

*Best Wishes From*

**Drinking Water  
And  
Sanitary Drainage Company,  
Dakahlia**



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**21 July, 2007**

**Stakeholder Workshop**

**“Building a Common Vision For Mitigating  
Water Pollution**

**In The Dakahlia Governorate”**

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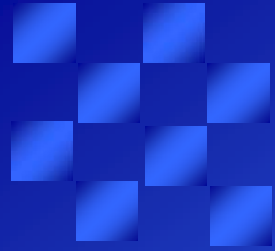
**The state of**

**Drinking Water and sanitary Drainage**

**In Dakahlia Governorate**

**First**

**The Current  
state of Drinking  
Water**



# Produced water

**Compact Stations**

**59 stations**

**88500 m<sup>3</sup>/day**

**Mobile Stations**

**50 stations**

**60000 m<sup>3</sup>/day**

**Fixed Stations**

**11 stations**

**592704 m<sup>3</sup>/day**

**Disposition product overall average=8515 liter/sec**



**735700 m<sup>3</sup>/day**

The actual capacity of all water stations

**5,36 million**

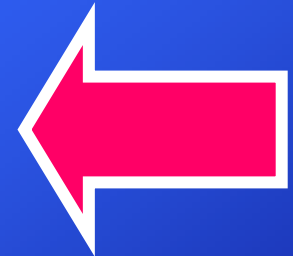
The Governorate population is now about

**137 liter/day**

Average per capita in Dakahlia

**350 liter/day**

**Average per capita in Cairo**



This shows the urgent need to increase the water amount in the governorate through the implementation of the projects included, which is under study as well as proposed projects by the Water Company in Dakahlia

**Water Stations which is urgently required and is supposed to be received during almost a year**

<b>Handover</b>	<b>Funding Million E.L.</b>	<b>Capacity Liter/sec</b>	<b>Station</b>
30/6/2008	90	400	Galia Station
30/6/2008	70	400	Gamasa station
31/12/2008	75	770	Meet Faris Expansions
31/12/2008	25	400	Mataria Station
	<b>260</b>	<b>1970</b>	<b>Total</b>

**N.B.**

- Arab Contractors toll
- Rates of implementation are the very slow and delivery is almost impossible to work on the dates indicated

**Drinking water stations listed in the plan but are not implemented before, and the company requested to increase its planned capacity because of the urgent need**

<b>Required Capacity Liter/sec</b>	<b>Funding Million E.L.</b>	<b>Current Capacity Liter/sec</b>	<b>Station</b>
<b>400</b>	<b>80</b>	<b>400</b>	<b>Aga Station</b>
<b>1200</b>	<b>175</b>	<b>1200</b>	<b>Meet Ghamr station</b>
<b>1200</b>	<b>40</b>	<b>400</b>	<b>Miniat El Nasr Station</b>
<b>800</b>	<b>--</b>	<b>400</b>	<b>Sinbelaween expansions</b>
<b>1200</b>	<b>--</b>	<b>600</b>	<b>Meet Khamis Expansions</b>
<b>4800</b>		<b>2800</b>	<b>Total</b>

**Drinking water stations not listed in the plan but need to be qualified and increase its capacity because of the urgent need**

**Additional Required Capacity**  
Liter/sec

**Current Capacity**  
Liter/sec

**Station**

**800**

**1200**

**Sherbin Station**

**800**

**1200**

**Bosat Kareem El Deen Station**

**1600**

**2400**

**Total**

**N.B. land needed for requested expansions is already Available.**



## General observations on Drinking Water In Dakahlia

- According to the plans of the National Authority, Water which must be available in Dakahlia in the end of the Plan (2002/2007) = **1.521 million m<sup>3</sup> / day**, an increase on the current value **(107%)**

Total allocations for the projects of drinking water, especially water Stations, which delayed in its implementation of the Plan (2002/2007) amounts **(662)** million L.E.

It is necessary to provide alternative water stations instead of mobile stations because the end of their lifespan with capacity **(148.5) m<sup>3</sup> / day**

Follow:

## **General observations on Drinking Water In Dakahlia**

There are projects implemented by the National Authority does not have any effect as the upper reservoirs that constructed, cost millions but not working and this represents a technical malfunction consequent spending money without getting benefits

Water projects implemented under the supervision of the National Authority have much Criticisms , which affects the efficiency of the performance of these projects

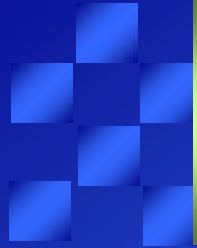
Not conducted feasibility studies on projects of water, resulting in increased spending of money out of the acceptable limit, such as Water intakesOf Mansouriya station, Al-Mansoura and troubled in the pumps

## **Efforts Of Dakahlia Company To Mitigate The Effects Of The Drinking Water Crisis**

**Before the summer the company expected shortfall in the quantity of water available to the following measures have been taken during the period from July 1, 2006 until June 30, 2007 :**

- 1. Rehabilitation and renewing of a number (62) portable water stations.**
- 2. A number (20) of new water wells were dug (9 in Aga and 11 in Meet Ghamr)**
- 3. Water networks' Replacement and renewing with length (347.9) km.**
- 4. Elongation and strengthening water networks with length (276.7) km.**
- 5. A number 47.500 house water links have been implemented cost (9.5) million pounds.**
- 6. Four mobile stations have been transferred and installed in Galia and Fusco areas of the community to overcome the water scarcity in these are**

**Value of previous work (94.6) million pounds.**



**What has been accomplished in the area of  
drinking water during the period from  
1/7/2000 until 30/6/2007**

**2113,9 km**

**Replacement and renewing water systems in length**

**3163,7 km**

**Elongation and strengthening water networks in length**

**5277,6 km**

**All the implementation in water networks in length**

**442,52 million E.L.**

**The value of the work carried out during that period**

**8281 km**

**The total length of water in Governorate**

**79,5million E.L**

**397.5 thousand house link  
was constructed through self efforts**

**Second**  
**Current Situation**  
**of Sanitary**  
**Drainage**



**What has been accomplished in the field of  
sanitary drainage during the period from  
1/7/2000 until 30/6/2007**

**1418,6 km**

**Slope Networks were installed in length**

**279,8 km**

**Expulsion lines were installed in length**

**1698,7 km**

**All what has been carried out in lines of  
sanitary drainage**

**793,9 million E.L.**

**The value of the work carried out during  
that period**

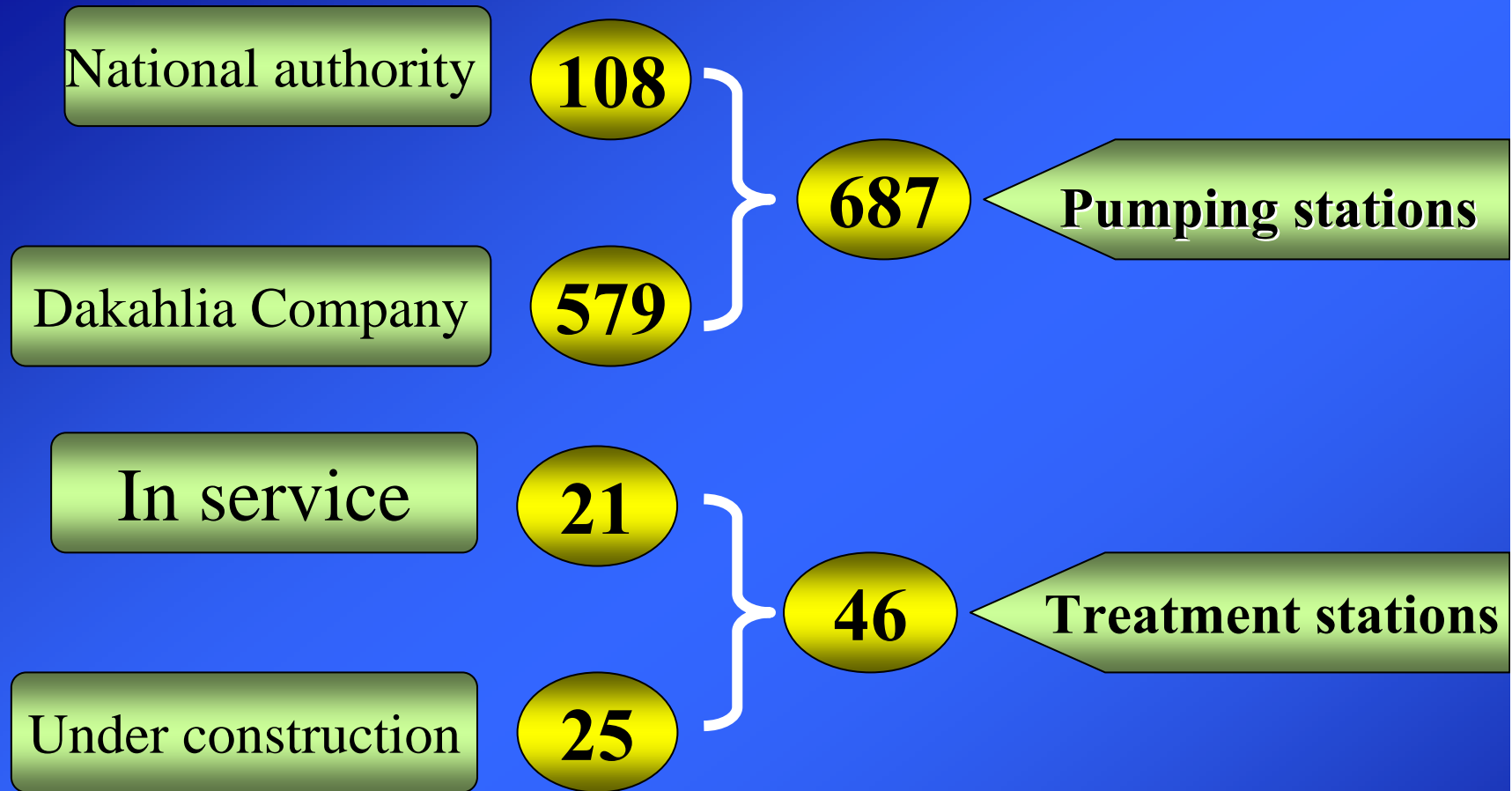
**3177,3 km**

**Total length of sanitary drainage network**

**187 million E.L.**

**314 thousand sanitary drainage link  
was constructed through self efforts**





**Total pumping stations spent on treatment plants present and future = 154 station**

**Total pumping stations spent negatively present and future = 533 station**



## **Governorate Villages' situation of the sanitary drainage and sewage service**

**493 villages**

**Number of villages in Dakahlia governorate**

**452 villages**

**The number of villages provided with sanitary drainage service as well as villages in which Sanitary drainage projects currently being established (including negative Drainage)**

**41 villages**

**The number of villages deprived of sanitary drainage service 10 villages of them are assigned by the National Authority to be supplied by service but did not start implementation  
+ 31 deprived village**



# The proportion of the quantity of wastewater treated for drinking water available

205,000 m<sup>3</sup> /day

The compound nominal capacity of the composite sewage treatment plants

382,000 m<sup>3</sup> /day

The compound nominal capacity of sewage treatment plants under construction

735,000 m<sup>3</sup> /day

The total quantity of available water production

28%

$$= \frac{205}{735} = \frac{\text{Treated wastewater}}{\text{Drinking water available}}$$

Currently

80%

$$= \frac{587}{735} = \frac{\text{Treated wastewater}}{\text{Drinking water available}}$$

In Future

## Sanitary Drainage projects included the National Plan and is being implemented

Meet salsil Sanitary Drainage **11**

Maasara Sanitary Drainage **12**

Miniat samanoud Sanitary Drainage **13**

Atmida and Bahwo Sanitary Drainage **14**

Olila Sanitary Drainage **15**

Koom El Nor Sanitary Drainage **16**

Sahragt El Kobra Sanitary Drainage **17**

Mehalet Damana Sanitary Drainage **18**

Meet Ghamr Sanitary Drainage **19**

Sherbin Sanitary Drainage **1**

Belkas Sanitary Drainage **2**

Mataria Sanitary Drainage **3**

Manzala Sanitary Drainage **4**

Gamasa Sanitary Drainage **5**

Gamalia Sanitary Drainage **6**

Talkha Sanitary Drainage **7**

Miniat El Nasr Sanitary Drainage **8**

Bani Ebeed Sanitary Drainage **9**

Sinbelaween Sanitary Drainage **10**

# **Causes of Water pollution In Dakahlia**

- 1. Dakahlia located on the ends of freshwater Canals which makes the concentration of pollutants one of the highest rates by the as a result of accumulation and this is the source of drinking water.**
- 2. Dakahlia lies near the estuary of drainage canals endured sewage and industrial drainage and other pollution which increase rates of pollution.**
- 3-Pollution of water canals as a result of drainage in it without drainage treatment which is known as negative drainage.**
- 4-Contamination of drinking water due to lowering pressure under the critical pressure and even access to the limits of discharge and therefore mixing and contamination occur.**

Follow: **Causes of Water pollution  
In Dakahlia**

**5-Pollution arising from a lack of equipment to prevent water hammer, as well as the unloading using water stations expel lines .**

**6-Pollution arising from domestic.**

**7-pollution resulting from secondary products, including :**

**\*\* Triple Halomethans Group (TTHMs).**

**\*\* Halo Acetic Acid Group (HAAs).**

**These compounds are extremely dangerous to human health**

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## **Recommendations**

- 1. Increasing the amount of the available water for drinking.**
- 2. Rehabilitation of drinking water systems to prevent the occurrence of discharge pressure.**
- 3. Using active carbon in water to absorb toxic substances, as well as other products arising from the interaction of chlorine used in the sterilization and organic materials.**
- 4. Survey of water networks and divided into cantonment, classified according to the degree of seriousness and increase the awareness of people about how to deal with water.**
- 5. Provision of bottled water at low cost for the most dangerous areas.**

**Follow**

## **Recommendations**

- 1. Rising the Egyptian standards for drinking water and provide a real controlling mechanism qualified with will trained human elements and laboratory equipments.**
- 2. Look for simple traditional ways to enable simple citizen, relying on himself, to access safe water in the event of lack of access to government service under the concept of crisis management.**
- 3. Spread awareness of how to deal with water in terms of quality and preservation.**



*The most serious problems remain  
Which is irrigation with different types of  
Drainage water in Dakahlia*

*With who we will talk? ! ! !*

# Thank You

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