

Local Government & Community Development Department



Punjab Cities Program

Gap Analysis

of

Municipal Services infrastructure & service delivery

in

Jaranwala City



Punjab municipal Development Fund Company

Section-1 City Background

1.1. District Status

Jaranwala Town is the headquarter of the Tehsil Jaranwala under the jurisdiction of Faisalabad district which is located from 30°- 42' to 30°- 47' North latitudes and 72°-40' to 73° to 40' East longitude.

The district is a flat alluvial plain formed by Chenab and Ravi rivers. The rivers Ravi flows along the south-eastern boundary of the district. The land close to the river is relatively lower than that away from the river towards the west. The area is exceptionally favorable for irrigation. There is no interruption in the monotony of the plain and there is only a fall of some 38 meters from north-east to the south-west of the district. The general elevation of the land is about 150 meters above the sea level.

1.2. Location & History of the city

The city is located at 31°- 20' North latitude and 73° -25' East longitude and derives its name from a “Bohar” tree known as Jaranwala Bohar (Bohar with big roots). This tree was on the bank of pond where there is a Chowk of Chak No.240/GB. With the passage of time it came to be known as Jaranwala. In 1909 a town was established near the old Abadi and was named after the then British Deputy Commissioner. However his name could not survive against the old name of Jaranwala. In 1912 Jaranwala was declared as a notified area. It was made a Town Committee in 1924 and became a Municipal Committee in 1935.

Jaranwala is situated at a distance of 37 kilometers from Faisalabad towards south-east, on Lahore-Faisalabad road and Jaranwala-Khurrianwala road. The Sheikhpura-Shorkot railway line also passes through this city. It is connected by regular bus services with Lahore and Faisalabad.

1.3. The Climate

The climate of the area touches two extremes. The maximum temperature in summer reaches up to 44°C. In winter it goes down to 1°C. The mean maximum and minimum temperature in summer are 41 and 27 centigrade and in winter 19 and 4 centigrade respectively. The summer season starts from April and continues till October. May, June and July are the hottest months. The winter season on the other hand starts from November and continues till March. December, January and February are the coldest months.

1.4. Rainfall

The rainy season starts in July and ends in September. July and August receive more rains than any other months. Most of the winter rains are received in the months of January and February. The annual rain fall has been estimated to be 372 mm whereas the average humidity level is 57%

1.5. Demographic status

Population of the city as per District Census Report 1998 was 106,985 persons with annual growth rate of 2.57% which if projected at this growth rate should be 173,264 persons in year 2017. The census report of year 2017 has not been published by Government of Pakistan as yet. However as per provincial data released by the concerned ministry, the population of the city in the year 2017 was 150,380 persons. The city has extended its inhabitation much beyond the existing municipal limits and as per land scan process performed by PMDFC, the city had population of 244,972 persons in the year 2017. The large disparity in population figures shows that the municipal limits of the city need to be extended by incorporating the newly developed inhabitation as municipal services are to be provided to the entire inhabited areas of the city.

1.6. Data collection

The formats for the data collection about the municipal services were designed by PMDFC and sent to the Municipal Committee. After receipt of these formats from MC, the municipal committee was visited to;

- 1) Verify and correct the data provided by the municipal committee.
- 2) Update the descriptive maps of all the services by consultation with MC staff.
- 3) Identify the problems and bottlenecks faced by MC in municipal service delivery.
- 4) Identify the required improvements and extension of the municipal services infrastructure.
- 5) Identification of Public Private Partnership projects already executed
- 6) Identify the capacity of the key officers to undertake the PPP projects and collaborative projects with other government agencies and MCs
- 7) Public opinion surveys regarding the delivery of municipal services.

1.7. Situation analysis and Gap analysis

Situation analysis was conducted for identification of problems, snags and shortcoming in the municipal services infrastructure, manpower and management of the services, operation & maintenance of the services infrastructure and financial issues. Gap analysis was then conducted for each municipal service for knowing the areas where improvement and rehabilitation is needed. Correction and updating of descriptive maps was also carried out. The details are given below;

Section-2 Water Supply System

2.1. History of the water supply system

History of the water supply system dates back to the year 1912 when the inhabitation was declared as notified area and electrified. A water supply system was also constructed whose components are not known. However after that improvement in the system were continued. The present situation of the existing water supply components in the city is detailed below;

2.2. Existing situation

The existing water supply system was constructed by Public Health Engineering Department in the year 2006-08. The city was divided in three zones with respect to the commanded area of the water sources. The detail of the components is given in following paras.

The inhabitants have their own water sources such as hand pumps or motorized pumps. Due to lack of awareness about potable water, the citizen is extracting contaminated water from the shallow aquifers. However 07 No's ultrafiltration plants have been installed in the city for supply of potable water to the citizen and most of the residents are fetching drinking water from these filtration plants.

2.2.1. The source of fresh water

The city has brackish sub soil water which is unfit for human consumption. Gogera Branch Canal (GBC) is flowing at the western periphery of the city and Burala Branch Canal is flowing at the eastern periphery of the city. Both canals have developed fresh water belts along both of the banks because of the seepage of fresh water from the sides and bed of the canals. Skimming tube wells have been installed on the banks of these canals to harness fresh subsoil water from the shallow aquifers being recharged by these canals.

2.2.2. Detail of Tube wells

Below mentioned tubewells were installed in the years 2006-08 under a comprehensive water supply system out of which some tubewells were taken over by MC Jaranwala whereas the remaining were not taken over and ultimately abandoned wasting heavy capital. The detail is given below;

Zone	No of tube wells	Taken over by MC	Functional	Abandoned
1	9	0	0	9
2	3	3	3	0
3	24	14	14	10
Total	36	17	17	19

All the three zones have been shown in the descriptive map updated now.

2.2.3. Zones of water supply systems

a) Zone-1

The zone is located in the east of the railway track between railway track and Burala Branch Canal. Water supply system in this zone comprised of 9 tube wells installed on Bural Branch Canal along with one overhead reservoir of 100,000 gallons capacity and a network of distribution system. The entire system including the source was not taken over by defunct TMA Jaranwala. The reason described by the MC staff is that the distribution system was not tested and the pipe lines were leaking. As such PHED left this system unwatched and with passage of time all components of this system have been abandoned wasting heavy capital. Presently pump houses and tube wells are available at site but the machinery along with all allied equipment of all tube wells has been stolen away.

b) Zone-2:

This zone comprises of Chack No-128 GB and adjoining abadies developed around the Chack. The water supply system in this zone comprised of 3 tube wells installed along the left bank of Gogera Branch Canal along with a network of distribution system. The tubewells are pumping directly into the distribution system. This system was taken over by defunct TMA Jaranwala and is presently working. However it is reported by the MC staff that network is supplying contaminated water because of the leaking pipe lines and the consumer service connections. Consumers are not using this water for drinking purposes.

c) Zone-3:

This zone is located at the western side of the railway track and eastern side of the Gogera Branch Canal and forms major portion of the city. The water supply system in this zone comprises of the under mentioned components;

S.N.	Components	Capacity	Nos	Functional status
1	Tubewells	0.75 cusecs	24	14 tubewells taken over by defunct TMA and are operational
				10 tubewells were not taken over by TMA and have been abandoned
2	Ground storage tanks in Jinnah Park	50,000 gallons	2	Taken over by MC & Functional
3	Overhead reservoirs	50,000 gallons	2	Taken over by MC One OHR operational & the other's structure is damaged.
4	Distribution system	Network		Partially functional

The reason for partial taking over of the scheme was not explained by the MC staff.

2.3. Problems & bottlenecks

2.3.1. Abandoned water supply system

Water supply systems have been laid in 50% area of the city but major part of the system has not been taken over by defunct TMA and now only 15% of the city is being supplied with water and 35% area is abandoned.

The parts of the city wherein the distribution network has been abandoned are given below;

1- Mughal pura	2- Shaukat-Abad	3- Gujjar town
4- Muslim town	5- Mohallah Iamail-Abad	6- Mohallah Mustafabad
7- Mohallah Ahmad park	8- Mohallah Ghausia park	9- Mohallah Anwar-Abad
10- Mohallah Raza-Abad	11- Faisal town	12- Niaz pura
13- Gulshan town	14- Anarkali bazar	15- Mohallah new bazar
16- Abdullah park	17- Nawab colony	18- Mohallah chamra mandi
19- Christian colony	20- Mehmood colony	21- Mohallah Ismail-Abad 2
22- Mohallah katchi abadi	23- Mohallah Rasheed park	24- Mohallah Farooq park
25- Mohalla Mohammd pura	26- Mohallah Hussain Nagar	27- Mohallah Kabeel town
28- Islam pura	29- Some areas of Municipal colony	30- Mohallah Lakar mandi
31- Mohallah bashir town	32- Mohallah Bilal Ganj	33- Awan town
34- Sultan park	35- Katchi abadi	36- Al-aziz town
37- Ghazi town (i)	38- Sajjad park	39- Sabzi mandi
40- Aftab town.		

2.3.2. Contaminated water supply areas

1- Amin park	2- Al Madina colony	3- Mohallah Usmania
4- Mohallah mohammad Ali park	5- Gillani Mohallah	6- Chak 128 GB
7- Feroz colony	8- Beek colony	9- Alvi park
10- Bashir colony	11- Shamas pura	12- Shahbaz town
13- Behari colony	14- Madni park	15- Mc staff colony

16- Ijaz town	17- Housing colony	18- Some areas of mohallah saddat park
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Reasons for water contamination

- The distribution system in Gillani mohalla, Abdullah park and usmania park was laid in 1990 with mild steel pipes. The pipe lines have outlived their life and rusted up. The exfiltration and infiltration from these pipe lines is major source of contamination.
- Due to construction of Jumara road by Highway department, water supply lines damages and contamination occur in Muhammad Ali park and Alvi park.
- The leakages in the pipe lines and their substandard repairs lead to contamination of the system.
- The old consumer connections have been installed with GI service pipes which have been rusted and perforated with passage of time. The exfiltration and infiltration from these pipes is contamination the system.
- Substandard PVC & PE piping, saddles & materials are being used by the consumers for installation of the consumer connections which get damaged very soon after the installation and give rise to the water contamination.

2.3.3. Unserved areas

a) The un-served areas in zone-3 are given below;

1- Chak 648 GB	2- Chak 239 GB	3- Chak 240 GB
4- Allahabad	5- Mehboob town	6- Ali town
7- Part of mohallah saddat park	8- Raja town	9- Abuzar colony
10- Mohallah Awan park	11- Defence housing society	12- Waqar park
13- Industrial area	14- Mohallah eid gah	15- Saleemi park
16- Mohallah camp	17- Railway colony	18- Basti Easa nagri
19- Ghazi town ii	20- Manto park	21- Dab town
22- Waqar town	23- Nazeer town	

2.3.4. Source capacity

Present population of the city (including all inhabited areas outside the MC limits)		244,972 persons
Designed water consumption (Assuming that all connections will be metered)		30 gpcd
Total average day demand		7.35 mgd
Total number of tubewells installed		35 Nos
Total discharge	$9 \times 0.5 = 4.5$ cusecs plus $26 \times 0.75 = 19.50$ cusecs	24 cusecs
Total available source capacity (designed working hours =14)		7.56 mgd
There is no shortfall for the entire city if all tube wells are operated.		
However if we go for Maximum Day Demand, source capacity		11.03 mgd

Possible shortfall in summer	3.47 mgd
Presently used source capacity	
Nos of tubewells used for water supply	8 Nos
Discharge each	0.75 cusecs
Working hours/day	3
Total source capacity utilized at present	0.41 mgd

The above figures explain the reasons for water shortage. If installed tubewells are used for 14 hours a day as per design criteria then the water production can be increased to 7.56 mgd which is enough for feeding the entire city with water.

This shows mismanagement of water by MC Jarranwala.

2.4. Repairs and rehabilitation of the existing system

2.4.1. Tubewells

Total Nos of working tubewells	Capacity each (cusecs)	Total capacity (cusecs)	Required replacements	
			Tube wells	Pumping units
16	0.75	12.0	0	0

2.4.2. Ground storage tanks (GST) & Overhead reservoirs (OHR)

Reservoir	Nos	Capacity each (Gallons)	Nos in working order	Nos requiring repairs	Type of repairs required
GST in Jinnah park	2	50,000	2	-	-
OHR at water works road & melad chowk	2	50,000	1	1	Civil works
OHR at 240 More	1	100,000	0	-	-

2.4.3. Repair of Pump Houses:

Water works	Total Nos	Size (Ft.)	Type of repair
Tube wells	03	12'x12'	Raising of plinth level
	14	12'x12'	White washing, painting, Plastering, electrification & pointing etc.

2.5. Consumer connections & tariff structure

Total number of consumer connections	Domestic	Commercial	Industrial
	1098	0	0
Tariff structure (Rs. /month)	150	200-500	10,000

2.6 O&M Charges and revenue recovery

The operation & maintenance charges and the revenue recovery affected during the last five years is given below;

Year	2013-14	2014-15	2015-16	2016-17	2017-18	Total in five years
O&M charges (million Rs)	8.163	11.89	14.969	8.152	11.04	54.214
Revenue recovery (million Rs)	0.18	0.187	0.185	0.118	0.231	0.901
Recovery % as compared with O&M exp.	2.20%	1.57%	1.23%	1.44%	2.09%	1.66%
Subsidy injected (million Rs)	7.983	11.703	14.784	8.034	10.809	53.313

The above mentioned data shows a very weak billing and recovery system of the water revenue which is required to be improved by capacity building of the recovery staff.

2.7 Repairs & replacement of other components

These components include;

- Replacement of hypo-chlorinators = 16 Nos.
- Replacement of MCUs = 14 Nos.
- Installation of bulk water meters on 14 Nos. tubewells.

2.8 Manpower deployment

The manpower deployed on water supply system in MC Jaranwala is given below:

Sanctioned strength	31
Existing strength	17
Vacant posts	14

From the above figures, it is evident that actual strength deployed on water supply system is very less because major area is abandoned.

2.9 Conclusion:

- b) Only 1098 water connections are registered
- c) The abandoned distribution system has been damaged by construction of sewerage system & installation of other municipal services and cannot be re-commissioned.
- d) *Huge public money invested in this water supply system has gone to drain due to lack of interest of all stake holders.*
- e) *The interviews with the MC staff along with circumstantial evidence and analysis show that MC Jaranwala has not shown responsible behavior in supply of potable water to the inhabitants in the past. Hence reconstruction of the water supply system in abandoned areas is not advised unless it is determined that it is a demand*

of the inhabitants and that MC Jaranwala takes full responsibility for the operation and maintenance of the system.

Handing/ Taking over the scheme constructed by PHED:

- Water supply scheme “Extension in urban water supply scheme Jaranwala” was commenced in 2006. The scheme was completed in 2010.
- DCO Faisalabad visited the scheme and ordered defunct TMA Jaranwala to take over the scheme after physical verification of infrastructure and laboratory test reports.
- Joint visit of TMA and PHED Jaranwala was conducted and samples of water were collected and sent to National Institute of Biotechnology and Genetic Engineering Faisalabad. Results of water samples were not as per WHO standards.
- TMA submitted number of observations to PHED Jaranwala regarding the defects in the water supply infrastructure laid by PHED.
- Secretary LG&CDD and Secretary HUD & PHE Department visited the scheme on 17.03.2018 and constituted high level inquiry committee comprising of the following members:
 1. Chief Engineer LG&CDD Punjab Local Government Board
 2. Chief Engineer Public Health Engineering Department (south) Punjab
 3. Superintendent Engineer PHED Faisalabad
- Findings of the above Committee were presented to Secretary LG&CDD on 16.08.2011.
- Keeping in view the condition of water supply infrastructure, TMA Jaranwala informed DCO Faisalabad vide memo no. 1010/14 dated 10.07.2011 that scheme was too defective to be taken over by TMA.
- Further a complaint was registered in the office of Wafaqi Muhtasab and the following decision was made by him on 20.02.2014.

“Commissioner Faisalabad division is directed to ensure the removal of defects in the scheme before handing over the control and management to TMA Jaranwala, at the earliest. He should order preliminary inquiry into allegation of substandard quality of work, corruption and embezzlement and thereafter refer the case to Anticorruption Establishment, if the allegations stand established. With these observations the complaint is disposed of; parties to be informed.”

- On 04.09.2013 Chief Minister Punjab constituted an inquiry committee which comprised of the following members:
 1. Commissioner Faisalabad Division
 2. DCO Faisalabad
 3. EDO Works and Services Faisalabad
 4. SE PHED Faisalabad
- Commissioner Faisalabad declared MD WASA as a third party and he prepared the operational schedule of the scheme with following points:

1. LG&CDD Department may issue the sanction for the schedule of establishment enabling TMA Jaranwala for operating the scheme.
2. Administrator, TMA Jaranwala shall take over the scheme formally.
3. SE PHED Circle Faisalabad shall be the responsible for rectification of defects in the scheme for a period of 6 months after handing over of each zone.
4. SE PHED circle Faisalabad and Administrator, TMA Jaranwala shall take up the handing/ taking over of the scheme according to the schedule as agreed between TMA Jaranwala & PHED Faisalabad.
5. Restoration of electric connections and payment of outstanding dues to FESCO will be arranged by the TMA Jaranwala.
6. Provision of water connections to the inhabitants of the city will be the responsibility of TMA Jaranwala.
7. MD WASA Faisalabad will monitor the handing/ taking over process of the scheme and submit fortnightly report to CM office for monitoring the progress.

The above proposal was approved by the then Chief Minister.

- TMA Jaranwala made payments to the FESCO for restoration of electric connections.
- Zone-2 Chak No. 128/GB was initially selected for taking over and water samples were sent to WASA Faisalabad laboratory number of times which were declared to be unfit. Water samples were also sent in NIBGE and results were again declared as unfit. After that fresh samples were taken by WASA Faisalabad which were declared as fit and MD WASA Faisalabad directed TMA Jaranwala on 07.05.2014 to take over the scheme. Accordingly water supply system in Zone-II Chak No-128/GB except distribution system in Sajjad Park was taken over by TMA Jaranwala.
- Further TMA Jaranwala took over 8 tube wells connected with Jinnah Park water works of Zone-III on 28.03.2016 along with one tubewell connected with water main at Lahore road of Zone-3 but the distribution system served by these tubewells could not be taken over because of damaged network.
- After that MD WASA Faisalabad directed TMA to take over remaining part of Zone-2 and zone-3 and accordingly these systems were taken over by TMA Jaranwala on 21.12.2016.
- However a part of the distribution system in Zone-2 was operated by TMA but remaining networks was never commissioned due to their laxity.

Section-3 Sewerage system

3.1. Existing situation

- a) The coverage of the sewerage system is 60% of the total city area. In most of main streets and roads main sewers have been laid but lateral sewers in the streets have not been laid.
- b) On some of the main roads, gravity flow sullage carriers have been constructed to tap the water from the surface drains. These sullage carriers have enough sections to take the storm water as well but in dry weather these sullage carriers take the dry weather flow from the streets.
- c) The city area is divided in three drainage areas which are drained off through four disposal stations. Each zone is described below;
 - **Zone-A**

This zone comprises of major area of the city and spreads on both side of the railway track. The zone is drained off through 42 inch dia outfall sewer taking water to disposal station located at 240-More near the Jarranwala Branch Seepage drain wherein the waste water from the disposal works is being discharged
 - **Zone-B**

This zone comprises of northern areas of the city located at west of the railway track which are being drained through 2 outfall sewers. One outfall sewer of 21” dia is terminating in the Madina Colony disposal works No-1 which is disposing off the waste water in the Jaranwala Branch Drain trough a sullage carrier. The second outfall sewer of 27” dia is feeding waste water to Madina Colony disposal No-2 which is again discharging some waste water in the Jaranwala Branch drain whereas some of it is being used for broad irrigation.

MC Jaranwala desires to eliminate both of these disposal work by construction of one new disposal works by combining both of the outfall sewers.
 - **Zone-C**

This zone comprises of Chack No-128/GB and surrounding inhabitations up to Lahore road in the west and water is drained off in a disposal works located in the east of this Chack through a 27” dia outfall sewer. The ultimate disposal of the some of the waste water is in Jaranwala Branch drain whereas some of this water is used for broad irrigation en-route of this sullage carrier.
- d) Gully grating chambers have not been provided to connect the surface drains with sewers and entire muck, silt and floating materials in the drains are entering the sewers which are responsible for chocking of the sewers.
- e) No waste water treatment facility has been provided in the city and the waste water is directly being discharged in the seepage drain or fields which is polluting water bodies and soils.

3.2. Main components of the system

3.2.1. Main & branch sewers

The length of main and branch sewers as informed by MC Jaranwala staff is given below.
The actual lengths at site may vary to some extent.

Sewer dia. (Inch)	9	12	15	18	21	24	27	Total length in Km
Length in Km	15.0	10.50	2.5	1.80	1.25	0.90	1.0	
Sewer dia. (Inch)	30	36	42	48	54	66	72	34.55
Length in Km	0.60	0.75	0.25	-	-	-	-	

3.2.2. Disposal works/pumping stations

Location	Collecting tanks	Nos of pumps	Discharge each (cusecs)	Total discharge (cusecs)	Motor BHP	working status	Force main/S. Carrier			Ultimate disposal
							Size (inch)	Length (ft)	Condition	
Housing colony	2	3	2.0	4.0	30	Poorly working	3'x3'	5000	Poor	Broad irrigation/Seepage drain
			1.5	1.5	25					
Muhammad Ali Park	1	2	1.5	1.5	25	Poorly working	3'x3'	3000	Good	Seepage Drain
			1.0	1.0	15					
240 More	2	2	2.5	5.0	40	Yes	18"	200	Good	Seepage Drain
		1	3.0	3.0	55	Yes				
		1	2.0	2.0	30					
Chak No. 128 GB	2	2	1.50	3.0	25	Yes	2'x2'	2000	Needs repair	Broad irrigation/Seepage drain

3.3. Problems and rehabilitation of the system

3.3.1. Areas flooded with waste water

Under mentioned areas of the city are frequently subjected to waste water flooding;

1- Ghulam Rasool Colony	2- Mohammad Ali Park	3- Abdullah Park
4- Mohallah Chamrah mandi	5- Main road (Mohallah Eid Gah to Chamrah Mandi)	6- Bashir town
7- Katchi Abadi	8- Ismailabad (Part)	9- Rasheed Park

3.3.2. Un-served areas

Under mentioned parts of the city have not been provided with facility of sewerage system and the facility is required to be extended to these areas as well;

1- Chak No-126/GB	2- Dab Town	3- Minto Park
4- Ghazi Town	5- Basti Eisa Nagri	6- Saadat Park

7- Amin Park	8- Raja Town	9- Waqar Town
10- Ali Town	11- Mehboob Town	12- Shahbaz Town
13- Al-Madina Colony	14- Mubarak Town	15- Jamshaid Town
16- Usmania Park	17- Ijaz Town	18- Industial area (west side)
19- Defence Housing Society	20- Aawan Park	21- Ghazi Town
22- Allahabad	23- Fruit Market	24- Ghulshan Town
25- Islampura	26- Sherazi Park	27- Aftab Town
28-Chak No-239/GB	29-Industrial Area (east side)	30-Mustafabad
31-Sultan Park	32-Ismailabad (Part)	33-Muslim Town
34-Mohamad Pura	35-Mughal Pura	36-Shaukat Abad

3.3.3. Disposal/pumping stations

Under mentioned repairs/replacements are needed in the civil works of the disposal stations;

Location of disposal works	Repair of Collecting tanks	Repair of screening chambers	Repair of pump houses	Repair of pumping units
240 More	2	1	1	2
Housing Colony	2	1	1	2
Mohammad Ali Park	1	1	1	2
Chak No. 128 GB	1	1	1	2
Total	6	4	4	8

3.3.4. Sullage carriers or open channels

Under mentioned sullage carriers collect water from the surface drains and discharge in the main sewer of disposal works. All of these need repairs.

Location of disposal works	Repair of sullage carrier	
	Section in feet	Length (feet)
Kachi abadi To Melad Chowk	2.5'x2.5'	4000
Lakkar Mandi To Lahore road Phatak	6'x 6'	3500
Lahore road Phatak to 240 more	8'x 8'	3000
Defense road railway crossing To 240 More	4'x 4'	4000
Altaf town to Faisal town	3'x 3'	2500

3.3.5. Provision of winch machines

- 1) For de-silting of sewers lines 2 Nos. winch machines are required to eliminate the flooding of sewer line.
- 2) MC is not de-silting the collecting tanks due to which the sewer lines are being choked. Hence 02 No winch machine for the de-silting of collecting tanks will be required to keep the collecting tanks free of silt.

3.3.6. Manhole covers

Manhole covers at many places are missing and MC is not attending these complaints because of money constraints. Hence MC will need to replace the missing manhole covers along with some base frames. MC should keep adequate number of manhole covers in stock to replace the covers immediately after these are damaged or stolen

3.3.7. Replacement of Motor control units

Replacement of 08 Nos of MUCs required.

3.3.8. Generators

One diesel electric generating set is required to be provided in both of the main disposal works i-e Chack No-240 More and Chack No-128 GB to keep the sewers flowing in the load shedding period to eliminate the chances of flooding and silting up of sewers. The capacity of these generating sets will be worked out at the time of detailed design of the subproject.

3.4. Extension of the facility to un-served areas

The above mentioned un-served parts of the city have not been provided with facility of sewerage system and sewers should be extended to these areas as well. Sullage carriers need to be repaired as mentioned in the map.

3.5. Waste water treatment

Waste water treatment facility is not available in the city which is required to be constructed at the ultimate disposal points of all the zones. The treated water as per National Environmental Standards, can be discharged into the Jaranwala branch seepage drain.

3.6. Consumer connections

No consumer sewer/drain connection survey in the city has been conducted by this time. Hence the exact number of these connections cannot be estimated at this stage. No sewer fee is being collected even the tariff has been approved by the house of MC and notified in the gazette.

3.7. Tariff structure

All the sewer connections are not being charged by this time. However, MC Jaranwala notified the sewerage tariff in March 2018. As per gazette sewerage fee is Rs 100 per connection per month but this is not being recovered by MC.

3.8. Operation & maintenance cost vs revenue recovery

The operation & maintenance cost of the sewerage system for the last five years along with the revenue recovery is given below;

O&M Expenditure vs Revenue Recovery (million Rs) (includes manpower, electricity, repairs/replacement & supplies)						
Year	2013-14	2014-15	2015-16	2016-17	2017-18	Total for 5 years
O&M expenditure	9.683	16.773	20.646	2.96	16.09	66.152
Revenue earned	0	0	0	0	0	0
Subsidy given	9.683	16.773	20.646	2.96	16.09	66.152
The expenditure in the year 2016-17 is too low and MC could not explain the reason for that.						

The service charges levied for the liquid waste management are very nominal and the key officers and elected representatives are not serious in its recovery.

3.9. Manpower deployed

The manpower deployed presently for the operation & maintenance of the system is given below against the total regular sanctioned strength of 4 persons. Sanitary workers are being used for operation & maintenance of the sewerage system.

Pump operators	6
Baidars	0
Supervisors	0
Sewer men	10
Total	16

MC is demanding additional manpower because of very low sanctioned strength and increase in population as they are serving those areas in the city as well which are not included within the municipal boundary.

3.10. Service delivery

- As stated earlier, the sewerage system is working in 60% area of the city through main and branch sewers on main roads and streets but a very small area is equipped with lateral sewers.
- Most of the city is being served with surface drains discharging into the sewers without gulley grating chambers which is allowing all the silt and the floating materials in the sewers and is the main reason for chocking of sewer lines.
- No effective de-silting and cleaning of sewers is being done due to shortage of staff and machinery. Hence the service delivery is very poor and lot of waste water flooding in above given parts of the city, is being observed giving loss to public as well as private property.

Section-4 Solid Waste Management

4.1. Existing situation

The city has low efficiency in solid waste management because the resources available to handle the solid waste are too meager to serve the entire area of the city. Limitation in resources is described here.

- a) Shortage of sanitary workers and vehicle drivers.
- b) Shortage of equipment and machinery.
- c) No landfill site is available for dumping of solid waste. Currently waste is being dumped openly along the Jaranwala Branch seepage drain near Chack No-128/GB. Because of non-availability of landfill, waste was being dumped along Gogera branch canal which has been abandoned now. The open dumping of waste is totally unhygienic.
- d) No proper collection points in city are available. However solid waste is collected at open places along the road sides in city and transported to the dumping site.
- e) The waste is being openly dumped without compaction and provision of earth covers which is creating all sort of hazards say; pollution of underground water, vector and vector borne diseases, obnoxious smell and high insanitary conditions.
- f) Total solid waste generated per day is 98 tons but lifting is only 64 tons. The collection efficiency is 65%. This collection efficiency is low and is causing unhygienic condition in the city.

4.2. Un-served and partially served areas

The entire city is not served with solid waste collection and disposal. The efficiency of the services is 65% as given below. Most of the areas of the city remain either un-served or these are partially served. The detail of these areas is given below.

4.2.1. Partially served areas of the city (25% of the city area)

1	Shahbaz Town	2	Al- Madina Colony	3	Alvi Park	4	Mc Staff Colony
5	Railway Colony	6	Mohallah Camp	7	Saleem Park	8	Industrial area west side
9	Defence Housing Society	10	Awan Park	11	Ghazi Town	12	Sajjad Park
13	Feroz Colony	14	Bashir Colony	15	Bheek Colony	16	Behari Colony
17	Chak No-128/GB	18	Industrial Aarea (east side)	19	Mustafabad	20	Sultan Park
21	Al-Aziz town	22	Ghousia Park	23	Anwarabad	24	safia-abad
25	Kabeel town	26	Faisal Town	27	Niaz Park	28	Katchi Abadi
29	Islampura						

4.2.2. Un-served areas (30% of the total city area)

1	Chak No-126/GB	2	Dab Town	3	Minto Park	4	Ghazi Town
5	Jamshaid Town	6	Ameen Park	7	Mehboob Town	8	Ali Town
9	Chak No-248 GB	10	Raja Town	11	Allahabad	12	Fruit Market
13	Gulshan Town	14	Aftab Town	15	Waqar Town	16	Raza abad
17	Chak No- 239 GB	18	Hussain Nagar	19	Muhammad pura	20	Gujjar Town
21	Ismailabad	22	Muslim Town	23	Mughalpura	24	Shaukatabad
25	Chak No-240/GB						

4.3. Solid waste Generation & Disposal

The solid waste management efficiency along with present dumping sites are given below;

Total waste generated per day		Total waste collected (Tons)		% Efficiency of disposal	Name of dumping sites	
Cubic meters	Tons	Cubic meters	Tons		SiteNo-1	SiteNo-2
196	98	128	64	65%	Along seepage drain Chak No. 128/GB	Along Gogaira branch Canal (Abandoned now)
Distance from city center (Km)					4	3
Open dumping= O Landfill= LF					O	O

4.4. Available machinery & equipment

Under mentioned machinery & equipment is available with MC Jaranwala;

S. No.	Equipment/machinery	Total Nos	In working condition	Repair Required
1	Tractor	07	07	07
2	Trolleys	05	05	05
3	Water bouzers	2	2	-
4	Front end loaders	2	2	-
5	Front blade tractors	1	1	-
6	Mechanical sweeper	1	1	1
7	3 cubic meter containers	15	15	-
8	Hand Carts	150	55	45

4.5. Manpower Deployed

The manpower deployed for collection, transportation and disposal of the solid waste is given in the under given table. As indicated by MC Officers, this manpower is not sufficient to serve the entire city at the given standards. MC needs additional manpower which is given below. Actual requirement will be identified after detail design and implementation of the project

Manpower deployment

Slot	Sanctioned strength	Existing strength	Vacant slots	Manpower on Daily wages	Additional requirement of MC
Sanitary workers	245	42	203	159	20
Vehicle drivers	15	5	10	6	5
Supervisors	6	2	4	0	0
Sanitary inspectors	2	0	2	0	3
Total	268	49	219	165	28

4.6. O&M charges and levying of sanitation fees

No sanitation fee has been levied by MC and the entire expenditure given below, is being met from MC's own resources and the PFC share being given by Provincial government.

Solid waste management expenditure & revenue (million Rs) (Includes manpower, energy, repairs, supplies etc)

Year	2013-14	2014-15	2015-16	2016-17	2017-18
O&M Expenditure	44.746	46.7	50.37	47.864	51.121
Sanitation fee/month per house hold	Nil	Nil	Nil	Nil	Nil
Subsidy injected	44.746	46.7	50.37	47.864	51.121

MC will have to levy the sanitation fee to meet the expenditure on solid waste management or at least to lower down the subsidy presently being injected.

4.7. Requirements of the system

4.7.1. Equipment & Machinery

The existing machinery is not cost effective and efficient giving rise to low collection efficiency resulting in insanitary conditions and increased waste management cost. Efficient and cost effective machinery is needed to increase the efficiency of collection and transportation for improving the sanitary conditions in the city and lower down the operational and maintenance costs. The suggested requirement is also given in the table below;

S. No.	Equipment/machinery	Total available Nos	In working condition	Suggested Additional requirement
1	Tractor	07	07	0
2	Trolleys	05	05	0
3	Compactor trucks	0	0	4
4	1.0 m3 containers	0	0	200
5	Front blade tractors	1	1	0
6	Water bouzers	2	2	0
7	Mechanical sweepers	1	1	2
8	Mini tippers	0	0	3
9	Front end loaders	2	2	0
10	Steel bins	-	-	200

4.7.2. Landfill Site development

Open and indiscriminate dumping is being done at the sites shown above.

Approximate area of 17 acres will be required for the next 10 years for construction of landfills for safe and sanitary disposal of the solid waste of the city. MC is trying to procure under mentioned areas for this purpose.

Location	Description	Unit	Area
Nankana Road	State land	Acre	12

The suitability of the landfill sites will be determined after detailed surveys and design of the project by catering the requirement of the environmental standards in vogue in Punjab.

4.7.3. Vehicle parking Area:

The vehicles are presently parked at open space in MC colony. The detail of the site available for construction of parking area for the existing equipment and machinery and that to be procured is given below;

Location	Description	Unit	Area
MC colony	Land is available for construction of parking sheds	Acre	1.25

4.8. Service delivery

- At the average, the service delivery level is poor. Most of the city is either unserved or partially served because of shortage of sanitary staff and machinery & equipment. The existing machinery and equipment is inefficient having costly operation and maintenance.
- Solid waste is presently being dumped openly near a village given above which is creating hazards like obnoxious smell, insanitary conditions, sub soil water pollution and breeding of vectors causing water borne and vector diseases.
- MC has no land for construction of landfills. However efforts are under way by the MC to procure some 12 acres of land which has not been matured as yet. Even this area of land will not be adequate for sanitary landfills.

Section-5 Road Infrastructure

5.1 City Roads Hierarchy

The roads in the city and emerging from the city, have under mentioned hierarchy;

S.No	Name of the road	Owner department
1	Jaranwala Lahore road	Punjab Highway road
2	Jaranwala Faisalabad road	Punjab Highway road
3	Jaranwala Nankana road	Punjab Highway road
4	Jaranwala Satiana road	Punjab Highway road
5	All other roads in the city	Municipal Committee roads

5.2 Detail of the MC roads

The inventory of all major roads and streets belonging to Municipal Committee Jaranwala with name, approximate length, paved width, type of pavement and condition has been given in below;

Sr.#	Name of road		TST/asphalt/ concrete pavers	ROW ft	Length ft	Width ft	Condition of road
	From	To					
1	Pakistani Gate via Rail Bazar	Circular road	Asphalt	40	1500	40	Poor
2	Abdullah Park road	Canal road	Asphalt	20	1970	15	Poor
3	Bohranwala Chowk	Kothi Ghulam Rassol	Asphalt	20	3280	20	Good
4	Milad Chowk	Market Committee	Asphalt	110	2000	35	Good
5	Market Committee	Ramzan Bazar	Asphalt	65	1500	25	Good
6	Ramzan Bazar	Water works	Asphalt	65	4200	25	Good
7	Market Committee	240 More	Asphalt	50	5800	30	Poor
8	240 More	Gulhar Pull chungi	Asphalt	40	1200	25	Poor
9	Jhumra road	Gulhar road up to Municipal limits	Asphalt	40	4050	30	Average
10	Bilal Masjid	Canal via Kothi Ghulam Rasool	Asphalt	30	3280	20	Poor
11	Benazir Park	Saim nala via Kabeer Chowk	Asphalt	40	2700	30	Average
12	Railway Station Chowk	Phatak Lahore road	Asphalt	50	1500	15	Poor
13	Garden hotel (Masjid Bazar)	Cinema Chowk	Asphalt	30	1500	30	Poor
14	Malik House	Lahore road -Nazir Bhatti	Asphalt	20	2500	20	Poor
15	Old Civil Hospital	Sabri Masjid Chowk	Asphalt	50	2200	25	Poor
16	National Grammar School	Canal road	Asphalt	20	2700	20	Poor

17	Faizan e Madina Road	Housing colony	Asphalt	40	3040	25	Poor
18	Lahore road	Defence View	Asphalt	40	3300	30	Poor
19	Ali Hospital	Main road Mehmood Colony	Asphalt	20	2000	20	Poor
20	Tower via Mian Muneeb House 127 GB	Dr Iqtidar House in Chack No-127 GB	Asphalt	20	1650	25	Poor
21	Kothi Haji Asghar via old Gulistan Cinema	Railway track	Asphalt	30	4600	20	Poor
22	Street no. 10 & 12 Rasheed Park	Nawaz Colony	Asphalt	20	2000	20	Poor
23	Hayat Hospital	Mehmood colony	Asphalt	20	2000	20	Poor
24	Dubai Street Lahore Road	Madrassa Akram Shah	Asphalt	12	1100	12	Poor
25	Faisalabad Road	Old Chamra Mandi	Asphalt	40	1000	20	Poor
26	Nia Bazar Hassan Road	Taxi Stand	Asphalt	60	1200	30	Poor
27	Bilal Masjid chowk	Jhumra Road	Asphalt	40	3600	15	Poor
28	Benazir Park	Aanwarabad Chowk	Asphalt	20	1200	16	Poor
29	Nankana road via graveyard	Disposal Works Muhammad Ali Park / Alvi Park	Asphalt	20	2460	15	Poor
30	Chungi No 8	Nankana road	Asphalt	30	2400	18	Poor

5.3 Existing situation and gaps

Some of the primary roads in MC Jaranwala are in good condition & few main roads need rehabilitation, resurfacing and construction of new roads. Further many of the secondary roads/streets require either rehabilitation or new construction.

5.4 Problem roads

Some of the roads given below have developed pot holes and broken edges which have reduced the traffic speed and are also damaging the vehicles apart from consuming more time for travel, increased consumption of fuel and frustration in the commuters. The situation becomes worst during the wet weather when water stagnates in the depressions & pot holes and the traffic plying becomes difficult and muddy sometimes causing accidents. The pedestrians also get problems while walking on these roads. Hence these roads are to be resurfaced or widened/improved for convenience of the general public. The detail of these roads is given in the following paragraphs.

5.5 Requirement for widening and rehabilitation

A total of 31 roads in the city required rehabilitation & new construction out of which 21 roads need widening & improvement, 3 roads surface is poor and require resurfacing whereas 7 roads require new construction. The detail of required interventions is as follows

5.5.1 Widening & improvement of roads

Sr.#	Name of road		ROW	Length	Road width (feet)	
			Ft	Ft	Existing	Proposed
	From	To	ft	Ft	Ft	Ft
W1	Bohranwala Chowk	Kothi Ghulam Rassol	20	3280	20.0	20
W2	Ramzan Bazar	Sabri Masjid	65	2500	25.0	50
W3	Garden hotel (masjid bazar)	Cinema chowk	30	1500	30.0	30
W4	Street no. 10 Rasheed park	Nawaz colony	20	2000	20.0	20
W5	Faizan e Madina Road	Housing Colony	40	3040	25.0	20
W6	Lahore road	Defense View	40	3300	30.0	30
W7	Hayat Hospital	Mehmood Colony	20	2000	20.0	20
W8	Tower via Mian Muneeb House 127 GB	Dr Iqtidar house 127 GB	20	1650	25.0	20
W9	Kothi Haji Asghar via old Gulistan Cinema	Railway track	30	4600	20.0	20

5.5.2 Resurfacing of roads

The given below roads have developed potholes and broken edges and need resurfacing

Sr.#	Name of road	Length
		Ft
R1	From Jhumra Road to Railway Crossing via civil hospital Jaranwala.	1500
R2	Nankana More to saim Nala old chungi No. 8 gulhar Road Jaranwala.	2000
R3	240 more to Ramzan Bazar via Market Committee Jaranwala.	7466
R4	Market Committee Chowk to Milad chowk Jaranwala.	2780
R5	Sabri masjid chowk to Jhumra Road Jaranwala.	2632
R6	Sabri masjid chowk to Karmanwala chowk Jaranwala.	2025
R7	Jhumra road to Bilal Masjid 127 GB Jaranwala.	450
R8	Milad chowk to Chamra Mandi Jaranwala.	970
R9	Islampura Chowk / Railway station chowk to Lahore road Jaranwala.	1260
R10	National Grammer School to via Housing Colony 127 GB Jaranwala.	5060
R11	Faisalabad Road to Lahore Road via Muhammad Bibi Colony Jaranwala.	2050

R12	House Ghori Khan Counselor to Small pul on sam nala 240 more Jaranwala.	1400
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5.5.3 Construction of new roads

Sr#	Name of road		ROW	Length	Pavement Proposed	
	From	To			Width	Type
					Ft	Flexible pavement
N1	Bilal Masjid chowk	Zain Garden via Alvi Park	40	3600	15	do
N2	Lahore road railway crossing	Sugar Mill railway crossing	50	1400	20	do
N3	C & W office via graveyard	Defence View Chowk	30	3000	12	do
N4	Benazir Park	Aanwarabad chowk	20	1200	16	do
N5	Shehruana pull	Jhal chowk Faisalabad road	32	16400	20	do
N6	Nankana road via graveyard	Disposal works Alvi Park	20	2460	12	do
N7	Chungi No-8	Nankana road	30	4275	18	do

Section-6 Parks and open spaces

6.1. Existing situation

- a) Jaranwala City has 28 Nos. small and medium parks. There are five major parks in the city namely Jinnah Park, Benazir Park-I, Benazir Park-II, Lady Park and Major Abdul Rehman Park. The condition of the parks is not satisfactory. The missing facilities in the parks are mentioned below in the table.
- b) An open space with area of 3.0 acre is available in the city located at Lahore road near canal.

6.2. Rehabilitation of the existing parks

The existing parks mentioned below are equipped with some facilities which are working in good condition but some of the facilities are in poor condition and need to be rehabilitated. On the other hand some important facilities are missing and need to be provided. The detail of all the required interventions to be done in these parks, for their upgrading, is given blow;

S No	Name of Park	Jinnah Park	Benazir park-I	Benazir park-II	Lady Park	Major Abdul Rehman Park
1	Location	Water works	Islam pura	Near Railway Phatak	Water works	Housing Colony
2	Area of Park in acres	7.0 acres	8.0 acres	8.25 acres	0.50 acres	0.50 acres
3	Plantation of ornamental trees	Required	Required	Required	-	Required
4	Provision and fixing of brackets and lights on the existing light poles	Required	Required	Required	Required	Required
5	Irrigation system	Municipal supply available	New system required	New system required	Municipal supply available	New system required
6	Provision of sprinkler lawn watering system	Existing	Required	Required	Existing	Required
5	Installation of Service cables and LT Control panels	Required	Required	Required	-	Required
6	Toilets & toilet fixtures	Rehabilitation of existing toilets	Required	Required	Rehabilitation of existing toilets	Required
7	Lakes	No lake	No lake is there.	No lake is there.	No lake	No lake
8	Swings	Rehabilitation of the existing swings	Required	Required	Rehabilitation of the existing swings	Required
9	Children electric outdoor games	Provision of space and three phase power connections for leasing the space to private sector installations.			-	-
10	Benches	Rehabilitation of the existing benches if possible or provision of new concrete benches		New required	New required	New Required
11	Sewerage system	Rehabilitation of the toilet sewerage system	Provision of new drainage system for the	Provision of new drainage system for new toilets	-	Required

			proposed toilet			
12	Drinking water	Rehabilitation of the existing facilities	Provision of new facility	Provision of new facility	-	Required
13	Cafeteria	Required	Required	Required	Required	Required
14	Parking lots	Rehabilitation of existing parking lots to provide more space and parking facilities		New required	-	-
15	Restraints for entry of the vehicles in the parks	The entry gates of both parks should be provided with podiums and stairs on both sides for beauty and vehicles restraint		-	-	-

6.3. Conversion of open spaces to parks

Municipal Committee desires to convert the open space with an area of 3.0 acres located at Lahore road in park as the space is surrounded by thick populated areas. Construction of this park will bring about good recreational facilities for the citizen.

6.4. Operation & maintenance of parks

The funds spent on the upkeep of these parks in the last five years are given below;
(All figures in million Rs.)

Year	2013-14	2014-15	2015-16	2016-17	2017-18
O&M cost	5.351	6.683	7.692	5.498	7.912
Revenue earned	0	0	0	0	0
Subsidy injected	5.351	6.683	7.692	5.498	7.912

Neither any park is ticketed nor can equipment & games available in these parks earn revenue for upkeep of the parks.

Section-7 Street Light

7.1. Existing situation

Street light facility is available only on the under mentioned roads in the city;

S. N	Name of road/street	Type of light (Led/sodium)	Length (Km)
1	Market Committee to Lahore More Fsd Road	Sodium	1.76
2	Ramzan Bazar Water Works roads to Canal Road	Sodium	1.09
3	Melad Chowk to Imam Bargah Road & Circular Road	Sodium	0.57
4	Fawara Sabri Masjid Chowk to M.Ali Park Park Chwok	Sodium	1.17
5	Clinic Dr. Shafqat 127 GB to Canal Road Main Bazar	sodium	1.0
6	Khurianwala Road to Housing, Abuzar Colony Main Bazar	Sodium	0.70
7	Civil Hospital Chowk to Islam Pura to 240 Moore	Sodium	3.0
8	Market Committee Chowk to Ramzan Bazar	Sodium	0.42
9	Circular Road to Municipal Stadium Road to Jinnah Park	Sodium	0.40
10	Water Works road to Cinema Chowk Masjid Bazar	Sodium	0.57
11	Water Works Road to Fsd Road Neya Bazar	Sodium	0.57
12	Pakistani Gate to Mochi Bazar Circular Road	Sodium	0.50
13	Lahore road to circular road Madni Bazaar	Sodium	0.50
14	Lahore road to Gulistan Cinema road to Defense View road	Sodium	0.50
15	Jhumra Road Sasta Ramzan Bazar to Civil Hospital Chowk	LED	0.50
16	Lahore road phatak to Sugar Mill Phatak	LED	0.50

7.2. Rehabilitation of the existing street lights

7.2.1. Replacement of sodium luminaries by LED lights

Municipal Committee desires to replace the existing sodium luminaries on two below given roads by LED lights to cut down the energy charges.

Sr.#	Name of road/street (From To)	Length (Km)
R1	Market Committee to Lahore Mor FSD Road	1.8
R2	Ramzan Bazar water Works road to Canal road	1.1
R3	Melad chowk to Imam Bargah road Circular road	0.6
R4	Fawara Sabri Masjid chowk to M.Ali Park Chowk	1.2
R5	Clinic Dr. Shafqat 127GB to Canal road Main Bazar	1.0

R6	Market Committee chowk to Ramzan Bazar	0.4
R7	Circular Road to Municipal Stadium Road to Jinnah Park	0.4
R8	Pakistani Gate to Mochi Bazar Circular road	0.5
<p>In addition to the above mentioned roads, MC intends to repair and replace the existing sodium and mercury luminaries in the below given bazars and streets;</p> <p>Masjid Bazar, Nia Bazar, Circular Road, Hassan Road, Mandir Road, Hollywood Road, Landa Bazar, Gudrwara Bazar, Mochi Bazar, Market Bazar, Rail Bazar, Katchehri Bazar, Mandi Bazar, Stadium Road, Civil Hospital Road, Nankana More to graveyard Kabeer Town , Islampura Jaranwala.</p>		

7.3. Provision of new street lights

MC Jaranwala requires to provide new street light on the under mentioned main roads of the city;

Sr.#	Name of road/street (From To)	Length (Km)
N1	Shehroana pull Khurianwala road to Model Bazar	2.3
N2	Lahore More to 240 Mor Chowk	2.0
N3	Market Committee Chowk to Phatak Lahore road	0.9
N4	Sheroana pull to Entry Gate Canal road	4.3
N5	Town road M.C office to Telephone Exchange Chowk	0.2
N6	Islampura to Benazir park road, Lahore road	1.0
N7	Nankana more to Gulhar road Saim	1.5
N8	240 More to Saim Ghulhar road, Rai Mushtaq	1.4
N9	Alvi Park Main Bazar	0.4
N10	Al Madina Colony Main Bazar	0.4
N11	Nankana Mor to sabzi mandi	0.4
N12	240 Mor saim to Mustafa Abad, Sultan park mani Bazar	0.5
N13	M. Ali Park to Ghulam Rasool Colony to Awan Town	0.5
Total		15.8

7.4. Operation & maintenance expenditure

MC Jaranwala spent under mentioned funds on the O&M of street light in the last 5 years;

(All figure in million Rs.)

Year	2013-14	2014-15	2015-16	2016-17	2017-18
Total Expenditure	5.904	8.176	7.69	2.761	8.518
Revenue earned	0	0	0	0	0
Subsidy injected	5.904	8.176	7.69	2.761	8.518

Section-8

**Public Private partnership projects &
Collaborative projects executed by MC**

8.1. Execution of the projects

As informed by Chief Officer, no project in the Public Private Partnership mode & Collaborative mode was executed by the Municipal Committee or defunct TMA Jaranwala. As such the key officers and staff have no capacity in this respect.

8.2. Capacity of the MC staff for handling such projects

MC staff has no capacity to plan, design and execute the projects in PPP mode or collaborative mode.

Section-9 Budgetary provisions on development of services infrastructure & O&M Cost

9.1. Development expenditure

The expenditure incurred on the development projects from year 2013-14 to the current financial year & source of financing is given below;

Year	2013-14	2014-15	2015-16	2016-17	2017-18
Expenditure	162.88	258.07	172.35	-	130.0

9.2. Expenditure on Operation & maintenance of municipal services

The expenditure incurred on the O&M of all municipal services by MC/TMA Jaranwala from year 2013-14 to the current financial year along with revenue recovered from these services and the subsidies injected to operate these services, is given below;

S.N.	Year	2013-14	2014-15	2015-16	2016-17	2017-18
1	<u>Water supply</u>					
	Total O&M cost	8.163	11.89	14.969	8.152	11.04
	Revenue earned	0.18	0.187	0.185	0.118	0.231
	Subsidy injected	7.983	11.703	14.784	8.034	10.8.9
2	<u>Sewerage/drainage</u>					
	Total O&M cost	9.683	16.773	20.646	2.96	16.09
	Revenue earned	0	0	0	0	0
	Subsidy injected	9.683	16.773	20.646	2.96	16.09
The expenditure in the year 2016-17 is too low and MC could not explain the reason for that.						
3	<u>Solid waste management</u>					
	O&M cost	44.746	46.7	50.37	47.864	51.121
	Revenue earned	0	0	0	0	0
	Subsidy injected	44.746	46.7	50.37	47.864	51.121
4	<u>Parks</u>					
	O&M cost	5.351	6.683	7.692	5.498	7.912
	Revenue earned	0	0	0	0	0
	Subsidy injected	5.351	6.683	7.692	5.498	7.912
5	<u>Street Light</u>					
	Total Expenditure	5.904	8.176	7.69	2.761	8.518
	Revenue earned	0				

Section-10 Manpower deployment & shortage

The manpower deployed by MC Jaranwala in various Municipal Services is given below. MC is experiencing manpower shortage in some of the services which is also explained herein.

S.No	Description	Sanctioned Regular strength	Actual Regular deployment	Regular Vacant Slots	Employed on daily basis	Shortage of regular personnel	Additional requirement
A	Office manpower						
1	Key officers (BPS-17 & above)	5	2	3	0	0	0
2	Sub engineers	3	2	1	0	0	0
3	Support staff (BPS-16 & below)	48	31	17	0	0	0
	Total office manpower (A)	56	35	21	0	0	0
B	Municipal services						
1	Water supply	31	17	14	0	0	0
2	Sewerage	4	0	4	12 persons deployed from SWM staff		30
3	Solid waste management	268	49	219	165	0	28
4	Parks	36	17	19	0	0	0
5	Roads	4	4	0	0	0	0
6	Street lights	3	0	0	0	0	0
7	Slaughter houses	0	0	0	0	0	0
	Total municipal services (B)	346	87	256	0	0	0
	Grand Total (A+B)	402	122	277	165	0	58

Section-11

Summary public opinion surveys regarding the municipal service delivery

S.No	Name of Service	Total persons interviewed	Opinion of the persons interviewed				Average consumer opinion
			Poor (Nos)	Fair (Nos)	Good (Nos)	Excellent (Nos)	
1	Water supply quantity	15	15	-	-	-	Poor
2	Water supply quality	15	15	-	-	-	Poor
3	Sewerage	15	6	7	2	-	Fair
4	Drain cleaning	15	6	7	2	-	Fair
5	Street sweeping	15	-	10	5	-	Fair
6	Solid waste collection & disposal	15	-	10	5	-	Fair
7	Condition Parks & play grounds	15	-	13	-	2	Fair
8	Slaughter house functioning	15	6	7	2	-	Fair
9	Street light functioning	15	6	9	-	-	Fair
10	General condition of roads	15	11	1	3	-	poor
11	Complaint attending capability	15	6	9	-	-	fair

Survey of Public general view over service delivery

S.N	Name of person interviewed	Muhallah or colony	Water supply		Sewerage	Drain cleaning	Street sweeping	Solid waste collection & disposal	Roads	Parks & play grounds	Slaughter houses	Street light	Complaint addressal
			Quantity	Quality									
1	Abbas ali	Nawaz colony	poor	poor	fair	fair	fair	fair	poor	fair	fair	fair	poor
2	Babar awan	Nawaz colony	poor	poor	fair	fair	fair	fair	poor	fair	fair	fair	fair
3	Iskandar hayat	Nawaz colony	poor	poor	Poor	Poor	fair	fair	poor	fair	Poor	poor	poor
4	Fahad ali	Housing colony	poor	poor	fair	fair	good	good	good	fair	fair	fair	fair
5	Abdula	Housing colony	poor	poor	fair	fair	good	good	fair	fair	fair	fair	fair
6	Ibrahim	Ghulam Rasool colony	poor	poor	poor	poor	Fair	Fair	poor	fair	poor	poor	fair
7	Faisal ch	Ghulam Rasool colony	poor	poor	poor	poor	fair	fair	poor	fair	poor	poor	poor
8	Adeeb	Ghulam Rasool colony	poor	poor	poor	poor	fair	fair	poor	fair	poor	poor	fair
9	Farhad	Municipal Colony	poor	poor	fair	fair	good	good	good	fair	fair	fair	fair
10	Bilal shookat	Municipal Colony	poor	poor	good	good	good	good	good	Excellent	good	fair	poor
11	Hamza ali	Municipal Colony	poor	poor	good	good	good	good	poor	Excellent	good	fair	fair
12	Badar	Rashid Park	poor	poor	fair	fair	fair	fair	poor	fair	fair	fair	fair
13	Hashim	Rashid Park	poor	poor	fair	fair	fair	fair	poor	fair	fair	poor	fair
14	Hamad	Rashid Park	poor	poor	poor	poor	fair	fair	poor	fair	poor	poor	poor
15	Rizwan	Rashid Park	poor	poor	poor	poor	fair	fair	poor	fair	poor	fair	poor