



USAID
من الشعب الامريكي

العراق

Governance Strengthening Project

(GSP)

Wasit Sewer

Service Delivery Improvement Plan (SDIP)

Prepared by

Wasit Sewer Directorate

In cooperation with

GSP/Taqadum

February 2015

Wasit - Iraq

1-Introduction:

This Service Delivery Improvement Plan (SDIP) is a comprehensive strategic work plan developed to address a variety of management issues. It is designed to improve Sewer service delivery in Wasit province and enable the sewer Directorate to achieve its short-, medium- and long-term goals. The SDIP will enable the Directorate to develop a long-term vision to run itself and ensure that problems will be gradually under control.

This plan will ensure planned use of resources to achieve these goals. SDIP also helps the Directorate of Sewer in Wasit to address issues related to its performance in delivering better services to citizens. The SDIP is based on results of the Sewer Directorate and consists of two stages:

- First stage is to identify status of Sewer networks and stations systems in all districts and sub-districts of Wasit.

- Second stage is to develop the service delivery improvement plan to address issues related to the delivery of services and provide immediate and long-term solutions (if any).

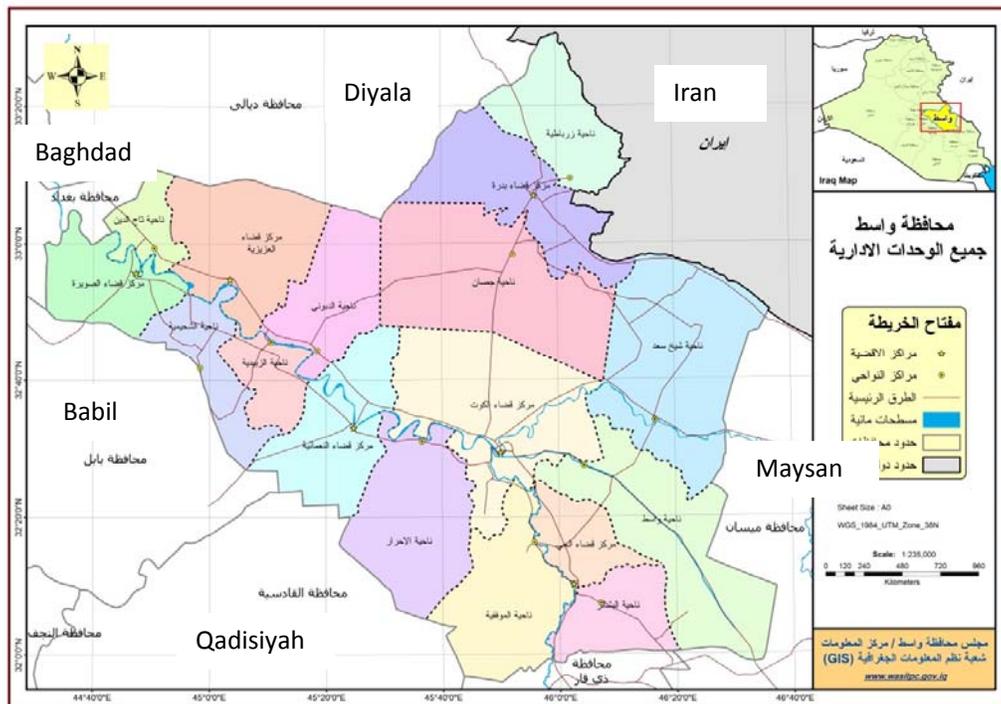
2-Executive Summary

The current analysis mechanisms used in reviewing performance indicators of Wasit Sewer Directorate in providing services, compared with national standards, to ensure quality and sustainable services and timely response to citizen complaints and requests, have resulted in a set of basic elements and a set of immediate and long-term solutions that will improve service delivery to citizens, as follows:

Management of Sewer Services: Management of Sewer service delivery is an important and effective element which the directorate of Sewer in Wasit aims to deliver to citizens. Whereas, the lack of this service delivery negatively affects the health of citizens. The delivery of this service in an efficient way is a proof of the directorate's professional work and considers one of the cultural requirements of our time, where the measurement standards of Sewer networks can't be followed now because these networks are still not in service, but as the Sewer treatment units of (Al-Kut, Al-Azeeziyah, and Al-Nu'maniyah) districts are completed, we hope that the directorate, by hard work, will overcome these logistic obstacles and make these units enter the service. Treatment units outflow is an additional water source to water reserves for reusing. This is required in the lights of dry weather and few quantities of sweet water. It is also possible to treat sludge to be used as manure or soil content optimizer, taking into accounts the public health instructions and environment protection rules.

Management of Storm water discharge Services: Management of Storm water discharge Services is an important and effective element performed by the Sewer centers in the districts and sub-districts, where the directorate has efficient and experienced cadres to manage this service, especially in times of crisis.

"A map shows the administrative boundaries of Wasit province "



3- Problems facing Wasit Directorate of Sewer; and significantly contributing in providing poor quality of services to citizens:

Classification by sectors (1- Financial- 2-Human resources -3- Authorities)

➤ Financial

The total annual amount of the operational budget of 2013 is **5,150,000,000**, Five billion and one hundred fifty million Iraqi dinar. Revenues collected by Wasit Water directorate with some other revenues of 2013 are amounting to **13,893,050** Iraqi dinar, thus the total budget with revenues is **5,163,893,050** Iraqi dinar. The operational budget of 2014 is amounting to 4,200,000,000 Iraqi dinar.

Revenues collected by Wasit Water directorate and some other revenues of 2014 are amounting to 63,590,488 Iraqi dinars.

Budget is amounting to 4,200,000,000 Iraqi dinar.

Revenues are amounting to 3,590,488 Iraqi dinar.

4,263,590,488

It is noticeable, from the above, that there is a deficit in the monthly grant of the directorate amounting to 20% for 2014, which, accordingly, affects the services delivered to citizens through belt-tightening measures especially for the last three months of 2014.

Expending items of the operational budget include:-

- 1- Salaries of daily wages employees.
- 2- Salaries of temporary contracted employees.
- 3- Maintenance of the vehicles in the directorate.
- 4- Maintenance of Sewer networks and stations.
- 5- Pay fees of electricity and other services.
- 6- Fuel and oil (gas oil and benzene)
- 7- Generators maintenance

➤ **Problems of Infrastructure:**

There are aging Sewer networks in some districts and sub-districts that are still working although their design ages have exceeded 25 years and some of them exceeded 50 years. This forms a burden on the maintenance workers who, through nearly daily maintenance, open blockages and clean sewer lines in the districts and sub-districts. Storm water discharge networks are divided into two networks: old networks that were executed before 2003 and new networks that were executed after 2003 (which are in a good condition).

- 1- Markets sewer networks in A-Kut district.
- 2- Sewer network of Al-Arab, Al-Sarai neighborhood and Hay Al-Mu'aleemeen in Al-Hai district.
- 3- The Center sewer network in Shaikh Saad sub-district.
- 4- The Center sewer network in Wasit sub-district.
- 5- The Center sewer network in Al-Nu'maniyah district.
- 6- The Center sewer network in Al-Suwairah district.
- 7- A sewer network in Al-Azeeziyah district.
- 8- A sewer network in Al-Muwafaqiyah sub-district.

These networks are linked to old Sewer stations (these stations do not match the environmental standards and lack approvals of lands in which these stations were established (before 2003). They also have a capacity inconsistent with the capacity of the linked sewer lines. Renovation and maintenance works are performed whenever there are available allocations.

- There is a delay in 7 projects from 2006. However, the problems of water discharge are treated by the cadres of the directorate in the districts and sub-districts and these they lack effective solutions by the employer.
- ✓ Set committees to accelerate carrying out the delayed projects (not initially received)
 - 1- Al-Kut sewer project (awarded in 2007)
 - 2- Al-Azeeziyah sewer networks project (awarded in 2010)
- ✓ Projects of settlement of accounts (works were withdrew from the executing companies)
 - 1- Sewer project of Saeed Bin Jubair (awarded in 2012)
 - 2- Project of Wasit sub-district entrance. (awarded in 2010)
 - 3- Establish sewer networks and stations (awarded in 2012)
 - 4- Project of Al-Zubaidiyah entrance , from Al-Azeeziyah side (awarded in 2012)
 - 5- Project of sewer network and station in Hai Al-Zahraa in Al-Basha'er sub-district. (awarded in 2012)

➤ Quality control

- The directorate staff has the sufficient experience to manage quality control of the executed networks. Problems are found out and solved through periodic maintenance works or direct intervention of the directorate.
- Evaluate the performance on a regular basis through the citizens' complaints and local monitoring bodies.



➤ Legal and administrative obstacles:

- The difficulty of obtaining and acquisition of land for the establishment of projects due to there are multi-bodies to give approvals for planning or establishing projects, where each body (Irrigation, Environment, urban planning, finance, and municipalities) works separately with its associated Ministry without cooperation with others.
- Lack of specialized staff of the directorate. We need the following:

SN	Job title	Number
1	Assistant engineer	25
2	Assistant Surveyor	20
3	Technician	20
4	Administrative assistant observer	10
5	Cleric	10
6	Assistant accountant	5
7	Accounting clerk	5
8	Assistant auditor	5
9	Assistant jurist	5
10	Store-keeper	5
11	Assistant craftsman	100
12	Drivers	50

➤ **Maintenance and operation**

- Non- conducting of periodic or preventive maintenance due to the lack of regular maintenance plan, whereby committees of preventive maintenance belonging to the Directorate centers in the districts and sub-districts were set up in the directorate main office, where these committees are monitored by the follow-up units in the planning and follow-up department and the department of operation due to insufficient budget and financial problems which have bad effects on the directorate performance. Moreover, it is necessary to develop a comprehensive periodic maintenance and operation plan pertaining the sewer treatment stations and networks across the province.
- Existence of old and aging Sewer networks.
- Recurrent and continuous national power grid outage, generators failure, lack of financial allocations needed for maintenance, and lack of spare parts.
- Inexperienced cadres and lack of training courses.
- Many of the daily wage employees have been appointed by a day wages or for long periods from 2003 until now and have not been transferred to the permanent staff. If they leave work or move to another job; the Sewer directorate will lose competencies.
- Lack of awareness to protect Sewer networks as well as problems occurring during execution.
- Lack of mechanisms specialized in networking in general and maintenance of fractures in particular.
- Damages to Sewer networks due to projects execution by other directorates.
- Damaged to networks due to illegal uses of networks by citizens who get rid of dirt, oil, fats, and other materials in the sewer lines.
- Specialized vehicles used in Wasit directorate of sewer

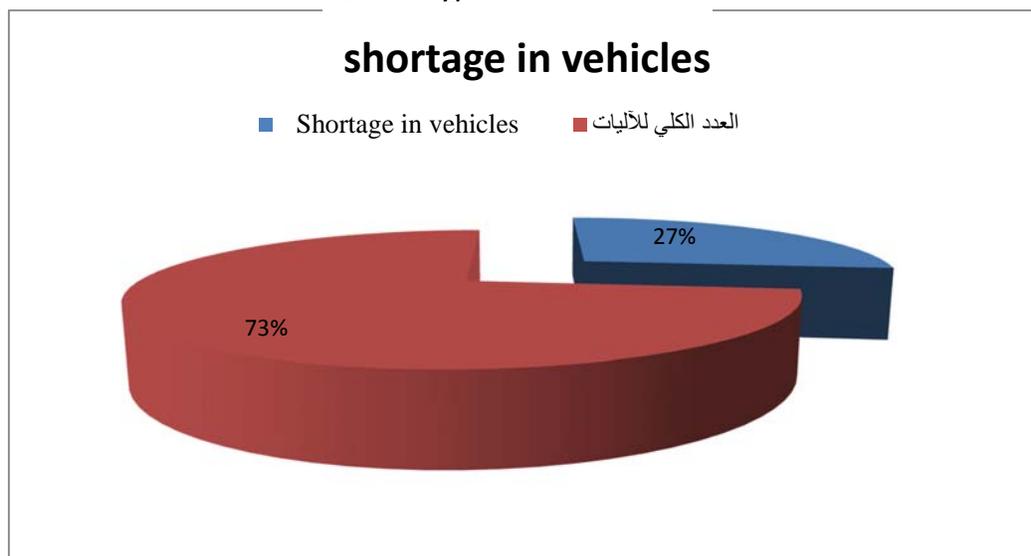
S. No.	Vehicle type	Working
1	Toyota Land Cruiser four wheel	12
2	Nissan patrol	2
3	Nissan pickup	14
4	Ford box (CCTV)	1
5	Chevrolet Colorado	18
6	Mitsubishi pickup	8
7	Toyota Hi-Lux	6
8	Saloon car	2
9	Pajero Mitsubishi four wheel	1
10	Toyota	1
11	Hyundai pickup	15
12	Sewer Septic tanker	40
13	Sewer vacuum truck	30
14	Sewer suction truck	2
15	Fuel tanker	3
16	Water tanker	1
17	FAW Truck without trailer	1
18	Truck without trailer	1
19	Trailer	2
20	Forklift	2
21	Tow trucks	2
22	Tipper truck	0
23	Crane	7

24	Loading truck (5 tons)	2
25	Loading truck (2 tons)	3
26	Bus	2
27	Dumper	3
28	Tracked excavator	1
29	Wheeled excavator	5
30	FAW Pick-up	1

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Specialized vehicles needed in Wasit Sewer directorate		
s. No.	Details	No.
1.	Septic tanker (Reno or Volvo) 11000 litter	30
2.	Sewer vacuum truck –Reno or Volvo	20
3.	Crane (6 or 7 tons) on a machine (Reno or Volvo)	6
4.	Crane (35 or 55 tons) (Reno or Volvo)	1
5.	Tracked excavator (Reno or Volvo)	2
6.	Multi-purpose Wheeled excavator (Caterpillar or Volvo)	6
7.	Fuel tanker 4500 litter – Hyundai	5
8.	Crane	1
9.	Forklift 10 tons	2
10.	Dumper	20
11.	Mobile workshop (Asus type or Hyundai)	2
12.	Clay and sediment vacuum truck	15

Shortage in Vehicles



4. Stages of work on the service delivery improvement plan:

Wasit Sewer Directorate and in cooperation with USAID GSP/Taqadum program completed the gap analysis model developed by Taqadum program to actively contribute to the gap analysis. The importance of gap analysis in the services provided to citizens is that:

1. Usage of the scientific method in the analysis of all elements that causes a gap in the services provided to citizens indicator compared with the standard criteria.
2. Determine the priority of the elements influencing the gap in services through the power of their influence.
3. Put the proposed immediate and long-term solutions to address the elements affecting the gap in order to minimize them.
4. The results of the analysis which represent proposed immediate and long-term solutions will be the input for the preparation of relevant service delivery improvement plan in the province.

Wasit Sewer Directorate has relied on the use of measurements rates that have been collected in the 17 administrative units with a focus on the most vulnerable units in order to develop effective solutions to reduce the gap and improve the services provided to citizens through the immediate and long-term solutions. The successful use of the model will lead to get accurate results that help determining the right and realistic and executable solutions in reducing the gap and improving the service.

Analysis of elements causing the gap in the service performance:

It Included analysis of (14) elements that are associated with one of the service Standards listed previously and relating to the administrative, legal, financial, technical aspects where after completing the analysis, weaknesses or deficiencies were identified in each element and the proportion of its influence in the gap, and thus the most influential elements in the events of the gap were chosen. Wasit Sewer directorate identified these elements and developed immediate and long-term solutions that effectively contribute to the reduction of the value of the gap. In the next chapter, all performance indicators will be analyzed in comparison with Standards via using elements analysis in detail, and finally to develop solutions for the elements of the most influential events in the gap.

5. Gradual approach

The (SDIP) includes the following questions:

1. Where are we now?
2. Where do we want to be?
3. How can we get there?
4. How can we ensure success?

"1-5 "Where are we now?"

To answer this question, it requires a comprehensive and objective review and a review of the current state of performance and practices of Sewer departments in Wasit and should be measured through key performance indicators. The data related to "Where are we now?" Can be obtained by using the relevant technologies,

First: ((SWOT analysis by diagnosing strengths -weaknesses, -opportunities-threats.

Second: Key Performance indicators analysis - these two techniques help to understand and summarize the environment and the performance of the Directorate.

The SWOT analysis helps to identify realistic short, medium and long-term goals in order to:

- Correct weaknesses
- Enhance strengths
- Prevent threats
- Seize opportunities
- Achieve vision

First: SWOT Analysis of Wasit Sewer directorate

Strengths

- The existence of certified base designs whereby different projects are implemented and other base designs, which are under study, to carry out the projects of Sewer and storm water networks.
- It is possible to get financial allocations from the regional development budget specified for the province.

Weaknesses:

- Overlapping works amongst works of service departments resulting in damages to networks due to excavation works.
- Problems related to land acquisition.
 - 1- Obtain approvals of the (12) concerned departments, where most of these departments send the applications to Baghdad for review and to get final approvals.
 - 2- Lack of financial allocations needed to pay the land acquisition fees.

- 3- When there is a donor who wants to donate a land to establish a project, there is a long series of routines to alienate the ownership of the land.
- 4- The sector committee in the council of Ministers is responsible for land allocation, where it takes long time to get approvals.
- 5- There is a number of projects, within the regional development projects in provinces, which have been implemented without obtaining approvals of the concerned bodies and financial allocations for land acquisition. Now, there is a problem pertaining land acquisition fees, where the Ministry refuses paying the fees and the province can't afford it.
- 6- High rates of acquisition allowances by the MOF to compensate owners of lands.
 - Lack of specialized vehicles and equipment.
 - Lack of specialized engineering staff, and therefore, it is required to build their capacities through (delegations, workshops, training courses, and studies)
 - The directorate manager and sewer centers officials have no financial and administrative authorities to deal with crisis during floods.

Opportunities

- Quarries sites are closed to cities in the province.
- Good security situation in the province.
- Existence of authorities for the executive and legislative bodies in the province.
- Most cities of the province are located along Tigris, Al-Gharraf, and Al-Dijailah rivers. Therefore, it is possible to achieve maximum utilization to discharge storm water and establish many projects.
- It is possible to conclude contracts with accredited companies to carry out projects.

Threats:

- Aging and incomplete infrastructure.
- Bad base designs for industrial districts and poor service delivery resulting in illegal uses and unauthorized connection to networks in the residential areas and main streets, and damages to executed networks due to industrial wastes.
- A large number of illegal uses and unauthorized connection to storm water networks and lack of public awareness.
- An increased number of Slums.
- Lack of qualified and experienced local contracting companies.

Second: Performance indicators:

Taqadam project works on providing support for local government to improve the oversight process and monitoring the services delivery down to raise the level of services provided to citizens through the adoption of standard measurable Standards, similar to the rest of the civilized world. Standards-based service delivery stands on 6 key bases in sewer and storm water service as an essential service which should be accessed both quantitatively and qualitatively and through the following Standards and indicators:

Storm water:

1. Efficiency of executed networks
2. The extent of storm water discharge coverage.
3. Number of flooding incidents.
4. The extent of dealing with citizens' complaints.

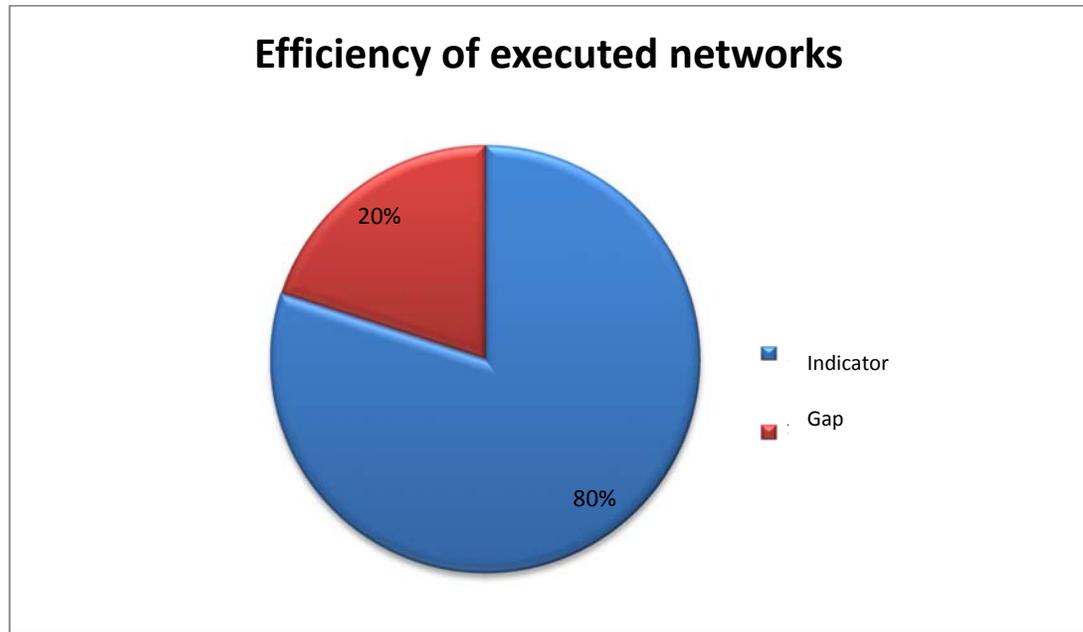
Sewer disposal service

- 1- The extent of coverage of sewer disposal networks
- 2- The network's efficiency in disposing of waste water
- 3- Ability for treatment
- 4- Effectiveness of waste water treatment
- 5- Addressing people complaints' in an effective manner

Wasit Sewer Directorate has adopted work according to these Standards and indicators were provided at the level of the province, districts and sub-districts. The performance indicators have been reviewed in comparison with the standard criteria and diagnose the weaknesses and determine the value of the gap and make recommendations that contribute to improve the performance of service delivery across the province. The exception is the Standard of sewer service because it is unmeasurable one until the treatment units in Al-Kut, Al-Nu'maniyah, and Al-Azeeziyah districts are entered into service.

➤ Indicators:

- Efficiency indicator of the executed storm water networks is 80%
- The gap is 20%



Elements causing gap and their effect

- 1- Human resources: (staff and management)
Lack of sufficient technical staff for maintenance and lack of the central government's clear vision to appoint temporary contracted employees and transfer them to permanent staff. The effect of this element on the gap is high.

- 2- Financial issues: Poor operational budget, investment budget, and regional development budget:
lack of sufficient financial allocations for periodic maintenance and solve problems. This effect of this element is high on the gap.

- 3- Infra structure (insufficient and aging buildings and maintenance centers): There are insufficient sewer centers and there is a need to open a sewer maintenance center in the right side of Al-Kut city.
(This element has a high effect on the gap)

- 4- Supplies (insufficient equipment, supplies, materials, fuel, generators, and furniture): there is a shortage in the equipment, supplies, fuel, tools and protective clothing. The effect of this element is high on the gap.

- 5- Capacity building (provide qualified trainers, training curriculum and requirements): Build the technical capacities of the engineering staff to deal with this issue. This element has a high effect on the gap.

- 6- Technical constrains: overlapping of works of project- executing companies and previously executed networks which increases the problems of these networks, as well as the problems of companies from which projects are withdrawn due to delay and consequent legal procedures which increases the problems of the center. (Awarding projects of the communication and electricity directorates in Al-Khajiyah). It has a low effect on the gap.

7- Authorities: is there any need to get new (administrative, legal, financial, technical) authorities?

It is needed to get administrative and financial authorities through vesting additional authorities to the directorate manager such as the spending amounts exceed 100 million (in the time of crisis). It has a low effect on the gap.

8- Coordination: there is a need to increase this coordination with other concerned departments (municipality, water, electricity, post) during maintenance works, especially in the rainy season. It has a low effect on the gap.

9- Political interventions: There is a political intervention by the local government officials according to their political affiliation related to evaluation of the executed networks. It has a low effect on the gap.

10- Misuse of resources: there is illegal use and unauthorized connection to networks by citizens who dispose of wastes, oil, fats in the sewers. It has a low effect on the gap.

11- Operation and maintenance: there is a need to maintain the lifting stations, vehicles and equipment regularly. It has a high effect on the gap.

12- Security Situation: It has no effect on the gap.

13- Logistic support: There is a need to increase the financial incentives for maintenance workers as well as activate the overtimes system on days off. (This element has a high effect on the gap).

14- Others (to be named): It has no effect on the gap.

Based on the above explanation, the following elements have the highest impact on the gap: 1) Financial resources (2) Supplies (3) technical obstacles (4) Misuse of resources (5) Logistic support (6) Infrastructure (7) Authorities.

S. No.	Standard	Arrangement of basic elements (which receives the figure 3 (high impact) that contribute to the reduction of the value of the gap, according to the priority	Immediate solutions	Long term solutions
1	Efficiency of executed networks	Financial resources (lack of the operational budget, investment budget, and regional development		Increase the awareness of citizens about the importance of paying Sewer consumption fees as well as increasing these fees.

		budget)		
		Human resources (staff and management)		Appoint the temporary contracted employees according to needs and priorities.
		Misuse of resources	Coordinate with the local government to remove illegal uses and unauthorized connection to sewer networks.	Impose fines against violators in coordination with the local government
		Technical obstacles	1- Follow-up the projects-executing companies and instruct them not to use the sewer network illegally.	Enact laws to impose fines against violating companies.
		Logistic support		Develop instructions and enact laws to classify maintenance workers and identify rewards wages and overtimes on days off and off official work hours.
		Capacity building(provide qualified trainers, training curriculum and requirements)	Improve the skills of staff working in this field through training courses specialized in maintenance	Increase and improve these training courses
		Infrastructure (Insufficient and aging buildings)	Establish Al-Kut Sewer center in the right side of Al-Kut city.	Improve works in this center through opening a maintenance center, a parking lot, and a warehouse
		Supplies (shortage in equipment, supplies, materials, fuel, generators, and furniture)	Ration fuel as much as possible, maintain broken generators, and swapping them by importance	Develop a comprehensive program for all needs and supplies Under the approved specifications
		Maintenance and operation	Conduct a preventive tests	Make a complete lists for all needs of maintenance and

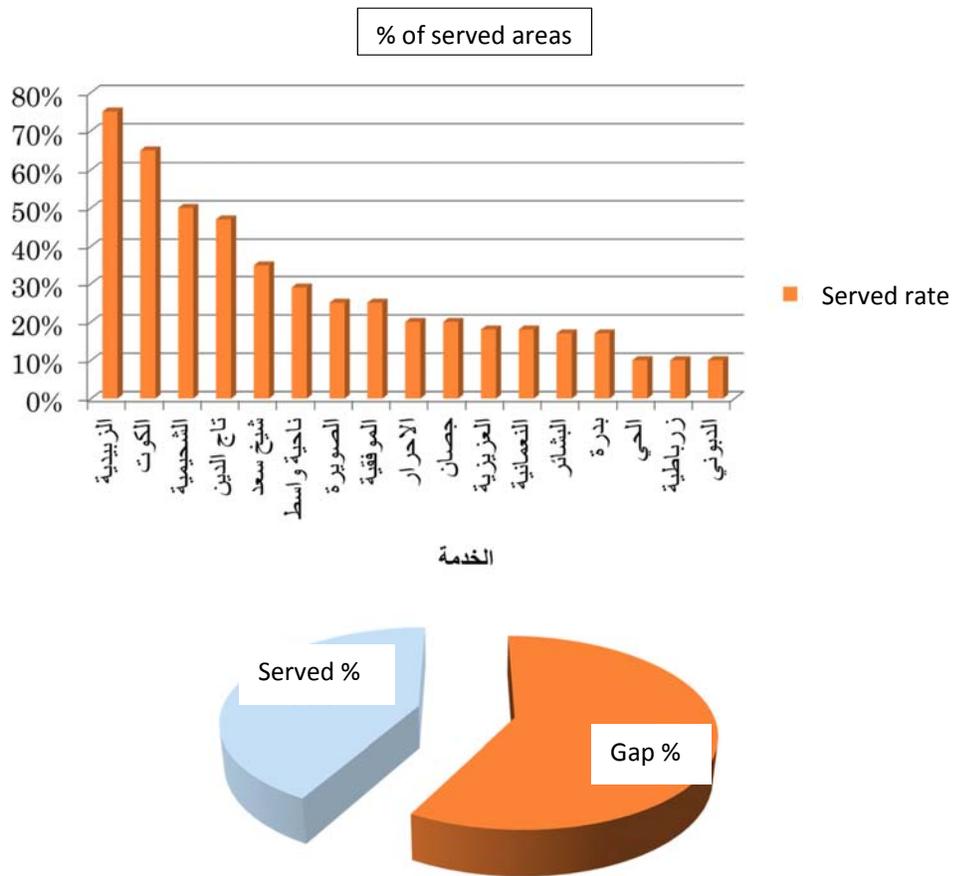
			operation
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1- The extent of storm water discharge coverage

- The gap 58%
- Indicator 42%

Diagram No. 2 shows the rate of storm water discharge coverage for districts and sub-districts in the province.

Updated until 01/01/2015



Elements causing gap and their effect

- 1- Human resources: (staff and management)
Lack of sufficient technical staff to monitor and follow-up the regional development projects. The effect of this element on the gap is high.
- 2- Financial issues: Poor operational budget, investment budget, and regional development budget: lack of sufficient financial allocations for preparation and execution of networks. This effect of this element is high on the gap.
- 3- Infrastructure (insufficient and aging buildings): It has no effect on the gap.
- 4- Supplies (insufficient equipment, supplies, materials, fuel, generators, and furniture): there is a shortage in the equipment and supplies provided for the staff (field vehicles, protective clothing, and survey devices needed for work). The effect of this element is low on the gap.
- 5- Capacity building (provide qualified trainers, training curriculum and requirements): lack of technical staff specialized in supervision and follow-up of works. This element has a high effect on the gap.
- 6- Technical constrains: networks projects overlapped the networks executed previously by other departments. It has a low effect on the gap.
- 7- Authorities: is there any need to get new (administrative, legal, financial, technical) authorities?
It is needed to create instructions and laws by engaging the advisory offices to supervise and provide technical advices related to under construction projects, and amend the law of concluding contracts with advisory offices in a way that fits the services provided by them. It has a high effect on the gap.
- 8- Coordination: Horizontal coordination. It has no effect on the gap.
- 9- Political interventions: There is a political intervention by the representatives of political parties and blocs to determine areas to be provided with services. It has a low effect on the gap.
- 10- Misuse of resources: there is no effect on the gap.
- 11- Operation and maintenance: there is a need to maintain and operate the stations which technically intervene with the under-construction networks. It has a low effect on the gap.
- 12- Security Situation: It has no effect on the gap.
- 13- Logistic support: 1) There is a need to pay monthly rewards 2) activate the system of overtime works on days off 3) pay the delegations fees (designing function is restricted to the directorate general of Sewer in the Ministry and the staff of Wasit Sewer directorate lacks the experience in this field. Therefore, the directorate prioritizes building the capacity of the staff and vesting the right to conclude contracts with advisory offices to the governorate then transferring the designing function to the directorate. (This element has a high effect on the gap).
- 14- Others (to be named): It has no effect on the gap.

S. No.	Standard	Arrangement of basic elements (which receives the figure 3 (high impact) that contribute to the reduction of the value of the gap, according to the priority	Immediate solutions	Long term solutions
1	The extent of storm water discharge coverage	Financial resources (lack of the operational budget, investment budget, and regional development budget)	Allocate financial allocations from regional development budget to complete executing networks and establishing a treatment unit in the right side of Al-Kut city.	
		Human resources (staff and management)	Create job prospects as temporary contracted employees or daily wages employees (20 engineers and 30 surveyors)	Appoint the temporary contracted employees or daily wages employees and transfer them to permanent staff.
		1- Authorities: is there any need to get new (administrative, legal, financial, technical) authorities?	Conclude contracts with advisory offices through providing consultation services during project execution period.	Activate instructions and laws concerning coordination with advisory offices to supervise and provide the staff supervising the execution of projects with technical advices, and activate the laws of concluding

				contracts with advisory offices in a way that fits the services provided by them.
		Logistic support	Pay monthly rewards regularly and activate the system of overtime works on days off and off official work hours.	Activate instructions and enact laws related to paying rewards and overtimes as well as increasing the advanced payment.
		Capacity building (provide qualified trainers, training curriculum and requirements)	Oblige companies to hold training courses for the staff in the developed countries to enhance the skills and potentials of the technical staff in the field of carrying out sewer treatment networks and stations	Continue working in this field and keep up with developments in carrying out sewer networks

3-Number of recorded flooding incidents:

- Number/year
- 8

Elements causing gap and their effect

- 1) Human resources: (staff and management)
Lack of specialized staff (workers and engineers). The effect of this element on the gap is very low.
- 2) Financial issues: Poor operational budget, investment budget, and regional development budget: lack of financial allocations for immediate treatment (where the flooding occurs in winter, at the end of the fiscal year resulting in problems in allocations and expending in this period). This effect of this element is high on the gap.
- 3) Infrastructure (insufficient and aging buildings): It has no effect on the gap.
- 4) Supplies (insufficient equipment, supplies, materials, fuel, generators, and furniture) :
 - Lack of specialized vehicles.
 - The effect of this element is low on the gap.
- 5) Capacity building (provide qualified trainers, training curriculum and requirements):
 - Lack of trained technical staff.
 - This element has a low effect on the gap.
- 6) Technical constrains:
 - High level of groundwater (in the districts and sub-districts located along rivers which cause a problem in discharging water)
 - Illegal uses and unauthorized connections to networks.
 - Aging networks.
 - Electrical power shortfall.
 - Delay in execution of projects due to withdrawing works from the executing companies.
 - It has a high effect on the gap.
- 7) Authorities: is there any need to get new (administrative, legal, financial, technical) authorities?
 - It is needed to create new authorities (during floods only) as the financial authorities vested to the directorate manger is insufficient and does not exceed 100 million Iraqi dinar. It has a low effect on the gap.
- 8) Coordination: Horizontal coordination. It has no effect on the gap.
- 9) Political interventions: the local government intervenes to move the specialized vehicle from a place to place to treat floods. It has a high effect on the gap.
- 10) Misuse of resources:
 - Illegal uses and unauthorized connection to networks by citizens, and stores owners who dispose of wastes, oil, fats in the sewers. It has a high effect on the gap.
- 11) Operation and maintenance: This element is satisfied by the maintenance section. It has no effect on the gap.
- 12) Security Situation: It has no effect on the gap.
- 13) Logistic support: It has no effect on the gap.

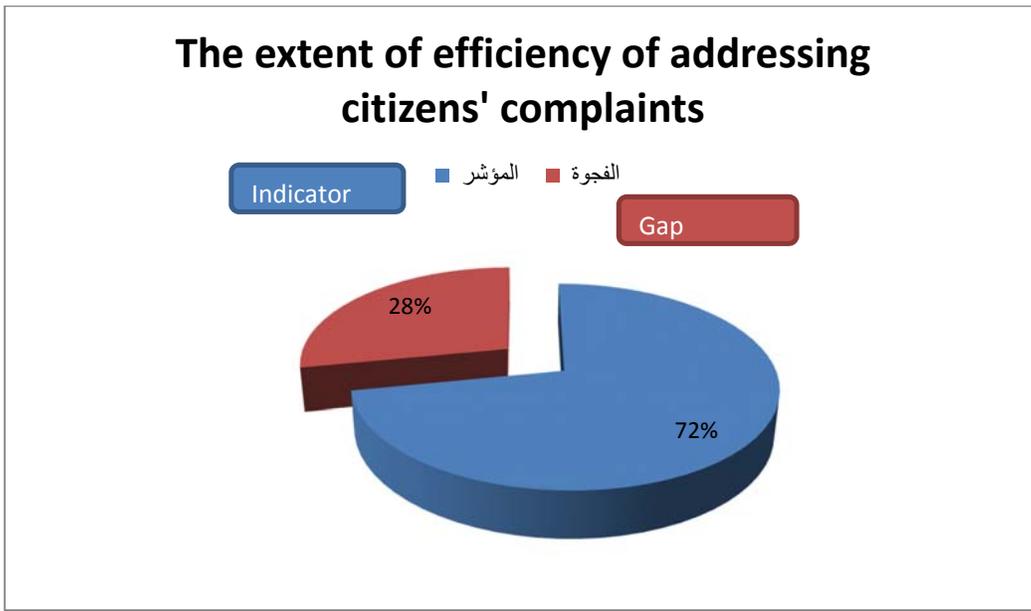
14) Others (to be named): They have no effect on the gap.

S. No.	Standard	Arrangement of basic elements (which receives the figure 3 (high impact) that contribute to the reduction of the value of the gap, according to the priority	Immediate solutions	Long term solutions
3	Number of recorded flooding incidents	Financial resources (lack of the operational budget, investment budget, and regional development budget)	Allocate financial allocations to treat flooding immediately where is considers a budget of emergency	
		Technical obstacles	Remove illegal uses and unauthorized connection to sewer networks and supply electrical power from alternative resources.	1- Provide electrical power. 2- Activate the laws of withdrawing works in a way that does not affect services delivered to citizens.
		Misuse of resources	Remove illegal uses and unauthorized connection to sewer networks by citizens and impose fines against them.	Continue working in this field
		Political interventions	Directing the specialized vehicles is	

			restricted to the head of maintenance center in Al-Kut Sewer center in coordination with officials of the local government	
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4-The extent of addressing citizens' complaints in an effective manner:

- Indicator 80%
- Gap 20%



Elements causing gap and their effect

- 1) Human resources (staff and management): It has no effect on the gap.
- 2) Financial issues: Poor operational budget, investment budget, and regional development budget: It has no effect on the gap.
- 3) Infrastructure (insufficient and aging buildings): It has no effect on the gap.
- 4) Supplies (insufficient equipment, supplies, materials, fuel, generators, and furniture): It has no effect on the gap.
- 5) Capacity building (provide qualified trainers, training curriculum and requirements): lack of trained technical staff for this issue.
- 6) Technical constrains: It has no effect on the gap.
- 7) Authorities: is there any need to get new (administrative, legal, financial, technical) authorities? : It has no effect on the gap.
- 8) Coordination: (Horizontal coordination): it is needed to coordinate with other concerned departments (municipality, post, water, electricity) to combine efforts to treat problems (It has a low effect on the gap)
- 9) Political interventions: There is more than one body gives directions maintenance teams which leads to confusion and delay in maintenance works. It has a high effect on the gap.
- 10) Misuse of resources: It has no effect on the gap.
- 11) Operation and maintenance: It has no effect on the gap.
- 12) Security Situation: It has no effect on the gap.
- 13) Logistic support: It has no effect on the gap.
- 14) Others (to be named): They have no effect on the gap.

S. No.	Standard	Arrangement of basic elements (which receives the figure 3 (high impact) that contribute to the reduction of the value of the gap, according to the priority	Immediate solutions	Long term solutions
4	The extent of addressing citizens' complaints in an effective way	Capacity building (Provide qualified trainers and training curriculum and requirements)	Hold training courses for staff working in this field.	
		Political interventions	Treat and solve citizens' complaints and	

			determine the interventions of local government officials to prioritize treatment	
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2 - 5 “where do we want to be?”

Based on the information collected in as-in status report in 1.2.3, it is possible to develop and illustrate goals and objectives of the Sewer directorate in Wasit that can be inferred from mission and vision of the directorate. It is obligatory to set performance standards and objectives according to SMART Standard (specific, measurable, assignable, realistic or time-related).

Vision of Wasit Sewer Directorate:

Deliver wastewater and storm water discharge services throughout the province.

Mission of Wasit Sewer Directorate:

The sewer sector falls within the priorities of any nation which arises from its ambition to deliver civilized necessities of life to citizens. Sewer Directorate is one of those bodies involved in providing essential services to the citizens where it exercises duties in accordance with the regulations and instructions of the Ministry of Municipalities and Public Works. As there are incomplete sewer projects in the province, it is required to minimize the gap in the ratio of service delivery to citizens. Furthermore, lack of sewer service has a negative effect on the environment and the health and safety of citizens. Accordingly, it is required to establish sewer networks and treatment units as well as developing studies and designs to study the status of services in urban neighborhoods by population and basic design prepared and certified by the Ministry of Municipalities and Public Works.

Objectives of Wasit Sewer Directorate:

Some of the most important objectives are:

- 1- Collect wastewater and storm water from residential, industrial, and commercial areas.
- 2- Discharge water out of residential areas (ensure using a mean that does not bother citizens or affect their health)
- 3- Control the quality of water discharged to rivers and satisfy the standard specifications through conducting periodic tests to improve environment.
- 4- Operate and maintain all sewer projects, stations and networks.
- 5- Achieve the above mentioned functions economically to the extent possible.

- 6- Get use of treated water for the purpose of irrigation.
- 7- Achieve the highest indicators of services according to the certified standards.
- 8- Conduct studies and designs and get approvals for all districts and sub-districts.
- 9- Assist the accelerating committees formed by the general directorate to complete works and coordinate with local government to find solutions for projects withdrawn from companies due to delay in execution.
- 10- Cooperate with local government (executive and legislative) to find financial, administrative, legal, and legislative solutions to reduce routine for land acquisition or develop studies and designs or execution.
- 11- Use the media and social media to increase citizens' awareness to protect sewers.
- 12- Increase coordination with all sector departments on the horizontal level to avoid damages to executed sewer networks.
- 13- Cooperate with the local government to find temporary solutions to discharge waste water of slums and find final solutions for them.
- 14- Encourage local government to develop strict regulations to award sewer projects to local companies due inexperience.
- 15- Complete establishing infrastructure of districts and sub-districts with all requirements.

Through reviewing vision, mission, and objectives of the directorate, it is clear that the directorate has identified strategies and time to reach objectives, as the following:-

- First Policy:
 - Policy concerning execution of waste water and storm water networks.
- Scope of work:-
- Wasit provincial council, Wasit province, local councils, Sewer directorate in Wasit province.
- Time:-
- From 2010 to 2020
- Place:-
- Administrative units centers within the municipal boundaries.
- Targeted group:-
- All urban citizens
- Principles and guidelines:-
- Obtain the highest indicators of service according to certified standards.
- Authorities:-
- Wasit provincial council, Wasit province, local councils, Sewer directorate in Wasit province.

S. No.	Program	Responsibilities	Time period	
			From	To
1	Carry out wastewater and storm water networks	Wasit Sewer directorate + Local governments	2010	2020
2	Increase technical staff	Wasit province	2014	2016
3	Enhance efficiency of staff (training courses, delegations, workshops, and studies)	Wasit Sewer directorate + Local governments	2014	2020
4	Educate masses about the method of execution	Local governments + Wasit provincial council + Wasit province + Wasit Sewer directorate	2014	2016
5	Using modern methods of execution	Wasit province + Wasit Sewer directorate	2014	

- Second policy

Protect the executed waste water and storm water networks.

- Scope of work:-

Wasit Sewer directorate (maintenance teams in Al-Kut district center and the rest of districts and sub-districts.

Time:-

- Periodic maintenance

Targeted group:-

- All citizens

Principles and guidelines:-

- Provide the best service at the lowest cost and in accordance with the certified standards.

Authorities:-

- Wasit province and Wasit Sewer directorate.

S. No.	Program	Responsibilities	Time period	
			From	To
1	Periodic maintenance of networks	Wasit Sewer directorate	-----	-----
2	Increase specialized vehicles	Wasit provincial council + Wasit province + Wasit Sewer directorate	2012	2018
3	Increase and enhance efficiency of engineering staff and medium level staff in this field through (training courses, delegations, and workshops)	Wasit provincial council + Wasit province + Wasit Sewer directorate	2014	2018

- Third policy

Execute, operate, and maintain the treatment units

- Scope of work:-

Wasit Sewer directorate

Time:-

- 8 years

Place:-

- Administrative units centers.

Targeted group:-

- All citizens

Principles and guidelines:-

- Obtain the highest indicators of service, efficiency, and relative development according to international certified standards and keep up with latest developments in this field.

S. No.	Program	Responsibilities	Time period	
			From	To
1	Complete the unfinished designs of treatment units and complete the acquisition procedures.	Wasit province + Wasit Sewer directorate	2007	2016
2	Carry out the treatment units	Wasit provincial council + Wasit province + Wasit Sewer directorate	2003	2020
3	Prepare specialized technical staff to manage, operate, and maintain those units.	Wasit province + Wasit Sewer directorate	2014	2022

- Fourth policy
Improve efficiency of performance
- Scope of work:-
Wasit Sewer directorate
Time:-
- Three years
Place:-
- Administrative units centers.
Targeted group:-
- The directorate staff
Principles and guidelines:-
- Improve the efficiency of performance of Wasit Sewer Directorate
Authorities:-
- Wasit provincial council + Wasit province + Wasit Sewer directorate

S. No.	Program	Responsibilities	Time period	
			From	To
1	Develop and centralize departments of citizens' affairs to avoid duplication in orders directed to the staff.	Wasit Sewer directorate	2014	2016
2	Develop work techniques (keep up with development in methods of execution and maintenance of Sewer works) through twinning with one of sewer directorates of the developed countries or delegations or training courses.	Wasit provincial council + Wasit province + Wasit Sewer directorate	2014	2020
3	Activate laws to remove illegal uses and unauthorized connection to sewer networks and impose fines against violators.	Wasit province + Wasit Sewer directorate	2014	2016
4	Activate laws to conclude contracts with advisory offices			

3 - 5 “How can we reach there?”

Wasit Directorate of Sewerage in cooperation with USAID-funded GSP/Taqadum Project filled out gap analysis form as developed by GSP/Taqadum Project in order to contribute to gap analysis. The importance of the form for service delivery gap analysis comes from:

1. It uses scientific method to analyze all the effective elements which lead to a gap in service delivery indicator in comparison with standard.

2. It prioritizes the effective elements that lead to gap in service delivery by size of effect.
3. It proposes immediate and long term solutions to address the effective elements with the aim to reduce them.
4. Results of analysis, i.e. the proposed immediate and long-term solutions shall form inputs for preparation of service delivery improvement plan of the province.

The directorate relied on use of average measures collected in the 17 administrative units with concentration on the least effective units to set successful solutions with the aim to reduce the gap and improve service delivery to people through immediate and long term solutions. The successful usage of the form shall yield accurate results that help identify correct, realistic and achievable solutions to reduce the gap and improve the service.

4 – 5 “How can we ensure success?”

To ensure the success of SDIP, it is important to conduct continuous monitoring of progress assessment standards and indicators in order to improve the performance and external factors at all levels, and record findings and reactions using proper mechanisms for report writing to decision-makers including a detailed description of the problems and challenges, what is required, why and how, and create reliable database containing all required data provided that all data needed to be updated continuously. It is required to establish a unit within the directorate to coordinate activities and assess the performance on a monthly basis in line with objectives approved. The unit shall send the reports to DG of Wasit sewerage.

5. Suggestions proposed by GSP/Taqadum for immediate solutions:

- 1) Activate the collection of waste water fees and increase these fees as well as increase citizens' awareness to protect sewer networks.
- 2) Set a local committee composed of the concerned departments in the provinces and vest it the authority to approve land acquisition instead of the Ministry.
- 3) Redistribute the vehicles of the directorate by needs, administrative units, and population served according to certified standards.
- 4) Conduct a questionnaire to know citizens' opinions about services delivered to them and compare results to identify and correct weaknesses.
- 5) Link as many as stations to emergency lines in the province and try to get support from local and central government to achieve this objective.
- 6) Study the possibilities to link near administrative units to common treatment units.
- 7) Lack of a clear and practical strategy in distributing networks on the administrative units by population, need, percentage of coverage, and percentage of
- 8) Networks should be maintained and cleaned.

- 9) It is needed to conduct preventive maintenance according to a timetable identified by the sewer centers in the districts and sub-districts to increase the actual age of networks.
- 10) Vest the sewer directorate of Wasit the authority to expense 100 million Iraqi dinars per month.
- 11) Huge damages to executed networks, many illegal uses and unauthorized connection to sewers by violating citizens. Accordingly, this needs enforce effective laws and impose fines against violators.
- 12) Directorate vehicles should be supplied with a GSP system maximizes utilization of time and resources.
- 13) It is not necessary to establish a laboratory in each administrative unit but there is a need to purchase a mobile laboratory to ensure samples access to labs in the province as well as holding training courses for the staff working in complexes and projects.

Conclusion

It is important that the Directorate of Sewer manage its works in an effective and efficient way in order to provide better services to citizens using available resources. Further, the Directorate should develop a realistic strategic plan and feasibility studies for projects to be implemented in order to reduce gaps in service standards, leading to better services.

Lastly, the Directorate of Sewer should be enabled to find financial resources to support its operational budget and assist it in enforcing applicable laws to prevent illegal uses to the sewer network.

Standards of assessment of Sewer service delivery

S. No.	Standard	Indicated standard value	Actual value	Description	Unit of Measurement
1	Efficiency of executed networks	This standard represents the efficiency of storm water networks for covered streets out of total streets included.	100%	a) Total length of main and sub-streets in the coverage area which suffers from permanent problems for the nearest 100M.	Streets with pipes (which their diameter is about 315mm) are calculated only.

				b) Total lengths of executed networks.	Covered networks are calculated only.
Indicator calculation= $a/b \times 100$					

S. No.	Standard	Description of standard	Standard value	Data required to measure the standard	Description	Unit of measurement
2	The extent of coverage of storm water discharge networks	This standard represents the percentage of streets covered with storm water networks out of lengths of total streets.	100%	a) Total length of main and sub-streets in the coverage area.	Streets, with a width of 3.5 M, are considered	Km
				b) Total lengths of main and sub networks.	Buried and covered networks are counted only	Km
				Indicator calculation = $a/b \times 100$		
3	Number of recorded flooding incidents	Number of flooding incidents due to rainfall which was registered in the services departments during a year	100%	a) Determine the number of flood potential points in the coverage area and number them as M1, M2, M3,.....	Flood Potential points are defined as areas that are exposed to a flood and which are estimated by experience. They are located in the main streets , intersections and streets longer than 100 m.	Number
				b) Number of registered flood incidents during a year	The number of floods affecting traffic or natural life recorded in each point M1, M2, M3,	Number
				Indicator calculation = $a/b \times 100$		

s. No.	Standard	Description of standard	Standard value	Data required to measure the standard	Description	Unit of measurement
4	The extent of responding to citizens' complaints in an effective way	Total number of complaints concerning storm water which is addressed within 24 hours from receiving of complaint	100%	a) Total number of all complaints received from citizens during a month	Complaints registered at the citizens' service desk	Number
				b) Total number of complaints that are dealt with during one hour from the time of receive	The number of complaints handled in a sound and satisfactory manner during 24 hours or after a day from registering the complaint	Number
				Indicator calculation = $a/b \times 100$ <i>Monthly updated</i>		

Item	Standard	Description	Unit of standard	Needed information to measure the standard	Description	Unit of measurement
1	Extent of coverage by sewer disposal networks	This standard represents extension of embedded sewer disposal networks to include each house or facility whether trading, industrial and other facilities in the district	100%	A. total number of housing units or facilities in the district	Housing units or facilities that are registered with directorates of real estate registration or those to whom construction permits were issued	Number
				B. total number of housing units or facilities that have direct connection with network of sewer disposal	Housing units and facilities that are subscribed or connected with network of sewer disposal Housing units and facilities that are connected with network of rainwater discharge or these with open discharge channels are not counted	Number
				Periodical updating $100 \times \frac{B}{A} =$ indicator calculation		
2	Efficiency of the network to discharge wastewater	This standard measures quantity of wastewater that is discharged through the network in proportion to total quantity of water provided through water networks to citizens within area of service	100 %	A. Quantity of water provided to citizens on a monthly basis	Measure the quantity of product on a monthly or daily basis which is pumped into the network on a daily basis with daily measurement taking into consideration losses in the network or carrier lines (25% in minimum)	Million liters on a monthly basis
				B. quantity of wastewater discharged through the network	Quantity of wastewater at entrance of treatment projects	Million liters on a monthly basis
				$\left(\frac{B}{A} \times 0.75\right) \times 100 =$ indicator calculation (Annually updated)		

3	capability to treat wastewater	Capability of secondary treatment of wastewater produced from use of water supplied by water projects	100 %	A. quantity of water supplied to citizens through the network on a monthly or daily basis	Measure the quantity of product on a monthly or daily basis which is pumped into the network on a daily basis with daily measurement taking into consideration losses in the network or carrier lines (estimated 25% in minimum)	Million liters on a monthly or daily basis
				B. real capacity of treatment of wastewater	Calculate the real capacity of wastewater treatment projects within the same month	Million liters on a monthly or daily basis
				Annual update $\left(\frac{B}{A} \times 0.75\right) \times 100 =$ indicator calculation		%
4	efficiency of treatment of wastewater (BOD<40mg/l, TSS=60mg/l, PH=6.5-8.5)	The efficiency of treatment of waste water is measured through checking the percentage of samples inspected from secondary treatment output to see if they comply with or exceed the standards	100%	A. total number of samples tested within a month	Number of samples drawn during a month from secondary treatment unit output by directorates of environment, health or any relevant authority within a period of month	Number
				B. total number of samples tested which comply with the standard specifications within the month	Out of total number of samples drawn in the item above, number of samples tested and which comply with standard specifications	Number

				$\text{Monthly update } 100 \times \frac{B}{A}$ = indicator calculation		%
5	Extent of Efficiency of responding to people complaints	Total number of complaints concerning water supply which are addressed within 24 hours from receiving of complaint	100%	A. total number of all complaints received from citizens during a month period	Complaints registered at office of complaints in effective systems of registration and tracking	Number
				B. total number of complaints considered and handled during a month period of time	The number of complaints handled in a sound and satisfactory manner during 24 hours or after a day from registering the complaint	Number
				$\text{Monthly update } 100 \times \frac{B}{A}$ = indicator calculation		%