



## **Najaf Water**

# **Service Delivery Improvement Plan (SDIP)**

*Prepared by*

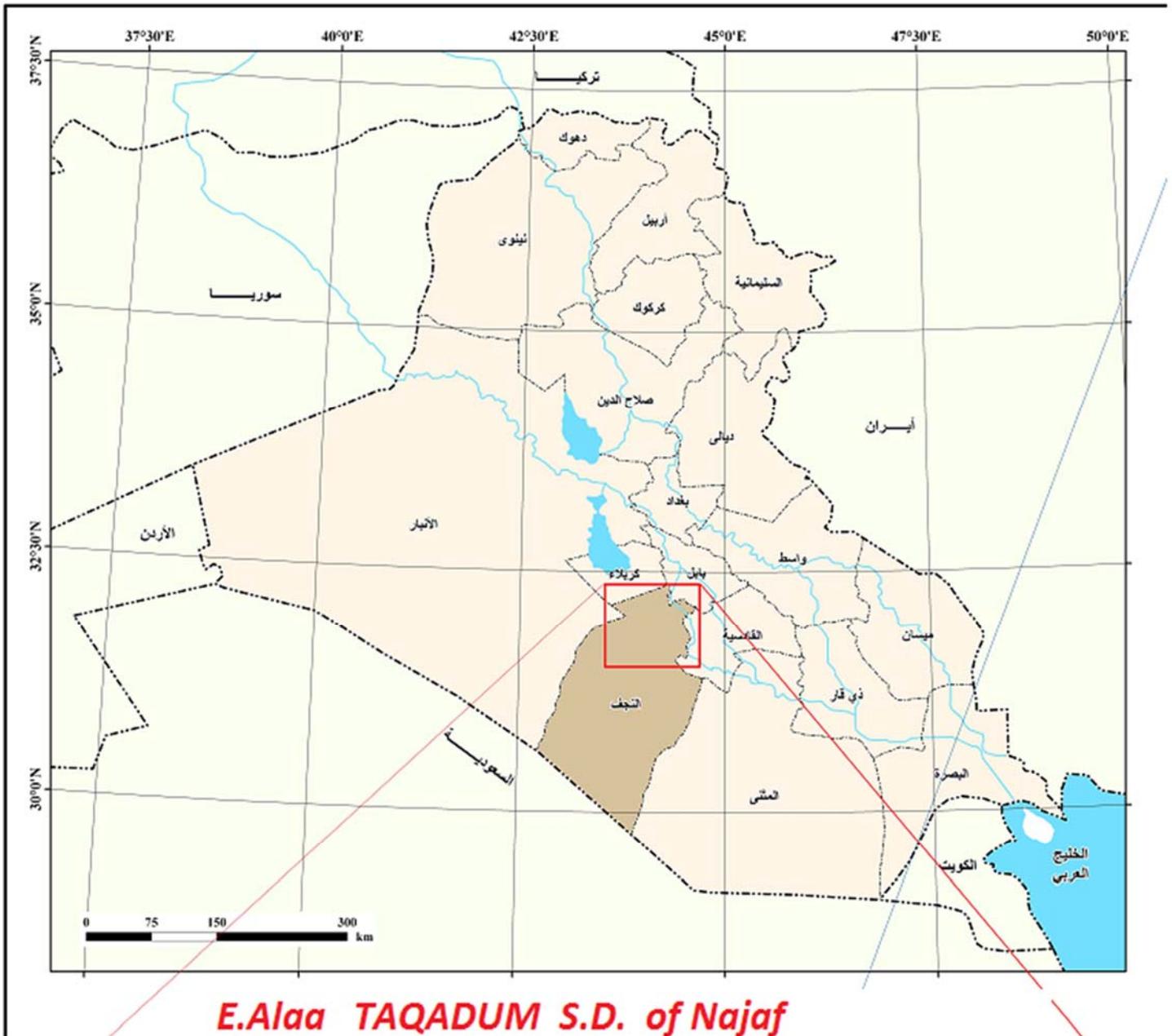
**Najaf Water Directorate**

*In cooperation with*

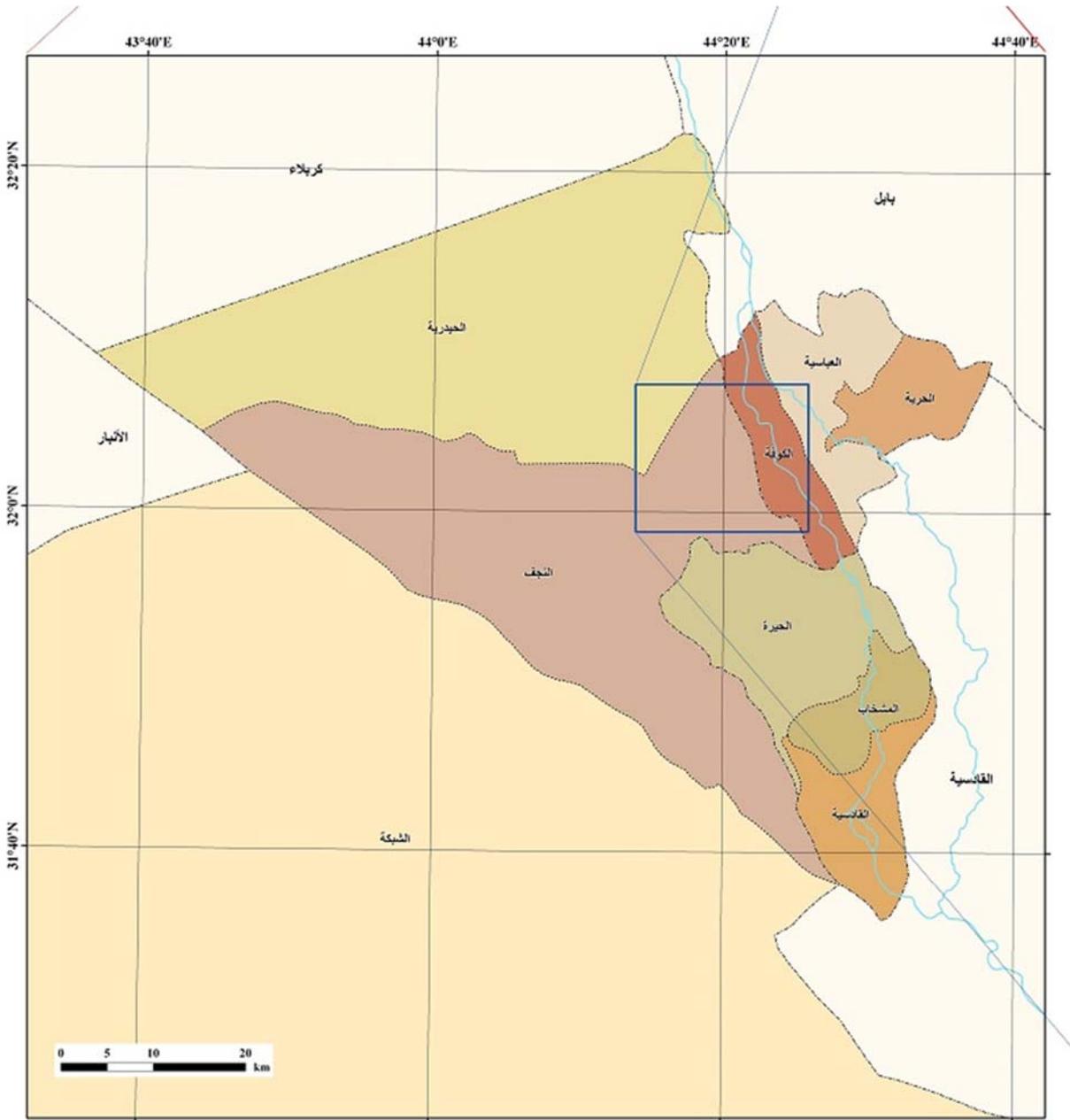
**GSP/Taqadum**

*February 2015*

**Najaf - Iraq**



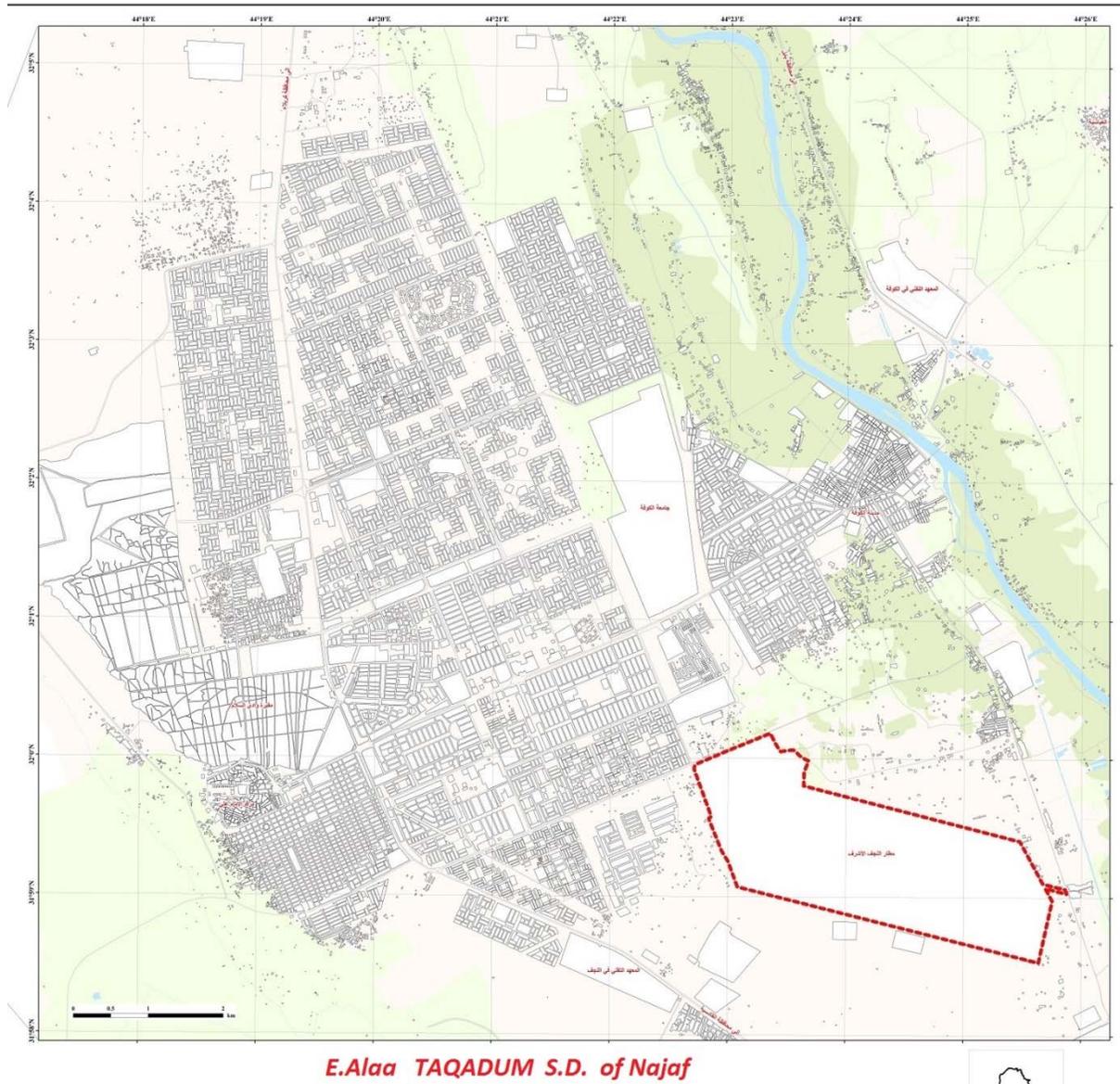
A map showing the governorate location compared with Iraq and surrounding resources



***E. Alaa TAQADUM S.D. of Najaf***

AL-Najaf districts and sub-districts

## Services sector – SDIP for drinkable sector



Al-Najaf district

When viewing the governorate, the district center, near and far water resources, it becomes possible to understand the issues related to the SDIP and how to improve it to deliver best services to citizens.

## **Executive Summary**

The current analysis mechanisms used in reviewing performance indicators of Al-Najaf Water 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 Water Services:** Management of municipal service delivery is an important and effective element in promoting healthy society by ensuring suitable environment which reflects positively on the growth of the economy and health of society. On the other hand, lack or bad municipal services would affect negatively on the society public health. Service management is based on vital elements which should be effectively and efficiently invested to provide integrated services with high quality to citizens.

Other important elements are financial resources (investment and operational budget, revenues from rentals and sale of municipal properties, etc.), human resources (the directorate employees, engineers and those who work in municipal sectors) and other resources such as equipment and vehicles. Financial resources are not the only element that governs and directs the delivery of services; rather, the management of these resources through organized processes and preplanning are also important. All these would achieve the goals of the Directorate and local government, as well as the national strategic goals.

It is worth noting that financial integration of the Directorate with other service sectors and the preparation of the operational budget in consistent with the investment budget have a positive effect on the efficiency and sustainability of services.

Create a logical and scientific balance between the cost of r production of pure water unit compared with the collected charges per each consumed pure water unit , in a manner insuring the feasibility and optimal use of the resources and the operation and sustainability of water treatment plants .

### **1- Stages of work on the service delivery improvement plan:**

AL-Najaf Water 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. The use of scientific method in the analysis of all elements that cause the gap in the indicators of the services provided to citizens compared with the value of the standard.
2. Determine the priority of the elements in services through the power of their influence.
3. Put the proposed immediate and long-term solutions to address the elements the gap in order to minimize it.
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.

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 standard 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. AL-Najaf water 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 standard via using elements analysis in detail, and finally to develop solutions for the elements of the most influential elements causing the gap. Annex No. 1 includes a guide to use gap analysis of the services provided to citizens which was applicable by AL-Najaf Directorate of Water

## **2- 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- 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 water departments in AL-Najafand should be measured through key performance indicators. The data related to 'Where are we now?' Can be obtained by using the relevant technologies,

**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

### **SWOT Analysis of Al-Najafdirectorate of water**

#### **Strength**

- Consecutive development plans and projects;
- Electronic government has just started;
- There is a Geographic Information System (GIS) unit in place;
- Availability of expertise and efficient staff;
- Cooperation among formal and non-formal sectors of society;
- Relative stable security situation and ease of contact within the province;
- There are laboratories and specialized staff in the directorate; and
- The ability of the directorate to conduct training and development courses inside the directorate.

#### **Weaknesses**

- The need to review laws in the directorate;
- Lack of authorities granted to Water managers;
- Lack of fees collected for services delivered;
- Low salaries and lack of incentives to employees in the directorates;
- The directorate does not have a legal personality; and
- Lack of equipment for maintenance.

### Opportunities

- The directorate gets support from related parties and agencies;
- Positive interaction with other directorates and institutions;
- There are proposed plans in place to improve services and make reforms;
- There is some improvements in the provision of electric power for water projects;
- The strategic importance of water sector; and
- The support of donors to the water sector.

### Threats

- Lack of opportunities to train workers outside the country;
- Legislation are not keeping pace with latest developments;
- Lack of joint planning and share of information;
- Insufficient government financial allocations;
- Delay in implementation of projects;
- Illegal use of water networks;
- Lack of citizen awareness;
- Increase of population with no correspondent increase in resources;
- Lack of contact between the province and ministry, resulting in waste of efforts;
- There are no employee hiring while there is an increase in water projects and compounds.

### 2<sup>nd</sup> .Performance indicatrs

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 criteria, similar to the rest of the civilized world. Standards-based service delivery stands on 6 key bases in drinking water service as an essential service which should be accessed both quantitatively and qualitatively and through the following standard and indicators:

#### 1. Service Coverage

2. The amount of water provided per capita
3. Quality of supplied water
4. Response to citizens' complaints

AL-Najaf Water Directorate has adopted work according to these standard and indicators were provided at the level of the province, districts and sub-districts. The performance indicators have been reviewed in comparison with the standards standard 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.

➤ **Coverage indicator (Networks coverage)**

The reality of the coverage of water networks in the center of AL-Najaf district of is 98 % for and the value of the gap is 2%. Water systems coverage throughout the province of AL-Najaf varies from one administrative unit to another

**Elements causing gap and their impact**

1) **Human resources** :The existing permanent cadre is 365 employee and 24 temporary employee, and the planned is 400 one, which is insufficient. There is a need for more 24 employee. The effect of this element on the gap is high.

**2- Financial issues:** The operational budget allocated for the whole province for 2014 was 20 billion Iraqi dinars; the actual need was planned by calculating the total need of the province to cover the gap of the lack of networks. The planned was 35 billion Iraqi dinar ( ) and the regional development funds allocated for the Najaf center was 5 billion Iraqi dinar ,and the planned was 8 billion Iraqi dinar( Department of planning in the directorate of water) ,which was calculated within the provincial directorate of water annual plan , accordingly those financial funds are insufficient to cover the province actual need .. The effect of this element on the gap is high for it affects all other related elements.

**3- Infrastructure:** There are building belonging to the directorate, 4 of them are old, 5 are in fairly good, and 1 is new .There is a need for two buildings, one for the main office and the other for Revenues Section . The effect of this element on the gap is low.

**4-Equipment:** Lack of pipes and their accessories, specialized vehicles and trucks. The effect of this element on the gap is high.

**5-Capacity building:** the realized for 2014 is (4) training course inside the country , and (1) training course ,there is a need to hold more training courses inside and outside the country ,in order to improve and advance the knowledge and experience of the staff . The effect of this element on the gap is low.

**6-Technical obstacles:** Some areas are far from the rivers and feeding sources, route of pipelines overlap with the works of other service departments. The effect of this element on the gap is high.

**7- Authorities:** .The directorate lacks the legal personality, as well as administrative, legal, financial and technical authorities. The effect of this element on the gap is high.

**8-Coordination:** .Overlapping roles and possibilities, repetition of instructions and decrees between the Ministry and the directorate and multi structure. The effect of this element on the gap is medium.

**9-Political interventions:** There are political interventions represented in overlap of instructions .The effect of this element on the gap is zero.

**10-Misuse of human resources:** Illegal use and authorized connections to the conveyance lines and networks, in addition to waste and poor citizens awareness . The effect of this element on the gap is high.

**11 –Maintenance and operations:** Shortage of disinfection and filtration materials and lack of specialized vehicles and trucks .The effect of this element on the gap is low.

**12-Security situation:** The effect of this element on the gap is zero.

**13- Logistic support:** Lack and insufficient allowances and in incentives, absence of risk allowances to the engineers. The effect of this element on the gap is medium.

14-N/A

Based on the above explanation, the following elements have the highest impact on the gap: 1) Financial issues (2) Equipment (3) Technical obstacles 4) Authorities (5) Misuse of resources.

**Services sector – SDIP for drinkable sector**

S.No	Standard	Arrangement of basic elements (which receive 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	Service Coverage (networks coverage )	Financial issues (poor operational ,investment and regional development budgets	<ul style="list-style-type: none"> <li>• Activate the revenues</li> <li>• Increase the operational budget allocations to 35 billion.</li> <li>• Complete the works of the installation of the networks within the regional development of 2014, at a length 120 km.</li> <li>• Continue the release of the investment funds of AL-Najaf project.</li> <li>• Seek the assistant of human organizations.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase the directorate financial authorities.</li> <li>• Increase the allocations of the regional development to 8 billion.</li> <li>• Grant the directorate legal personality</li> <li>• Increase water fees</li> <li>• Increase annual financial allocations</li> <li>• Adopt electronic fees collection system</li> </ul>
Equipment (Lack of equipment ,tools ,materials ,fuel ,generators and furniture		<ul style="list-style-type: none"> <li>• Supply all net water needs</li> <li>• Complete the execution of AL-Mahdi water compact unit with capacity of 3000m<sup>3</sup> /h.</li> <li>• Supply 10 water tanks to unserved and remote areas</li> </ul>	<ul style="list-style-type: none"> <li>• Supply 20 tank trucks and specialized trucks.</li> <li>• Supply pipes to lay down new works ,with a length of 200 km</li> </ul>	
Technical constrains		<ul style="list-style-type: none"> <li>• Using GIS to project all water nets, pipelines and avoid overlapping.</li> <li>• Develop wireless communications with other concerned departments to avoid overlapping in services</li> </ul>	<ul style="list-style-type: none"> <li>• Use shadow budget to jointly execute works with other departments to overcome environment barriers and remote water resources</li> </ul>	

**Services sector – SDIP for drinkable sector**

**Indicator of amount of supplied water:** The amount of drinking water supplied per capita supplied by Al-Najaf directorate of water –district center to is 395 Liter /Person ,since the used standard is 450 liter / person /day in the urban and 250 liter / person /day in the rural within the district center , accordingly the indicator is 89% ,which is considered good ,and was calculated from the supplied quantity ,estimated at 290000 m<sup>3</sup>/day ,while the actual need is 325000 m<sup>3</sup> /day , the number of population is 734819 person divided into 708641 urban and 26187 countryman .

**Water projects and water compacts in AL-Najaf district center up to 31-12-2014**

S.No	Name of compact unit	Administrative unit	Designed capacity m <sup>3</sup> /h	Operation year	Compact condition	Allocated to
1.	Al-Najaf water treatment plant	Najaf -Kufa	16000		In progress	Cities
2.	Al-Najaf central water treatment plant	Al-Najaf	11500	1997	Operable	=
3.	Al-Huda water compact unit	Al-Najaf	3000		In progress	=
4.	Al-Murtadha water compact unit	Al-Najaf	3000	2011	Operable	=
5.	Al-Askari water compacts Five units	Al-Najaf	5x200	2005	Operable	=
6.	Al-Ghadeer water compact unit	Al-Najaf	500	2013	Operable	=
7.	Al-Hussein water compact unit	Al-Najaf	400		In progress	=
8.	Al-Hadi water compact unit	Al-Najaf	400	2012	Operable	=
9.	Al-Ghazalat Reverse Osmosis system	Al-Najaf	30	2014	Operable	Village
10.	Madhloom 2 <sup>nd</sup> Reverse Osmosis system	Al-Najaf	30	2014	Operable	=
11.	Madhloom 2 <sup>nd</sup> Reverse Osmosis system	Al-Najaf	25	2010	Operable	=
12.	Al-Asaweed Reverse Osmosis system	Al-Najaf	25		In progress	=
13.	Qura Al-Bahar Reverse Osmosis system	Al-Najaf	25		In progress	=
<b>The total number =2 water treatment plant 1 operable 1 in progress / 10 compact units 3 operable /2 under</b>						

maintenance +2 in progress / RO 5 /3 operable 2 in progress

### Elements causing gap and their impact

2) **Human resources** :The existing permanent cadre is 245 employee and 99 Temporary employee, ,the planned staff is 365 , the shortage is 120 employee ,without the 21 temporary employee .These numbers represents all staff in the province center ,including the accountants , administrators , maintenance worker ,fees collectors . The effect of this element on the gap is medium.

**2- Financial issues** :The operational budget allocated for the province for 2014 is 20 billion Iraqi dinar, the planned budget is 35 billion Iraqi dinar , also the regional development funds allocated t for Al-Najaf center is 9.5 billion Iraqi dinar , the planned is 12 billion. The effect of this element on the gap is high.

3- **Infrastructure**: The effect of this element on the gap is low.

4-**Equipment**: .There is a need for water leak and broken pipes detectors and modern instruments .The effect of this element on the gap is high.

5-**Capacity building**: the realized for 2014 is (10) training course inside the country , on operation and management of water treatment plants ,there is a need to hold more training courses outside the country and holding training course by human organizations inside the country . The effect of this element on the gap is low.

**6-Technical obstacles**: Power outage, most of water treatment plants and water compact units are not connecting to the National emergency grid. The effect of this element on the gap is high

7- **Authorities**: .There is a need for administrative, legal, financial and technical authorities. The effect of this element on the gap is high.

8-**Coordination**: .There is good coordination with the directorate; however the directorate suffers for overlapping roles and responsibilities within its structure. The effect of this element on the gap is low.

9-**Political interventions**: There are political interventions represented in the overlapping of instructions, roles and responsibilities. The effect of this element on the gap is low

10-**Misuse of human resources**: Overlapping instructions, illegal use and authorized tapping to the conveyance lines and networks. No clear and decisive solution has been

adopted to solve the problem of unauthorized use of public property the effect of this element on the gap is high.

11 –**Maintenance and operations**: The effect of this element on the gap is low.

12-**Security situation**: This element has no effect on the gap.

13- **Logistic support**: Lack and insufficient allowances and in incentives, absence of risk allowances to the engineers. The effect of this element on the gap is medium.

14-N/A

Based on the above explanation, the following elements have the highest impact on the gap: 1) Financial issues (2) Equipment (3) Technical obstacles 4) Authorities (5) Misuse of human resources.

S.No	Standard	Arrangement of basic elements (which receive the figure 3 (high impact) that contribute to reducing of the value of the gap, according to the priority	Immediate solutions	Long term solutions
2	Amount of supplied water	Financial issues (poor operational ,investment budget and regional development funds	<ul style="list-style-type: none"> <li>• Complete networks rehabilitation works awarded within 2013 and 2014 plans, at 226 km long.</li> <li>• Engage human organizations within the rehabilitation works of water networks and water treatment plants.</li> <li>• Distribute drinking water by tank trucks.</li> </ul>	<ul style="list-style-type: none"> <li>• Grant the directorate legal personality</li> <li>• Increase the allocations of the regional development funds to 12 billion.</li> <li>• Increase annual financial allocations</li> <li>• Increase water fees</li> </ul>
		Equipment (Lack of equipment ,tools ,materials ,fuel ,generators and furniture	<ul style="list-style-type: none"> <li>• Supply all net water needs</li> <li>• Supply all maintenance materials.</li> <li>• Supply water leak detectors</li> </ul>	<ul style="list-style-type: none"> <li>• . Supply water leak detectors</li> </ul>

Services sector – SDIP for drinkable sector

		Technical constrains	<ul style="list-style-type: none"> <li>• Supply all water treatment plants and water compact units with generators.</li> <li>• Eliminate Ceratophyllum</li> </ul>	<ul style="list-style-type: none"> <li>• Connect water treatment plants , water compact units and networks with the National emergency grid</li> </ul>
		Authorities There is a need to create new administrative ,legal ,financial and technical authorities	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Draft a law to establish sub-departments in the districts vest them administrative and financial authorities, when the directorate is transferred to a directorate general and granted a legal personality.</li> <li>• Activate the law of imposing fines against the illegal use and authorized tapping to water networks.</li> <li>• Transfer the financial budget to the directorate main office</li> </ul>
		Misuse of resources	<ul style="list-style-type: none"> <li>• Conduct campaigns against illegal use and authorized tapping to water networks.</li> <li>• Activate media role to promote citizens awareness and create database on the number of subscribers.</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct campaigns to lift illegal use and authorized connection to water networks.</li> <li>• Create database on the number of subscribers, stores, houses, hotels and factories.</li> </ul>

➤ **Quality of supplied water**

The indicator of the quality of water in Al-Najaf district center is 97%, thus it is considered good, whereas the gap value is only 3%.

**Elements causing gap and their impact**

- 1- **Human resources:** The water directorate has 20 employees in the center following up the quality, while the actual need of the staff is 26 employees. The effect of this element on the gap is medium.
- 2- **Financial resources:** Most of the expending is depending on the operational budget. The effect of this element on the gap is high.

- 3- **Infrastructures:** There are only two labs undertaking all tests, which is a very poor number, and there are only two hip roofs, there is need for another one. The effect of this element on the gap is medium .
- 4- **Equipment:** Lack of disinfection and filtration materials. The effect of this element on the gap is high.
- 5- **Capacity building:** The realized for 2014 is two training course inside the country, there is a need to hold more training courses inside and outside by the human organizations. The effect of this element on the gap is low.
- 6- **Technical obstacles:** Increase of river turbidity. The effect of this element on the gap is high.
- 7- **Authorities:** The effect of this element on the gap is medium, represented by the financial authorities.
- 8- **Coordination:** Lack of specialized lab technicians .The effect of this element on the gap is low.
- 9- **Political interventions :**
- 10-**Misuse of resources:** Misuse of disinfection equipment , water leak detectors , improper , random and unauthorized tapping to the network resulting in broken pipes and leakage .The effect of this element on the gap is high
- 11-**Maintenance and operation:** The need of regular change of filtration sand. The effect of this element on the gap is low
- 12-**Security situation:** This element has no effect on the gap
- 13-**Logistic support :**The effect of this element on the gap is low
- 14-N/A

Based on the above explanation, the following elements have the highest impact on the gap: 1) Financial issues (2) Technical obstacles (3) Equipment 4) Misuse of resources.

S.No	Standard	Arrangement of basic elements (which receive the figure 3 (high impact) that contribute in reducing of the value of the gap, according to the priority	Immediate solutions	Long term solutions
3	<b>Quality of service</b>	Financial issues	<ul style="list-style-type: none"> <li>• Increase allocation of requirement</li> </ul>	<ul style="list-style-type: none"> <li>• Allocate funds within the regional development funds to change the filtration sand, in annual basis</li> </ul>

## Services sector – SDIP for drinkable sector

		Technical obstacles	<ul style="list-style-type: none"> <li>• Increase the provision of alum to treat water turbidity</li> </ul>	<ul style="list-style-type: none"> <li>• Operate Al-Najaf new water treatment plant</li> </ul>
		Equipment	<ul style="list-style-type: none"> <li>• Increase the provision of chlorine and alum.</li> <li>• Increase the provision of fuel to operate the generators</li> </ul>	<ul style="list-style-type: none"> <li>• Establish fully equipped labs</li> </ul>
		Misuse of resources	<ul style="list-style-type: none"> <li>• Repair and change broken pipes.</li> <li>• Train workers on use of disinfection and filtration materials</li> </ul>	<ul style="list-style-type: none"> <li>• Use recent technology in detecting fractures.</li> <li>• Conduct all types of tests to provide best quality of drinking water.</li> </ul>

### **Efficiency of response to citizens' complaints**

The efficiency of response to citizens' complaints and outreach with citizen to recognize and response to their needs have reached 95% and the gap value is 5%, which is a good indicator.

### **Elements causing gap and their impact**

1-Financial issues: Poor financial allocations. It is one of the influencing elements

2- Equipment: There is a need for wireless sets. The effect of this element on the gap is high.

Technical obstacles: There is a need to activate the web-sites

Based on the above explanation, the following elements have the highest impact on the gap: 1) Financial issues, Equipment, and technical obstacles

S.No	Standard	Arrangement of basic elements (which receive the figure 3 (high impact) that contribute in reducing of the value of the gap, according to the priority	Immediate solutions	Long term solutions

## Services sector – SDIP for drinkable sector

4	Efficiency of response to citizens' complaints	Financial issues. poor operational ,investment and regional development budgets	•	• Allocate funds to activate the web-site for direct contact with citizens
		technical obstacles	• Provide complaints boxes in water departments	• Operate Al-Najaf new water project
		Equipment	• Open a site on the social media nets	• Develop electronic work • Develop wireless communications

### Where do we want to be?

Based on the information that has been collected in the analysis of the situation , the goals and objectives of the Directorate can be developed and clarified, which are derived from the mission and vision of the water department. There should be an agreement on standards and performance goals, which fall under the name of the SMART (specific, measurable, achievable, realistic and time-bound).

### Vision

To provide drinkable water to all citizens within the province of Najaf which should meet the established standards in a manner that achieve the public interest.

### Mission

Run, operate, and maintain all devices, equipment, and vehicles related to the drinkable water in the Najaf province, and to conduct all other necessary activities for this purpose.

### Goals

- A. To combat scarcity of water provided to citizens;
  - B. Connect all houses and buildings to the main drinkable water network;
  - C. Ensure that each individual has enough quantity of drinkable water in accordance with the international standards (450 L/capita in the center of the province);
  - D. Improve the quality of water according to the Iraqi standards;
  - E. Improve services delivered to citizens; and
- 6-Use of modern technology and techniques

Based on the vision , mission and goals of AL- Najaf district -City center ,it appears that the directorate does not yet specify a strategy to reach the planned goals .When developing the strategy ,it should be miserable , accurate , realistic , achievable and time –bound

### **3-5 ) How can we get there?"**

Al-Najaf Water 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. The use of scientific method in the analysis of all elements that cause the gap in the indicators of the services provided to citizens compared with the value of the standard.
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 the gap in order to minimize it.
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.

### **4-5 )How can we ensure the success?"**

In order to ensure the success of Services Delivery Improvement Plan (SDIP), it is important to continuously control the standard and indicators of achieved progress evaluation to improve the performance and its external factors at all levels, and to provide data and reactions using the appropriate mechanisms in writing reports. This allows the management to determine the actual and potential success and failure in early enough time to facilitate timely adjustments. There should be a unit within the Directorate of Water in Al-Najaf that will be responsible for coordinating the activities and performance evaluation in line with the agreed targets according to a monthly basis. This report will be submitted to the Director General of the Directorate of Water in Al-Najaf and the preparation of progress and performance quarterly and annual reports. The Director General of the Directorate of Water of Al-Najaf should supervise the implementation of SDIP and report to the Provincial Planning and Development Council PPDC and the governor office as needed. They will provide strategic guidance on the effective implementation of the plan.

**Services sector – SDIP for drinkable sector**

**Proposed works to be executed within the 5 years plan 2015 -2020**

<b>S.No</b>	<b>Work name</b>	<b>Administrative unit</b>	<b>Estimated cost Iraqi dinar</b>
1.	Replace pure water network for Physicians and oil neighborhoods	Al-Najaf	1,000,000,000
2.	Replace pure water network for Al-Hawra neighborhood	Al-Najaf	1,000,000,000
3.	Replace pure water network for Imm Ali neighborhood	Al-Najaf	300,000,000
4.	Replace pure water network for craftsmen neighborhood	Al-Najaf	1000,000,000
5.	Replace pure water network for craftsmen neighborhood	Al-Najaf	1000,000,000
6.	Complete pure water network for Al-Sina'ee neighborhood	Al-Najaf	2000,000,000
7.	Expand the pipeline systems for Al-Najaf	Al-Najaf	2000,000,000
8.	Install main ductile conveyance lines, with different diameters	Al-Najaf	9000,000,000
9.	Rehabilitate and develop Al-Najaf central water project	Al-Najaf	4000,000,000
10.	Rehabilitate and enhance AL-Najaf water station	Al-Najaf	1,500,000,000
11.	Establish New warehouses	Al-Najaf	2,000,000,000
12.	Establish new building for the revenues	Al-Najaf	1,500,000,000
13.	Provision of maintenance requirement	Throughout the province	3,000,000,000
14.	Provision of maintenance requirement for water projects and water compacts	Throughout the province	3,000,000,000
15.	Establish electronic communication system to connect the branches with the center	Throughout the province	1,000,000,000
16.	Install control and alarm cameras in the department and projects	Throughout the province	1,000,000,000
17.	Establish stores in all water projects and water compacts	Throughout the province	1,000,000,000
18.	Supply specialized vehicles and trucks	Throughout the province	7,000,000,000
19.	Complete the provision of occupational safety requirements	Throughout the province	1,000,000,000

### **Recommendations to immediate solutions**

- 1-Find solutions to the reeducation of river level and source sufficient quantities of water to operate suction stations for water projects and water compacts.
- 2- Draft laws against illegal use and unauthorized connection to water networks.
- 3- Not processing citizens transaction, unless they submit a clearance paper from the directorate of water
- 4- Grant the directorate legal personality.
- 5- Increase the directorate financial allocations
- 6- Set up operation room in the province involving service departments, such as, water, sewages, electricity, municipality, communications, roads and bridges to execute works in a concurrent time
- 7- Conclude agreements with human organizations to meet citizen needs

### **Conclusion**

The water directorate should manage its works efficiently and effectively to provide better services to citizens using the available resources and potentials. The directorate should also develop a realistic strategy to spend resources to cover the need for water by developing feasibility studies for projects to be implemented and to reduce service gaps. Lastly, the directorate of water should be empowered to find the necessary funding to support its operational budget and enforce applicable laws to protect its infrastructure of sabotage. The directorate should also use modern technology, equipment, and programs.