTATIO N OF NEW WATER WORKS	25.0 0 Cr		25.0 0 Cr						50.00 cr	
16	ESTABLISHMEN T/REHAB OF WATER TESTING LAB	1.00 Cr		1.00 Cr						2.00 cr	
17	IMPLEMENTATI ON OF ONLINE WATER TESTING & MONITORING SYSTEMS	0.50 Cr		0.50 Cr						1.00 cr	
18	WATER TESTING Vans	0.25 Cr		0.25 Cr						0.50 cr	
19	REPLACEMENT OF INEFFICIENT PUMPS.	0.50 Cr		0.50 Cr						1.00 cr	

Sr · N o.	Project	GOI	State			ULB			Conve rgence	oth ers	Total
			14 th F C	Othe rs	Tot al	14 th F C	Oth ers	Tot al			
	METERING.										
	Total Project cost in Cr.	96.5 0 Cr		96.5 0 Cr							193.00 Cr

YEAR WISE PLAN FOR SERVICE LEVELS IMPROVEMENTS

(As per Table 2.5of AMRUT guidelines)

Proposed Projects	Project Cost	Indicator	Base line	Annual Targets (Incremet from the Baseline Value)					
				FY 2016		FY 201 7	FY 201 8	FY 201 9	FY 202 0
				H 1	H2				

Proposed Projects	Project Cost	Indicator	Base line	Annual Targets (Increment from the Baseline Value)					
				FY 2016		FY 2017	FY 2018	FY 2019	FY 2020
				H 1	H2				
INCREASE HOUSE HOLD CONNECTIONS AUTHORISED OF ILLEGAL CONNECTIONS AND UPTAPPED/SUB MERSIBLE HOUSE HOLD ETC	1.00 cr	Coverage of Water supply connection	32.24	-	50	75	100		
GAP IN EXISTING WATER SUPPLY NETWORK WITH HOUSEHOLD CONNECTIONS	4.40 cr	Coverage of Water supply connection	32.24	-	35	45	60	80	100
EXPANSION OF WATER SUPPLY DISTRIBUTION NETWORK WITH HOUSEHOLD CONNECTION IN UNCOVERED POCKETS	42.60 cr	Coverage of Water supply connection	32.24	-	35	45	60	80	100
REBORE TUBE	3.00	Per capita water	109	-	11	120	130	135	

Proposed Projects	Project Cost	Indicator	Base line	Annual Targets (Increment from the Baseline Value)						
				FY 2016		FY 2017	FY 2018	FY 2019	FY 2020	
				H 1	H2					
WELLS	cr	supply			2					
AUGMENTATION OF NEW WATER PRODUCTION SYSTEMS (TUBE WELL)	4 cr	Per capita water supply	109	-	112	119	125	130	135	135
REHABILITATION OF EXISTING OVER HEAD TANKS	2 cr	Per capita water supply	109	-	112	119	135	130	135	135
REHABILITATION OF EXISTING ZPS & CWR FOR ONLY SURFACE WATER SUPPLY	2 cr	Per capita water supply	109	-	112	119	135	130	135	135
ENHANCEMENT IN EFFICIENCY OF EXISTING WATER WORKS	10 cr	Per capita water supply(LPCD)	109	-	120	135		130	135	135
NEW OVER HEAD WATER TANKS (O.H.T) 1850 KL	7 cr	Per capita water supply	109	-	112	119	125	130	135	135

Proposed Projects	Project Cost	Indicator	Base line	Annual Targets (Increment from the Baseline Value)						
				FY 2016		FY 2017	FY 2018	FY 2019	FY 2020	
				H 1	H2					
NEW ZPS & CWR	10cr	Per capita water supply	109	-	112	119	125	130	135	
AUGMENTATION OF NEW WATER WORKS	50 cr	Per capita water supply	109	-	112	119	125	130	135	
LEAKAGE DETECTION AND ITS REMOVAL	1.00 cr	Extent of non revenue water	29	-	27	20	-	-	-	
REPLACEMENT OF OLD LINES (DAMAGED,LEAKED, DEFUNGED, CHOCKED,SLUICE VALVE ETC) WITH HOUSE HOLD CONNECTION	8.00 cr	Extent of non revenue water	29	-	20			-	-	
AUTOMISATION OF TUBE WELL THOROUGH SCADA	4.00 cr	Extent of non revenue water	29	-	25	20	-	-	-	
WATER SUPPLY ZONING OF SERVICE AREA	6.00 cr	Extent of non revenue water	29	-	27	25	23	20	-	

Proposed Projects	Project Cost	Indicator	Base line	Annual Targets (Increment from the Baseline Value)					
				FY 2016		FY 2017	FY 2018	FY 2019	FY 2020
				H 1	H2				
ESTABLISHMENT /REHAB OF WATER TESTING LAB	2cr	Quality of water supplied	97	-	98	100			
IMPLEMENTATION OF ONLINE WATER TESTING & MONITORING SYSTEMS	1cr	Quality of water supplied	97	-	98	100			
WATER TESTING Vans	.5 cr	Quality of water supplied	97	-	98	100			
REPLACEMENT OF INEFFICIENT PUMPS.	1cr	LPCD	59	-	65	75	85	95	100
REHABILITATION OF EXISTING WATER SOURCES (SURFACE SUBSURFACE)	6cr	LPCD	59	-	65	75	85	95	100
RESTORATION OF WATER	6.00 cr	Cost recovery of water supply services	59	-	65	75	85	95	100

Proposed Projects	Project Cost	Indicator	Base line	Annual Targets (Increment from the Baseline Value)						
				FY 2016		FY 2017	FY 2018	FY 2019	FY 2020	
				H 1	H2					
BODIES (LAKE,PONDS,TALABS)										
ONLINE BILLING , TRACKING SYSTEM & SPOT BILLING MACHINE	1.00 cr	Efficiency in collection of water supply.	50	-	55	65	75	82	100	
REHABILITATION AND EXPANSION OF PAYMENT COLLECTION CENTER	0.50 cr	Efficiency in collection of water supply.	50	-	55	65	75	82	100	
100% IMPLEMENTATION OF METERING.	20.00 cr	Extent of metering of water connection	0	-	10	25	40	75	100	