NAME OF ULB- KANPUR

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)

City development plan, city sanitation plan, Master Plan and DPR related to water supply, sewerage, drainage and solid waste management are available with Nagar Nigam Kanpur.

Yes, Zone wise information is available with jalkal vibhag nagar nigam kanpur.

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)

S.No	Source	Particulars	Numbers	Tap Water Connection
01	Census 2011	Total Population	29.43 Lacs	
		Household	486382	196652
		Within the premises	331990	171323
		Near the premises	124256	21617
		Away	30136	3712
02	Departmental Data 2015	Total Population	29.43 Lacs	
		Household	4.50 Lacs NN Data	2.55Lacs NN Data

Yes, we have collected the information from census 2011 data. As per census 2011 Kanpur have the population of 29.43 lacs and households are 486382.Out of total household 331990 HH have water connection, 124256 HH lies within the premises of water supply line and 30136 HH are situated away from water pipeline.

Yes, we have correlated the DPR data with data available with Nagar Nigam. As per Nagar Nigam record total household are 4.50 lacs out of which 2.55 lacs HH are connected with piped water supply.

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- 2.55/ 4.86 HH**	68%	100%	D
2	**Per capita supply of water- MLD/POP 2015 =628.5 MLD/29.87lacs**	210 LPCD	135 LPCD	D
3	**Extent of metering of water connections**	0%	100%	A
4	**Extent of non-revenue water**	60%	20%	D
5	**Quality of water supplied**	95%	100%	D
6	**Cost recovery in water supply services**	75%	100%	
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 47.54 %
2. Gap in Per capita water availability is nil.
3. Gap in Metering is 100%.
4. NRW is about 40% which include leakage and free water supply to social gathering festivals along with water supply through stand posts.
5. 5% gap in Quality of supplied water as per PHE norms.
6. Gap in Cost recovery is 25% with expenditure on electricity and power.
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 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.?

The existing source of water at present in the city is surface water as well as under ground water.
Surface water sources:
Bharioghat& Lower Ganga Canal:- 280 MLD
Ganga Barrage :- 190MLD
Gujaini:-28.5MLD
Under ground water :- 130 MLD (T.W) LPM

Yes,surface water is being treated and chloronination is done to under ground water before supply. Total 498.5 MLD surface wateris required to be treated daily.
Total installed capacity - 498.5 MLD
Population as per 2011 census=27.65 lacs, approximate population currently =29.87lacs LPCD = 628.5 MLD/29.87Lacs = 210 LPCD. However data given in Table1.1 for per capita water supply was calculated after deducting NRW i.e 60%

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 is divided in six 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	40673 HH	32538 HH	8135 HH
2	78632 HH	39979 HH	38653 HH
3	69486 HH	40240 HH	29246 HH
4	43823 HH	37249 HH	6574 HH
5	68360 HH	58770 HH	9590 HH

Zone No.	Total No. of Households (a)	Households with direct Water supply connection (b)	Households without direct Water supply connection
6	72506 HH	46479 HH	26027 HH
Total	373480 HH	255255 HH	118225 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?

Elevated water storage Tank 45 no.s of capacity 48.150 ML

Ground water reservoir 38 no.s of capacity 98.440 ML

Total capacity 146.590 ML .

After the completion of ongoing projects of Kanpur water supply scheme phase I and phase II the total storage capacity in the city will be enhanced by 167.255 ML. Out of this 60.700 ML capacity is in form of elevated reservoirs and 106.555 ML in form of ground water reservoirs.

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

Yes there is requirement of ground level reservoir .

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

At present water is being supplied through direct pumping , elevated reservoirs as well as ground level reservoirs.

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

No, storage capacity is not sufficient. City requires total 4000KL storage capacity.

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 water pipeline length is about 1800 Km.
After the completion of ongoing projects of water supply scheme- Phase 1 and Phase 2 , the total distribution network will be enhanced by 1745 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 city is 3885 Km.
No, pipeline is not laid in all the streets.
No, at present objective of achieving universal coverage is not fulfilled.
398 Km pipeline is to be laid.

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

PVC, GI, DI, and AC pipes has been 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	444 KM	440 KM	4 KM
2	845 KM	796 KM	49 KM
3	825 KM	765 KM	60 KM
4	430 KM	425 KM	5 KM
5	684 KM	654 KM	30 KM
6	715 KM	465 KM	250 KM
Total	3943 KM	3545 KM	398 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 responsibilitis

Planning and Design	Construction/ Implementation	O&M
UP Jal Nigam Kanpur &JalkalVibagh, Nagar Nigam Kanpur	UP Jal Nigam Kanpur &JalkalVibagh, Nagar Nigam Kanpur	JalkalVibagh, Nagar Nigam Kanpur

Question: How city is planning to execute projects ?

Zone wise gap in service level are identified and the benchmark level will be achieved by proposing the works required to improve the service level.
Small projects like laying of branch lines, filling gaps in household connections gaps , metering, etc will be executed by JalKalvibhag Nagar Nigam Kanpur .
Capital projects will be executed by UP Jal Nigam and
O&M of all the projects will be carried out by JalkalVibagh Nagar Nigam.

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 Municipal Corporation as well as State level Parastatal Agency U.P. Jal Nigam. Para 8.1 of AMRUT guidelines will be followed by Nagar Nigam Kanpur while executing 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	Cost	Month of Compilation	Status (as on dd mm 2015)
1	Kanpur water supply scheme phase I	JnNURM	393.93 Crores	March-2016	85% Work completed
2	Kanpur water supply scheme phase II	JnNURM	475.15 Crores	March-2016	80% Work completed

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)

At present total pipeline is laid about 1800 Km , after the completion of ongoing projects of Kanpur water supply scheme phase I and phase II additional 1745 Km will be laid , total water storage capacity will be enhanced by 167255 KL out of which 60700 KL capacity is in form of elevated reservoirs and 106555 KL in form of ground water reservoirs. 2 water treatment plants of aggregate capacity 400 MLD are under construction. 100 Wards of Kanpur city out of total 110 wards will be able to get water supply after completionof above works.

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

Remaining 10 wards of Kanpur city needs additional infrastructure for improving services. The services required to fulfill the gaps are enhancement of storage capacity, expansion and extension of distribution network, metering, leak detection & repair and renovation of existing water supply system.

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?

For focusing on optimum use of existing assets, augmentation of capacities of existing utilities can be ensured by renovating these existing utilities and making it compatible with newly developed infrastructure by:
Enhancing coverage by increasing the number of household water connections,
Detecting and repairing of leakage,
Reorganization of water distribution network by interconnection and installing valves at suitable places.

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

No NRW study has been conducted in the city .
NRW is estimated about 60%.
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	**838MLD**	**800MLD**	**1628MLD**	**1600MLD**	**Surplus**
Treatment capacity	**498.5MLD**	**428.5MLD**	**927MLD**	**900MLD**	**surplus**
Elevated Storage capacity	**48.15ML**	**60.7ML**	**108.85ML**	**112.85 ML**	**4ML**
Distribution network coverage	**1800KM**	**1745KM**	**3545KM**	**3795KM**	**250KM**

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?

Yes. The objective is to increase the coverage to unserved areas (10 wards of west service district) by increasing distribution coverage area,enhancing household connections, to reduce NRW and enhance storage capacity.

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

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

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

Objectives	Activities to be performed to bridge the gap
TO ACHIEVE UNIVERSAL COVERAGE	UNAUTHORISED /ILLEGAL CONNECTIONS ETC- State/ULB Funds
	GAP IN EXISTING WATER SUPPLY NETWORK WITH HOUSEHOLD CONNECTIONS – AMRUT Fuunds
	EXPANSION OF WATER SUPPLY DISTRIBUTION NETWORK WITH HOUSEHOLD CONNECTION IN UNCOVERED POCKETS- AMRUT Funds

Objectives	Activities to be performed to bridge the gap
TO MAKE SYSTEM EFFICIENT BY NRW REDUCTION	
	LEAKAGE DETECTION AND REPAIR.
	REPLACEMENT OF OLD LINES (DAMAGED,LEAKED, DEFUNGED, CHOCKED,SLUICE VALVE ETC) WITH HOUSE HOLD CONNECTION
	WATER SUPPLY ZONING OF SERVICE AREA .
	100% IMPLEMENTATION OF METERING .
TO INCREASE PER CAPITA SUPPLY (LPCD)	
	RENOVATION OF OLD WATER WORKS WITH THE FACILITY OF AUTOMATION AND SCADA.
	REHABILITATION OF EXISTING OVER HEAD TANKS
	REHABILITATION OF EXISTING ZPS & CWR FOR ONLY SURFACE WATER SUPPLY
	REPLACING OLD PUMPING PLANTS WITH ENERGY EFFICIENT PUMPS.
	NEW OVER HEAD WATER TANKS (O.H.T)
	NEW ZPS & CWR
	AUGMENTATION OF NEW WATER WORKS
TO IMPROVE THE QUALITY OF WATER	
	ESTABLISHMENT/REHAB OF WATER TESTING LAB
	IMPLEMENTATION OF ONLINE WATER TESTING & MONITORING SYSTEMS
	MOBILE WATER TESTING LABS.
TO MAKE SYSTEM ENERGY EFFICIENT	
	REPLACEMENT OF INEFFICIENT PUMPS.
TO REHABILITATE WATER BODIES	REHABILITATION OF EXISTING GROUND WATER SOURCES BY RAIN WATER HARVESTING.
EFFICIENCY IN CHARGES COLLECTION	
	ONLINE BILLING , TRACKING SYSTEM & SPOT BILLING MACHINE
	REHABILITATION AND EXPANSION OF PAYMENT COLLECTION CENTER.
GRIEVANCE REDRESSAL	ONLINE COMPLAINT REDRESSAL SYSTEM.
	TOLL FREE NUMBERS FOR COMPLAINT REDRESSAL.

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)

Above information is provided in the table below.

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

At present, there is no ongoing project in the city.

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

N/A.

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

Bottlenecks in the existing project and lessons learnt during implementation of these project are (1) Availability of land for zonal pumping stations and others structures should be ensured by Nagar Nigam,Development authority & other concern department. (2) Permissions from others concern departments like Railways,NHAI, Forest deptt,Cantonment board etc should be sought out with in time.

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 4. Regularize of illegal connection 5. use of ICT in collection of tax/charges.

Question: Will metering system for billing introduced?

Yes, Metering System will introduced.

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

Yes, NRW levels will be addressed by leak detection and repair, replacement of old lines, 100% metering, water supply zoning of service area 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 OBJECTIVES

Table: Alternative Activities To Meet Objectives

Sr.No.	Objectives	Activities to be performed to bridge the gap	Financing Source
1.	**TO ACHIEVE UNIVERSAL COVERAGE**	REGULARIZINGUNAUTHORISED /ILLEGAL CONNECTIONS GAP IN EXISTING WATER SUPPLY NETWORK WITH HOUSEHOLD CONNECTIONS	State/ULB Funds
		EXPANSION OF WATER SUPPLY DISTRIBUTION NETWORK WITH HOUSEHOLD CONNECTION IN UNCOVERED POCKETS	AMRUT/State/ULB
2.	**TO MAKE SYSTEM EFFICIENT BY NRW REDUCTION**		
		LEAKAGE DETECTION AND REPAIR.	AMRUT/State/ULB
		REPLACEMENT OF OLD LINES (DAMAGED,LEAKED, DEFUNGED, CHOCKED,SLUICE VALVE ETC) WITH HOUSE HOLD CONNECTION	AMRUT/State/ULB
		WATER SUPPLY ZONING OF SERVICE AREA .	AMRUT/State/ULB
		100% IMPLEMENTATION OF METERING .	AMRUT/State/ULB
3.	**TO INCREASE PER CAPITA SUPPLY (LPCD)**		
		RENOVATION OF OLD WATER WORKS WITH THE FACILITY OF AUTOMATION AND SCADA.	AMRUT/State/ULB
		REHABILITATION OF EXISTING OVER HEAD TANKS	AMRUT/State/ULB
		REHABILITATION OF EXISTING ZPS & CWR FOR ONLY SURFACE WATER SUPPLY	AMRUT/State/ULB
		REPLACING OLD PUMPING PLANTS WITH ENERGY EFFICIENT PUMPS.	AMRUT/State/ULB
		NEW OVER HEAD WATER TANKS (O.H.T)	AMRUT/State/ULB
		NEW ZPS & CWR	AMRUT/State/ULB
		AUGMENTATION OF NEW WATER WORKS	AMRUT/State/ULB
4.	**TO IMPROVE THE QUALITY OF WATER**		
		ESTABLISHMENT/REHAB OF WATER TESTING LAB	AMRUT/State/ULB
		IMPLEMENTATION OF ONLINE WATER TESTING &	AMRUT/State/ULB

Sr.No.	Objectives	Activities to be performed to bridge the gap	Financing Source
		MONITORING SYSTEMS	
		MOBILE WATER TESTING LABS.	AMRUT/State/ULB
5.	**TO MAKE SYSTEM ENERGY EFFICIENT**		
		REPLACEMENT OF INEFFICIENT PUMPS.	AMRUT/State/ULB
6.	**TO REHABILITATE WATER BODIES**	REHABILITATION OF EXISTING GROUND WATER SOURCES BY RAIN WATER HARVESTING.	AMRUT/State/ULB
7.	**EFFICIENCY IN CHARGES COLLECTION**		
		ONLINE BILLING , TRACKING SYSTEM & SPOT BILLING MACHINE	AMRUT/State/ULB
		REHABILITATION AND EXPANSION OF PAYMENT COLLECTION CENTER.	AMRUT/State/ULB
8.	**GRIEVANCE REDRESSAL**	ONLINE COMPLAINT REDRESSAL SYSTEM.	AMRUT/State/ULB/PPP
		TOLL FREE NUMBERS FOR COMPLAINT REDRESSAL.	AMRUT/State/ULB/PPP

4. Citizen Engagement

ULBs will organize and conduct city level citizen consultation and receive feedback on the suggested alternatives and innovations. Each alternative will be discussed with citizens and activities to be taken up will be prioritized to meet the service level gaps. ULB will prioritize these activities and their scaling up based on the available resources. (AMRUT Guidelines; Para 6.6, 6.7 & 7.2). Please explain following questions in not more than 200 words detailing out the needs, aspirations and wishes of the local people.

Question: Has all stakeholders involved in the consultation?

Yes, all stakeholders is being involved in the consultation.

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

Yes, ward/ zone level consultations is being held in the city.

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?

Through departmental and public consultation.

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/State/ULB/PPP.

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

Yes.

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

Yes.

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.

Objectives	Activities to be performed to bridge the gap	Conditionalities
TO ACHIEVE UNIVERSAL COVERAGE	REGULARIZINGUNAUTHORISED /ILLEGAL CONNECTIONS GAP IN EXISTING WATER SUPPLY NETWORK WITH HOUSEHOLD CONNECTIONS	**No need of Land, environmental clearance and NOC. Financial commitment of State and ULB already provided in the following tables.**
	EXPANSION OF WATER SUPPLY DISTRIBUTION NETWORK WITH HOUSEHOLD CONNECTION IN UNCOVERED POCKETS	
TO MAKE SYSTEM EFFICIENT BY	LEAKAGE DETECTION AND REPAIR.	**No need of Land, environmental clearance and NOC. Financial commitment of State and ULB**
	REPLACEMENT OF OLD LINES (DAMAGED,LEAKED, DEFUNGED,	

Objectives	Activities to be performed to bridge the gap	Conditionalities
NRW REDUCTION	CHOCKED,SLUICE VALVE ETC) WITH HOUSE HOLD CONNECTION	**already provided in the following tables.**
	WATER SUPPLY ZONING OF SERVICE AREA .	
	100% IMPLEMENTATION OF METERING	
TO INCREASE PER CAPITA SUPPLY (LPCD)	RENOVATION OF OLD WATER WORKS WITH THE FACILITY OF AUTOMATION AND SCADA.	**No need of Land, environmental clearance and NOC. Financial commitment of State and ULB already provided in the following tables.**
	REHABILITATION OF EXISTING OVER HEAD TANKS	
	REHABILITATION OF EXISTING ZPS & CWR FOR ONLY SURFACE WATER SUPPLY	
	REPLACING OLD PUMPING PLANTS WITH ENERGY EFFICIENT PUMPS.	
	AUGMENTATION OF NEW WATER WORKS	
	NEW ZPS & CWR	**Land, environmental clearance and NOC are completed. Financial commitment of State and ULB already provided in the following tables.**
	NEW OVER HEAD WATER TANKS (O.H.T)	
TO IMPROVE THE QUALITY OF WATER	ESTABLISHMENT/REHAB OF WATER TESTING LAB	**No need of Land, environmental clearance and NOC. Financial commitment of State and ULB already provided in the following tables.**
	IMPLEMENTATION OF ONLINE WATER TESTING & MONITORING SYSTEMS	
	MOBILE WATER TESTING LABS.	
TO MAKE SYSTEM ENERGY EFFICIENT	REPLACEMENT OF INEFFICIENT PUMPS.	**No need of Land, environmental clearance and NOC. Financial commitment of State and ULB already provided in the following tables.**
TO REHABILITATE WATER BODIES	REHABILITATION OF EXISTING GROUND WATER SOURCES BY RAIN WATER HARVESTING.	**No need of Land, environmental clearance and NOC. Financial commitment of State and ULB already provided in the following tables.**
EFFICIENCY IN CHARGES COLLECTION	ONLINE BILLING , TRACKING SYSTEM & SPOT BILLING MACHINE	**No need of Land, environmental clearance and NOC. Financial commitment of State and ULB already provided in the following tables.**
	REHABILITATION AND EXPANSION OF PAYMENT COLLECTION CENTER.	
GRIEVANCE REDRESSAL	ONLINE COMPLAINT REDRESSAL SYSTEM.	**No need of Land, environmental clearance and NOC. Financial commitment of State and ULB**
	TOLL FREE NUMBERS FOR COMPLAINT REDRESSAL.	

Objectives	Activities to be performed to bridge the gap	Conditionalities
		already provided in the following tables.

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 related factor will be considered while preparation of 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?

As per the guidelines of the AMRUT, the structured plan of the project has been developed.

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.

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.No.	Project Name	Priority number	Year in which to be implemented	Year in which to be completed	Estimated Cost

S.No.	Project Name	Priority number	Year in which to be implemented	Year in which to be completed	Estimated Cost
1.	REGULARIZINGUNAUTHORISED /ILLEGAL CONNECTIONS	1	2016	2017	3.00
2.	LEAKAGE DETECTION AND REPAIR.	2	2016	2018	10.00
3.	REPLACEMENT OF OLD LINES (DAMAGED,LEAKED, DEFUNGED, CHOCKED,SLUICE VALVE ETC) WITH HOUSE HOLD CONNECTION	3	2016	2018	120.00
4.	WATER SUPPLY ZONING OF SERVICE AREA .	4	2016	2019	65.00
5.	ESTABLISHMENT/REHAB OF WATER TESTING LAB	5	2016	2017	5.00
6.	IMPLEMENTATION OF ONLINE WATER TESTING & MONITORING SYSTEMS	6	2016	2017	2.00
7.	MOBILE WATER TESTING LABS.	7	2016	2017	1.00
8.	ONLINE COMPLAINT REDRESSAL SYSTEM.	8	2016	2017	1.00
9.	TOLL FREE NUMBERS FOR COMPLAINT REDRESSAL.	9	2016	2017	0.50
10.	REHABILITATION AND EXPANSION OF PAYMENT COLLECTION CENTER.	10	2016	2017	1.50
11.	ONLINE BILLING , TRACKING SYSTEM & SPOT BILLING MACHINE	11	2016	2017	3.00
12.	REHABILITATION OF EXISTING ZPS & CWR FOR ONLY SURFACE WATER SUPPLY	12	2016	2018	5.00

S.No.	Project Name	Priority number	Year in which to be implemented	Year in which to be completed	Estimated Cost
13.	100% IMPLEMENTATION OF METERING .	13	2016	2020	510.00
14.	RENOVATION OF OLD WATER WORKS WITH THE FACILITY OF AUTOMATION AND SCADA.	14	2016	2019	85.00
15.	REHABILITATION OF EXISTING OVER HEAD TANKS	15	2016	2018	5.00
16.	REPLACING OLD PUMPING PLANTS AT WTP WITH ENERGY EFFICIENT PUMPS.	16	2016	2017	25.00
17.	EXPANSION OF WATER SUPPLY DISTRIBUTION NETWORK WITH HOUSEHOLD CONNECTION IN UNCOVERED POCKETS	17	2016	2019	135.00
18.	AUGMENTATION OF NEW WATER WORKS	18	2016	2020	15.00
19.	REPLACEMENT OF INEFFICIENT PUMPS AT ZPS.	19	2016	2018	15.00
20.	REHABILITATION OF EXISTING GROUND WATER SOURCES BY RAIN WATER HARVESTING.	20	2016	2018	1.50
21.	NEW OVER HEAD WATER TANKS (O.H.T)	21	2016	2020	5.75
22.	NEW ZPS & CWR	22	2016	2020	14.00
TOTAL					**1028.25**

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.	REGULARIZING UNAUTHORISED /ILLEGAL CONNECTIONS ETC	Survey	Coverage of water supply connections	68%	75%	3.00
2.	LEAKAGE DETECTION AND REPAIR.	Repair of waterline	Extent of non revenue water	60%	35%	10.00
3.	REPLACEMENT OF OLD LINES (DAMAGED,LEAKED, DEFUNGED, CHOCKED,SLUICE VALVE ETC) WITH HOUSE HOLD CONNECTION	148 km water line	Extent of non revenue water	60%	25%	120.00
4.	WATER SUPPLY ZONING OF SERVICE AREA .	-	Extent of non revenue water	60%	30%	65.00
5.	ESTABLISHMENT/REHAB OF WATER TESTING LAB	2 nos.	Quality of water supply	95%	100%	5.00
6.	IMPLEMENTATION OF ONLINE WATER TESTING & MONITORING SYSTEMS	-	Quality of water supply	95%	100%	2.00
7.	MOBILE WATER TESTING LABS.	2nos.	Quality of water supply	95%	100%	1.00
8.	ONLINE COMPLAINT REDRESSAL SYSTEM.	2nos.	Quality of water supply	95%	100%	1.00
9.	TOLL FREE NUMBERS FOR COMPLAINT REDRESSAL.	2nos.	Quality of water supply	95%	100%	0.50
10.	REHABILITATION AND EXPANSION OF PAYMENT COLLECTION CENTER.	6nos.	Efficiency in collection of water supply related charges	60%	70%	1.50

Sr. No.	Project Name	Physical Components	Change in Service Levels			Estimated Cost
			Indicator	Existing (As-Is)	After (To-be)	
11.	ONLINE BILLING , TRACKING SYSTEM & SPOT BILLING MACHINE	-	Efficiency in collection of water supply related charges	60%	85%	3.00
12.	REHABILITATION OF EXISTING ZPS & CWR FOR ONLY SURFACE WATER SUPPLY	10 nos.	Per capita supply of water	210lpcd	230lpcd	5.00
13.	100% IMPLEMENTATION OF METERING .	374000 nos.water meter	Extent of water metering	0	100%	510.00
14.	RENOVATION OF OLD WATER WORKS WITH THE FACILITY OF AUTOMATION AND SCADA.	2 nos.	Per capita supply	210lpcd	230lpcd	85.00
15.	REHABILITATION OF EXISTING OVER HEAD TANKS	10nos.	Per capita supply	210lpcd	230lpcd	5.00
16.	REPLACING OLD PUMPING PLANTS AT WTP WITH ENERGY EFFICIENT PUMPS.	15 nos.	Cost recovery	75%	85%	25.00
17.	EXPANSION OF WATER SUPPLY DISTRIBUTION NETWORK WITH HOUSEHOLD CONNECTION IN UNCOVERED POCKETS	250 Km	Coverage of water supply connections	68%	100%	135.00
18.	AUGMENTATION OF NEW WATER WORKS	-	Per capita supply	210lpcd	230lpcd	15.00
19.	REPLACEMENT OF INEFFICIENT PUMPS AT ZPS.	20 nos.	Cost recovery	75%	80%	15.00
20.	REHABILITATION OF EXISTING GROUND WATER SOURCES BY RAIN WATER HARVESTING.	-	Per capita supply	210lpcd	230lpcd	1.50
21.	NEW OVER HEAD WATER TANKS (O.H.T)	4 nos.	Coverage of water supply connections	68%	100%	5.75
22.	NEW ZPS & CWR	16 nos.	Coverage of water supply	68%	100%	14.00

Sr. No.	Project Name	Physical Components	Change in Service Levels			Estimated Cost
			Indicator	Existing (As-Is)	After (To-be)	
			connections			

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.	REGULARIZING UNAUTHORISED /ILLEGAL CONNECTIONS ETC	3.00	100%	-	-	-	3.00
2.	EXPANSION OF WATER SUPPLY DISTRIBUTION NETWORK WITH HOUSEHOLD CONNECTION IN UNCOVERED POCKETS	135.00	33%	67%	-	-	135.00
3.	LEAKAGE DETECTION AND REPAIR.	10.00	33%	67%	-	-	10.00
4.	REPLACEMENT OF OLD LINES (DAMAGED,LEAKED, DEFUNGED, CHOCKED,SLUICE VALVE ETC) WITH HOUSE HOLD CONNECTION	120.00	33%	67%	-	-	120.00

Sr. No.	name of Project	Total Project Cost	Share				
			GOI	State	ULB	Others	Total
5.	WATER SUPPLY ZONING OF SERVICE AREA .	65.00	33%	67%	-	-	65.00
6.	ESTABLISHMENT/REHAB OF WATER TESTING LAB	5.00	33%	67%	-	-	5.00
7.	IMPLEMENTATION OF ONLINE WATER TESTING & MONITORING SYSTEMS	2.00	33%	67%	-	-	2.00
8.	MOBILE WATER TESTING LABS.	1.00	33%	67%	-	-	1.00
9.	ONLINE COMPLAINT REDRESSAL SYSTEM.	1.00	33%	67%	-	-	1.00
10.	TOLL FREE NUMBERS FOR COMPLAINT REDRESSAL.	0.50	33%	67%	-	-	0.50
11.	REHABILITATION AND EXPANSION OF PAYMENT COLLECTION CENTER.	1.50	33%	67%	-	-	1.50
12.	ONLINE BILLING , TRACKING SYSTEM & SPOT BILLING MACHINE	3.00	33%	67%	-	-	3.00
13.	REHABILITATION OF EXISTING ZPS & CWR FOR ONLY SURFACE WATER SUPPLY	5.00	33%	67%	-	-	5.00
14.	100% IMPLEMENTATION OF METERING .	510.00	33%	67%	-	-	510.00
15.	RENOVATION OF OLD WATER WORKS WITH THE FACILITY OF AUTOMATION AND	85.00	33%	67%	-	-	85.00

Sr. No.	name of Project	Total Project Cost	Share				
			GOI	State	ULB	Others	Total
	SCADA.						
16.	REHABILITATION OF EXISTING OVER HEAD TANKS	5.00	33%	67%	-	-	5.00
17.	REPLACING OLD PUMPING PLANTS AT WTP WITH ENERGY EFFICIENT PUMPS.	25.00	33%	67%	-	-	25.00
18.	AUGMENTATION OF NEW WATER WORKS	15.00	33%	67%	-	-	15.00
19.	REPLACEMENT OF INEFFICIENT PUMPS AT ZPS.	15.00	33%	67%	-	-	15.00
20.	REHABILITATION OF EXISTING GROUND WATER SOURCES BY RAIN WATER HARVESTING.	1.50	33%	67%	-	-	1.50
21.	NEW OVER HEAD WATER TANKS (O.H.T)	5.75	33%	67%	-	-	5.75
22.	NEW ZPS & CWR	14.00	33%	67%	-	-	14.00

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	REGULARIZING UNAUTHORISED /ILLEGAL CONNECTIONS ETC	3.00	-	-	-	-	-	-	-	-	3.00
2	EXPANSION OF WATER SUPPLY DISTRIBUTION NETWORK WITH HOUSEHOLD CONNECTION IN UNCOVERED POCKETS	44.55		90.45	-	-	-	-	-	-	135.00
3	LEAKAGE DETECTION AND REPAIR.	3.3		6.7	-	-	-	-	-	-	10.00
4	WATER SUPPLY ZONING OF SERVICE AREA .	21.45		43.55	-	-	-	-	-	-	65.00
5	ESTABLISHMENT/REHAB OF WATER TESTING LAB	1.65		3.35	-	-	-	-	-	-	5.00
6	IMPLEMENTATION OF ONLINE WATER TESTING & MONITORING SYSTEMS	0.66		1.34	-	-	-	-	-	-	2.00
7	MOBILE WATER TESTING LABS.	0.33		0.67	-	-	-	-	-	-	1.00
8	ONLINE COMPLAINT REDRESSAL SYSTEM.	0.33		0.67	-	-	-	-	-	-	1.00
9	TOLL FREE NUMBERS FOR COMPLAINT REDRESSAL.	0.165		0.335	-	-	-	-	-	-	0.50

Sr. No.	Project	GOI	State			ULB			Convergence	others	Total
			14th FC	Others	Total	14th FC	Others	Total			
10	REHABILITATION AND EXPANSION OF PAYMENT COLLECTION CENTER.	0.495		1.005	-	-	-	-	-	-	1.50
11	ONLINE BILLING , TRACKING SYSTEM & SPOT BILLING MACHINE	0.99		2.01	-	-	-	-	-	-	3.00
12	REHABILITATION OF EXISTING ZPS & CWR FOR ONLY SURFACE WATER SUPPLY	1.65		3.35	-	-	-	-	-	-	5.00
13	REPLACEMENT OF OLD LINES (DAMAGED,LEAKED, DEFUNGED, CHOCKED,SLUICE VALVE ETC) WITH HOUSE HOLD CONNECTION	39.6		80.4	-	-	-	-	-	-	120.00
14	100% IMPLEMENTATION OF METERING .	168.3		341.7	-	-	-	-	-	-	510.00
15	RENOVATION OF OLD WATER WORKS WITH THE FACILITY OF AUTOMATION AND SCADA.	28.05		56.95	-	-	-	-	-	-	85.00
16	REHABILITATION OF EXISTING OVER HEAD TANKS	1.65		3.35	-	-	-	-	-	-	5.00
17	REPLACING OLD PUMPING PLANTS AT WTP WITH ENERGY EFFICIENT PUMPS.	8.25		16.75	-	-	-	-	-	-	25.00
18	AUGMENTATION OF NEW WATER WORKS	4.95		10.05	-	-	-	-	-	-	15.00

Sr. No.	Project	GOI	State			ULB			Convergence	others	Total
			14th FC	Others	Total	14th FC	Others	Total			
19	REPLACEMENT OF INEFFICIENT PUMPS AT ZPS.	4.95		10.05	-	-	-	-	-	-	15.00
20	REHABILITATION OF EXISTING GROUND WATER SOURCES BY RAIN WATER HARVESTING.	0.495		1.005	-	-	-	-	-	-	1.50
21	NEW OVER HEAD WATER TANKS (O.H.T)	1.89		3.86	-	-	-	-	-	-	5.75
22	NEW ZPS & CWR	4.62		9.38	-	-	-	-	-	-	14.00

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				
REGULARIZING UNAUTHORISED /ILLEGAL CONNECTIONS ETC-	3.00	Coverage of water supply connections	68%	70 %	72%	75%	-	-	-
GAP IN EXISTING WATER SUPPLY NETWORK WITH HOUSEHOLD	90.00	Coverage of water supply connections	68%	69 %	70%	80%	90%	-	-

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				
CONNECTIONS									
LEAKAGE DETECTION AND REPAIR.	10.00	Extent of non revenue water	60%	50 %	40%	30%	35%	-	-
WATER SUPPLY ZONING OF SERVICE AREA .	65.00	Extent of non revenue water	60%	55 %	50%	40%	30%	35%	-
ESTABLISHMENT/REHAB OF WATER TESTING LAB	5.00	Quality of water supply	95%	96 %	98%	100%	-	-	-
IMPLEMENTATION OF ONLINE WATER TESTING & MONITORING SYSTEMS	2.00	Quality of water supply	95%	96 %	98%	100%	-	-	-
MOBILE WATER TESTING LABS.	1.00	Quality of water supply	95%	96 %	98%	100%	-	-	-
ONLINE COMPLAINT REDRESSAL SYSTEM.	1.00	Quality of water supply	95%	96 %	98%	100%	-	-	-
TOLL FREE NUMBERS FOR COMPLAINT REDRESSAL.	0.50	Quality of water supply	95%	96 %	98%	100%	-	-	-
REHABILITATION AND EXPANSION OF PAYMENT COLLECTION CENTER.	1.50	Efficiency in collection of water supply related charges	60%	64 %	66%	70%	-	-	-
ONLINE BILLING , TRACKING SYSTEM & SPOT BILLING MACHINE	3.00	Efficiency in collection of water supply related charges	60%	65 %	70%	85%	-	-	-
REHABILITATION OF EXISTING ZPS & CWR FOR ONLY SURFACE WATER SUPPLY	5.00	Per capita supply of water	210lpcd	212lpcd	220lpcd	225lpcd	230lpcd	-	-

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				
REPLACEMENT OF OLD LINES (DAMAGED,LEAKED, DEFUNGED, CHOCKED,SLUICE VALVE ETC) WITH HOUSE HOLD CONNECTION	120.00	Extent of non revenue water	60%	50%	40 %	38 %	35%	-	-
100% IMPLEMENTATION OF METERING.	510.00	Extent of water metering	0	10%	20 %	40 %	60%	80 %	100%
RENOVATION OF OLD WATER WORKS WITH THE FACILITY OF AUTOMATION AND SCADA.	85.00	Per capita supply	210lpcd	212	215	220	225	230 lpcd	
REHABILITATION OF EXISTING OVER HEAD TANKS	5.00	Per capita supply	210 lpcd	212 lpcd	220 lpcd	225 lpcd	230 lpcd	-	-
REPLACING OLD PUMPING PLANTS AT WTP WITH ENERGY EFFICIENT PUMPS.	25.00	Cost recovery	75%	78%	80 %	85 %	-	-	-
EXPANSION OF WATER SUPPLY DISTRIBUTION NETWORK WITH HOUSEHOLD CONNECTION IN UNCOVERED POCKETS	135.00	Coverage of water supply connections	68%	55%	58 %	65 %	70%	75 %	85%
AUGMENTATION OF NEW WATER WORKS	15.00	Per capita supply	210lpcd	212	218	220	225	228	230lpcd
REPLACEMENT OF INEFFICIENT PUMPS AT ZPS.	15.00	Cost recovery	75%	76%	77 %	78 %	80%	-	-
REHABILITATION OF EXISTING GROUND WATER SOURCES BY RAIN WATER HARVESTING.	1.50	Per capita supply	210 lpcd	212 lpcd	220 lpcd	225 lpcd	230 lpcd	-	-
NEW OVER HEAD WATER TANKS (O.H.T)	5.75	Coverage of water supply connections	68%	55%	58 %	65 %	75%	85 %	100%
NEW ZPS & CWR	14.00	Coverage of water supply connections	68%	55%	58 %	65 %	75%	85 %	100%