

NAME OF ULB – BASTI

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)

Baseline information system is census 2011 and Nagar Palika Parishad Basti record of water supply existing system no. of tube-well, OHT, water reservoir, pumping station.

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)

2011 census data is available. Yes. The data is correlated.

Area Name	Source Of Information	Location of source of drinking water	Total Number of Households	Tap water from treated source
Basti	As per census 2011 available	Total Population	1,14,651	
		Total Households	17610	5500
		Within the premises	14690	4723
		Near the premises	2477	651
		Away	443	124
	Departmental Data of NPP	Total Population(2015) -	1,23,823 approx	
		Total Households	21842 *	15387 *

*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	<u>Coverage of water supply connections</u> 15387/21842	70.44 %	100%	D

Sr. No.	Indicators	Present Status	MOUD Benchmark	Reliability
2	<u>Per capita supply of water</u> 23.52/123832	191 LPCD	135 LPCD	D
3	<u>Extent of metering of water connections</u>	0 %	100%	A
4	<u>Extent of non-revenue water</u>	40 %	20%	D
5	<u>Quality of water supplied</u>	100 %	100%	D
6	<u>Cost recovery in water supply services</u>	75 %	100%	D
7	<u>Efficiency in collection of water supply related charges</u>	65%	90%	D

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

- 1) Gap in Coverage of water supply connections = 29.56 %
- 2) Gap in LPCD= LPCD
- 3) Gap in Extent of metering of water connections is 100%
- 4) Gap in Extent of Non - Revenue water = 20 %
- 5) Quality of water supplied = 0%
- 6) Gap in Cost recovery in water supply = 25 %
- 7) Gap in Efficiency in collection of water supply charges = 25 %

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?

Total no of tube well 21 And discharge 24500 LPM X 16 X60 = 23.52 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?

Total treatment capacity is 23.52 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 LPCD = 189 (23.52/0.123832) 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 ?

NPP Basti divided in 8 ward 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

Ward No.	Total No. of Households	Households with Water tap Connection	Households without Water tap Connection
1	2642 HH	1664 HH	978 HH
2	2500 HH	1560 HH	940 HH
3	2400 HH	1465 HH	935 HH
4	3300 HH	2650 HH	650 HH
5	3000 HH	2263 HH	737 HH
6	2700 HH	2160 HH	540 HH
7	2600 HH	1665 HH	935 HH
8	2700 HH	1960 HH	740 HH
Total	21842 HH	15387 HH	6455 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 Storage capacity is 6.8 ML

8 Nos. of OHT = 4.4 ML Storage Capacity + Underground water reservoir = 2.4 ML

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

No, Surface water hence not Applicable.

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

Water is being supplied to consumers through elevated reservoirs.

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

**Total source of water is 23.52 MLD
Total storage capacity is 6.8 ML, required storage capacity is 7.84 ML
There is a gap in storage of water is 1.04 ML in (current demand)**

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 of Basti town is 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 in the city (as per water supply) is 250 km.

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

Distribution pipe line material is AC/PVC (as per water supply DPR)

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

Table: Zone Wise length of distribution network

Ward No.	Total Street Length	Street length with water distribution pipe line	Street length without water distribution pipe line
1	32 KM	30 KM	2 KM
2	30 KM	29 KM	1 KM
3	30 KM	27 KM	3 KM
4	34 KM	32 KM	2 KM
5	30 KM	27 KM	3 KM
6	31 KM	28 KM	3 KM
7	30 KM	25 KM	5 KM
8	33 KM	27 KM	6 KM

Ward No.	Total Street Length	Street length with water distribution pipe line	Street length without water distribution pipe line
Total	250 km	225 km	25 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	UP Jal Nigam	NagarPalika Parishad Basti

Question: How city is planning to execute projects ?

The schemes of water supply are formulated by UPJN and also executed by UPJN. after execution such schemes are handover to Jalkal Vibhag Basti.

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

Yes the project will be implemented by UP Jal Nigam . Implementation of the project shall be done by State Level Parastatal Agency U.P. Jal Nigam. Nagar Palika Parishad 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)
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S.No.	Name of Project	Scheme Name	Cost	Month of Compilation	Status (as on dd mm 2015)
-	-	-	-	-	-

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)

No ongoing Project.

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 additional infrastructure to improve the services, laying of 25 Km new pipe line.

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?

Nagar palika parishad Basti will make its people aware of the importance of drinking water and 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, Assessment or any survey has been conducted, NPP Basti will conduct assessment in future.

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	23.52 MLD	-	23.52 MLD	19.22 MLD	0
Treatment capacity	23.52 MLD	-	23.52 MLD	19.22 MLD	0
Elevated Storage capacity	6.8 ML	-	6.8 ML	6.40 ML	0
Distribution network coverage	225 KM	-	225 KM	250 KM	25 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.

S.N.	Objectives	Activities	Cost (Cr.)	Financial Sources
1	To achieve Universal coverage of water supply	Universal Coverage of water supply connection - 1826 HH @ 5093/HH	.032+.9=.93	AMRUT/ State Gov./ ULBs
		Laying of 25 Km distribution network (@ 30 Lakh /Km)	7.50	AMRUT/ State Gov./ ULBs
2	To reduce NRW	SCADA & Zoning of water supply system Rebore of 2 Tube well x 0.25 Cr.	2 + 0.5	AMRUT/ State Gov./ ULBs
3	Quality of water supply	Water Testing Lab, Sample testing Van with full laboratory	0.80 + 0.40	AMRUT/ State Gov./ ULBs
4	Collection efficiency	Metering & Online Billing Spot Billing	4.3	AMRUT/ State Gov./ ULBs
Total	-	-	16.43	

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

Yes,

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 source of funding of activities shall be: 1. AMRUT, 2. 14th Finance Commission 3. State Government Funds, The funding for meeting out the each objective will 50% from Gol 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 ongoing project like JICA/ ADB

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

No ongoing activities

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

To achieve the universal coverage NPP Regular efforts will be made to address coverage to HH

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

By improving service standards and coverage as well as revision of user charges, full O&M costs can be recovered. The O&M cost shall be recovered by:

- 1. Increasing the coverage of water supply to unnerved areas,**
- 2. By increasing user charges**
- 3. By reducing NRW Nagar Palika Parishad Basti has already adopted a system of water tax and water charges by approval of Board to meet the O&M cost.**

Question: Will metering system for billing introduced?

As per guidelines of UP Govt. the metering has yet not been introduced and shall be introduced only after direction from UP Govt.

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

Leakages control and by increasing water connections will supported to reduce 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

Sr. No.	Objective	Activities	Cost (Cr.)	Financing Source
1	To achieve Universal coverage of water supply	Universal Coverage of water supply connection - 1826 HH @ 5093/HH	.93 CR	AMRUT/ State Gov./ ULBs
		Laying of 25 Km distribution network (@ 30 Lakh /Km)	7.50	AMRUT/ State Gov./ ULBs

Sr. No.	Objective	Activities	Cost (Cr.)	Financing Source
2	To reduce NRW	SCADA & Zoning of water supply system Rebore of 2 Tube well x 0.25 Cr.	2 + 0.5	AMRUT/ State Gov./ ULBs
3	Quality of water supply	Water Testing Lab, Sample testing Van with full laboratory	0.80 + 0.40	AMRUT/ State Gov./ ULBs
4	Collection efficiency	Metering & Online Billing Spot Billing	4.3	AMRUT/ State Gov./ ULBs
Total	-	-	16.43	

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 including Chairman, elected member & Citizens are involved in the consultation and discussion hold on 03 Sept, 2015 in NPP Basti head office and also on 25th Sept, 2015 and 05th Oct, 2015 regarding SBM & AMRUT.

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

Yes, ward level consultations are being held in the city.

Question: Has alternative proposed above are crowd sourced?

Yes. Suggestions and views of the crowd are taken into consideration.

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

Feedback on the suggested alternatives and innovations are being considered to complete all the ongoing projects on time and the work proposed for future should also be planned in such a way that during the work the hazards faced by citizens must be minimized to a tolerable extent.

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 consultations

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?

Regularisation of water supply connections, metering of water connection & automation of tubewells project of Nagar Palika Parishad Basti are in AMRUT.

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

No, the project has not been covered in any other program and scheme.

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.

Prioritize activities do not require land and environmental obligation and clearance. So far as financial commitment is concerned, state government and ULB will contribute their respective share.

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 infrastructure 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 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?

There is no such individual projects is going on.

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 & ULB to Reduction in non revenue water (NRW), Water supply which includes intake works, rejuvenation of treatment works, online water quality control system, e-governance, strengthening of billing/collection system.

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.

Yes, it includes financial convergence with various ongoing projects.

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

Yes, Year-wise milestones and outcomes have been provided.

DETAILS IN FINANCIAL PLAN SHALL BE PROVIDED AS PER TABLE 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	Universal Coverage of water supply connection - 1826 HH @ 5093/HH	1	2016	2017	.93 Cr
2	Laying of 25 Km distribution network (@ 30 Lakh /Km)	2	2016	2018	7.50 Cr
3	SCADA & Zoning of water supply system Rebore of 2 Tube well x 0.25 Cr.	3	2016	2018	2 + 0.5
4	Water Testing Lab, Sample testing Van with full laboratory	4	2016	2018	0.80 + 0.40
5	Metering & Online Billing Spot Billing	5	2017	2019	4.3
	Total				16.43Cr

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
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			Indicator	Existing (As-Is)	After (To-be)	
1	Universal Coverage of water supply connection - 1826 HH @ 5093/HH	Survey	Coverage of water supply	70.44	100	.93 CR
2	Laying of 25 Km distribution network (@ 30 Lakh /Km)	New Pipeline	Coverage of water supply	70.44	100	7.50
3	SCADA & Zoning of water supply system Rebore of 2 Tube well x 0.25 Cr.	SCADA & Zoning	To reduce NRW	40	20	2 + 0.5
4	Water Testing Lab, Sample testing Van with full laboratory	Testing Lab	Quality of water supply	100	100	0.80 + 0.40
5	Metering & Online Billing Spot Billing	Metering	Collection efficiency	0	100	4.3
Total						16.43cr

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 of water supply connection - 1826 HH @ 5093/HH	.93	100%	-	-	-	.93
2	Laying of 25 Km distribution network (@ 30 Lakh /Km)	7.50	50%	50%	-	-	7.50

Sr. No.	name of Project	Total Project Cost	Share				
			GOI	State	ULB	Others	Total
3	SCADA & Zoning of water supply system Rebore of 2 Tube well x 0.25 Cr.	2.5	50%	50%	-	-	2.5
4	Water Testing Lab, Sample testing Van with full laboratory	1.2	50%	50%	-	-	1.2
5	Metering & Online Billing Spot Billing	4.3	50%	50%	-	-	4.3
Total		13.93cr					16.43cr

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	Universal Coverage of water supply connection - 1826 HH @ 5093/HH	.46	.46	-	-	-	-	-	-	-	.93
2	Laying of 25 Km distribution network (@ 30 Lakh /Km)	3.75	-	-	3.75	-	-	-	-	-	7.50
3	SCADA & Zoning of water supply system Rebore of 2 Tube well x 0.25 Cr.	1.25	-	-	1.25	-	-	-	-	-	2.5

Sr. No.	Project	GOI	State			ULB			Convergence	Others	Total
			14th FC	Others	Total	14th FC	Others	Total			
4	Water Testing Lab, Sample testing Van with full laboratory	0.6	-	-	0.6	-	-	-	-	-	1.2
5	Metering & Online Billing Spot Billing	2.15	-	-	2.15	-	-	-	-	-	4.3
Total		8.215 Cr			8.215 Cr						16.43cr

YEAR WISE PLAN FOR SERVICE LEVELS IMPROVEMENTS

(As per Table 2.5of 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				
Universal Coverage of water supply connection - 1826 HH @ 5093/HH	.93	Coverage of water supply	70.44	-	75	85	100	100	100
Laying of 25 Km distribution network (@ 30 Lakh /Km)	7.50	Coverage of water supply	70.44	-	75 %	85 %	100 %		
SCADA & Zoning of water supply system Rebore of 2 Tube well x	2.5	To reduce NRW	40	-	35%	30%	25%	20%	

