

CITY NAME –RAMPUR

Sewerage and Septage Management

1. Assess the Service Level Gap

The first step is to assess the existing situation and service levels gaps for Sewerage (AMRUT Guidelines; para 3 & 6). This will also include existing institutional framework for the sector. For this City has to review all policy, plans, scheme documents etc. to identify service level gaps and hold discussions with officials and citizens. 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 sewerage system of the city? Detail out the data, information, plans, reports etc related to sewerage available with city? Is zone wise information available? Have you correlated your data with census 2011 data? (100 words)

DPR of sewerage has been prepared by Jal Nigam, Rampur. Data of census 2011 is available with Nagar Palika Parishad Rampur.			
Source	Location of source of Sewerage Population	Total Number of Households	Total Number of Households with toilets
Total Population (Census, 2011)	Total Population - 325313		
	Within the premises	55678	54923
	Near the premises	2059	1787
	Away	207	125
	Total	57944	56835
Departmental Data (2015)	Population- 349711	58981	58413
Departmental Data (2017)	Population- 361702	58985	58413

Waste water outlet connected	Close Drainage	Open Drainage	No Drainage
Number of HH	18661	38612	671
Departmental Data 2015	HH Connected To existing sewerage		0
Departmental Data 2017	HH Connected To existing sewerage		3967

What are existing service levels for sewerage for coverage of sewerage network services, efficiency of collection of sewerage and efficiency in treatment. Provide information in table

Table 2.1 : Status of sewerage network and Service Levels

Sr. No.	Indicators	Existing Service Level		MOUD Benchmark	Reliability
		2015	2018		
1	Coverage of latrines (individual or community)	93.33%	100%	100%	A
2	Coverage of sewerage network services 143/303	47.19%	47.19%	100%	C
3	Efficiency of collection of sewerage	6.72%	13.77%	100%	C
4	Efficiency in Treatment: Adequacy of sewerage treatment capacity	0%	15.51%	100%	C

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

S.No.	Discription	2015	2018
1	Gap in coverage of latrines (individual or community)	6.67%	0%
2	Gap in Coverage of sewerage network services	52.81%	52.81%
3	Gap in Efficiency of collection of sewerage	93.28%	86.23%
4	Gap in Efficiency in Treatment: Adequacy of sewerage treatment capacity	100%	84.5%

Question: Does city has separate drainage system or sewer lines take care of storm water? (50 words)

Yes, city is planning to construct Drainage and sewerage system separate and sewerage system is not present in the city.

Coverage of latrines (individual or community), Please provide information in Table 2.2 A

Zone wise	Total number of HH a		Total number of HH with individual or community toilets within walking distance b		Coverage of latrines (%), (b/a)*100%	
	2015	2018	2015	2018	2015	2018
1	24800	24800	23560	24800	95%	100%
2	21861	21861	20331	21861	93%	100%
3	6860	6860	6243	6860	91%	100%
4	5460	5464	4914	5464	90%	100%
Total	58981	58985	55048	57526	93.33%	100%

SEWERAGE NETWORK AND COLLECTION OF SEWERAGE

Question: How much of the area of the city is covered by sewerage network? What is the status of household connections in each zone? What are the areas covered under septage? Provide information in Table

Table: Zone/Ward Wise Coverage of Households

Zone Wise	Total No. of Households(HH) a		Households with Sewerage Network b		Coverage of sewerage network services (b/a)*100%	
	2015	2018	2015	2018	2015	2018
1	24800	24800	1017	3302	4.1%	13.31%
2	21861	21861	2950	4820	13.5%	22.00%
3	6860	6860	0	0	0%	0%
4	5460	5464	0	0	0%	0%
Total	58981	58985	3967	8122	6.72%	13.77%

Question: Are there any areas where sewer lines have been laid but still households are not connected to sewer lines? Are there any areas where toilets may be connected to sewer lines but kitchen or bathroom waste are not connected to sewerage system? (75 word)

Answer: 143.00 Km sewer line is laid down in the Nagar Palika Parishad area but none of the houses are connected yet. To connect house hold in the covered area of sewerage network additional 20 Km branch line sewerage network will require.

Question: Is there any systematic and organized method to collect and treat waste from septic tanks? What is the duration of cleaning of septic tanks (monthly, quarterly, semiannually or annually)? Indicate status of overflows of septic tanks, either in the nearby drains /open fields/ sewerage lines etc? (75 words)

NO The entire overflows are falling in drains.

Question: What is the situation of O&M of the existing sewerage system? Does the city has routine maintenance system or breakdown maintenance system? What is the duration of cleaning of sewer lines (monthly, quarterly, semiannually or annually)? Indicate infrastructure available for O&M of the sewerage system i.e sewer jetting machines etc? (100 words)

There is no public sewer line connection in existing sewer line but city has currently two STP which are functioning by tapping the discharge of drain. Operation and maintenance of sewer system has been done on Quarterly basis.

SEWAGE TREATMENT SYSTEM

Question: Does city has Sewage Treatment Plant (STP)? Which areas are covered under each of the STPs? Provide details in Table 2.3

Table 2.3: Status of Existing's STPs

Sr. No.	Location	Capacity (MLD)	Inflow in the STP (MLD)		Efficiency in %	
			2015	2018	2015	2018
1	Ghatampur	14 MLD	1	2.5	7.15%	17.85%
2	Pahadi Gate	15 MLD	1.5	2.0	8%	13.33%

Question: Does decentralized waste treatment system exist or planned in the city? If yes, provide details (75 words)

In Nagar Palika Parishad Rampur there is no decentralized waste treatment system exist.

Question: How much of sewerage is generated in the city? How much of this sewerage generated reaches the STPs? What is the Biological Oxygen Demand (BOD) of incoming and outgoing sewage of each STP? (100 words)

Answer: As per census 2011 , 34 mld sewage is generated. As there is no connections, none of the waste water discharged reached the STP. But the STP are in position to treat 14 and 15 MLD (Total 29 MLD). As per test results of both STP ,BOD of incoming sewage is 120 mg/l and outgoing is around 20 mg/l.

Question: Is treated sewage being reused or recycled? Is treated water being used for irrigation or industrial purpose? Does the option of power generation being explored? (75 words)

NA

INSTITUTIONAL FRAMEWORK

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

Table: 2.4: Functions, roles, and responsibilities

Planning and Design	Construction/ Implementation	O&M
UP Jal Nigam	UP Jal Nigam	Nagar Palika Parishad, Rampur

Question: Please also detail that how city is planning to execute projects. Shall the implementation of project be done by Municipal Corporation or any parastatal body? (75 words)

It is planned to lay down sewer lines and all the capital projects will be executed by UP Jal Nigam.

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 sewerage system under different schemes with status and when the existing projects are scheduled to be completed? Provide information in Table

Table: Status of ongoing / sanctioned project

S.No.	Name of Project	Scheme Name	Cost in Rs Crore	Month of Completion	Status (as on 29/09/2018)
1	Sewer House Connection for Zone-I and II of Rampur City (7070 Nos)	AMRUT	21.8976	Dec-2018	Work is in Progress
2	Sewer House Connection for Zone-I and II of Rampur City (35624 Nos)	AMRUT	82.5889	Dec-2020	Tender has been invited on 29/09/2018

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

NA

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

Yes , total 143 Km Nagar Palika Parishad Rampur area is being covered by the completed projects and running projects and additional infrastructure of 160 kms. needs to develop for covering the complete municipal area and 2 STP of 13 MLD.

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?

NPP visualization for management of sewerage septage through IEC for preventing the open deification and construction of individual & community latrines, decentralized Septage management, STP for waste collection from septic tank periodically and treatment of waste collected.

Provide information in Table 2.6

Table 2.6: Demand Gap Assessment

Component					2021	
	2015	2018	Ongoing projects	Total	Demand	Gap
Sewerage network (km)	143 KM	143 KM	-	143 KM	303 Km	160 Km
No of Households covered under sewerage system	46661	46661	-	46661	58985 HH	12324 HH
No. of HH covered in Septage Management	Nil	Nil	-	Nil	Nil	Nil
Sewerage Treatment Plant (MLD) for sewerage scheme	29 MLD	29 MLD	-	29 MLD	46 MLD	17 MLD
Public House Connection charges from sewer line to house hold including supply of all material and labour & T&P etc. (Zone-I and Zone-II)	3967	3967	4155	8122	42694	38539

OBJECTIVES

Based on assessment of existing infrastructure and ongoing / sanctioned projects, calculate existing gaps and estimated demand by 2021 for sewerage network, number of household to be provided with connections, and required enhancement in capacity of STP (MLD), area to be covered under septage management. Based on the demand and gap assessment, evolve objectives to achieve bridging these gap.

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

- 1. Construction of HH latrines in 568 HH through Swachha Bharat Mission**
- 2. Laying of 160Km sewer line in new areas and providing connection to 12324 HH.**
- 3. Treatment of sewage through existing 2STPs (14 MLD and 15 MLD and will serve 46661 HH), additional 2 STPs required.**
- 4- Public House Connection charges 46661 nos are also required to join the sewer line to house hold including supply of all material and labour & T&P etc. (Zone-I and Zone-II)**

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

Yes, the objectives will meet the Gap.

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 alternative. While identifying the possible activities, also examine the ongoing scheme and its solutions including status of completion, coverage and improvement in O&M. Please reply following questions in not more than 200 words.

Question: What are the possible activities and source of funding for meeting out the objectives?

The funding for meeting out the each objective will 50% from AMRUT and remaining 50% from state and Nagar Palika Parishad Rampur.

Question: How can the activities be converged with other programmes like JICA/ ADB funded projects in the city etc?

One ongoing project is running funded by state govt. and will be completed

Question: What are the options of completing the ongoing activities?

NA

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

Answer: Operation and Maintenance of sewer projects is one of main hindrance for successful life time performance. Many a time, it happens that households are not willing to take sewer connections thus leading to revenue losses for such schemes. It can be rectified by the means of mandatory sewer connection.

Question: Has projects includes O&M of sewerage system?

Yes, all the projects has a mandatory O&M for sewerage scheme.

Question: What measures may be adopted to recover the O&M costs? Can the option of sale of treated wastewater be applicable to recover the O&M cost.

NPP will impose sewer tax and charges for maintaining the sewer and option of sale of sludge will be considered while preparing DPR.

Question: What are innovative alternative solutions explored in achieving objectives?

NPP will focus to motivate the citizens for taking the connections and try to stop open defecation in the city. NPP is planning to explore recycling and recharging of water

Question: Are different options of PPP such as Design-build-Operate-Transfer (DBOT), Design Built Finance Operate and Transfer (DBFOT) are considered?

Yes NPP will be explored PPP option during designing and preparing of DPR. Question: How the recycle and reuse of water will be done? How much quantity of treated water may be reused?

Innovative techniques will be considered while preparing DPR to meet the above objective.

Question: Have you analyzed best practices and innovative solutions in sewerage sector? Is any of the practice be replicated in the city?

YES and while preparing DPR.

Question: Have you identified the areas for decentralized waste treatment system? Explore the approaches for Septage management i.e. People Public Private Partnership (PPPP) model or replacing septic tanks by bio-digesters, bioremediation etc

Yes, PPPP model will be explored during development of DPR as industrial area in Rampur is identified.

The alternative activities to meet these activities be defined as per Table 2.7

Table2.7 Alternative Activities To Meet Objectives

SL No.	Objective	Activities	Financing Source
1	Construction of HH Latrine	Survey	SBM
2	Establishing of sewer network of 160 km , 2 STPs, 2 IPS & 2 MPS	Construction of sewer network	AMRUT/ State Govt
3	Treatment of Septage waste	Through decentralized waste management by bio-digester/bio-meterization etc.	AMRUT/ State Govt.
4	Septage waste collection and transportation	Septic management	AMRUT/ State Govt.
5	Public House connection charges	To connect house hold to sewer line	AMURT/State Govt.

4. Citizen Engagement

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 reply following questions in not more than 200 words.

Question: Has all stakeholders involved in the consultation?

Yes, all stakeholders is being involved in the consultation passes the proposals which are put up by ward members. Thus all stakeholders were involved in the consultation on 06 December, 2014.

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

Yes ward level consultations were held in city by respective ward members. Citizens were consulted by ward memers and there suggestions were taken care. It is discussed in different board meetings also held on 01.08.2015 and 26.10.2015 respectively

Question: Has alternative proposed above are crowd sourced?

Yes, Suggestions and views of the crowd are taken into consideration on www.npprampur.in face book etc.

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

Almost people are agreed to Construction of individual & community latrines, transportation and treatment of waste through sewerage system.

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

Yes, All the all the alternatives are prioritized on the basis of citizen and member consultations.

Question: What methodology adopted for prioritizing the alternatives?

On importance wise after consultation made in nagar Palika parishad board meetings firstly Construction of individual & community latrines & transportation and treatment of septage waste by bio-digester and bio-metering etc.

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.4 Swachcha Bharat Mission

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

Yes, IEC & construction of individual and community latrines convergence have been made with Swachcha Bharat Mission.

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. Priority has been given to those activities which are capable of generating revenues and fulfill the profit objectives

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

Yes, universal coverage approach indicated in AMRUT guidelines followed for prioritization of activities.

6. Conditionalities

Describe 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. Please reply following questions in not more than 100 words.

Land available on cost basis. NOC is required from State Pollution Control Board and necessary action has been taken for arrangement of land

7. Resilience

Required approvals will be sought from competent authority and organizations. The resilience factor would be built in to ensure environmentally sustainable sewerage scheme. Please reply following questions in not more than 100 words.

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 200 words

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

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: Does financial plan include percentage share of different stakeholders (Centre, State, ULBs and)

Sewer & Sanitation scheme financed by GOI & State Government project will be financed as per AMRUT guidelines.

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

Yes, it will be converged with Swachchha Bharat Mission and ongoing State funded scheme

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

Yes milestone and outcomes are identified as mentioned in Guidelines

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 Sewerage 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 in Crore
1	Sewer House Connection for Zone-I & II of Rampur City -7070 Nos (Tender invited)	1	2017	2018	21.8976
2	Sewer House Connection for Zone-I & II of Rampur City -35624 Nos (DPR Submitted)	2	2017	2020	82.5889
3	Installation of Sewer network of 160km(Zone 3 & Zone 4) @ 1.92 Cr/km	3	2017	2020	307.20
4	Construction of IPS 2 @ 15 Cr/Unit	4	2017	2020	30.00
5	Construction of MPS 2 @ 18 Cr/Unit	5	2017	2020	36.00
6	Construction of 2 STPs (8 MLD in Zone 3 + 9 MLD in Zone 4)@ 3.2 Cr/MLD	6	2017	2020	54.40
Total-					532.0865

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)	
				2015	2018	2020	
1	Efficiency of Collection of Sewerage	Sewer House Connection for Zone-I & II of Rampur City - 7070 Nos (Tender invited)	100%	6.72%	13.77%	18.71%	21.8976
2	Efficiency of Collection of Sewerage	Sewer House Connection for Zone-I & II of Rampur City - 35624 Nos (DPR Submitted)	100%	6.72%	6.72%	79.10%	82.5889
3	Coverage of sewerage network services	Installation of Sewer network of 160 km (Zone 3 and 4) @ 1.92 Cr/km	100%	0%	0%	100%	307.20
4	Efficiency of Collection of Sewerage	Construction of IPS 2 Nos	100%	0%	0%	100%	30.00
5	Efficiency of Collection of Sewerage	Construction of MPS 2 Nos	100%	0%	0%	100%	36.00
6	Efficiency in treatment: Adequacy of Sewerage Treatment.	Construction of 2 STPs (8 MLD in Zone 3 + 9 MLD in Zone 4) @ 3.2 Cr/MLD	100%	0%	100%	100%	54.40
Total-							532.0865

ANNUAL FUND SHARING PATTERN FOR SEWERAGE PROJECTS

(As per Table 2.3.1 of AMRUT guidelines)

S · N o ·	Name of Project	Physical Components	Total Project Cost	Share				
				GOI	State	ULB	Others	Total
1	Efficiency of Collection of Sewerage	Sewer House Connection for Zone-I & II of Rampur City -7070 Nos (Tender invited)	21.8976	10.9488	6.5693	4.3795	-	21.8976
2	Efficiency of Collection of Sewerage	Sewer House Connection for Zone-I & II of Rampur City - 35624 Nos (DPR Submitted)	82.5889	41.2944	24.7767	16.5178	-	82.5889
3	Coverage of sewerage network services	Installation of Sewer network of 160 km(70 km in Trans Railway Zone + 90 km in Main City Zone) @ 1.90 Cr/km	307.20	153.60	92.16	61.44	-	307.20
4	Efficiency of Collection of Sewerage	Construction of IPS 2 Nos	30.00	15.00	9.00	6.00	-	30.00
5	Efficiency of Collection of Sewerage	Construction of MPS 2 Nos	36.00	18.00	10.80	7.20	-	36.00
6	Efficiency in treatment: Adequacy of Sewerage Treatment.	Construction of 2 STPs (8 MLD in Zone 3 + 9 MLD in Zone 4)@ 3.2 Cr/MLD	54.40	27.20	16.32	10.88	-	54.40
Total-								532.0865

(Amount in Rs. Cr)

ANNUAL FUND SHARING BREAK-UP FOR SEWERAGE PROJECTS

(As per Table 2.3.2 of AMRUT guidelines)

Sr . N o.	Name of Project	Physical Components	GOI	State			ULB			Conv ergen ce	Other s	Total
				14th FC	Other	Total	1 4t h F C	Other	T o t a l			
1	Efficiency of Collection of Sewerage	Sewer House Connection for Zone-I & II of Rampur City -7070 Nos (Tender invited)	10.9488		6.5693			4.3795				21.8976
2	Efficiency of Collection of Sewerage	Sewer House Connection for Zone-I & II of Rampur City - 35624 Nos (DPR Submitted)	41.2944		24.776 7			16.5178				82.5889
3	Coverage of sewerage network services	Installation of Sewer network of 160 km(Zone 3 +Zone 4) @ 1.92 Cr./km	153.60	-	92.16		-	61.44	-	-	-	307.20
4	Efficiency of Collection of Sewerage	Construction of IPS 2 Nos	15.00	-	9.00		-	6.00	-	-	-	30.00
5	Efficiency of Collection of Sewerage	Construction of MPS 2 Nos	18.00	-	10.80		-	7.20	-	-	-	36.00
6	Efficiency in treatment: Adequacy of Sewerage Treatment.	Construction of 2 STPs (8 MLD for Zone3 + 9 MLD for Zone 4) @ 3.2 Cr/MLD	27.20	-	16.32		-	10.88	-	-	-	54.40
Total-											532.086 5	

YEAR WISE PLAN FOR SERVICE LEVELS IMPROVEMENTS

(As per Table 2.5 of AMRUT guidelines)

Objective	Proposed project	Project Cost	Indicator	Baseline	Annual Target (Increment from baseline value)					
					FY 2016		FY 2017	FY 2018	FY 2019	FY 2020
					H1	H2				
Efficiency of Collection of Sewerage	Sewer House Connection for Zone-I & II of Rampur City -7070 Nos (Tender invited)	21.8976	100%	6.72%	-	-	30%	100%	-	-
Efficiency of Collection of Sewerage	Sewer House Connection for Zone-I & II of Rampur City -35624 Nos (DPR Submitted)	82.5889	100%	6.72%	-	-	20%	60%	100%	
Coverage of sewerage network services	Installation of Sewer network of 160 km (Zone 3 + Zone 4) @ 1.92 Cr./km	307.20	100%	0%	-	-	-	30%	70%	100%
Efficiency of Collection of Sewerage	Construction of IPS 2 Nos	30.00	100%	0%	-	-	-	30%	70%	100%
Efficiency of Collection of Sewerage.	Construction of MPS 2 Nos	36.00	100%	0%	-	-	-	30%	70%	100%
Efficiency in treatment: Adequacy of Sewerage Treatment.	Construction of 2 STPs (8 MLD for Zone 3 + 9 MLD for Zone 4) @ 3.2 Cr/MLD	54.40	100%	0%	-	-	-	30%	70%	100%