

City Sanitation Investment Plan for Wai Municipal Council

Center for Water and Sanitation CEPT
University

CWAS CENTER
FOR WATER
AND SANITATION

CRDF CEPT RESEARCH
AND DEVELOPMENT
FOUNDATION

CEPT
UNIVERSITY

August, 2021





Contents

Executive Summary

1 Introduction

2 Existing Sanitation Services

3 Municipal Finance Analysis

4 Sanitation Investment Plan



Contents

Executive Summary

1 Introduction

2 Existing Sanitation Services

3 Municipal Finance Analysis

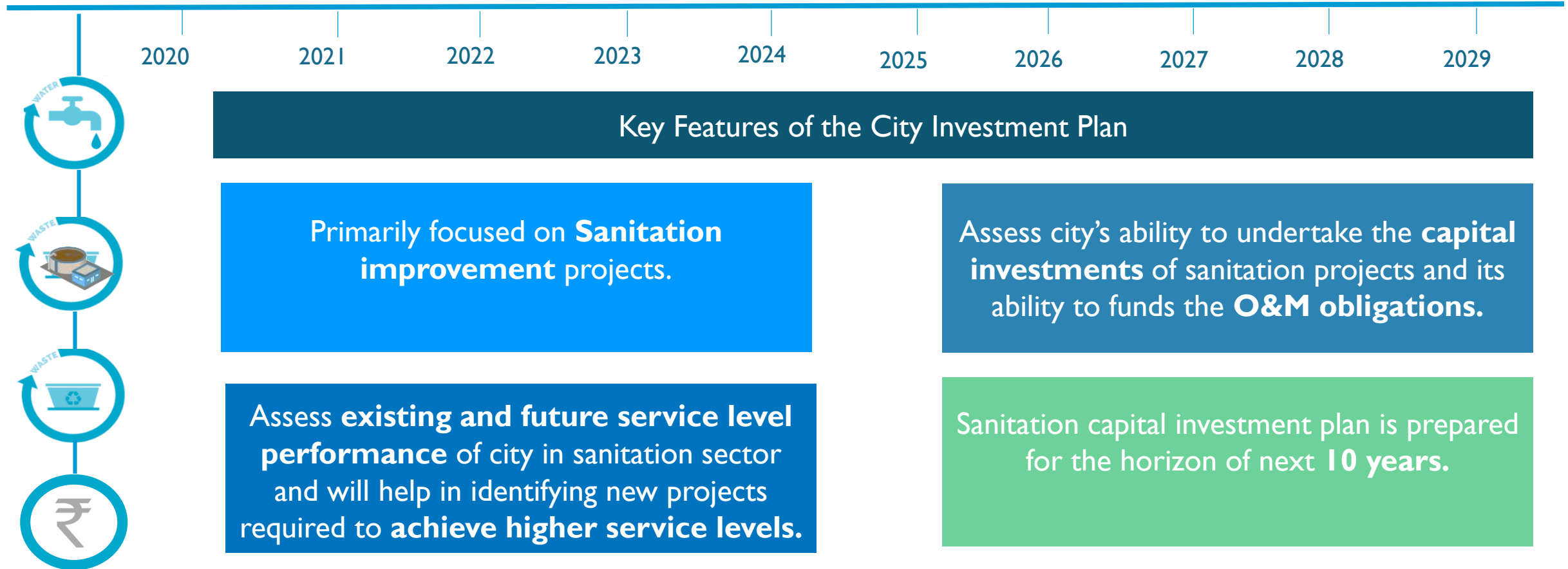
4 Sanitation Investment Plan

Executive Summary (1/5)

- A **multi-year (ten year) City Sanitation Investment Plan** is prepared to support Wai Municipal Council (WMC) to assess its investment options against service delivery.
- This is done using **SANIPLAN**, a model developed by CWAS team. This comprehensive model facilitates preparation of city-wide service improvement. The model facilitates the development of a financially viable plan of action for improvements in delivery of local services for sanitation and wastewater. The Model enables comparison of various options in terms of their impacts on service levels and on city government's financial capacity to operate and maintain new infrastructure.
- The **investment plan assesses existing and future service level performance of Wai in sanitation sector** and help in **identifying new projects required to achieve higher service levels**.
- The investment plan **also assesses existing financial capacity** of Wai and suggests **key projects that WMC should undertake with the available funds** and make necessary tariff revisions which will help in building financial capacity.

Executive Summary (2/5)

The city investment plan for Wai will help WMC to use its funds more efficiently and help take key financial decisions



Executive Summary (3/5)

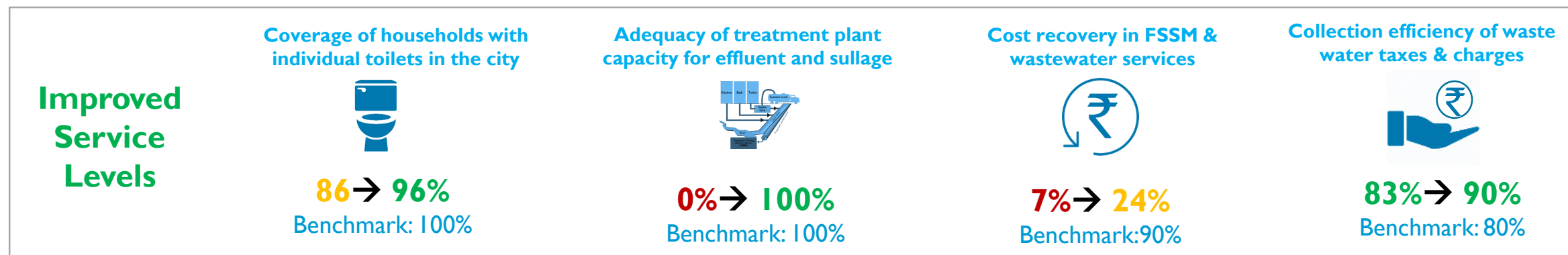
Key Projects considered in the City Sanitation Investment Plan

Sr. No.	Project	Total capex (in INR)	Central & State grant share	WMC Share	Total annual opex by WMC
				(in INR)	
1	Construction of individual toilets (90-95% coverage)	30 million	34%	8.9 million (29%)	
2	Improve collection efficiency of wastewater charges and taxes				0.1 million
3	O&M of fecal sludge treatment plant				3.3 million
4	Upgradation of open surface drains to closed drains for storm water drainage	7.2 million	100%		
5	Construction of closed surface drains for storm water drainage	4.5 million	90%	0.45 million (10%)	0.5 million
6	Laying new settled sewer for wastewater conveyance	393.8 million	90%	39.4 million (10%)	7.8 million
7	Construction of Treatment Plant for effluent & sullage	53.8 million	90%	5.4 million (10%)	7.9 million
	Total amount	489.4 million		54.3 million	19.5 million

- In the next ten years, WMC will require a **capital investment of INR. 489.4 million** for sanitation projects out of which **INR 54.3 million (11%)** will have to be funded from **WMC's own share**, , possibly **15th FC funds**. The remaining cost will be funded through central and state share and share from beneficiaries. Also, Council will require **INR 19.5 million per annum for operation and maintenance** of these sanitation projects.

Executive Summary (4/5)

The city will be able to greatly improve its existing services levels in the sanitation sector.



In order to meet the capital investments and O&M expenses, the city will have to revise and improve the existing sanitation tax for better cost recovery of sanitation service and also to ensure financial sustainability of the local finances. The improved tax will possibly double in the next ten years due to increase in property and sanitation taxes. Since, sanitation tax will not be sufficient to fund overall sanitation services, a certain Non-WSS transfer viz. property tax will be required from own income of WMC.

Component	Summary of Funding requirement
Total Capital investment requirement for ten years	INR 489.4 million
Capital requirement WMC share	INR 54.3 million
Operation and Maintenance requirement	INR 19.5 million/annum

Executive Summary (5/5)

- The Council can fund its sanitation revenue expenses by: i) enhancing sanitation tax to completely fund O&M or ii) manage expenses by a combination of property tax and sanitation tax.

Component	Scenario I: Enhance existing sanitation tax	Scenario II: Transfer property tax to fund sanitation services and enhance existing sanitation tax
Existing Sanitation Tax	Rs.60 per property per annum	
Proposed Sanitation Tax	Rs.840 per property per annum (15% increment every year)	Rs.300 per property per annum (10% increment every year)
Total Sanitation Tax Demand (assuming 12,000 properties with 100% demand)	~10 million per annum	3.6 million per annum
Sanitation Tax as a % of ARV	9% of ARV	3% of ARV
Transfer of property tax per annum add amount (%)	Not required	~19.6 million per annum
Cost Recovery in Sanitation Services	100%	25-30%
Affordability for users	Less affordable	More affordable

The city investment plan will ensure financial sustainability of Wai Municipal Council for the next ten years.



Contents

Executive Summary

1 Introduction

2 Existing Sanitation services

3 Municipal finance analysis

4 Sanitation Investment plan

Section Overview:

- This section explains briefly about the need and importance of a city investment plan for small and medium towns.
- It further gives an introduction to the city of Wai through key demographic and infrastructure highlights and explains briefly existing role of Wai Municipal Council in WSS service delivery.
- The section also defines the study approach and framework used for the city investment plan.

Need and importance for City Investment Plan

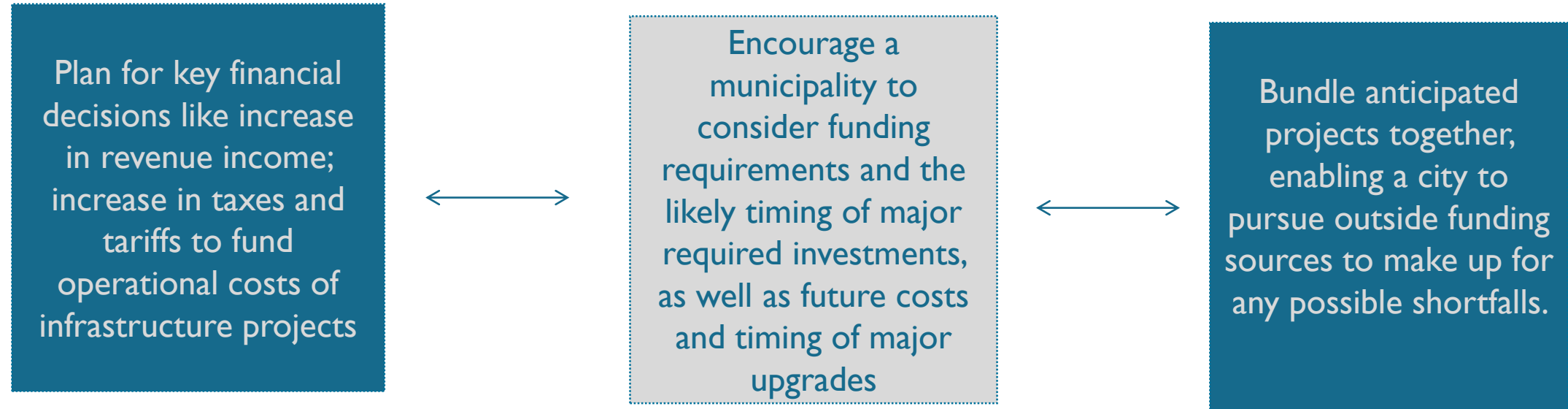
- Most cities in India lack the resources to fund infrastructure projects and plan for its operation cost from the existing municipal budget.
- The situation is severe in small cities, as the unprecedented growth of small towns has created a pressing demand for local governments (LGs) to further invest in infrastructure and other assets to support economic and social development. Such investments require capital that often far exceeds available resources.
- Small cities have limited funding, yet important decisions of project investments have to be made with this limited fund. It becomes important to assess and build their financial capacities. For example, many infrastructure projects (like STPs) are lying non-functional because of lack of funds with local government to run this projects.
- It is therefore important for cities to assess its own financial capacity while planning for new infrastructure projects, as it should be able to not only contribute its share for capital works but also optimally maintain the new assets, along with assessing its service level requirements and local priorities.

What is City Investment Plan?

- The City Capital Investment Plan (CIP) is essentially a multi-year scheduling and financial planning of the infrastructure investments in the city.
- A investment plan provides a link between the municipality's strategic vision, local priorities, and its annual budget.
- It is an estimate of the level of investment needed to implement the upcoming capital projects along with options and strategies for financing its capital and O&M requirements.
- The scheduling or phasing of the CIP is also based on the choice of specific improvements that need to be taken up over the next 5-10 years, reviewing existing service levels.
- When the process is established, the CIP becomes a rolling plan, linked to the annual budgeting process.

Source: Capital Investment Planning, The World Bank (<https://urban-regeneration.worldbank.org/node/12>)

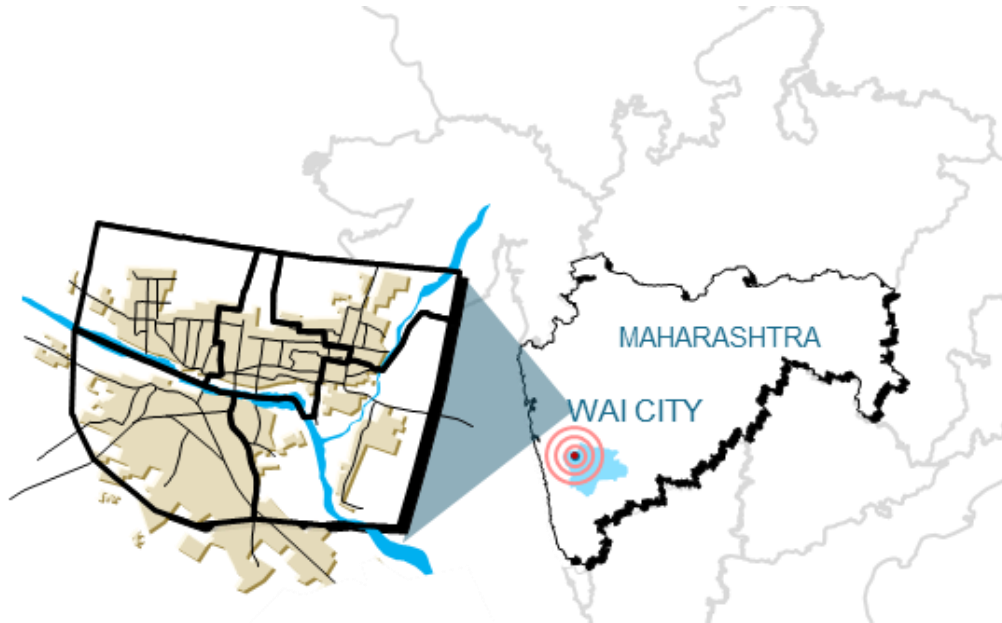
City investment plans can help cities operate more efficiently and help take key financial decisions beforehand



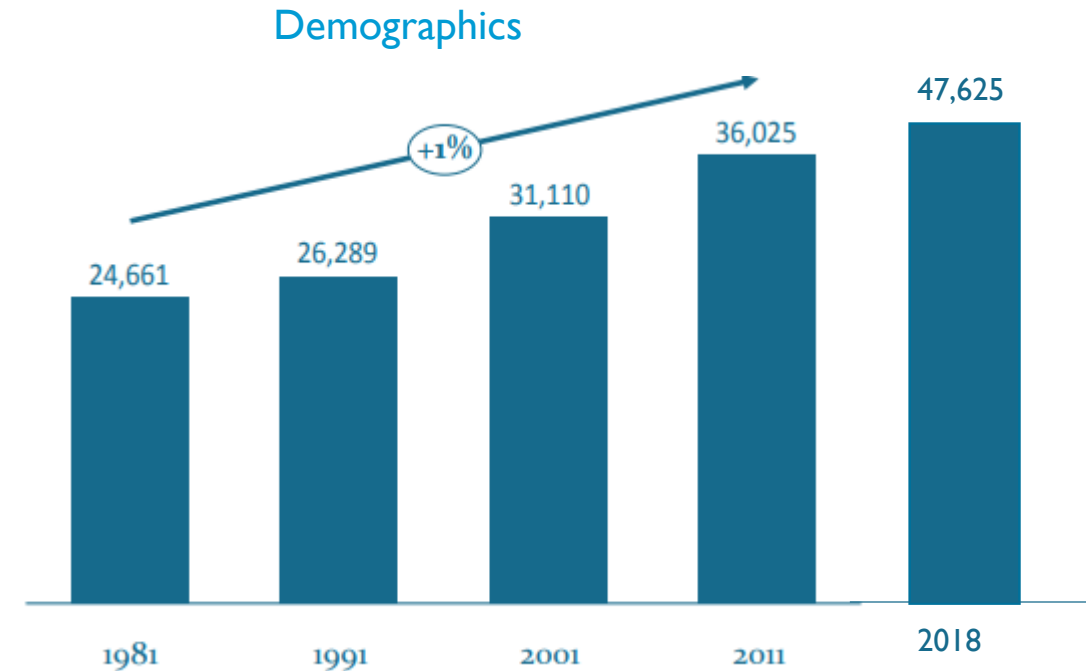
A multiyear city investment plans provide multiple benefits.

Source: Capital Investment Planning, The World Bank (<https://urban-regeneration.worldbank.org/node/12>)

Wai is a small town of 48,000 population located in the Satara district of Maharashtra



- Small Nagar Parishad located 95 Km south of the city of Pune in Maharashtra
- Spread over 3.6 sq. km., with a population density of 9,924 inhabitants / sq. km.
- Known as Dakshin Kashi, it is a holy pilgrimage town and an old Buddhist settlement



- Has ~11,000 households with an average household size of 4.4 persons
- Population growth has been slow (~1% between 1981 and 2011)
- 6% of the total population lives in slum areas
- Literacy rate is high at ~80%

Source: Maharashtra district profiles by MIDC , Census information, 1981-2011 , City Sanitation Plan of Wai , PAS Project – CEPT University

Study objectives

2020

2021

2022

2023

2024

2025

2026

2027

2028

2029



- The objective of this study is to develop a multi-year city sanitation investment plan for Wai Municipal Council (WMC).



- The city sanitation investment plan will primarily focused on Sanitation improvement projects.
- The WMC city investment plan will assess city's ability to undertake the capital investments of sanitation projects and its ability to funds the O&M obligations.



- The study will also assess existing and future service level performance of city in sanitation sector and will help in identifying new projects required to achieve higher service levels.



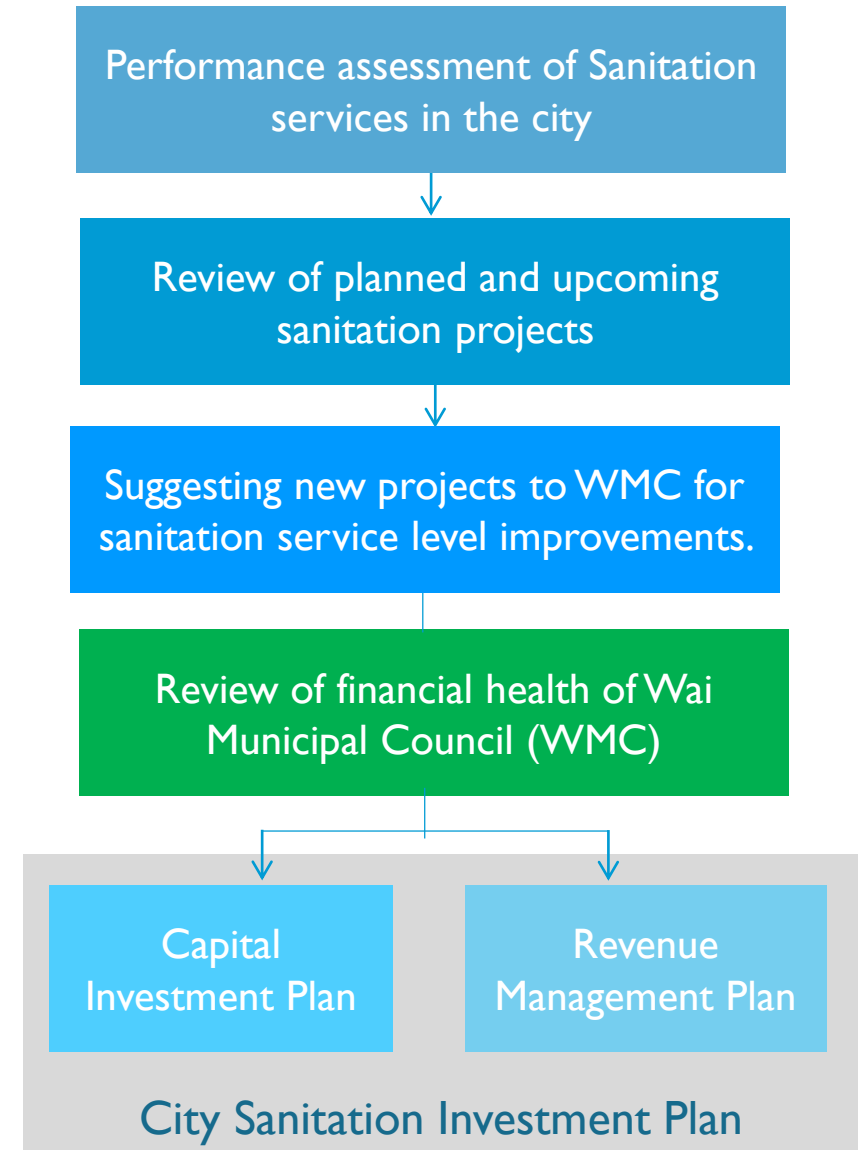
- The sanitation capital investment plan is prepared for the horizon of next 10 years.

Study approach & framework

The study consist of four important aspects:

1. **Review of existing services levels** and upcoming projects in sanitation of WMC;
2. **Assessment and analysis of finances** of WMC through budget analysis (last 5 years). Based on this analysis, revenue income and expenditure projection for next 10 years was carried out;
3. **Suggesting new measures/ projects** to WMC to improve service level improvements.
4. A **multi-year city sanitation investment plan** is prepared covering sanitation capital investments, O&M needs and related revenue management plan.

The study was undertaken through desk analysis and discussions with Accountant, Tax Inspector & heads of water supply & sanitation dept. of WMC, interviews with private stakeholders like Chartered Accountant.

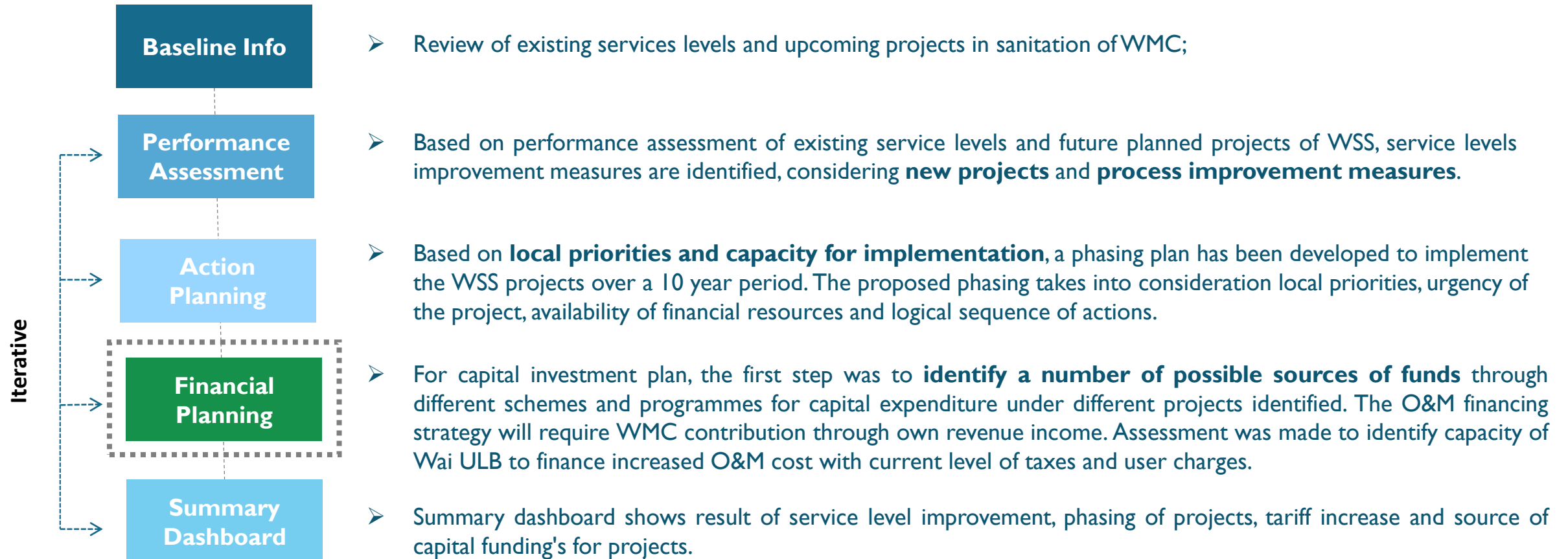


Study framework

Use of SaniPlan Tool to prepare City Investment Plan

SaniPlan provides a multi-year planning framework with a focus on improving performance in services. A key feature of the model helps develop a feasible financing plan for both capital and operating expenditures of the improvement proposals. The tool was developed by CWAS, CEPT University

Saniplan tool Framework



Contents

Executive Summary

1 Introduction

2 Existing Sanitation Services

3 Municipal Finance Analysis

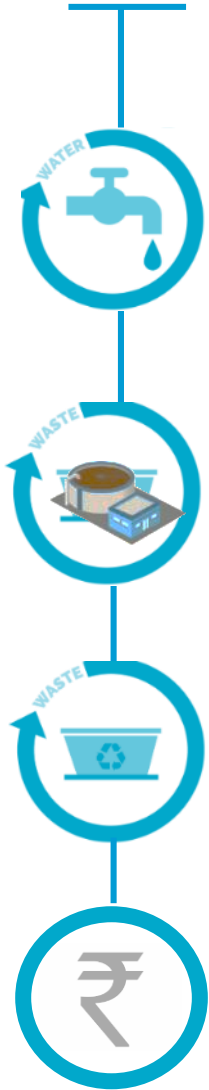
4 Sanitation Investment Plan



Section Overview:

- This section focusses on assessment of existing sanitation services in Wai and identifying gaps to achieve the service level benchmarks.
- The section also further identifies key projects and processes that WMC should undertake in the sanitation sector to meet the benchmarks and sustain the service levels.

WMC is responsible for provision of water, sanitation and solid waste services in the city



- **WMC provides the urban basic services of** Water supply, Sanitation, Solid waste management, roads, etc. to its citizens.
- With increase in population and demand for infrastructure, WMC is planning major investment in its WSS services, which requires huge capital investment and spending from its local finance.
- For providing these services they need to assess and **manage their finances efficiently.**
- This section provides a holistic understanding of existing services levels of sanitation services in the Wai city. It also provides details of upcoming and planned sanitation projects for assessing financial requirements and city's priorities and urgency of the project.



Performance assessment of water, sanitation and solid waste management services is done in discussions from Water Supply & Sanitation Dept. of WMC



Existing & Future projects planned by WMC have been assessed

Wai was declared ODF in year 2016 and the next step was to sustain ODF status

- Wai was 1st city to be declared **ODF** by the State Govt. followed by ODF declaration at National level by QCI in August 2016 & Revalidated ODF in September 2017 and April 2018
- The city received a sum of **INR ten million** as incentive funds after becoming ODF which was to be used towards becoming ODF+



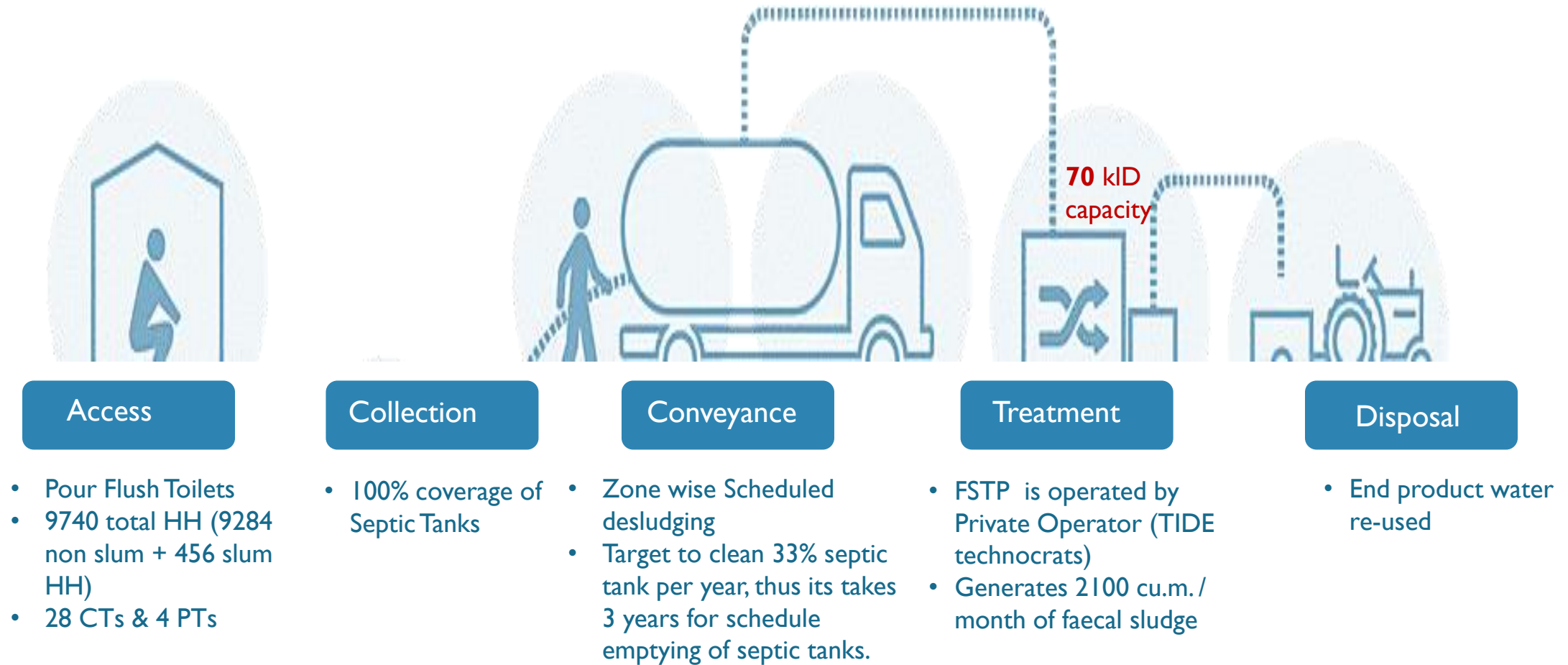
- Wai municipal council passed a resolution to implement FSSM plan in the city

- The resolution covered aspects like:

- Citywide FSSM
- Involving Private sector
- Scheduled cleaning
- Land for treatment facility
- Taxes to be levied



Existing sanitation services in the city

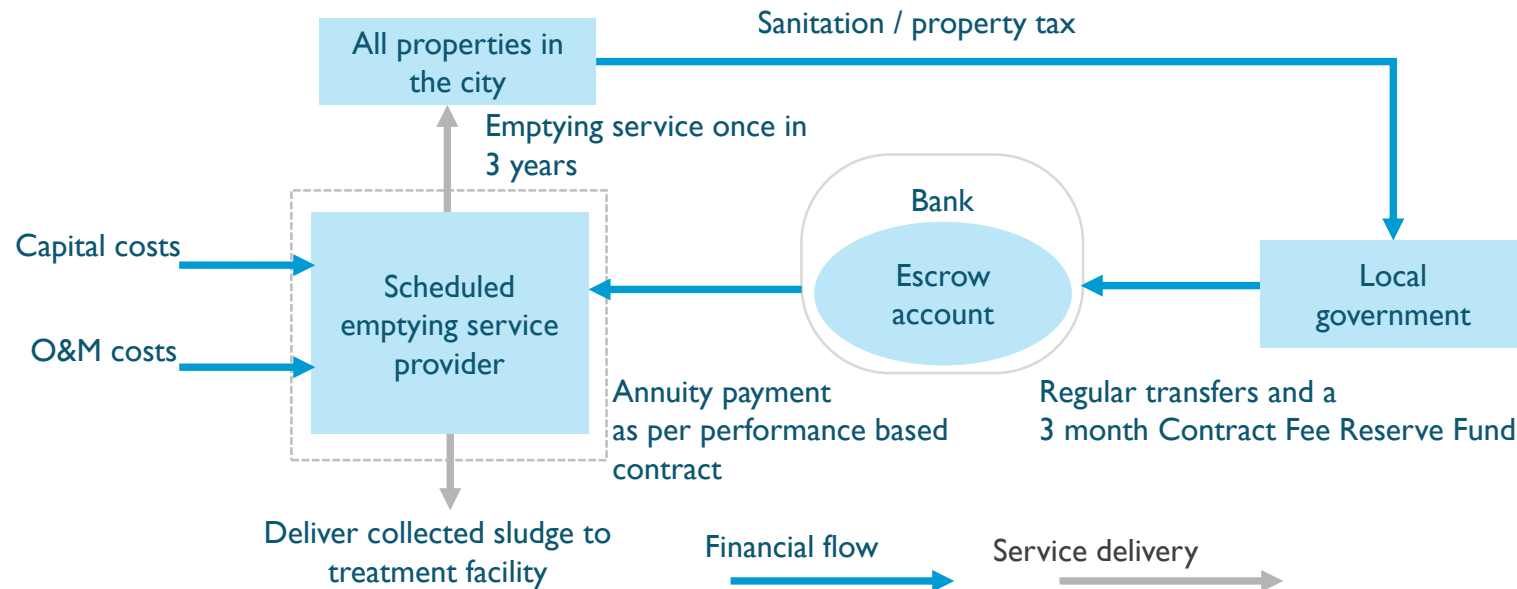


Wai has levied sanitation tax of **INR 60/year** to recover its O&M cost

Source: PAS 2018, WMC

The city adopted scheduled desludging for septic tanks

- The city moved from complaint redressal on-demand desludging system to regular scheduled desludging service
- Desludging is carried out for all septic tanks on a fixed cycle of 3 years and predetermined schedule (33% annually) based on zoning.
- Wai city rolled out a ‘performance-based contract’ and the private enterprise will be paid on its performance linked to the number of septic tanks emptied. The capex cost of the truck and opex cost of the desludging service will be initially mobilized by the private enterprise which will be paid back by the local government using annuity payments.
- Financing the service was possible by levying sanitation tax, and payment to the operator is based on PLAM model i.e. Performance Linked Annuity Model to ensure quality of the service.




Faecal Sludge Treatment Plant has been set up in Wai which will be handed back to the Council after two years for operations

- Through a grant by Bill and Melinda Gates foundation, Tide technocrats (Bangalore based private company) set up a septage treatment facility of 70,000 litre capacity on land allocated by WMC for this purpose.
- The Capex and Opex for 2 years is currently provided by Tide technocrats.
- However, after two years (by the year 2021), the operations of FSTP will be handed to WMC.




- **The O&M cost of FSTP is INR 2.4 million per annum. Currently, O&M is maintained by a private operator. However, by 2020, this will be handed back to the Council.**
- **Thus council needs to plan INR 4 million per annum for FSSM O&M cost, including INR 1.6 million of scheduled desludging cost and INR 2.4 million of FSTP cost. Landscaping of FSTP is also done and WMC will have to maintain it once it is handed back which will incur a cost of INR 0.4-0.5 million per annum.**


The city is doing well in terms of onsite sanitation collection and treatment, it should plan to increase IHHT coverage, reuse wastewater & improve cost recovery




86%
Coverage of households with individual toilets in the city
Benchmark: 100%




70%
Coverage of households with individual toilets in slums
Benchmark: 100%



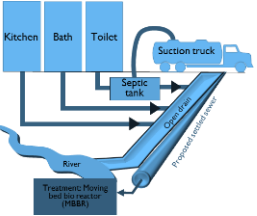
33%
Septic tanks cleaned annually in city
Benchmark: 33%




130%
Adequacy of septage treatment capacity
Benchmark: 100%




100%
Quality of septage treatment
Benchmark: 100%



0%
Adequacy of treatment plant capacity for effluent and sullage
Benchmark: 100%



0%
Efficiency of reuse/recycling of treated wastewater and septage
Benchmark: 20%



7%
Cost recovery in FSSM & wastewater services
Benchmark: 90%



83%
Collection efficiency of waste water taxes & charges
Benchmark: 80%

WMC needs to focus on expansion of individual household toilet coverage, treatment of septage and sullage, re-use of waste-water and septage and sustain cost recovery of sanitation tax..



86%

Coverage of households with individual toilets in the city
Benchmark: 100%



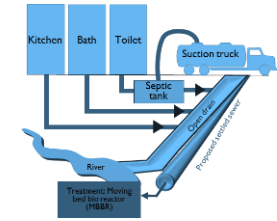
0%

Efficiency of reuse/recycling of treated wastewater and septage
Benchmark: 20%



7%

Cost recovery in FSSM & wastewater services
Benchmark: 90%



0%

Adequacy of treatment plant capacity for effluent and sullage
Benchmark: 100%

Mobilize IHHT funds for beneficiaries that require individual household toilet

Identify options for recycling of wastewater and septage post treatment

Improve existing sanitation tax and collection efficiency

Laying of settled sewer network and construction of treatment plant for sullage

Wai should plan to increase the **individual household toilet coverage** in the city..



86%

Coverage of households with individual toilets in the city

Benchmark: 100%

- Currently, **86% of the city is covered with IHHT facilities** and the rest are dependent on community toilets.
- Thus, WMC should plan to **increase the IHHT coverage in the city for non-slum households** as the slum IHHL will get constructed under the IHSDP and PMAY scheme.



IHHT Toilet in Wai

- As per **SBM database and SaniPlan analysis**, around **1200 non-slum HH** are dependent on CT and will require IHHT and 100 slum HHs can have IHHT facilities.

- **The cost of construction of an IHHT** with a septic tank is around **INR 35,000 (per toilet)**.
- To construct one IHHL, the **ULB share** required is 29% (**INR 10,000 per toilet**) and **34%** is funded through central and state SBM share of INR 4,000 & INR 8,000 per toilet respectively and 37% is beneficiary share.
- The city has received its respected share from the state.

Source: Wai Municipal Council

With increase in the IHHT coverage, Wai will be able to reduce its community toilet O&M expenses by 50%

	Central/state share	ULB share	Beneficiary Cost	Total construction cost
Construction of one IHHL	INR 12,000	INR 10,000	INR 18,000	INR 35,000

The **total cost of the project** will be **INR 30 million** out of which **WMC share of INR 8.9 million** will be required to improve their **IHHL coverage**.

Expenditure reduction: WMC will at least be able to reduce **50% of its CT O&M cost** (~1.3 million per annum).

For households with space constraints for constructing IHHT, the existing community toilets can be converted to group toilets and can be provided with lock and key.



Community Toilet in Wai

With the construction of IHHL in households, the dependency on CTs will reduce.



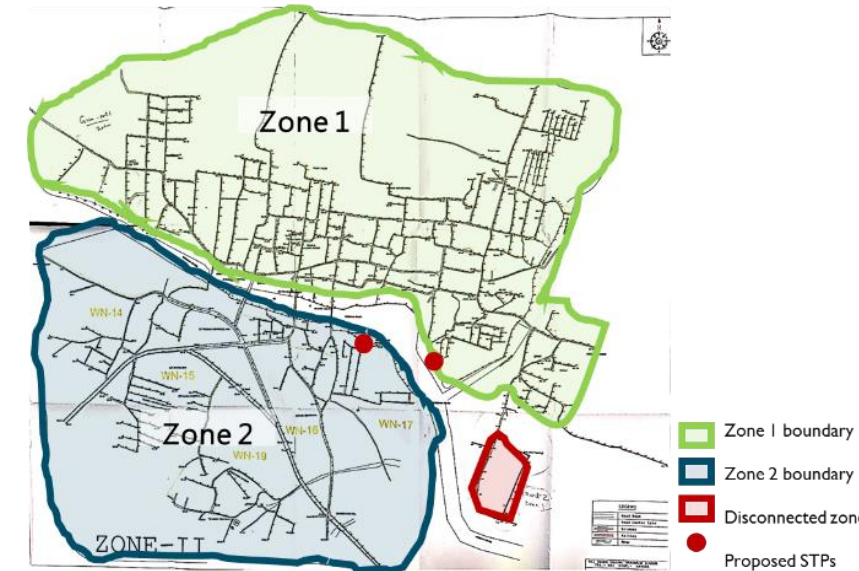
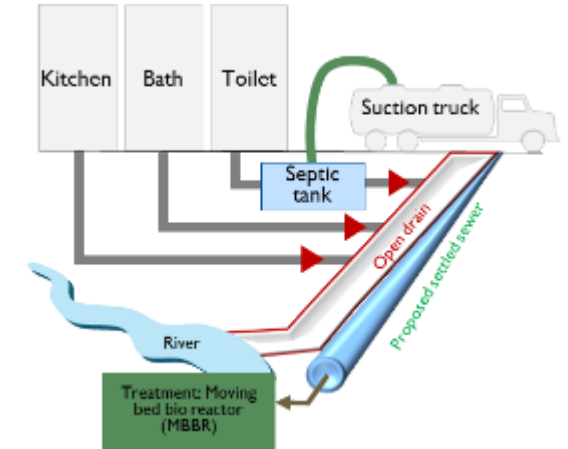
Representation Image of a Group Toilet with lock and key.

The cost of O&M can be shared by the groups. This will also reduce CT O&M cost for WMC.

In the long term, to achieve the water+ protocol, the city is also planning to construct settled sewers to provide safe conveyance and treatment of greywater and septic tank effluent

- Currently, the greywater and effluent of septic tanks are conveyed through open drains and disposed in river without any treatment.
- The city plans to construct small bore sewer system to convey greywater from bathrooms, kitchens and septic tank effluent, which will be treated through in two treatment plants
- Small bore sewer systems will constructed over a period of 5 years.
- The designed capacity of the proposed STP is 6.3 MLD and the length of the network is 40.61 km.
- The overall cost of laying the network is approximately INR 393.8 million and treatment plant is INR 54 million which includes cost of construction. (Source:Wai Settled Sewer DPR, 2017)
- However, the project has still not received technical sanction due to cost over-runs and unavailability of land for setting up of treatment plant.
- The project is proposed to be funded under the Maharashtra Suvarna Jayanti Nagarothan Maha-Abhiyan Scheme (District level).

Source: Wai Municipal Council



The city is also planning other projects- construction and upgradation of storm water drains..



Open Drains in Wai

Upgradation of open surface drains to closed drains

- Under this project, WMC is planning to upgrade its existing open surface storm water drains
- **The overall cost of the project is INR 4.1 million**
- The project is funded under Nagri Dalittetar Vasti Sudharna Yojana (100:0).
The project is still under sanctioning process.

Construction of storm water drains and tar roads at various locations

- Under this project, WMC is planning to construct new storm water drains at specific locations in the city.
- **The overall cost of the project is INR 6.5 million**
- The project is to be funded under Maharashtra Suvarna Jayanti Nagarothan Maha abhiyan (District level) (90:10)
- The project is still under sanctioning process

Source: Wai Municipal Council

Improve collection efficiencies of sanitation tax for better financial sustainability of services.

- **Improve Billing & Collection of Sanitation Tax Bills-** The tax department of the Council should focus on covering 100% properties and improve its property tax billing efficiency. (Since sanitation tax is a part of property tax bill)
- Bills must be sent to the tax-payers in the month of April.
- **Improve Collection Efficiency of Sanitation Tax–** The Council should also organize various drives in collecting 100% sanitation tax from the users and also improve arrear collection by organizing Sanitation Tax Collection Campaign . Incentives and rebates can be offered for early payments. Through this, the cost recovery in sanitation services will also improve.
- **Introduce Online Modes of Payment:** Council should link the existing online mode of payment of tax to the existing database.
- **Introduce more collection centers:** Low cost – No cost option would be to introduce collection centers at govt. offices, post office, banks etc. and optimize use of existing workforce for collection.

	Sanitation Tax FY 2019-20	SWM Tax FY 2019-20
Current Collection Efficiency	80%	53%
Arrear Collection Efficiency	60%	-
Expected Current Collection Efficiency	90%	90%
Expected Arrear Collection Efficiency	80%	80%

The Council will record 10% more improvements in its cost recovery if the collection efficiencies of the taxes are improved. This should be done on priority basis.

Source: Wai DCB Table 2019-20

5 Key Projects are considered in the City Sanitation Investment Plan



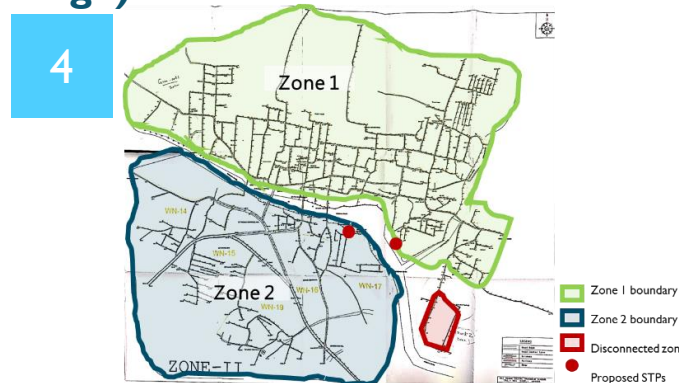
1
Construction of individual toilets (to achieve 90-95% coverage)



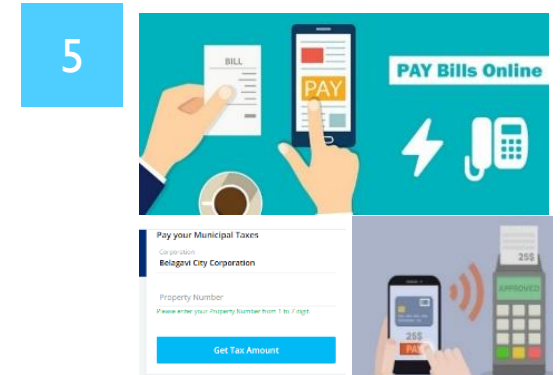
2
Operation and Maintenance of Fecal Sludge Treatment Plant



3
Upgradation of open surface drains to closed drains for storm water drainage



4
Laying of new settled sewer for wastewater conveyance and a treatment plant



5
Improving Cost Recovery and Collection Efficiency of Sanitation Services

These projects will have an impact on overall service levels in Wai

1

**Construction of individual HH toilets
(to achieve 90-95% coverage)**



Coverage of households with individual toilets in the city



86% → 96%
Benchmark: 100%

2

Construction and Upgradation of open surface drains to closed drains for storm water drainage



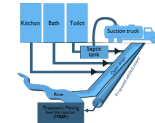
Sustaining ODF and ODF+ and ODF+++status

Efficiency of wastewater and septage collection system



0% → 97%
Benchmark: 100%

Adequacy of treatment plant capacity for effluent and sillage



0% → 100%
Benchmark: 100%

3

Laying of new settled sewer for wastewater conveyance and a treatment plant



Moving towards water+ status

Cost recovery in FSSM & wastewater services



7% → 30%
Benchmark: 100%

Collection efficiency of waste water taxes & charges



83% → 90%
Benchmark: 80%

4

Improve collection efficiency of wastewater charges and taxes



Contents

Executive Summary

1 Introduction

2 Existing Sanitation Services

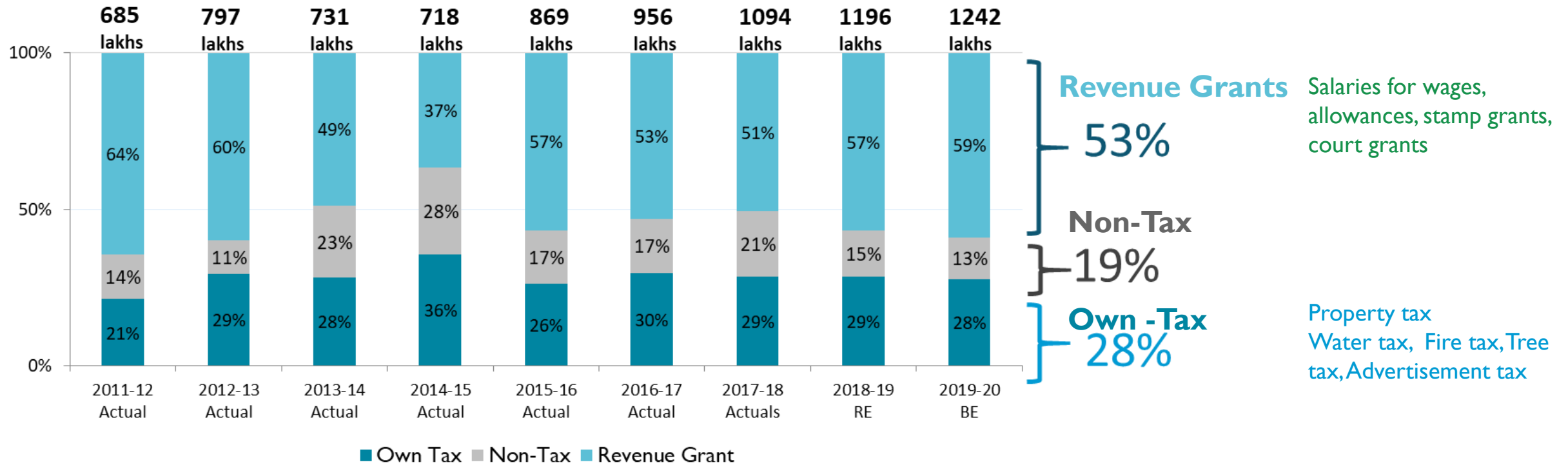
3 Municipal Finance Analysis

4 Sanitation Investment Plan

Section Overview:

- This section focusses on analysis of municipal finance of Wai Municipal Council (WMC). It mainly highlights the financial health of WMC based on research and analysis of its budget documents of past nine years, demand collection balance tables, financial reports and discussions with WMC officials.
- In this section, sectoral assessment of past revenue income-expenditure trends, tax collection efficiency, future projections based on past trends and current practice is described.

WMC manages its operating expenses from its revenue grants, own tax and non-tax sources

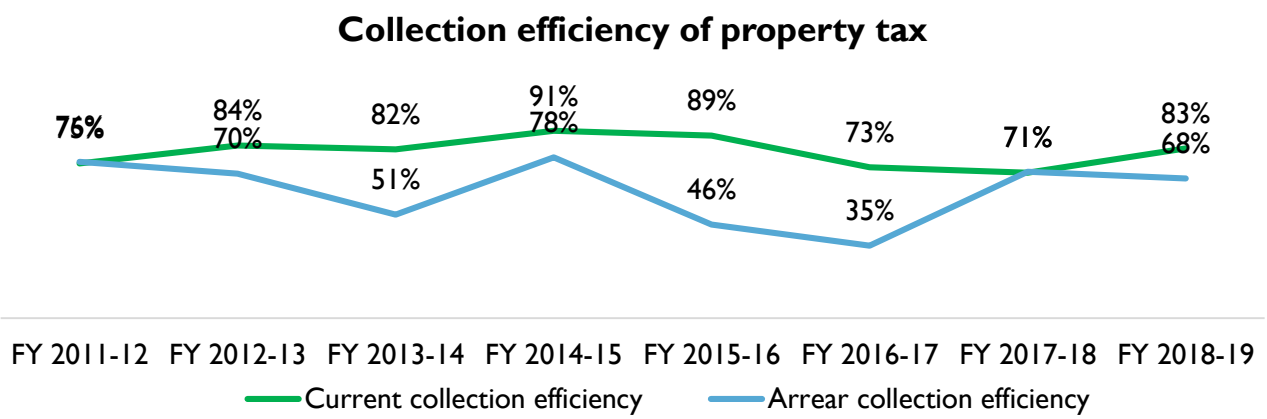
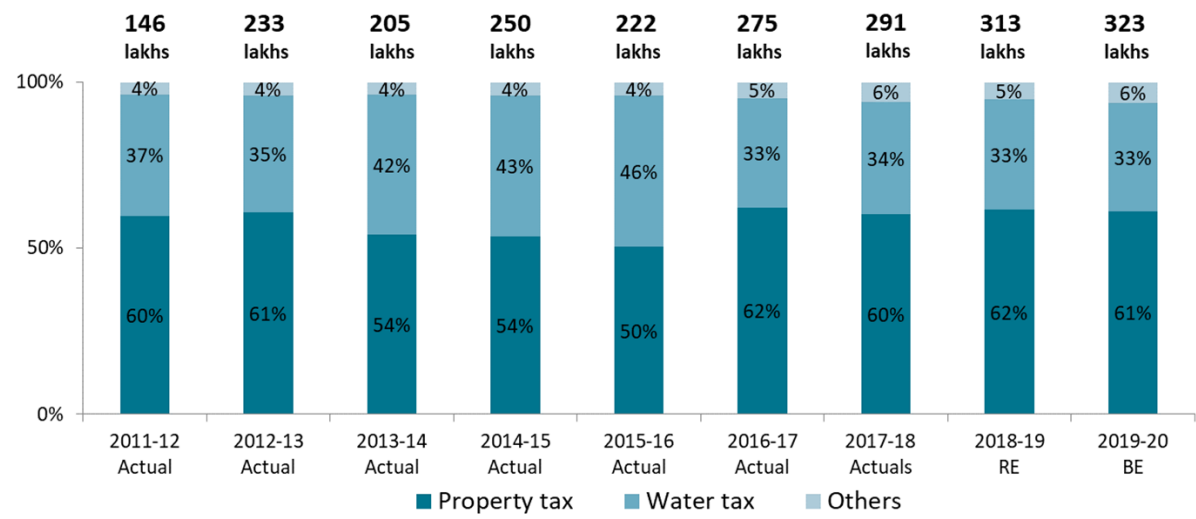


- Over the past nine years (2011-20) revenue income of Wai has grown from INR 68 million in 2011-12 to INR 100 million in 2017-18.
- Nearly half the revenue income is grants from the State Government and Finance Commission.
- The major sources of revenue income are **own tax (28%)**, **non tax (19%)** & **revenue grants (53%)** are consistent over 9 years.
- Wai manages its recurring expenditure through its **property tax, water tax, rental charges revenue grants** and its **14th FC grant**.

Source: Wai Municipal Budget, CWAS Analysis, CEPT

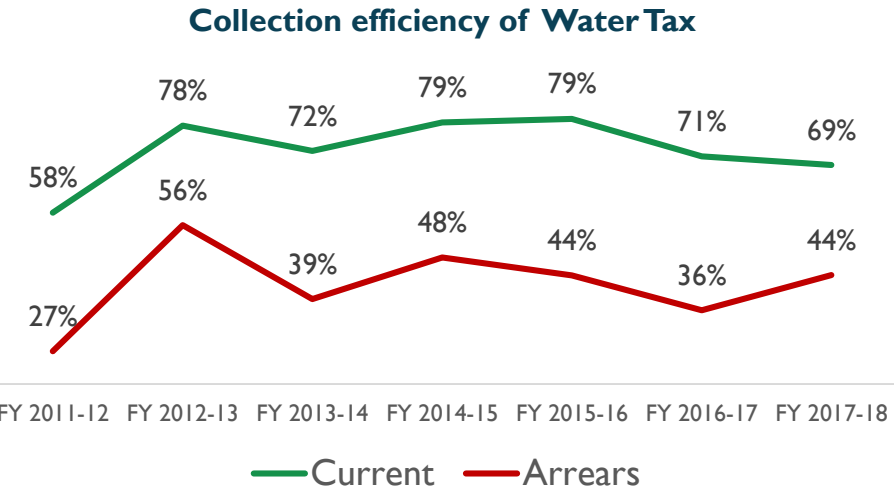
Property tax is major source of own tax income in Wai

- **Property Tax** is the major source of own tax income. It is a consolidated tax which has components like general tax (25%), education tax (6%), employment guarantee tax (3%), tree tax (1%), fire tax (2%) and sanitation tax (flat charges of Rs.60).
- It contributes to:
 - **17% of total revenue income** (own income + revenue grants sources).
 - **35% of own source of income** (own tax + non-tax sources)
 - **60% of own tax income**
- **The annual property tax demand for Wai is INR 19 million.**
- The current property tax collection efficiency is **70%**, so **WMC collects ~INR 16 million.** Property tax was revised by **30%** in 2015-16. It is revised after every **four** years. It is likely that this 4-year revision leads to a drop in collection efficiency. However, a change to annual revision may require a change in legislation

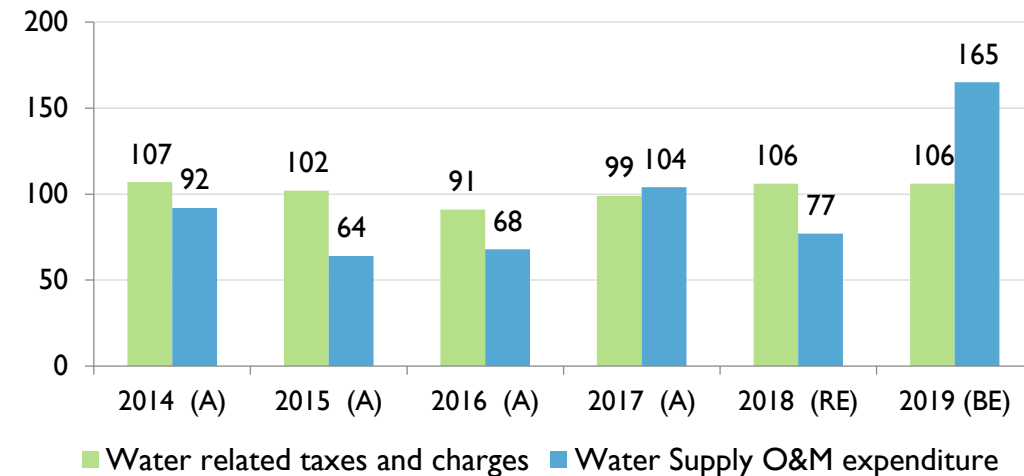


Wai is able to achieve full cost recovery in its water supply services through its water tax

- **Water Tax** contributes to **38%** of the **own tax income**.
- Annual water tax (based on size of connection) are:
 - **Residential : Rs.1500 – Rs. 14,000**
 - **Commercial: Rs.6,000- Rs. 54,400**
- **Water connection charges** are **constant** for all connections : **Rs.2100/ connection**
- The major expenses are bulk water purchase, raw water cess, treatment cost, electricity cost for transmission and distribution and salary expenses.
- The current collection efficiency of water tax is 60% on an average.
- The city is able to recover its full operating expenses in its water supply services. The cost recovery of water supply service is 116% in Wai in last seven years. The council gets a notice from the Directorate of Municipal Authorities (DMA) to increase water charges if it is not able to meet its operating expense.



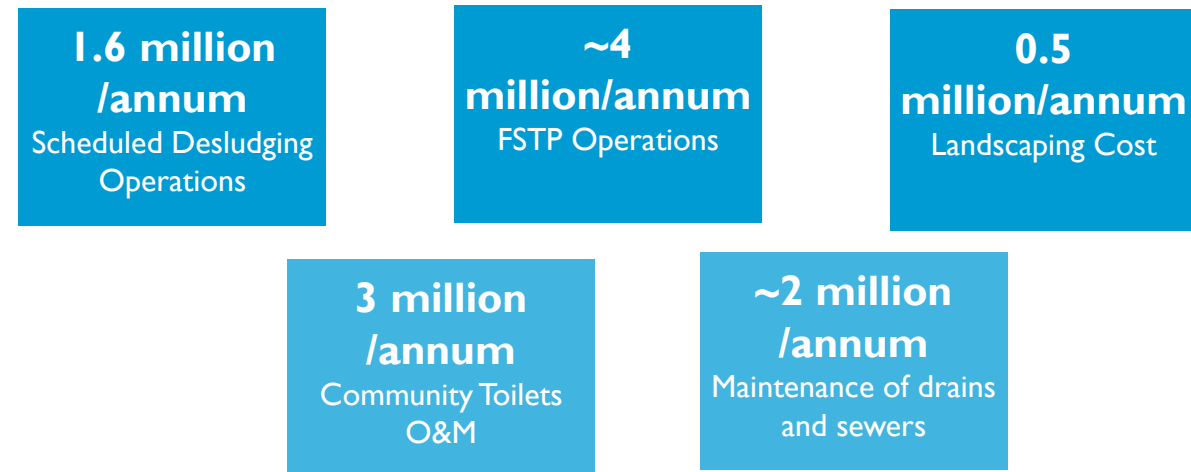
Cost Recovery in Water Supply Service (in INR hundred thousands)



Wai has introduced a sanitation tax to recover its FSSM expenses

- The Maharashtra Municipal Councils, Nagar Panchayats and Industrial Areas Act, 1965, enables municipalities to levy a tax towards the provision of sanitation services in the city.
- Many Local governments (LGs) of Maharashtra levy sewerage/sanitation tax for the provision of sanitation services. **Sanitation tax in Wai** was introduced in year 2015-16 as a **flat tax of INR 60 per annum**.
- The average **current collection efficiency** of sanitation tax is **72%**.
- In the past 9 years, Wai Municipal Council has spent an average of INR 2-3 million in repair and maintenance of drains and sewers and CT/PT. in addition, it also spends INR 1.6 million annually for scheduled desludging of septic tanks.
- Thus, the cost recovery in FSSM and wastewater service is only 3% currently.

- The cost recovery in FSSM and wastewater service is only 3% currently.

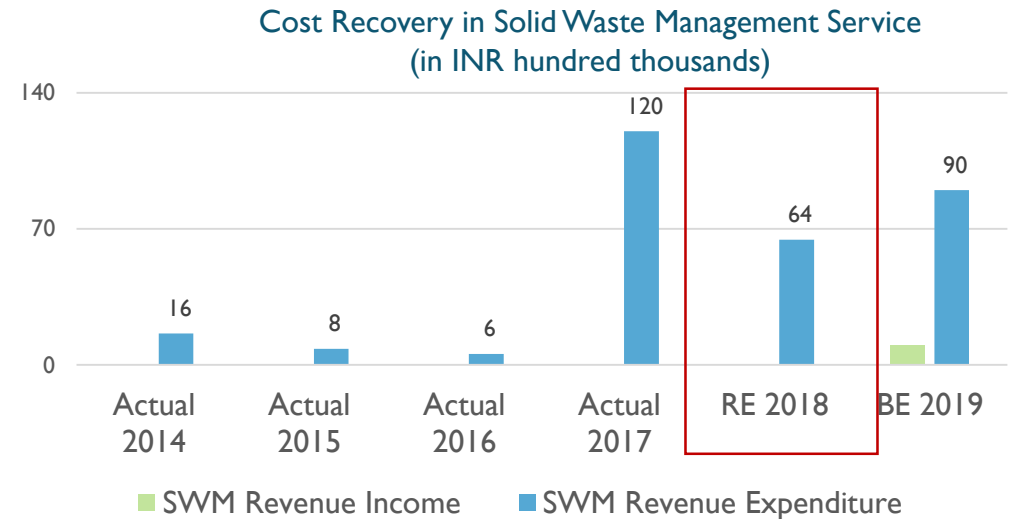


Current sanitation tax will not be sufficient to manage these expenses.

- The cost recovery of WMC can be improved by improving the current tariffs of sanitation tax.
- The city can also plan to make the sanitation tax as a percentage of property tax. This will make it more equitable as larger properties will pay higher tax.

The city also introduced SWM charges recently

- In the past 5 years, Wai on an average spent **3.8 million per year with 6.4 million O&M expense in the year 2018** on its **solid waste management services**.
- After the DPR implementation, the operation and Management cost for the solid waste value chain will gradually increase from INR 6.4 million to 9 million in 2019 and 11.8 million by 2022.
- Recently, the city started levying SWM charges of INR180 / residential property from year 2019-20. However, this doesn't meet the full operating expenses. Hence, SWM expenses are met through **14th FC grant**.
- **WMC should plan to increase SWM charges to ensure cost recovery of O&M of SWM services.**

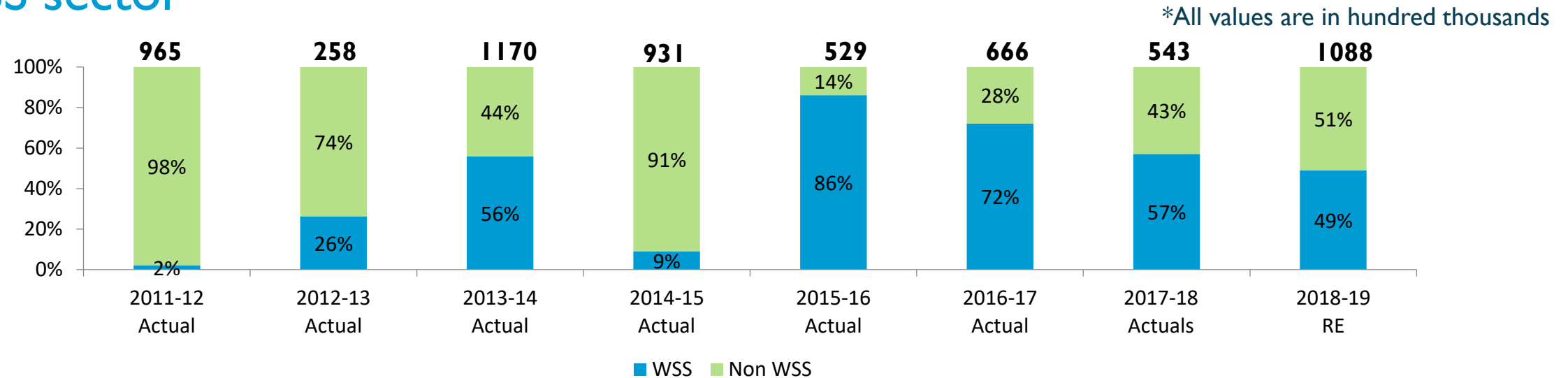


Solid Waste Management Tax in Wai (INR/annum)

Built Use	Charges (INR/ annum)
Residential	180
Commercial	360
Showrooms	720
Godowns	720
Hotels	960
Institutions	540

Source: Wai Budget Analysis, Demand collection tables of Wai, 2011-'20, CWAS Analysis, CEPT

Over the past nine years, 37% of capital investments have been made in the WSS sector



- Over the past nine years, **37% of capital investment** has been made in WSS sector. Major capital investments (63%) have been made for construction work by WMC in the Non-WSS sector.
- Major investments in 2011-15 in the Non-WSS sector was done in construction of school, roads, IHSDP households, causeway etc. This was done under the Rajiv Aawas Yojana, Dalit Vasti Improvement Scheme, Maharashtra Nagarothan. In this time-period, investments in WSS projects were made in the water-energy audit under the Sujala Nirman Abhiyan, laying of water supply pipelines and construction of few community and public toilets.
- In the year 2011-12 and 2013-14, the major capital expenditure was made on IHSDP and road projects. Construction and repair of public toilets and urinals are also reason for higher expenditure in year 2013-'14 and 2014-'15.
- There has been a shift in the WSS investments post 2014-15 due to beginning of the centrally sponsored Swachh Bharat Mission (SBM) under which large investments were made in the sanitation sector.

WSS investments have been considerably increased post 2014

- The major **active WSS schemes** are Vashishthapurna Yojana, Maharashtra Nagarothan, Nagri Dalittetar Vasti Sudharna Yojana, Swachh Bharat Abhiyaan (central), Swachh Maharashtra Abhiyan(state).
- In the **last 5 years**, the city has made huge investments in sanitation sector. Wai invested **INR 11.6 million in FSSM and wastewater** for construction of new drains , construction of CT/PT, IHHT, etc.
- The city also considerable invested **INR 10.2 million in water sector projects** for construction of new ESRs, laying new water pipelines and expansion of network and energy audit of water supply scheme.
- As the city is improving its **solid waste management**, it has **invested INR 39 million** in construction of vermicomposting plant, purchasing of new vehicles under their SBM grant.
- The major grants received for capital works is from Vashisth Purna scheme, road development grants, Integrated Housing and Slum Development Programme (IHSDP) scheme, Nagarothhan District level scheme and Swachh Maharashtra Abhiyan.
- Wai also utilizes its **13th and 14th Finance Commission grant** for its capital expenditure.

Considering the past financial trend and current practice, financial projections for next 10 years were carried out.

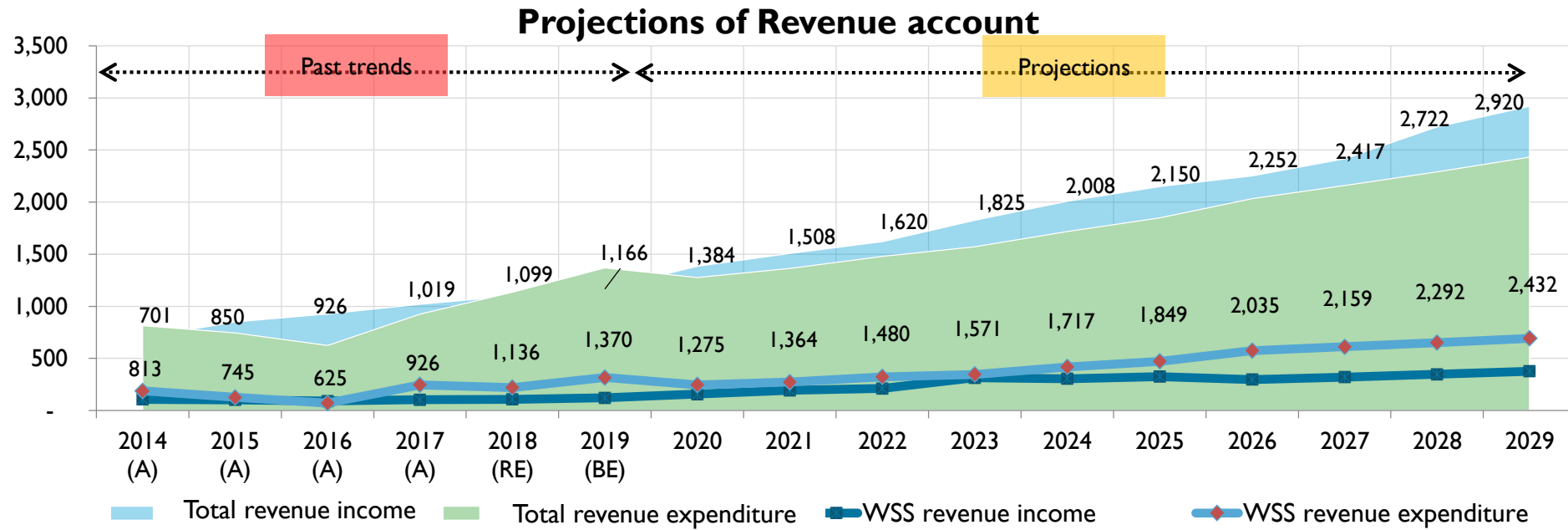
- The following assumptions have been made in growth rate a per historical growth & trend analysis for financial projections:

Sr. no	Parameter	Historical Trend Growth Rate	Assumptions of growth rate as per historical growth & trend analysis
1	Revenue generated through property tax*	3%	5.0%
2	Revenue generated through other taxes(sanitation tax, water tax)	7%	7.0%
3	Revenue generated through other non tax sources	8%	8.0%
4	Revenue Grants	8%	8.0%
5	Inflation for capital expenditure items	7%	7.0%
6	Inflation for O&M cost items	5%	5.0%
7	Revenue Expenditure in Water Supply Service	7%	8.0%
8	Revenue Expenditure in FSSM/ Wastewater Service	8%	6.0%
9	Revenue Expenditure in SWM Service	5%	7.0%
10	Revenue Expenditure for Non-WSS Service	6%	6.0%

*Growth of properties is assumed to be increased by 5% for residential properties and 3% for non-residential properties.

Financial Projections for revenue account are calculated based on previous year trends and current practice

*All values are in INR hundred thousands



WSS account will have revenue deficit of INR 56.5 million by 2029.

This can be met through Non-WSS surplus of INR 68.2 million.

- Revenue income increases by 8% CAGR and revenue expenditure increases by 6% CAGR.
- The budget will grow from INR 128.1 million in year 2020 to INR 195.3 million in year 2025 and INR 247.1 million in year 2029.
- WMC will have **WSS revenue deficit** and **Non-WSS revenue surplus**.
- WSS revenue income is likely to increase to INR 31 million and expenditure will increase to INR 69.3 million by 2029, thus, there will be a WSS revenue deficit of INR 56.5 million by 2029.
- Property tax and other taxes (Non-WSS) are increasing at 3% CAGR and revenue grants are increasing at 8% CAGR as per the normal trend.
- By 2029, WSS revenue account deficit of INR 56.5 million can be met through Non-WSS surplus of INR 68.2 million.



Contents

Executive Summary

1 Introduction

2 Existing Sanitation Services

3 Municipal Finance Analysis

4 Sanitation Investment Plan

Section Overview:

- This section explains the **Capital Investment Plan** and **Revenue Management Plan** .
- It covers key investment projects with overall capital funding and operational expenses required to improve the existing service levels in Wai.
- It also explains in detail how this funding can be met through tariff revisions and internal transfers and its impact on WMC's local finance.

The Sanitation Investment Plan for WMC considers both planned and new sanitation projects to improve sanitation service levels



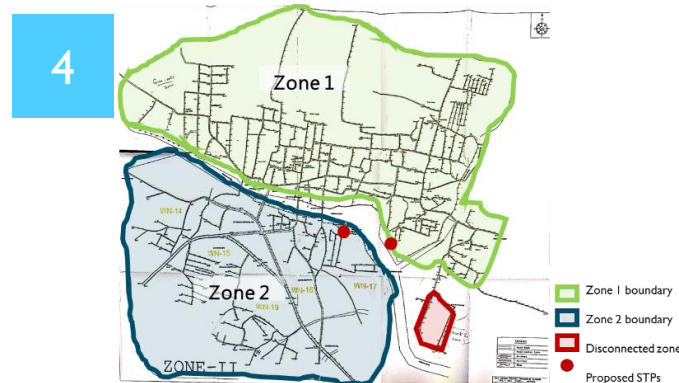
Construction of individual toilets (to achieve 90-95% coverage)



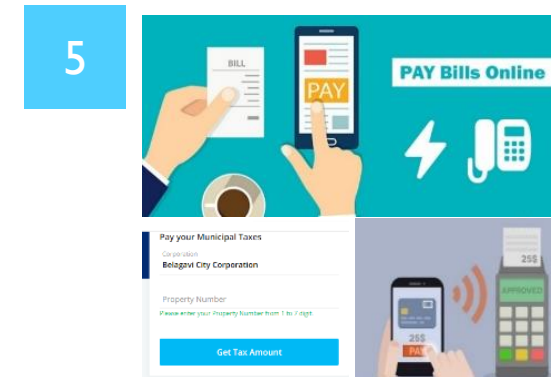
Operation and Maintenance of Fecal Sludge Treatment Plant



Upgradation of open surface drains to closed drains for storm water drainage



Laying of new settled sewer for wastewater conveyance and a treatment plant



Improving Cost Recovery and Collection Efficiency of Sanitation Services

Wai will have improved service levels in terms of coverage of IHHT, wastewater treatment and cost recovery

Access and Coverage

Performance levels	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Coverage of households with individual and group toilets in city	86%	90%	93%	95%	95%	95%	95%	96%	97%	98%	99%
Number of households with access to individual and group toilets as percentage of total households in city.											

The city will have **95% individual toilet coverage** and the rest will be dependent on CT/PT **sustaining the ODF status** .

Desludging & Treatment

Septic tanks cleaned annually in city	27%	28%	28%	29%	29%	29%	29%	29%	29%	29%	29%
Number of septic tanks (includes septic tanks of individual toilets, community and public toilets) cleaned annually as percentage of total septic tanks in city.											
Adequacy of septage treatment capacity	182%	182%	182%	182%	150%	141%	133%	127%	122%	116%	111%
Quantum of septage that can be treated at faecal sludge treatment plant as percentage of normative septage generated in city.											
Adequacy of wastewater and septage treatment capacity	2%	2%	2%	2%	2%	2%	2%	100%	100%	100%	100%
Aggregate quantum of sewage, sludge and sullage to be treated with present treatment facilities as percentage of normative wastewater generated in city. This indicator is calculated based on weighted average of households and wastewater treatment facilities.											

Wai will improve its service levels and quality in terms of wastewater disposal , wastewater collection and treatment through its settled sewer project and wastewater treatment plant.

Financial Sustainability

Efficiency in collection of wastewater charges and taxes	83%	86%	88%	90%	90%	90%	90%	90%	90%	90%	90%
Total wastewater revenues collected from current year demand as percentage of total current billed demand from wastewater related taxes and charges.											
Extent of cost recovery in wastewater services	7%	6%	32%	26%	28%	23%	22%	19%	20%	22%	25%
Total annual operating revenues from wastewater taxes and charges (current billed demand) as compared to total operating expenses of wastewater services.											

The city will have **90% collection efficiency** with an average cost recovery of **24%** in the FSSM & wastewater services.

The projects are phased over the six years period based on city's own priorities and financial capacity.

Improvement actions	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Construction of new individual toilets										
Improve collection efficiency of wastewater charges and taxes										
Construction and Upgradation of open surface drains to closed drains for storm water drainage										
Laying of new settled sewer for wastewater conveyance										
Construction of treatment plant for effluent and sullage										

- The city will have to construct its Individual HH toilets by 2022. The city must start this immediately and start mobilizing funds for universal access to IHHT.
- The city can begin upgradation of its storm water drains in 2022.
- WMC can start laying settled sewer network and carry out construction of treatment plant by 2023 when the city has adequate sources to fund the project.

WMC will require INR 489.4 million for total capital investment out of which ~INR 54 million (11%) will be required from WMC's own share, possibly 15th FC funds..

- Most of the sanitation projects will be funded through state and central grants, however, WMC will require to invest its own share possibly from the available 15th Finance Commission grant to fund the projects as per the policy of the schemes.

Sr. No.	Project	Name of Funding / Scheme	Total capex (INR)	Capex funding source		WMC share through 15th FC Grant
				Central & State grant	Local Govt Share	
1	Construction of individual toilets (90-95% coverage)	Swachch Bharat Abhiyaan	30 million	34%	29%	8.7 million
2a	Upgradation of open surface drains to closed drains for storm water drainage	Nagri Dalittetar Vasti Sudharna Yojana	7.2 million	100%		-
2b	Construction of closed surface drains for storm water drainage	Maharashtra Suvarna Jayanti Nagarothan Mahaabhiyan (District level)	4.5 million	90%	10%	0.45 million
3a	Laying new settled sewer for wastewater conveyance	Maharashtra Suvarna Jayanti Nagarothan Maha-Abhiyan Scheme (District level).	394 million	90%	10%	39.4 million
3b	Construction of Treatment Plant for effluent & sullage	Maharashtra Suvarna Jayanti Nagarothan Maha-Abhiyan Scheme (District level).	53.8 million	90%	10%	5.4 million
	Total amount		489.4 million			~54 million

WMC can use its 15th Finance Commission grants for funding capital cost of projects

- It is assumed that WMC will receive 15th FC grant in next five years equivalent to the amount received in 14th FC till 2025.
- Approximately INR 22.5 million/annum is assumed to be expected as a part of 15th FC receivable.
- The WMC share of capital cost for projects will be funded through its 15th FC funds as WMC will not have sufficient funds remaining after O&M obligations.

*All values are in INR hundred thousands

Years	2014 (A)	2015 (A)	2016 (A)	2017 (A)	2018 (RE)	2019 (BE)	2020	2021	2022	2023	2024	2025
Capital receipts	857	412	537	426	986	1,126	531	225	225	225	225	225

Note: INR 225 hundred thousands or INR 22.5 million per annum is assumed based on 14th FC share received by WMC

WMC can utilise its 15th FC grants to fund its own share of capital cost for proposed projects!

Additionally, the city will require **19.5 million per annum** from its own funds for O&M of its upcoming sanitation projects

*All values are in INR million

Sr. no.	Improvement actions	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Average O&M per annum
1	Construction of new individual toilets	No maintenance to be done by WMC										
2	Improve collection efficiency of wastewater charges and taxes	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1 million
3	O&M of fecal sludge treatment plant			2.7	2.9	3	3.2	3.3	3.5	3.7	3.8	3.3 million
4	Construction of closed surface drains for storm water drainage			0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.5 million
5	Laying of new settled sewer for wastewater conveyance					4.9	7.7	8	8.4	8.9	9.3	7.8 million
6	Construction of treatment plant for effluent and sullage							7.2	7.6	8	8.3	7.9 million
	Total sanitation O&M	0.1	0.1	3.2	3.4	8.4	11.5	19.1	20.1	21.2	22.1	19.5 million

- The city currently bears O&M for its scheduled desludging, wastewater expenses and maintenance of its CTs.
- With the new projects, Wai will require O&M for its FSTP operations and collection efficiency improvements.
- As WMC also takes up the settled sewer project in future, it will require yearly funds for its settled sewer treatment plant and other recurring expenses.

Note: O&M has been calculated from the year of start of operations.

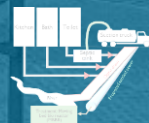
WMC will also have to manage its O&M expenses of its existing sanitation services and new projects..

Sr. No.	Project	Total annual opex
Existing Projects and Services		
1	Scheduled Desludging	1.6 million
2	O&M of fecal sludge treatment plant and landscaping	3.3 million
3	Community Toilet Maintenance	2 million (cost reduction from 3 million per annum to 2 million per annum due to IHHT construction)
4	Wastewater related expenses	2 million
	Total amount (A)	8.9 million/ annum
New Projects		
5	Upgradation of Storm water drains maintenance	0.5 million
6	Improve sanitation tax collections	0.1 million
7	Laying of Settled Sewer Network	7.8 million
8	Settled Sewer Treatment Plant Operations	7.9 million
	Total amount (B)	~16.3 million/annum
	Total O&M (Existing +New Projects)	~25.2 million/ annum

- WMC will require O&M expenses for existing FSSM services like scheduled desludging, FSTP operations , landscaping O&M, Community Toilet Maintenance and wastewater related expenses like drain cleaning.
- New projects like construction of IHHTs in the city will result in annual reduction of O&M costs of Community Toilets by at least 50%.
- However, new projects like laying the settled sewer network and construction of treatment plant will add to the O&M expenses of the city.
- WMC will require around INR 25.2 million per annum to manage total sanitation operation expenses of existing and new projects.

How will the city manage the sanitation operating expenses?

For funding operations and maintenance of existing sanitation services and upcoming projects, the existing sanitation tax will not be sufficient.





There are two possibilities to meet the O&M requirement

Scenario I:

Enhance existing sanitation tax to fund sanitation services

Scenario II:

Transfer property tax to fund sanitation services and also enhance existing sanitation tax



There are two possibilities to meet the O&M requirement

Scenario I:

Enhance existing sanitation tax to fund sanitation services

Scenario II:

Transfer property tax to fund sanitation services and also enhance existing sanitation tax

Scenario I: Enhance existing sanitation tax to fully fund sanitation services (1/3)

- To achieve 100% cost recovery in sanitation sector, WMC will have to levy at least **Rs.840 sanitation tax per property** immediately in 2021 which will **increase by 15% every year** (~Rs. 2,570 by year 2029)
- This sanitation tax will be **9% of the Annual Ratable Value** through which property tax is calculated (If the city wants to opt for sanitation tax as percentage of property tax)

- Though the city will be able to achieve 100% service level benchmarking, this tax will **not be affordable for the citizens** to pay.
- Hence, WMC can opt for another scenario where the transfer from its property taxes to fund the operations and maintenance of sanitation sector.

Review of increase in taxes & charges per property per annum (2/3)

*Values in INR

Average tax demand (per household or property per annum)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Property tax	2077	2700	2700	2700	2700	3510	3510	3510	3510	4564	4564
Water supply tax	1500	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Sanitation taxes	60	60	840	966	1111	1278	1469	1690	1943	2234	2570
MSW taxes	180	180	180	180	180	180	180	180	180	180	180
Annual demand per household or property per annum	3817	4740	5520	5646	5791	6768	6960	7180	7433	8778	9113

Property tax changes as per BAU (30% once in every four years)

Water tax is increased by 20% as per BAU to maintain 100% cost recovery in WS service

Sanitation tax is increased to Rs.840 per property and then annually increased by 15%

Note: The city will already be implementing SWM DPR which will add onto additional O&M. Currently, WMC has levied Rs.180 per property as SWM tax. The state notification mentions that city should at least increase its SWM tax by 5% every year to recover operation expenses.

- The tax burden on the residential properties could further be lower by **cross subsidization and charging higher taxes to commercial and institutional properties.**

Proposed sanitation tax structure and impact on overall finance (3/3)

Components	Enhance existing sanitation tax
Existing Sanitation Tax	INR 60 per property per annum
Proposed Sanitation Tax	INR 840 per property per annum (15% increment every year)
Total Sanitation Tax Demand Generated (assuming 12,000 properties with 100% demand)	~10 million per annum
Sanitation Tax as a % of ARV	9% of ARV
Transfer of property tax per annum add amount (%)	Not required
Cost Recovery in Sanitation Services	100%
Affordability for users	Less affordable

Note: As per the settled sewer DPR, Wai will have to additionally levy ~INR 2000 per property as sewerage charges when it starts its settled sewer project.

Cost recovery of sanitation is considered using all existing and upcoming projects.



There are two possibilities to meet the O&M requirement

Scenario I:

Manage 100% sanitation expenses through sanitation tax..

Scenario II:

Manage sanitation expenses through a combination of sanitation tax and property tax...

Scenario II: Manage sanitation expenses through a **combination of sanitation tax and property tax.** (1/3)

The Council can increase its sanitation tax from Rs.60 per property to Rs.300 per property and then eventually increase by 10% every year..

- WMC will have to levy at least **Rs.300 sanitation tax per property** in 2021 which can increase by 10% every year (~Rs. 2570 by year 2029)
- **This tax structure will be able to recover 25-30% of total sanitation expenses in the upcoming years.**

Sanitation tax can also be levied as a percentage of property tax. This allows the tax to be more equitable as those with larger and better properties pay a higher tax.

- This sanitation tax can be levied as **3% of the Annual Ratable Value** through which property tax is calculated
- **This tax structure seems to be reasonable for citizens to pay.**

Review of increase in taxes & charges per property per annum as per Scenario II (2/3)

*Values in INR

Average tax demand (per household or property per annum)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Property tax	2077	2700	2700	2700	2700	3510	3510	3510	3510	4564	4564
Water supply tax	1500	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Sanitation taxes	60	60	300	330	363	399	439	483	531	585	643
MSW taxes	180	180	180	180	180	180	180	180	180	180	180
Annual demand per household or property per annum	3817	4740	4980	5010	5043	5890	5930	5974	6022	7128	7187

Property tax changes as per BAU (30% once in every four years)

Water tax is increased by 20% as per BAU to maintain 100% cost recovery in WS service

Sanitation tax is increased to Rs.300 per property and then yearly increased by 10%

Note: The city will already be implementing SWM DPR which will add onto additional O&M. Currently, WMC has levied Rs.180 per property as SWM tax. The state notification mentions that city should atleast increase its SWM tax by 5% every year to recover operation expenses.

- The tax burden on the residential properties could further be lower by **cross subsidization and charging higher taxes to commercial and institutional properties.**

Proposed sanitation tax structure and impact on overall finance (3/3)

	Transfer property tax to fund sanitation services and enhance existing sanitation tax
Existing Sanitation Tax	INR 60 per property per annum
Proposed Sanitation Tax	INR 300 per property per annum (10% increment every year)
Total Sanitation Tax Demand Generated (assuming 12,000 properties with 100% demand)	3.6 million per annum
Sanitation Tax as a % of ARV	3% of ARV
Transfer of property tax per annum add amount (%)	~19.6 million per annum
Cost Recovery in Sanitation Services	25-30%
Affordability for users	More affordable

Sanitation tax can also be levied as a percentage of property tax. This allows the tax to be more equitable as those with larger and better properties pay a higher tax.

Note: As per the settled sewer DPR, Wai will have to additionally levy ~INR 2000 per property as sewerage charges when it starts its settled sewer project.

Cost recovery in sanitation services is considered using all existing and upcoming projects.

Comparative summary of tariff revisions from both the scenarios:

	Scenario I: Enhance existing sanitation tax	Scenario II: Transfer property tax to fund sanitation services and enhance existing sanitation tax
Existing Sanitation Tax	Rs.60 per property per annum	
Proposed Sanitation Tax	Rs.840 per property per annum (15% increment every year)	Rs.300 per property per annum (10% increment every year)
Total Sanitation Tax Demand <small>(assuming 12,000 properties with 100% demand)</small>	~10 million per annum	3.6 million per annum
Sanitation Tax as a % of ARV	9% of ARV	3% of ARV
Transfer of property tax per annum add amount (%)	Not required	~19.6 million per annum
Cost Recovery in Sanitation Services	100%	25-30%
Affordability for users	Less affordable	More affordable

Sanitation tax can also be levied as a percentage of property tax. This allows the tax to be more equitable as those with larger and better properties pay a higher tax.

Note: As per the settled sewer DPR, Wai will have to additionally levy ~INR 2000 per property as sewerage charges when it starts its settled sewer project.

The city investment plan will ensure financial sustainability of WMC for the next ten years.

- WMC should start planning for future investments and its O&M plan by year 2021.
- This will ensure financial sustainability of the city for the next ten years.
- This will also help the city to analyze its financial capacity for capital investments before deciding which projects to take up, so that it will know in advance how to allocate financial resources for both capital and O&M expenses.

Linking the investment plan to the city budgets:



The Council should plan to link the ten year city investment plan with the annual city budgets during the budget season and incorporate key projects in the budgets for approval.

Update the investment plan annually:



The Council should also update the investment plan annually with the most recent capital and operating budgets which will update the financial forecast of the revenue and expenditures.

Communicating the city budget and investment plan to the citizens:



The city investment plan after incorporating in the city budgets can be communicated to the citizens which can show improvement in city services. This will also help in convincing the citizens to pay their taxes!

References

- CEPT University. (2018). Performance Assessment System-SLB database for Maharashtra, 2017-18.
- CWAS, CEPT. (n.d.). SaniPlan-A City Sanitation Planning Model, Performance Assessment Project. CWAS, CEPT . Retrieved from https://www.pas.org.in/Portal/document/ResourcesFiles/uploads/Overview%20Note_SANIPLAN.pdf
- CRISIL. (2011). Toolkit for Public Private Partnerships in Urban Water Supply for State of Maharashtra. Asian Development Bank, Government of India
- Crisil . Preparation of a City Investment Plan (CIP) and Financing Strategies. Retrieved from www.vmc.gov.in: https://vmc.gov.in/pdf/Link_9.pdf
- CWAS. (January 2015). City Sanitation Plan - Wai Municipal Council. CEPT University.
- WMC. (2011-19). Demand & Collection Tables. Wai Municipal Council.
- WMC. (2011-19). Wai Municipal Budget, 2011-19. Wai Municipal Council.
- WMC. (2015-17). Wai Annual Financial Statements. Wai Municipal Council.
- Isher Judge Ahluwalia, PK Mohanty . (March 2019). State of Municipal Finances in India-A Study Prepared for Fifteenth Finance Commission. ICRIER.
- Kaganova, O. (October 2011). Guidebook on Capital Investment Planning for Local Government. The World Bank.
- City of Greater Sudbury. (2017). Long Term Municipal Financial Planning. City of Greater Sudbury.
- Thane Municipal Corporation. (n.d.). City Development Plan. Retrieved from www.yumpu.com: <https://www.yumpu.com/en/document/view/40160761/thane-municipal-corporation-city-development-plan-official-website->
- Bouton, S. (n.d.). How to make a city great. Mc Kinsney Cities Special Initiative.

Abbreviations

BMGF	Bill and Melinda Gates Foundation
LG	Local Government
WMC	Wai Municipal Council
GoM	Government of Maharashtra
C-WAS	Center for Water & Sanitation
ULB	Urban Local Body
MSW	Municipal Solid Waste
FSSM	Feecal Sludge & Septage Management
WW	Waste Water
SBM	Swachh Bharat Mission
MoHUA	Ministry of Housing & Urban Affairs
KLD	Kilo Litres per Day
LPCD	Litres per Capita per Day
NRW	Non Revenue Water
WSS	Water & Sanitation Service
ODF	Open Defecation Free
MLD	million Litres per Day
ULB	Urban Local Body
FC	Finance Commission

Annex I List of interviews: staff & experts

Staff and experts
Chief Officer, WMC
Chief Accountant, WMC (2019)
Accountant, WMC (appointed on additional charge before 2019)
Tax Inspector, WMC
Tax Collectors, WMC
Head of Water Supply Dept, WMC
Water Supply Engineer, WMC
Sanitary Inspector, WMC
Chartered Accountant, Externally appointed by DMA to audit WMC's accounts

Annex 2: Overview of Wai municipal budget

*All values are in INR hundred thousands

Description	2011-12 (A)	2012-13 (A)	2013-14 (A)	2014-15 (A)	2015-16 (A)	2016-17 (A)	2017-18 (A)	2018-19 (RE)	2019-20 (BE)
Opening Balance	288	75	125	96	26	31	264	356	287
Revenue Account									
Revenue Income	685	797	731	701	850	926	1019	1099	1166
Revenue Expenditure	718	855	595	813	745	625	926	1136	1370
Surplus/ (Deficit) in revenue account	-33	-59	136	-112	105	301	94	-37	-204
Operating ratio	0.95	0.93	1.23	0.86	1.14	1.48	1.10	0.97	0.85
Capital Account									
Capital Income	844	338	944	872	430	566	499	1081	1199
Capital Expenditure	965	258	1170	931	529	666	543	1088	1173
Surplus/ (Deficit) in capital account	-121	80	-226	-58	-99	-100	-44	-8	26
Extraordinary Account									
Extraordinary Income	137	259	337	219	107	97	120	109	146
Extraordinary Expenditure	120	231	275	118	107	66	76	134	182
Surplus/ (Deficit) in extraordinary account	17	28	61	101	0	31	43	-25	-36
Total surplus/ Deficit	152	125	96	26	31	264	356	287	74

- The budget size of Wai Municipal Council over the past nine years (2011-20) is INR 170 million, consisting of INR 80 million of revenue expenditure and INR 90 million of capital expenditure.
- The analysis of WMC budget signifies a weak financial profile, with marginal revenue surplus in some years and a deficit position in other years.

**Extra ordinary income and expenditure include loans & debts and reserve fund transfers.

Annex 3: Financial projections based on past trends

*All values are in INR hundred thousands

Sr	Description	Past trends						Growth rates			Future Projections									
		2014-15 (A)	2015-16 (A)	2016-17 (A)	2017-18 (A)	2018-19 (RE)	2019-20 (BE)	CAGR	Annual growth rate (Median)	Applied Growth rate	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
WSS sector																				
1	Water revenue expenditure	92	64	68	104	77	165	12%	7%	8%	104	112	121	131	141	152	165	178	192	207
2	WW/FSM revenue expenditure	99	52	0	41	73	82	-4%	12%	6%	82	87	93	98	104	110	117	124	131	139
3	SWM revenue Expenditure	16	8	6	120	64	90	41%	-32%	7%	60	74	79	84	90	96	103	110	118	126
Non-WSS sector																				
4	Property tax (Auto calculated-based on increase in properties)	134	112	171	175	193	198	8%	3%	5%	235	241	248	254	261	268	275	282	290	298
5	Revenue income- Other taxes and charges	9	8	13	12	13	14	9%	7%	7%	16	17	18	19	21	22	24	25	27	29
6	Non-tax and revenue grants	451	628	651	728	786	843	13%	8%	8%	918	992	1,071	1,157	1,249	1,349	1,457	1,574	1,700	1,836
7	Non-WSS revenue expenditure	621	642	552	667	957	1054	4%	9%	6%	1,029	1,091	1,156	1,226	1,299	1,377	1,460	1,547	1,640	1,739

Note: The growth rate is calculated based on past trends using CAGR and Average Growth Rate method

Annex 4: Observations based on discussions from site visit, audit reports and annual statements:

WAI MUNICIPAL COUNCIL, WAI

Form No. 81
(See Rule No. 387)



Income and Expenditure Account for the year ended 31st March, 2017

Account Code	Item / Head of Account	Schedule No	31.03.2017	31.03.2016
			Amount	Amount
INCOME				
1100	Tax Revenue	8	2,89,75,388.00	2,23,43,618.00
1200	Assigned Revenue and Compensation	9	4,68,01,221.00	46,22,426.00
1300	Revenue Grants, Contributions and Subsidies	10	76,97,513.00	4,21,83,552.00
1400	Rental Income from Municipal Properties	11	57,06,848.00	43,51,496.00
1500	Fees, User Charges and Fine	12	38,92,601.00	50,48,029.00
1600	Sales and Hire Charges	13	1,65,480.00	8,83,166.00
1700	Income from Interest	14	4,02,170.00	1,65,919.00
1800	Deposits Forfeited / Non-Refundable Deposits etc.	15	1,000.00	47,649.00
1900	Other Income	16	38,903.00	63,910.00
Total Income			9,36,81,124.00	7,97,09,765.00
EXPENDITURE				
2100	Establishment Expenses	17	4,56,60,278.00	4,72,82,402.00
2200	Administrative Expenses	18	95,41,967.00	97,72,983.00
2300	Interest and Finance Charges	19	12,03,905.00	13,62,733.00
2400	Repairs and Maintenance of Assets	20	24,97,037.00	84,57,618.00
2500	Purchases for Operations and Programme Implementation	21	60,60,542.00	62,60,860.00
2600	Depreciation	22	96,01,161.00	93,81,106.00
2700	Revenue Grants, Contributions and Subsidies Given	23	31,11,552.00	10,44,500.00
2800	Provisions and Write off	24	23,58,433.00	-
2900	Reserve Fund and Miscellaneous Expenses	25	17,360.00	3,75,419.00
Total Expenditure			8,00,52,235.00	8,39,37,621.00
Gross Surplus / (Deficit) of Income over Expenditure before Prior Period Items			1,36,28,889.00	(42,27,856.00)
Add : Prior Period Items				
Gross Surplus / (Deficit) of Income over Expenditure after Prior Period Items			1,36,28,889.00	(42,27,856.00)
Less : Transfer to Reserve Funds				
Net Balance being Surplus / (Deficit) carried over to Municipal Fund			1,36,28,889.00	(42,27,856.00)

FOR P. N. OSWAL & CO.
Chartered Accountants
Mrs. Pravina Oswal
Proprietor
M. No. 116856
PLACE: Wai, Satara



For Wai Municipal Council

CHIEF OFFICER
PLACE: Wai, Satara
DATE: 31.03.2018

Accountant

Balance Sheet of WMC FY 2016-17

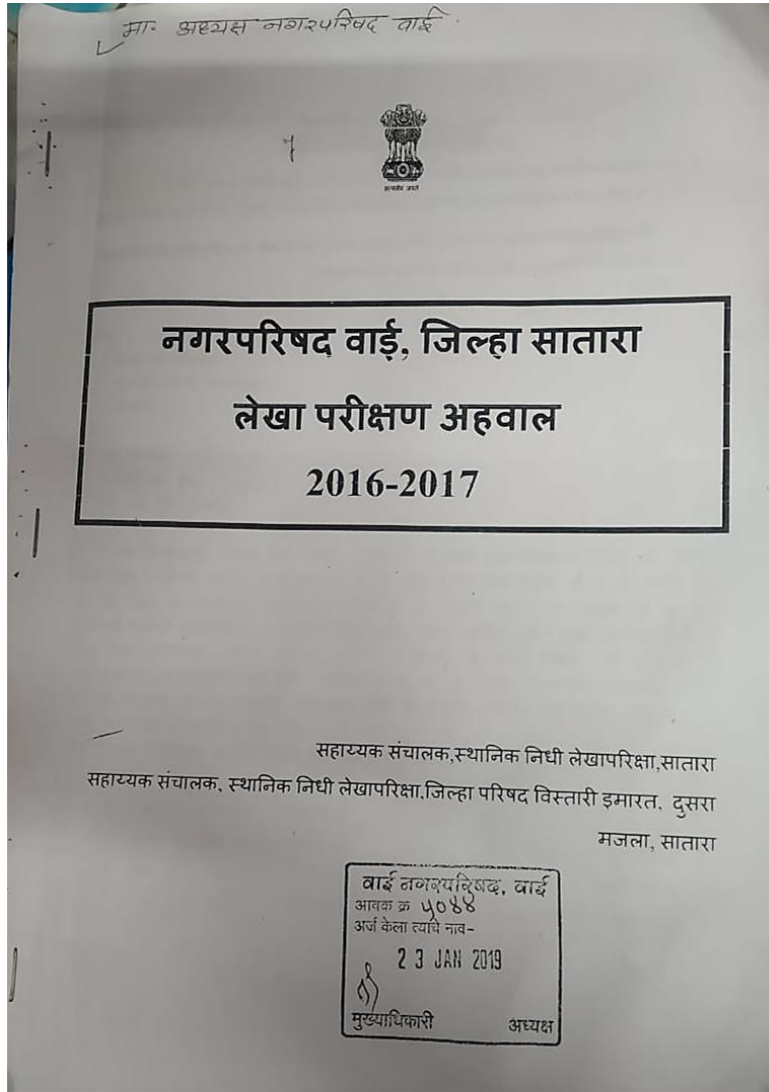
Municipal Budget doesn't give a holistic picture about financial health as budgets are prepared through cash inflows:

- The annual financial statements determine that the Council has been using its contractors' and shop deposits. Thus, if WMC has to pay back these deposits to the beneficiaries, it can be said that they might not be able to do it as per the current financial situation.
- Some heads of disputed income like water tax and property tax arrears are also not considered in the budget documents .
- The Council doesn't have substantial fixed deposits. Out of total fixed deposits of INR 170 million; only INR 2.5 million is from Council's own funds and the rest 157.5 million are the deposits of its capital grants. So, the interest obtained from deposits of grants can only be utilised for projects under which the grants is sanctioned.

All deposits are utilized for revenue expenses

Revenue deficit at the end of year 2017 as WMC utilized all its deposits

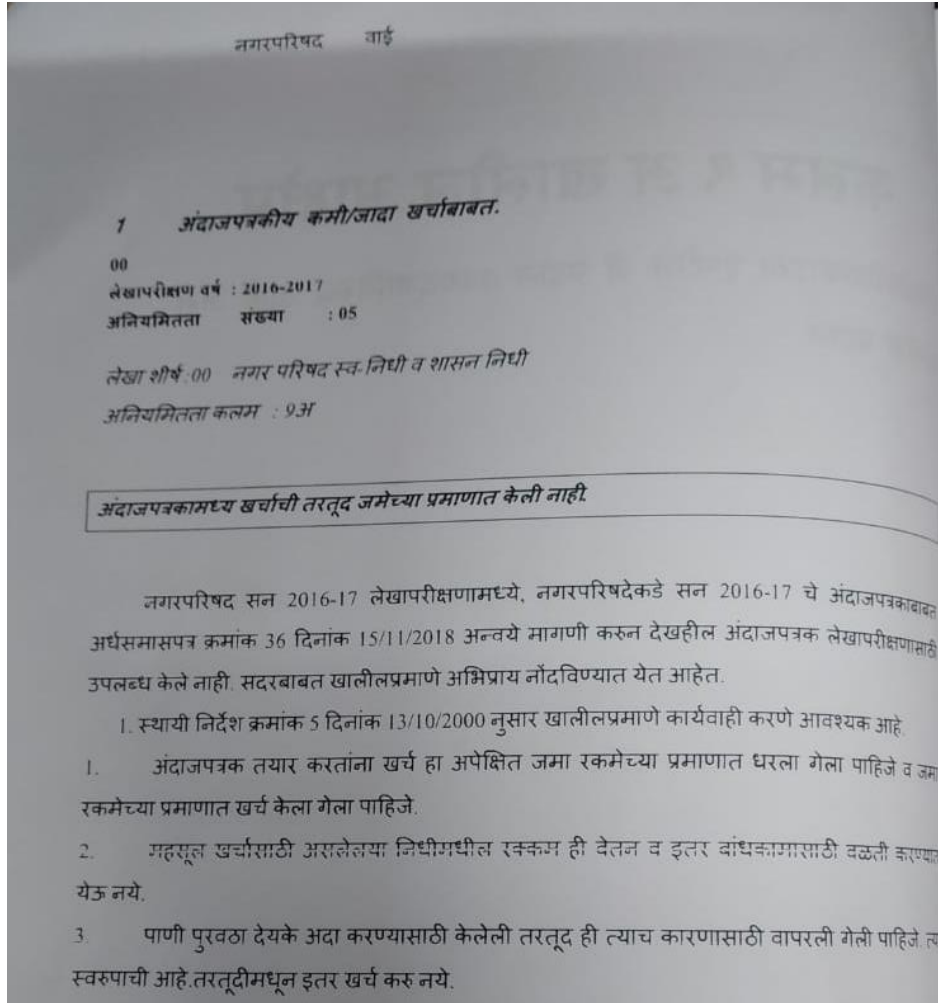
Annex 5: Key observations from Local Fund Audit Report of Wai



WMC audit report for 2016-'17

- As per 31st March, 2017, it is reported that WMC has **more liabilities than its assets**.
- The audit statements have mentioned key remarks stating WMC should focus on improving its revenue collection as the financial condition isn't satisfactory.
- The report also mentions that government funds are utilized for different activities and not according to the provisions given by the govt.
- The Council doesn't follow dual based accounting systems but records on cash based accounting system.

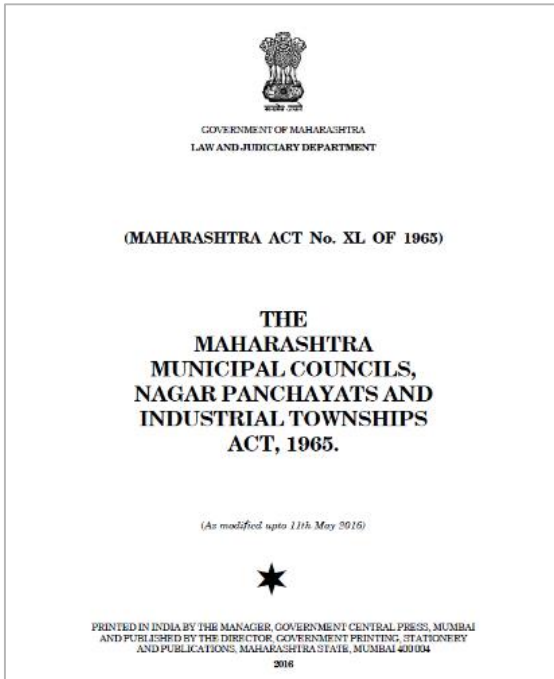
Annex 6: Key observations from Local Fund Audit Report of Wai



- It is noted as one of the key remarks that the budgets are not proportionate to the revenue income of the Council. The expenses are overestimated leading to large irregularity in incorporating the projects.

Remark in audit report stating overestimation of expenses

Annex 6: Taxation policy of Wai as per the Maharashtra Municipal Council, Nagar Panchayat & Industrial Township Act, 1965



- The city of Wai follows the guidelines for property tax, water tax, sanitation tax as per the Maharashtra Municipal Council, Nagar Panchayat & Industrial Township Act, 1963 by the State govt. for Municipalities.
- According to this Act, the property tax can be revised once in every four years. This tax can be increased to not more than 50% once in every four years.
- The Act also mentions that cities can levy charges and taxes as per the services provided by them. These charges can be flat charges or a part of consolidated property tax.

- There is no provision for timeline in revision of water tax, sanitation tax, solid waste management tax or other service charges.
- The Councils can decide to revise them accordingly given that they are meeting their O&M requirements & being flexible for the users to pay.

	Components that can be included as consolidated property tax	Components included in WMC's taxation policy
1	General Tax	
2	General Water Tax	✓
3	Lighting Tax	✓
4	General Sanitary Tax	
5	Special latrine tax	✓
6	Fire Tax	
7	An environment tax	✓
8	Water Benefit Tax	
9	Sewerage Benefit Tax	
10	Street Tax	

Suggested Citation:

CWAS, CEPT University.(2020).*City Sanitation Investment Plan for Wai Municipal Council.*
Wai Maharashtra

About us

The Center for Water and Sanitation at CEPT University carries out various activities – action research, training, advocacy to enable state and local governments to improve delivery of services.



cwas.org.in
pas.org.in



cwas@cept.ac.in
tiny.cc/pasenews



@CEPT_CWAS



@cwas.cept



@pas.cept



@C-WAS