

NAME OF ULB – FARRUKHABAD

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, water supply DPR with Jal Nigam and water supply details are available with Nagar Palika Farrukaband. Zone wise 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)

Location of source of drinking water	Total Number of Households	Tapwater from treated source
Total Population= 276012		
Total	47,076	11,818
Within the premises	24,318	9,701
Near the premises	18,856	1,886
Away	3,902	231
Departmental Data	50253	23411

What are existing services 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 23411/50253	46.58%	100%	D
2	Per capita supply of water 33 MLD/0.276	120 LPCD	135 LPCD	D

Sr. No.	Indicators	Present Status	MOUD Benchmark	Reliability
3	Extent of metering of water connections	0%	100%	A
4	Extent of non-revenue water	35%	20%	D
5	Quality of water supplied	90%	100%	D
6	Cost recovery in water supply services	80%	100%	D
7	Efficiency in collection of water supply related charges	60%	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 are as under:

1. Gap in coverage of water supply is 53.42 %
2. Gap in Per capita water availability is about 15 LPCD.
3. Gap in Metering is 100%.
4. NRW is about 15%
5. No gap in Quality of supplied water as per PHE norms.
6. Gap in Cost recovery is 20%
7. Gap in efficiency of water charges/tax collection is about 30%.

SOURCE OF WATER AND WATER TREATMENT SYSTEM.

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

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

Ground water –44Tubewell avg Discharge =0.75 with the capacity of – 33 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?

Yes, for the underground water system we provide chloronization by dozer system.

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?

Per capita water supply = $33/0.27 = 120\text{LPCD}$.

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?

City has divided in 4 zones.

Table: Zone Wise Coverage of Households

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

Zone No.	Total No. of Households	Households with Water tap Connection	Households without Water tap Connection
Townhall Zone	18245 HH	6124 HH	12121 HH
LalSrai Zone	12266 HH	4425 HH	7841 HH
Lakula Zone	11368 HH	6528 HH	4840 HH
Fatehgarh Zone	8374 HH	6334 HH	2040 HH
Total	50253 HH	23411 HH	26842 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 of NPP Farrukaband is 9 ML capacities, no of OHT is 9 nos.

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

No Surface water in Furrakhabad city, city dependent on ground water.

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

NPP Faruukhabad supplied water supply through both pumping & OHT.

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

No, Total water Demand $135 \times 0.276 = 37.26$ MLD storage Capacity == 13 ML - 9ML = 4 ML is required.

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 lay in the city 90 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 road length in the city 95 KM, for universal coverage we required 5 km more pipeline.

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

CI, GI, PVC etc. pipe material are being used

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
Townhall Zone	27 km	26 km	1 km
LalSrai Zone	16 km	15 km	1 km
Lakula Zone	25 km	23 km	2 km
Fatehgarh Zone	27 km	26 km	1 km
Total	95 km	90 km	5 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	ULB's

Question: How city is planning to execute projects ?

NPP Farrukhabad plan the first universal coverage of water supply & augmentation of water supply and then NPP has reduce the NRW and increase the cost recovery in water supply system.

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 State Level Parastatal Agency U.P. Jal Nigam. Nagar Palika Parishad Farrukhabad 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--- No ongoing project

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

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 universal coverage , increase Per capita water supply ,to reduce NRW water and increase operational efficiency.

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?

Yes NPP Farrukhabad has more focus on universal coverage of water supply system. With optimum use of existing infrastructure system.

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

No, but in future NPP has planned to assess of NRW and reducing of it with the help of automation system.

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				
	Present	Ongoing	Total	Demand	Gap
Source	26 MLD	-	33 MLD	43 MLD	10 MLD
Treatment capacity	26 MLD	-	33 MLD	43 MLD	10 MLD
Elevated Storage capacity	9 ML	-	9 ML	14 MLD	5 MLD
Distribution network coverage	90 KM	-	90 KM	95KM	5 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.

The main objective of NPP Farrukhabad is,

- 1. Enhance the household connection**
- 2. Increase in Per capita water supply**
- 3.Reduce NRW Water**
- 4.Increase the universal coverage tounservedarea**
- 5. Improve quality of water**
- 6. Efficiency in charges collection.**

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

Yes, the each following objective evolved from the assessment,

Objectives	Activities for fill the GAP
To achieve the Universal coverage	Regularized illegal connection
	5 km line is be required to achieved 100% coverage
To increase in capita supply of water	Rebore of tubwell- 6 Tubewell
	Augmentation of new water production system- 10 new Tubewell
	New OHT 5 nos
To reduce the NRW	Automation of Tubewell through SCADA
	Strengthening the Zoning of water supply system
Improve quality of water	Establishment of water testing LAB
	Mobile Water testing LAB
Efficiency in charges collection	Online billing, spot billing machine,
	Expansion of payment collection center

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 possible activity is mention in table, and the funding for meeting out the each objective is follows the AMRUT funding pattern.

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 Project.

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

No Ongoing Project.

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

The O&M cost shall be recovered by: 1. increasing the coverage of water supply to unserved areas, 2. By increasing user charges 3. By reducing NRW with automation in system

Question: Will metering system for billing introduced?

Yes, NPP Farrukhabad will introduce in future.

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

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

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

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

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

Table: Alternative Activities to Meet Objectives

Sr. No.	Objective	Activities	Cost	Financing Source
1	To achieve the Universal coverage	Increase the house hold connection- for 26842 HH, 5 km line is be required to achieved 100% coverage	1.8 Cr	AMRUT/State and ULB

Sr. No.	Objective	Activities	Cost	Financing Source
2	To increase in capita supply of water	Rebore of tubwell- 6 Tubewell, Augmentation of new water production system- 17 new Tubewell, New OHT 5 nos	8.45 Cr	AMRUT/ STATE/ ULBs
3	To reduce the NRW	Automation of Tubewell through SCADA, Strengthening the Zoning of water supply system	3Cr	AMRUT/ STATE/ ULBs
4	Improve quality of water	Establishment of water testing LAB, Mobile Water testing LAB with full equipment -4 Nos	1.02 Cr	AMRUT/ STATE/ ULBs
5	Efficiency in charges collection	Online billing, spot billing machine, Expansion of payment collection center	0.7 Cr	AMRUT/ STATE/ ULBs
Total			14.97 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, all stakeholders- Board member, citizen, ward elected member, is being involved in the consultation- Raily and meeting in NPP Farrukhabad on 3rd& 07th October, 2015 on AMRUT & SBM

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

Yes, ward/ zone level consultations is being held in the city, Raily and meeting in NPP Farrukhabad on 3rd& 07th October, 2015 on AMRUT & SBM

Question: Has alternative proposed above are crowd sourced?

No

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

Each Feedback & suggested alternatives and innovations are being considered in formulation of project.

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?

The source of funding of activities shall be: 1. AMRUT, 2. 14th Finance Commission 3. State Government Funds

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

There is no other scheme running in the city.

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 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.

Public awareness to increase the coverage of water supply coverage, Augmentation of water supply system No need of Land, environment clearance and NoC for meet the GAP for universal coverage,

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.

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 will be developed. The share of State and ULB will be decided in High power committee.

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

There is no such 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, 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 2.1of AMRUT guidelines)

(Amount in Rs. Cr)

S.N.	Project Name	Priority Number	Year in which to be implemented	Year to which to be completed	Estimated cost
1	Increase the house hold connection- 26842 HH, 5 km line is be required to achieved 100% coverage	1	2016	2019	1.8 Cr
2	Rebore of tub well- 6 Tube well, Augmentation of new water production system- 17 new Tube well, New OHT 5 nos	2	2016	2018	8.45 Cr
3	Automation of Tube well through SCADA, Strengthening the Zoning of water supply system	3	2016	2019	3 Cr
4	Establishment of water testing LAB, Mobile Water testing LAB with full equipment -4 Nos	4	2016	2017	1.02 Cr
5	Online billing, spot billing machine, Expansion of payment collection center	5	2016	2018	0.7 Cr
	Total				14.97Cr

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	Increase the house hold connection- 26842 HH, 5 km line is be required to achieved 100% coverage	Survey& 5 Km new pipe line	Coverage of water supply connection	46.58%	100	1.8 Cr
2	Rebore of tubwell- 6 Tubewell, Augmentation of new water production system- 17 new Tubewell, New OHT 5 nos	Rebore of Tubewell	Per capita of water	120 LPCD	100 LPCD	8.45 Cr
3	Automation of Tube-well through SCADA, Strengthening the Zoning of water supply system	Automation	Extent of non-revenue water	35 %	20 %	3 Cr
4	Establishment of water testing LAB, Mobile Water testing LAB with full equipment -4 Nos	Water treatment Lab	Quality of water supplied	90%	100%	1.02 Cr
5	Online billing, spot billing machine, Expansion of payment collection center	Automation & online	Cost recovery in water supply services	80%	100%	0.7 Cr

ANNUAL FUND SHARING PATTERN FOR WATER SUPPLY PROJECTS

(As per Table 2.3.1 of AMRUT guidelines)

(Amount in Rs. Cr)

Sr. No.	Project	GOI	State			ULB			Convergence	Others	Total
			14th FC	Others	Total	14th FC	Others	Total			
	km line is be required to achieved 100% coverage										
2	Rebore of tubwell- 6 Tubewell, Augmentation of new water production system- 17 new Tubewell, New OHT 5 nos	50%	-	50%	-	-	-	-	-	-	100%
3	Automation of Tubewell through SCADA, Strengthening the Zoning of water supply system	50%	-	50%	-	-	-	-	-	-	100%
4	Establishment of water testing LAB, Mobile Water testing LAB with full equipment -4 Nos	50%	-	50%	-	-	-	-	-	-	100%
5	Online billing, spot billing machine, Expansion of payment collection center	50%	-	50%	-	-	-	-	-	-	100%

YEAR WISE PLAN FOR SERVICE LEVELS IMPROVEMENTS

(As per Table 2.5of AMRUT guidelines)

Proposed Projects	Project Cost	Indicator	Baseline	Annual (Incremet from the Baseline Value)						Targets	
				FY 2016		FY 2017	FY 2018	FY 2019	FY 2020		
				H1	H2						
Public awareness to increase the house hold Increase the house hold connection-	1.8 Cr	Coverage of water supply connection	46.58%		50%	60%	70%	100%			

