NAME OF ULB - BALLIA

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 with regulatory authority, DPR of water supply system is available with U.P.JAL NIGAM. The DPR consist reorganization of existing water supply system with reference to water supply production, treatment and distribution of water supply lines and zones has been divided into 3 zonal area for water supply.

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 Palika Parishad Ballia and the source is NIC. Nagar PalikaParishd 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	Tap water from treated source
Total Population (Census, 2011)	**104424**		
	Total	**15901**	**7027**
	Within the premises	**13302**	**6304**
	Near the premises	**2004**	**637**
	Away	**595**	**86**
Departmental Data (2015)	**104424**	**18718**	**4783 ***

*As per the ULBs data and number of actual existing connection.

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 (4783/18718)	25.55%	100%	D
2	Per capita supply of water (14.4 MLD/0.104)	138 LPCD	135 LPCD	D
3	Extent of metering of water connections	0 %	100%	A
4	Extent of non-revenue water	40%	20%	D
5	Quality of water supplied	100%	95%	D
6	Cost recovery in water supply services	33.6	100%	D
7	Efficiency in collection of water supply related charges	74.3	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 74.45 %
2.Extent of metering of water connections gap is 100 %
3.Extent of non-revenue water gap is 20 %
4.Cost recovery in water supply services gap is 66.4%
5. Gaps in quality of supply 5%
5.Efficiency in collection of water supply related charges gap is 15.7 %

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?

Existing source of water is underground water, total no of tubwell is 20 tube wells (20x1200LPM x 60 x 10Hr) = 14.4 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?

Only chlorination is being done. Treatment capacity of water is 14.4 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.

Source of water Capacity is 14.4 MLD. 138 per capita water supply=14.4/0.104 = 138.46 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?

There is 3 Zone for water supply in Nagar Palika Parishad Ballia.

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	5680 HH	1041 HH	4639 HH
2	7109 HH	1771 HH	5338 HH
3	5929 HH	1971 HH	3958 HH
TOTAL	**18718 HH**	**4783 HH**	**13935 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?

In Nagar Palika Parishad Ballia total water supply capacity is 14.4 MLD in which 7elevated storage capacity is 11.878 ML and one UGR of 0.30 ML capacity total storage capacity is 11.878+0.30 =12.18 ML

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

NA

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

In Nagar Palika Parishad Ballia water is being supplied to consumers through direct pumping as well as elevated reservoirs.

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

Yes storage capacity is sufficient to meet the cities demand. Total water production is 14.4 MLD/3 = 4.8 ML required and existing storage capacity is 12.18 ML

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?

The total length of water supply distribution is 71.20 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?

The total length of the road in the city is 80.20 KM

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

PVC,AC and CI of pipe materials used in distribution lines.

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
1	32.5 KM	30.5 KM	2.00 KM
2	20.6 KM	17.5 KM	3.10 KM
3	27.1 KM	23.2 KM	3.90 KM
TOTAL	**80.20 KM**	**71.2 KM**	**9.00 KM**

INSTITUTIONAL FRAMEWORK

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

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

Table: Functions, roles, and responsibilities

Planning and Design	Construction/ Implementation	O&M
UP JAL NIGAM BALLIA	JAL NIGAM BALLIA	N.P.P. BALLIA

Question: How city is planning to execute projects?

IEC activities for universal coverage, laying new and replacement of old pipe lines ,automation, will be done by Nagar Palika Parishad Ballia and establishment of water testing lab done by UPJN.

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 Ballia as well as State Level Parastatal Agency U.P. Jal Nigam. Nagar PalikaParishadFaizabad 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

Table: Status of Ongoing/ Sanctioned

S.No.	Name of Project	Scheme Name	Cost	Month of Compilation	Status (as on dd mm 2015)
01	**13TH FINANCE SCHEAM**	**TUBE WELL ONLY BORE**	16 Lakhs	2016 March	

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.be required to fulfill the gap? (100 words)

Yes.City required regularization of unregistered connections, and to motivate citizens to take connection will increase coverage and reduction of nrw as well as metering & tube-well of automation will improve efficiency of collection and operation.

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

NagalPalika Parishad Ballia will make its people aware of the importance of drinking water. Nagar Palika Parishad Ballia will make efforts by meetings & registering water connections by advertisements.

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

No. NPP have approximate NRW level is 40.00 % so will conduct a study on NRW because of high quantity of NRW.

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 MLD	14.4 MLD	0.00 MLD	14.4 MLD	17 MLD	2.6 MLD
Treatment capacity MLD	14.4 MLD	0.00 MLD	14.4 MLD	17 MLD	2.6 MLD
Elevated Storage capacity ML	12.18 ML	0.00 ML	12.18 ML	6 ML	Surplus
Distribution network coverage	71.2 KM	0.00 KM	71.2 KM	81.2 KM	9.00 KM

OBJECTIVES

PBased 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?

1. TO UNIVERSAL COVERAGE BY REGULARIZING UNAUTHORISED CONNECTIONSWATER CONNECTION AND FREE CONNECTION TO 13900 HH

2. TO MAKE THE SYSTEM EFFICIENT BY REDUCTION OF NRW WATER BY PROVIDING REPLACEMENT OF OLD PIPE LINE AND LEAKAGE DETECTION AND AUTOMATION OF TUBE WELL, AND ONE NEW TUBEWELL

3. TO IMPROVE THE QUALITY OF WATER ESTABLISHMENT OF WATER TESTING LAB.

4. TO MAKE THE SYSTEM ENERGY EFFICIENT, REPLACEMENT OF INEFFICIENT PUMPS AND REBORE

5. EFFICIENCY OF CHARGES COLLECTION AND ONLINE BILLING, TRACKING SYSTEM & SPOT BILLING MACHINE.

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

YES,

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 FUNDING FOR MEETING OUT THE EACH OBJECTIVE WILL 50% FROM GOI AND REMAINING 50% FROM STATE AND ULB.

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

NO

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

ON GOING PROJECT

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

IN NAGAR PALIKA PARISHAD BALLIA THERE IS A STAFF SHORTAGE FOR RUNNING THE PROJECT AND FOCUSING TOWARD ENHANCEMENT OF COVERAGE.

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

Nagar Palika Parishad Ballia will minimize non-revenue water by regularizing unregistered water connections & make more efforts from collection staff & automation of tube-wells.

Question: Will metering system for billing introduced?

NO.

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

BY REGULARIZING, WATER CONNECTION THROUGH IEC ACTIVITES, CALLING MEETING - WORKSHOP NAGAR PALIKA PARISHAD BALLIA WILL MAKE PROPER EFFORTS BY PUBLIC AWAIRENESS TO MINIMISE NRW.

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

YES.

THE ALTERNATIVEACTIVITIES TO MEET THESE ACTIVITIES BE DEFINED AS PER TABLE

Table: Alternative Activities To Meet Objectives

Sr. No.	Objective	Activities	Cost (Cr)	Financing Source
1	To achieve the universal coverage	1.To achieve universal coverage by regularizing and giving connections to 13900 HH@ Rs 2500/HH including cost of connection 2. .Laying new 9 km distribution pipe line	3.475 1.05	AMRUT/State and ULB
2	To make the system efficient by reduction of nrw water	1.Providing replacement of 5 KM old pipe line,2.Leakage detection 3.Aautomation of 10 tube well 4.One tube-well	0.50 0.40 0.40 0.40	AMRUT/State and ULB
3	To improve the quality of water	Establishment of water testing lab	0.15	AMRUT/State and ULB
4	Collection efficiency	On line billing tracking . spot billing machine	0.10	AMRUT/State and ULB
	Total		**6.475 Cr**	

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 stakeholders consultation held in Nagar Palika Parishad Ballia dated on 21/08/2015

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

In Nagar Palika Parishad Ballia ward level consultations has held under the presence of ward members dated on 5/10/2015

Question: Has alternative proposed above are crowd sourced?

No

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

90% OF THE PEOPLE ARE AGREED TO REGULARISATION & AUTOMATION OF TUBEWELLS.

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

YES. FIRSTLY REGULARISATION THEN PIPE LINE AND AUTOMATION

Question: What methodology adopted for prioritizing the alternatives?

On importance wise after consultation made in Nagar Palika Parishad Ballia. Regularization of water connections after 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?

Regularization of water supply connections, automation of tube wells project of Nagar Palika Parishad Ballia,are in AMRUT scheme will be done by Nagar Palika Parishad Ballia.

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

Yes, activities are converge with ongoing projects

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

Yes the projects are being prioritized based on “more with less” approach universal coverage through IEC activities.

Question: Has the universal coverage approach indiated 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.

Yes. Regularization and automation of tube well need no land & clearance.

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.Disaster and environmental related factor will be considered while preparation of DPRs

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 willbe developed..

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

No individual project.

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

Yes, financial plan prepared for identified projects are based on financial convergence and consultation with funding partners GOI,STATE AND ULB

Question: Is the proposed financial structure is 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, 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.

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 2.1of 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 Cr
1	To achieve universal coverage by regularizing and giving connections to 13900 HH@ Rs 2500/hh including cost of connection Laying new 9 km distribution pipe line	1	2016	2019	3.475 1.05

S.No.	Project Name	Priority number	Year in which to be implemented	Year in which to be completed	Estimated Cost Cr
2	one new tube well	2	2016	2016	0.40
3	1.Providing replacement of 5 KM old pipe line, 2.Leakage detection 3.Aautomation of 10 tube well	3	2016	2019	0.50 0.40 0.40
4	Establishment of water testing lab	4	2016	2017	0.15
5	On line billing tracking. spot billing machine	5	2016	2019	**0.10**
	TOTAL				**6.475 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-ls)	After (To-be)	
1	To achieve universal coverage by regularizing and giving connections to 13900 HH@ Rs 2500/hh including cost of connection Laying new 9 km distribution pipe line	SURVEY AND CONNECTION	COVERAGE OF WATER SUPPLY CONNECTION	29.2%	100%	3.475 Cr 1.05 Cr
2.	One new tube well	New Tube-Well	Per capita water supply			0.40 Cr

2	1.Providing replacement of 5 KM old pipe line 2.Leakage detection 3.Aautomation of 10 tube well	PIPE LINE, AUTOMATION,	EXTENT OF NON-REVENUE WATER, COVERAGE,NRW COST RECOVRY	40%	20%	0.50 Cr 0.40 Cr 0.40Cr
3	Establishment of water testing lab	Establishment of water testing lab	QUALITY OF WATER	100	100	0.15 Cr
4	On line billing tracking. spot billing machine	On line billing tracking. spot billing machine	Collection efficiency			**0.10 Cr**
	TOTAL					**6.475 Cr**

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	Universal Coverage	To achieve universal coverage by regularizing and giving connections to 13900 HH@ Rs 2500/hh including cost of connection	3.475 Cr	3.475	-	-	-	3.475 Cr
		Laying new 9 km distribution pipe line	1.05 Cr	0.525	0.525	-	-	1.05 Cr
2	Per Capita of Water Supply	One new tube well	0.40	0.20	0.20			0.40
3	NRW	Providing replacement of 5 KM old pipe line	0.5 Cr	0.25	0.25	-	-	0.5 Cr
		Leakage detection	0.40Cr	0.2	0.2	-	-	0.4Cr
		Automation of 10 tube well	0.4 Cr	0.20	0.20	-	-	0.40 Cr

4	To improve the quality of water	Establishment of water testing lab	0.15 Cr	0.075	0.075	-	-	0.15 Cr
5	Collection efficiency	On line billing tracking. spot billing machine	0.10 Cr	0.05	0.05	-	-	0.10 Cr
Total			**6.075 Cr**	**4.775**	**1.30**	-	-	**6.475 Cr**

ANNUAL FUND SHARING BREAK-UP FOR WATER SUPPLY PROJECTS

(As per Table 2.3.2 of AMRUT guidelines)

Sr. No.	Objective	Project	GOI	State			ULB			Convergence	others	Total
				14thFC	Others	Total	14thFC	Others	Total			
1	Universal Coverage	To achieve universal coverage by regularizing and giving connections to 13900 HH@ Rs 2500/hh including cost of connection	1.7375 Cr	-	- 1.7375 Cr	-	-	-	-	-	-	3.475 Cr
		Laying new 9 km distribution pipe line	0.525	-	-	0.525	-	-	-	-	-	1.05 Cr
2	Per Capita of Water Supply	One new tube well	0.20	-	-	0.20	-	-	-	-	-	0.40 Cr
3		Providing replacement of 5 KM old pipe line	0.25	-	-	0.25	-	-	-	-	-	0.5 Cr
		Leakage detection	0.20	-	-	0.20	-	-	-	-	-	0.40 Cr
		Automation of 10 tube	0.20	-	-	0.20	-	-	-	-	-	0.4

Sr. No.	Objective	Project	GOI	State			ULB			Convergence	others	Total
				14th FC	Others	Total	14th FC	Others	Total			
		well										Cr
4	To improve the quality of water	Establishment of water testing lab	0.075	-	-	0.075	-	-	-	-	-	0.15 Cr
5	Collection efficiency	On line billing tracking. spot billing machine	0.05	-	-	0.05	-	-	-	-	-	0.10 Cr
		TOTAL	**3.2375 Cr**	-	-	**3.2375 Cr**	-	-	-	-	-	**6.475 Cr**

YEAR WISE PLAN FOR SERVICE LEVELS IMPROVEMENTS

(As per Table 2.5of AMRUT guidelines)

Proposed Projects	Project Cost	Indicator	Baseline	Annual Targets (Incremet from the Baseline Value)					
				FY 2016		FY 2017	FY 2018	FY 2019	FY 2020
				H1	H2				
To achieve universal coverage by regularizing and giving connections to 13900 HH@ Rs 2500/hh including cost of connection	3.475 Cr	Coverage of water supply connection	25.55%		50%	70%	80%	100%	
Laying new 9 km distribution pipe line	1.05 Cr	Coverage of water supply connection							
One new tube well	0.40 Cr	Per capita	138 LPCD		138 LPCD				
Providing replacement of 5	0.5 Cr	Extent of non-	40%		35%	30%	25%	20%	

Proposed Projects	Project Cost	Indicator	Baseline	Annual Targets (Incremet from the Baseline Value)					
				FY 2016		FY 2017	FY 2018	FY 2019	FY 2020
				H1	H2				
KM old pipe line		revenue water							
Leakage detection	0.40Cr								
Automation of 10 tube well	0.4 Cr								
Establishment of water testing lab	0.15 Cr	Quality of water supplied	100%		95%	100%			
On line billing tracking. spot billing machine	0.10 Cr		100%		75%	80%	85%	100%	
TOTAL	**6.475 Cr**								