

NAME OF ULB- RAIBARELLY

Water Supply - Raibareilly

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 with Raibareilly Development Authority , DPR of Raebareilly Reorganization Water Supply Scheme Year 2012-2013 (under UIDSSMT Program with UP Jal Nigam and no. water supply connection is available with Nagar Palika for the baseline information.

Zone wise detailed Information is available.

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

Yes we have collected census 2011 data and as per the census data shown below. Yes we have correlated data from DPR and census 2011.

Area Name	Source Of Information	Location of source of drinking water	Total Number of Households	Tapwater from treated source	
Rae Bareilly (NPP)	As per census 2011 available	Total Population = 191316			
		Total Households	33,957	12,418	
		Within the premises	22,700	10,984	
		Near the premises	9,256	1,253	
		Away	2,001	181	
	Departmental Data of NPP RBL	Total Population(2015) 206300			
		Total Households	40384	19445	

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 19445/40384	48%	100%	D
2	Per capita supply of water with NRW 13.58/0.206	66 LPCD	135 LPCD	D
3	Extent of metering of water connections	0%	100%	A
4	Extent of non-revenue water	42%	20%	D
5	Quality of water supplied	90%	100%	D
6	Cost recovery in water supply services	44%	100%	D
7	Efficiency in collection of water supply related charges	58%	90%	D

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

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

1. Gap in coverage of water supply is 52 %
2. Gap in Per capita water availability is about 69 LPCD.
3. Gap in Metering is 100%.
4. NRW gap is about 22% which include leakage and free water supply to social gathering festivals along with water supply through stand posts.
5. 10% gap in Quality of supplied water as per PHE norms.
6. Gap in Cost recovery is 56% with expenditure on electricity and power.
7. Gap in efficiency of water charges/tax collection is about 42%.

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? 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? 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.?

Underground Water -25 Tube wells-Avg. Discharge-0.54 MLD-Total -----13.58 MLD

1- Yes for underground water chlorination is being done.

Per Capita water supply= $13.58/.206=66$ LPCD with NRW.

DISTRIBUTION ZONES

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

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

Yes City is Divided in 20 Zones.

Table: Zone Wise Coverage of Households

Table:102 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 (a)	Households with direct Water supply connection (b)	Households without direct Water supply connection
1	2947 HH	1005 HH	1942 HH
2	3013 HH	2015 HH	998 HH
3	2023 HH	1495 HH	528 HH
4	2082 HH	1116 HH	966 HH
5	3104 HH	1503 HH	1601 HH
6	3367 HH	1988 HH	1379 HH

Zone No.	Total No. of Households (a)	Households with direct Water supply connection (b)	Households without direct Water supply connection
7	1007 HH	119 HH	888 HH
8	1028 HH	898 HH	130 HH
9	2551 HH	1595 HH	956 HH
10	890 HH	315 HH	575 HH
11	783 HH	637 HH	146 HH
12	1812 HH	1589 HH	223 HH
13	1613 HH	903 HH	710 HH
14	2500 HH	1612 HH	888 HH
15	1671 HH	1102 HH	569 HH
16	2585 HH	403 HH	2182 HH
17	1136 HH	0 HH	1136 HH
18	1273 HH	635 HH	638 HH
19	2302 HH	515 HH	1787 HH
20	2697 HH	0 HH	2697 HH
Total	40384HH	19445HH	20939HH

STORAGE OF WATER

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

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

Total Water Storage Capacity- 10.05 ML

Elevated Water Reservoirs-----11 Nos-----capacity-----10.05 ML

Question: 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.

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

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

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

Present OHT Capacity---10.05 ML

Required Capacity---- $0.2068 \times 135 = 27.92 \text{ MLD} \times 0.3 = 8.375 \text{ ML}$

Formula Applied- Population in 2015*LPCD=MLD*Storage(30% of the total Quantity)

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-----225 KM

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

Total road Length-----364 KM.

No, 139 KM streets are not having pipelines in the city.

No, the objective of universal coverage of water supply pipe line is not achieved.

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

DI and HDPE Pipe materials are being used.

Table: Zone Wise length of distribution network

Zone No.	Total Street Length in km	Street length with water distribution pipe line in km	Street length without water distribution pipe line in km
1	18.54 KM	16.686 KM	1.854 KM
2	12.245 KM	10.898 KM	1.347 KM
3	17.754 KM	14.204 KM	3.55 KM
4	15.729 KM	12.583 KM	3.146 KM
5	32.313 KM	25.85 KM	6.463 KM
6	17.306 KM	15.489 KM	1.817 KM
7	12.376 KM	10.953 KM	1.423 KM
8	7.283 KM	6.445 KM	0.838 KM
9	28.064KM	22.451 KM	5.613 KM
10	12.76 KM	10.336 KM	2.424 KM
11	14.239 KM	12.957 KM	1.282 KM
12	16.49 KM	14.924 KM	1.566 KM
13	17.397KM	8.873 KM	8.524 KM
14	25.017 KM	12.509 KM	12.508 KM
15	23.997 KM	11.759 KM	12.238 KM
16	15.136 KM	0 KM	15.136 KM
17	13.376	0	13.376 KM
18	22.025	10.792	11.233 KM
19	15.172	7.738	7.434 KM
20	27.497	0	27.497KM
Total Sum	364.72 Km	225.45 Km	139.26 Km

COVERAGE OF WATER SUPPLY= 225.45/364.72*100=61.8%

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
UP jal Nigam & ULB	UP jal Nigam & ULB	ULB

Question: How city is planning to execute projects ?

Capital projects will be executed by UP Jal Nigam and Nagar Palika will execute the small projects like branch lines, gaps in pipelines.

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

Implementation of the project shall be done by Nagar Palika Parishad as well as State Level Parastatal Agency U.P. Jal Nigam. Nagar Palika Parishad Raebareli will follow the para 8.1 of the AMRUT Guidelines while execution of the project.

2. Bridge the Gap

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

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

S.No.	Name of Project	Scheme Name	Total Cost	Month of Compilation	Status (as on dd mm 2015)
1	Reorganisation Of water Supply Scheme, Raebareli	JnNurm(UIDSSMT)	106.19 cr	31.12.2016	60% complete.(as on Date 30 th Sept 2015)

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

Existing system is not sufficient to meet the gap in water supply system

Ongoing projects Include

- 1- Distribution networks of 364.72 km (Replacement of old lines 225.72 km and laying of new lines of 139 km in uncovered area).
- 2- Total 9 OHT with total capacity 7.8ML
- 3- New Tube wells- 17
- 4- Tube wells Rebore- 17
- 5- 4 CWR
- 6- Pump House- 18
- 7- Pump Plants- 34
- 8- 21 Chlorination Plant
- 9- Domestic House Connections
- 10- Repair of existing 11 OHT, 18 PH
- 11- Upgradation of water testing lab
- 12- 100% Metering

Completion of above project will complete the coverage of network and collection efficiency.

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

No, the city will not require additional infrastructure to improve the services after fully completion of above project.

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 the city visualize to take the challenge to rejuvenate the projects through computer billing and spot billing.

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

No, NRW Level 42%. Yes city is planning to reduce NRW in AMRUT.

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	13.58 MLD	32 MLD	45.58 MLD	32 MLD	0
Treatment capacity (Only Chlorination)	12.2 MLD	33.38 MLD	45.58 MLD	32 MLD	0
Elevated Storage capacity	10.05 ML	7.8 ML	17.85 ML	11 ML	0
Distribution network coverage	225 km	139 km (New Lines) + 225.72 (Replacement of old lines)	364.72 km	364.72	0

OBJECTIVES

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

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

After completion of the ongoing projects Universal coverage, per capita water supply and NRW will be achieved.

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

Completion of ongoing project will fill the gap.

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

Completion of incomplet project.

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)

As ongoing project was sanctioned under JNNURM(UIDSSMT) and progress of the project is more than 50% .The further funding of the activities of this project will be done from AMRUTYojana. State Govt. and ULB will also provide funding to complete the project.

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

There is no other programme running in the city with respect to water supply.

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

As ongoing project was sanctioned under JNNURM(UIDSSMT) and progress of the project is more than 50%.All the activities of the ongoing project will be completed through funding from AMRUTYojana.

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

Under the UIDSSMT approved scheme total no. of 17 new tube wells and 17 rebore, 16.77km rising main, 364.72km ,9 OHT, 4 CWR, 18 Pump House, 34 Pumping plants and 21 chlorinating plants, 34 power connections , 5 staff quarters, 1970 meter of boundary wall, repair of existing Overhead tanks and 33440 domestic connections and upgradation of the testing labs was planned out of which 17 new tube wells, 16 rebore tube wells, 5.60km of rising main, 210 km distribution system, 5 OHT(90% completed) and 2 OHT.This is approved

scheme of UIDSSMT and only bottleneck is non availability of fund.

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

Domestic Household connections will be done and regularize during replacement and laying of new pipelines so that water charges can be recovered from the users and reduction of NRW to reduce the O&M cost.

Question: Will metering system for billing introduced?

Yes, provision of 100% metering has been taken in the ongoing project.

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

Yes we are replacing the old lines completely which will reduce losses and leakages of water. We are giving 100% domestic connections with meter to recover the water cost.

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

Yes.

THE ALTERNATIVE ACTIVITIES TO MEET THESE OBJECTIVES

Table: Alternative Activities To Meet Objectives

Sr. No.	Objective	Activities	Financing Source
1	To complete the on going project	Distribution networks of 364.72 km (Replacement of old lines 225.72 km and laying of new lines of 139 km in uncovered area).	AMRUT/State/ULB
		Energization of 33 tube wells.	
		Completion of Rising Main	
		Completion of CWR	
		Completion of sanctioned 9 OHT	
		Pump Station	
		Completion of 21 Chlorination Plant	
		Domestic House Connections	
		9- Repair of existing OHT, PH	
		10-Upgradation of water testing lab.	
		11-Metering.	

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 is being involved in the consultation.

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

Yes, ward/ zone level consultations are being held in the city. In the board meeting held on 9th Sept 2015.

Question: Has alternative proposed above are crowd sourced?

No

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

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

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

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

Question: What methodology adopted for prioritizing the alternatives?

Alternatives have been prioritized based on demand raised through consultation with citizens, officials and parastatal agencies.

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?

AMRUT/GOI/State government/ULB.

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

There is no program and scheme is running in the city.

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

Yes, the projects been prioritized based on “more with less” approach.

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

Yes, the 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.

All the projects are ongoing projects which was approved under the UDISSMT Scheme therefore already all the formalities have been completed.

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.

Project is already approved under UDISSMT Scheme and all the disaster factors have already been considered under the approved 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

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

Under the proposed scheme 50% fund from GOI and remaining 50% fund from State and ULB .

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

Re-organisation of water supply, Raebareli under UDISSMT scheme. This was financed by GOI ,State and ULB

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

Yes, financial plan prepared for identified projects after consultation with State Govt. and ULB

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

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

Question: Have the financial assumptions been listed out ?

Yes, financial assumptions have been listed out.

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

Yes, financial plan has been done for the complete life cycle of the prioritized development.

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

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

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

There is no other project in the city.

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

Yes, it provides 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 2.1of 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	To complete the on going project Re-organisation of water supply, Raebareli.(Completion of Ongoing project)	1	2016	2017	53.0923cr

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)	

Sr. No.	Project Name	Physical Components	Change in Service Levels			Estimated Cost
			Indicator	Existing (As-Is)	After (To-be)	
1	To complete the on going project Re-organisation of water supply, Raebareli. (Completion of Ongoing project)	16.77km of Laying of pipelines, 4 Reservoir, 9 OHT, Laying Of 364.72 km Of pipelines, pumping plants- 34, 21 Chlorination Plant, Domestic Connections, Repair Of OHT- 29, Lab, Meter.	Coverage of water supply connections	48%	100%	53.0923 cr
			Per capita supply of water with NRW	66 LPCD	135 LPCD	
			Extent of metering of water connections	0%	100%	
			Extent of non-revenue water	42%	20%	
			Quality of water supplied	90%	100%	
			Cost recovery in water supply services	44%	100%	
			Efficiency in collection of water supply related charges	58%	90%	

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	To complete the ongoing project Re-organisation of water supply, Raebareli. (Completion of Ongoing project)	53.0923 cr	50%	50%			53.0923 cr

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	To complete the ongoing project Re-organisation of water supply, Raebareli. (Completion	26.54615 cr		26.54615 cr	26.54615 cr						53.0923 cr

Sr. No.	Project	GOI	State			ULB			Convergence	Others	Total
			14th FC	Others	Total	14th FC	Others	Total			
	of Ongoing project)										

YEAR WISE PLAN FOR SERVICE LEVELS IMPROVEMENTS

(As per Table 2.5 of AMRUT guidelines)

Proposed Projects	Project Cost (in cr)	Indicator	Baseline	Annual Targets (Increment from the Baseline Value)					
				FY 2016		FY 2017	FY 2018	FY 2019	FY 2020
				H1	H2				
To complete the ongoing project Re-organization of water supply, Raebareli. (Completion of Ongoing project)	53.0923 cr	Coverage of water supply connections	48%		60%	100%			
		Per capita supply of water with NRW	66 LPCD		125 LPCD	135 LPCD			
		Extent of metering of water connections	0%		80%	100%			
		Extent of non-revenue water	42%		32%	20%			
		Quality of water supplied	90%		95%	100%			

Proposed Projects	Project Cost (in cr)	Indicator	Baseline	Annual Targets (Increment from the Baseline Value)					
				FY 2016		FY 2017	FY 2018	FY 2019	FY 2020
				H1	H2				
		Cost recovery in water supply services	44%		70%	100%			
		Efficiency in collection of water supply related charges	58%		70%	90%			