



شركة المياه الوطنية
National Water Company

Business Opportunities in Water and Wastewater Industry in Saudi Arabia- Public sector Perspective

Presented to SIWW 2009, Singapore

Date: 25 June, 2009

Presented by :Eng Fawaz Bahlas

Content



- 1. Introduction**
- 2. NWC Accomplishments**
- 3. Progress of Management Contracts**
- 4. Business Opportunities**



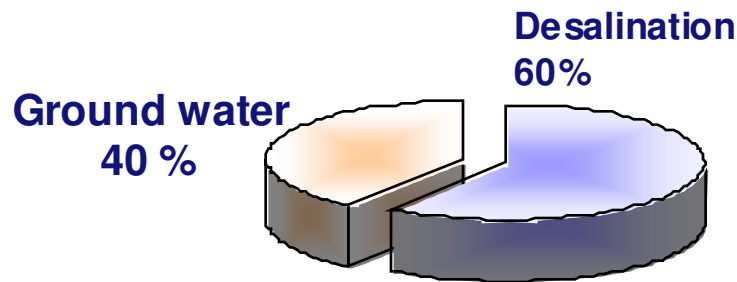
Saudi Arabia Facts



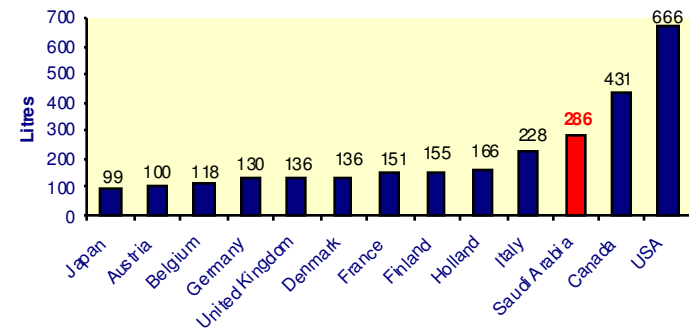
- Saudi Arabia
 - Total area : 2.15 Million Sq. KM
 - Estimated Population : Around 25 Million
 - Annual Population Growth : 3 %

- Saudi Arabia is listed under “**absolute water scarcity**” category

Urban water supply – 5.72 Million M3 per Day



Comparison of Water Usage (Domestic) liters / capita / day



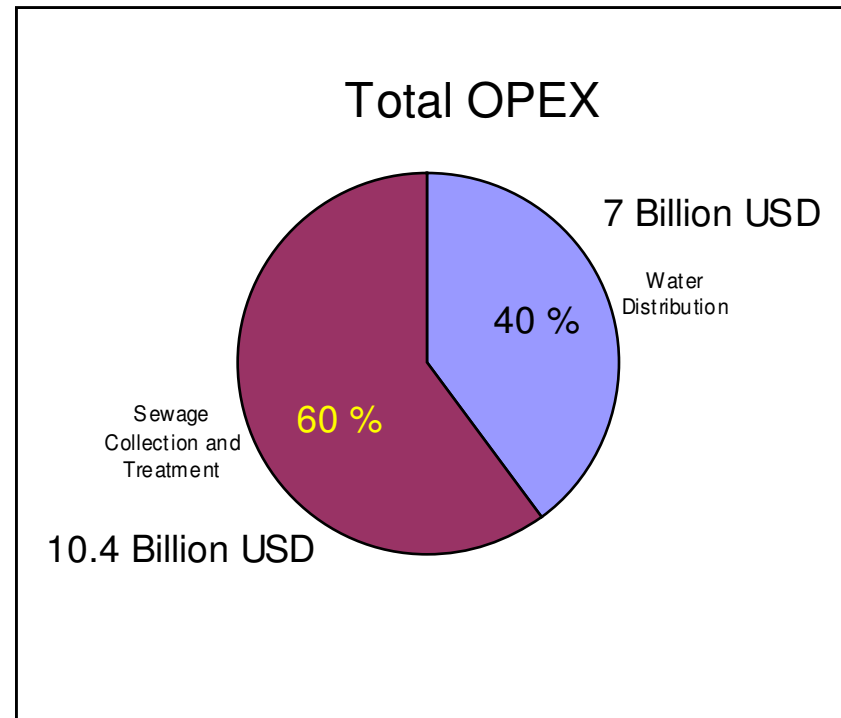
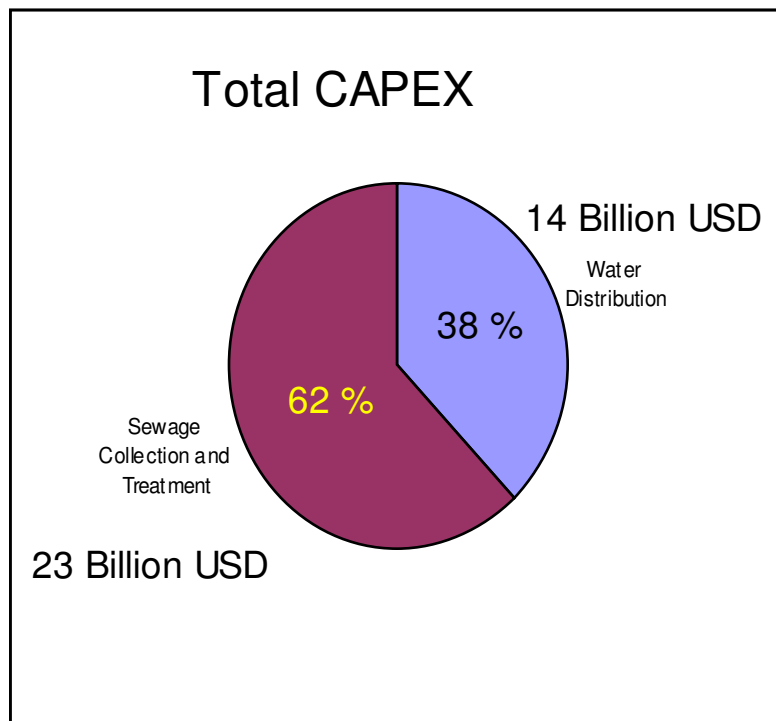
About NWC



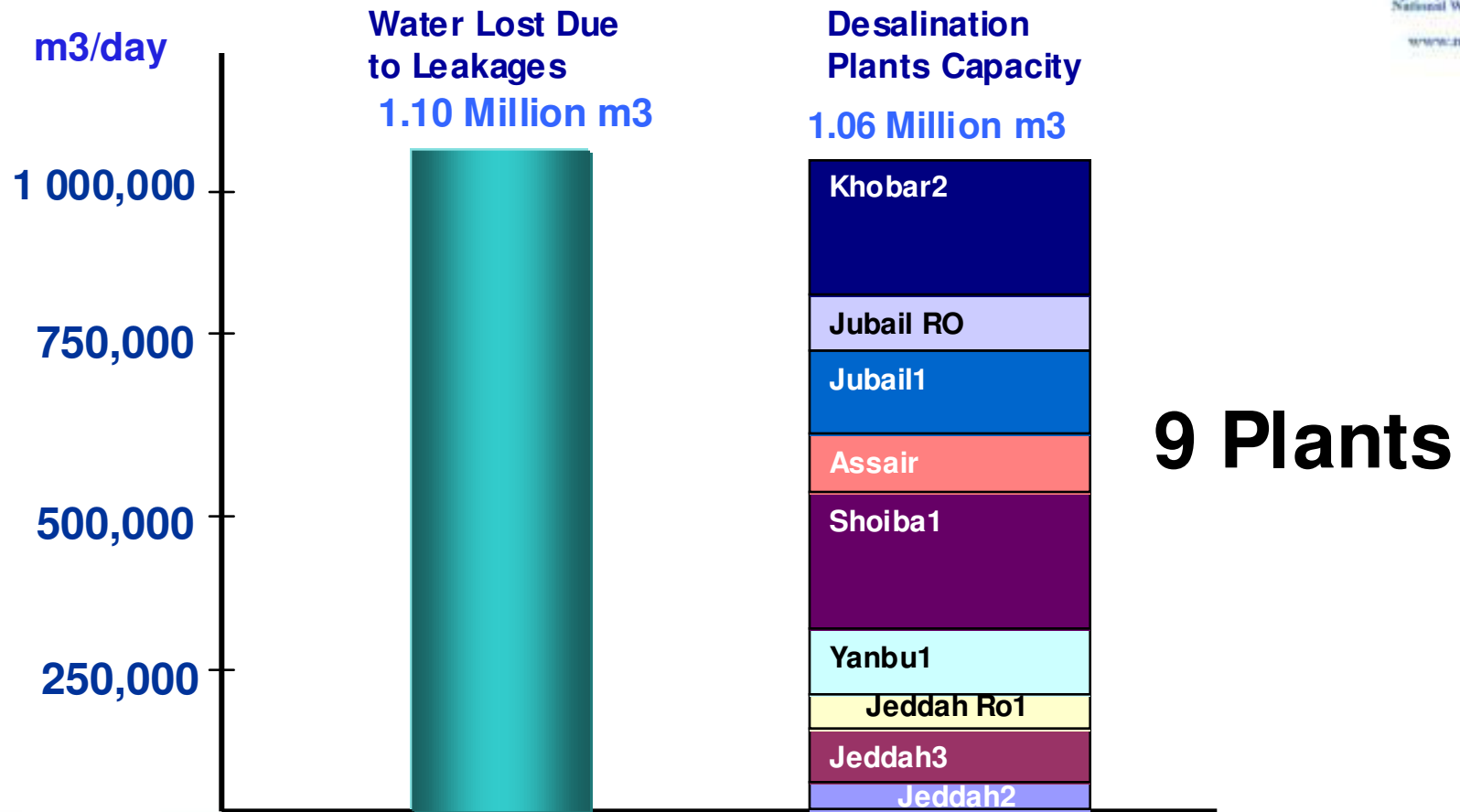
As part of Saudi Arabia's urban water sector restructuring, NWC has been Established vide Royal Decree no. M/1. January.2008

- NWC has a capital of 5.9 billion USD
- operational responsibilities include underground water production & treatment, Water Distribution management, customer service, wastewater collection, treatment & Disposal, etc.
- NWC started its operation from 01.June 2008 in Riyadh and Jeddah cities
- very shortly NWC will takeover the management of water & wastewater services in Greater Dammam (Dammam & Alkhobar), Madinah, Taif and Makkah Cities.
- NWC targeted to take over operations of 15 cities during next 3 years.
- NWC will manage all privatization initiatives and facilitate private sector participation
- NWC would bring about qualitative changes in urban water & wastewater sector on a sound commercial basis

Requirement for 100 % coverage in Saudi Arabia for next 20 years



Water Lost due to Leakages in the Kingdom





شركة المياه الوطنية
National Water Company
www.nwc.com.sa

- 1. Introduction**
- 2. NWC Accomplishments**
- 3. Progress of Management Contracts**
- 4. Business Opportunities**



The transition Progress



شركة المياه الوطنية
National Water Company
www.nwc.com.sa

Number of employees transferred to NWC

More than 6,000 employees

Number of projects transferred

186 (Capex- 103 + Opex-83)

Transferred Projects values

More than 24 billion SR

Number of Suppliers' transactions handled

1,731

Amount of suppliers' transaction handled

Excess of 1.04 Billion SR

Number of customers handled

More than 7 million

Period of transition

3 months only

Management contracts implemented

2 in parallel worth SR 500 millions

Setting up key operational units

3 in parallel (HQ, Riyadh & Jeddah branches)



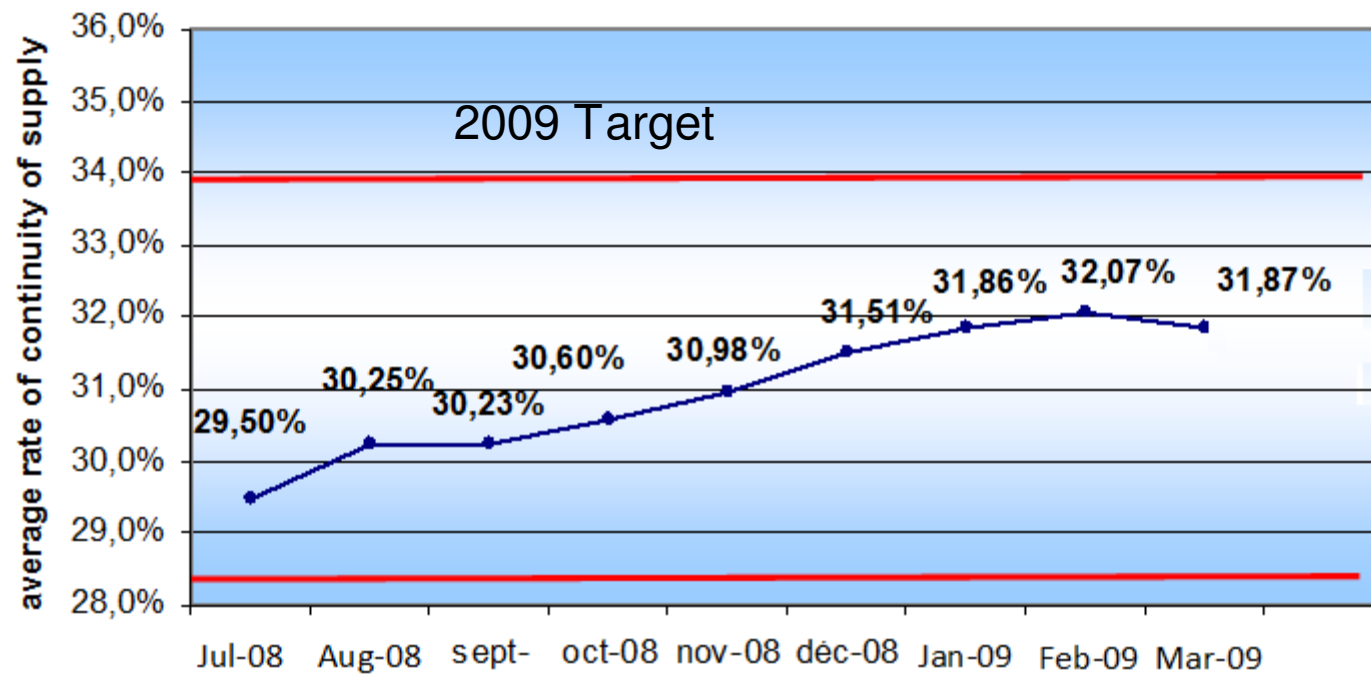
شركة المياه الوطنية
National Water Company

www.nwc.com.sa

Riyadh Business unit Accomplishments

Achievement: Improvement of continuity of Supply

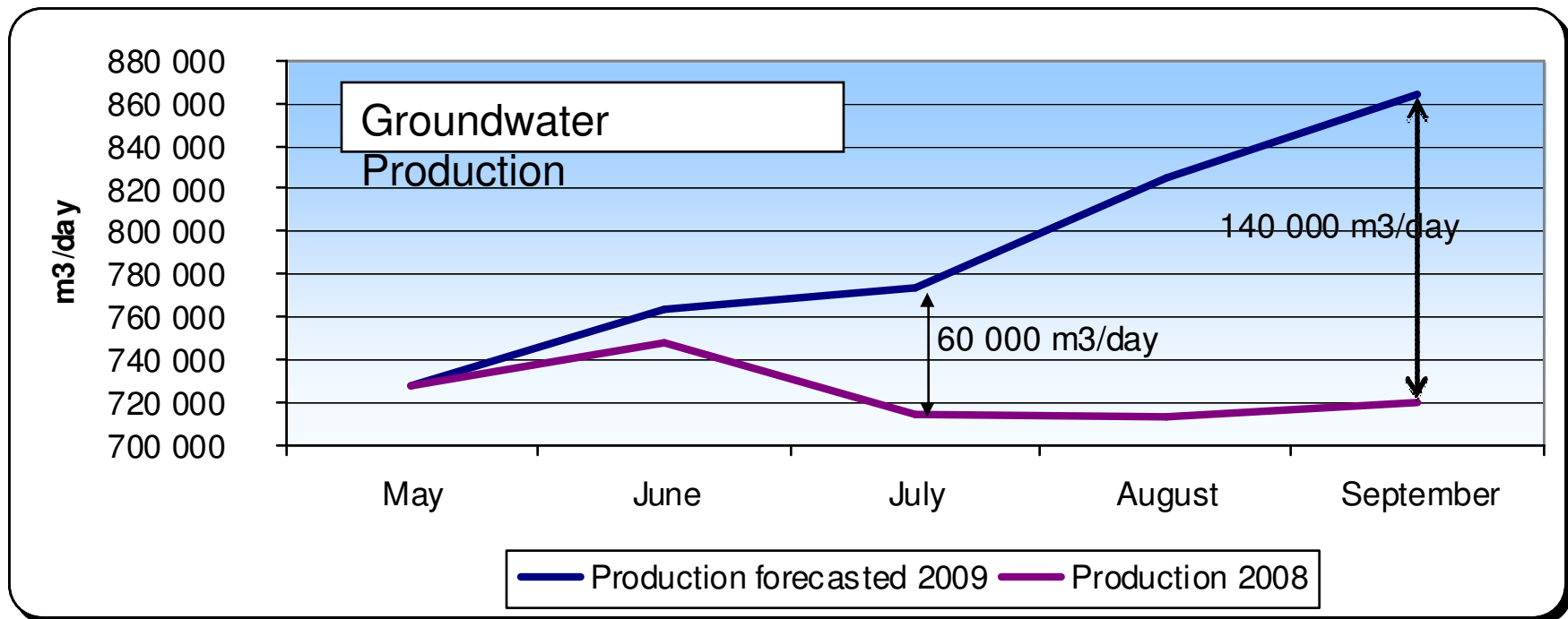
KPI: Continuity of Supply



Summer Actions to improve Continuity of Supply & Service delivery



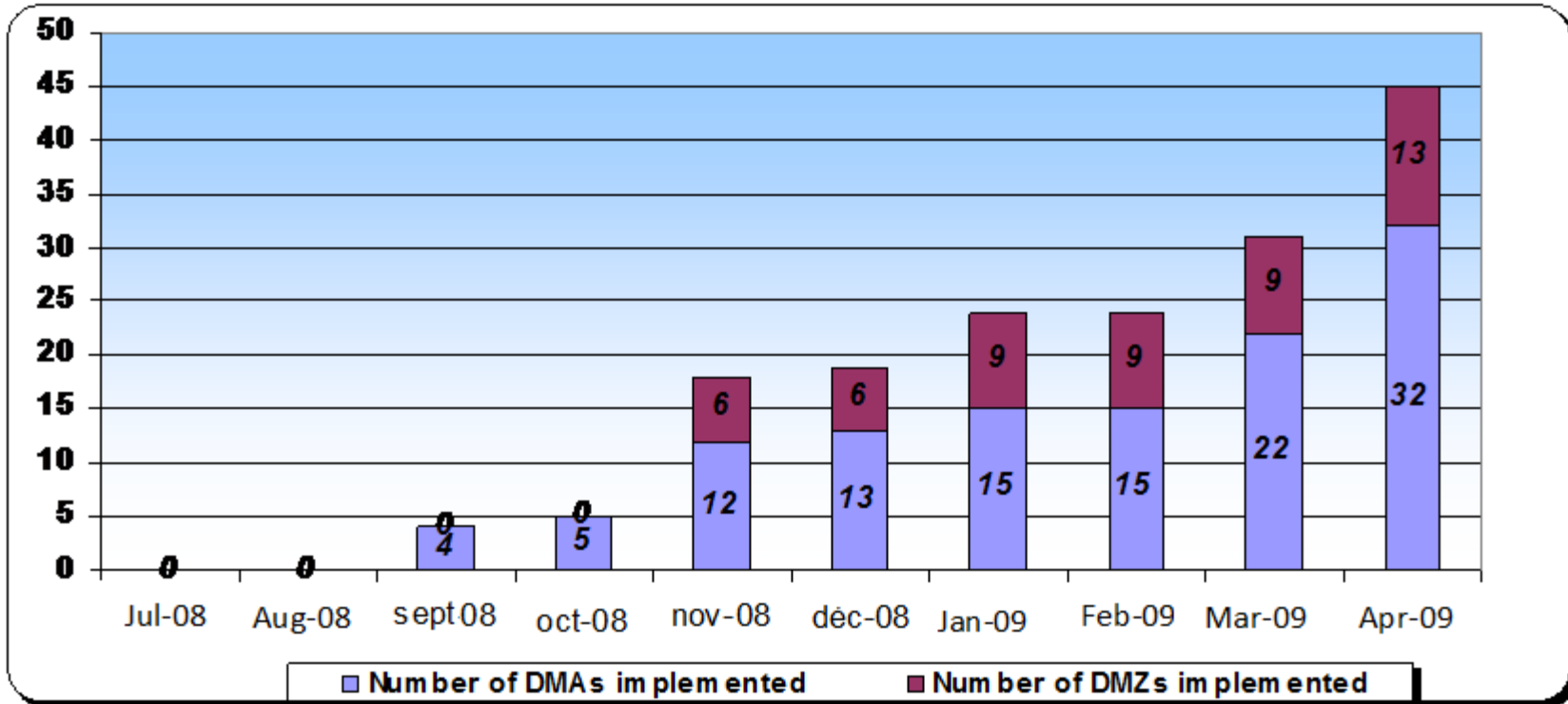
شركة المياه الوطنية
National Water Company
www.nwc.com.sa



Achievement: Implementation of DMAs and DMZs



شركة المياه الوطنية
National Water Company
www.nwc.com.sa



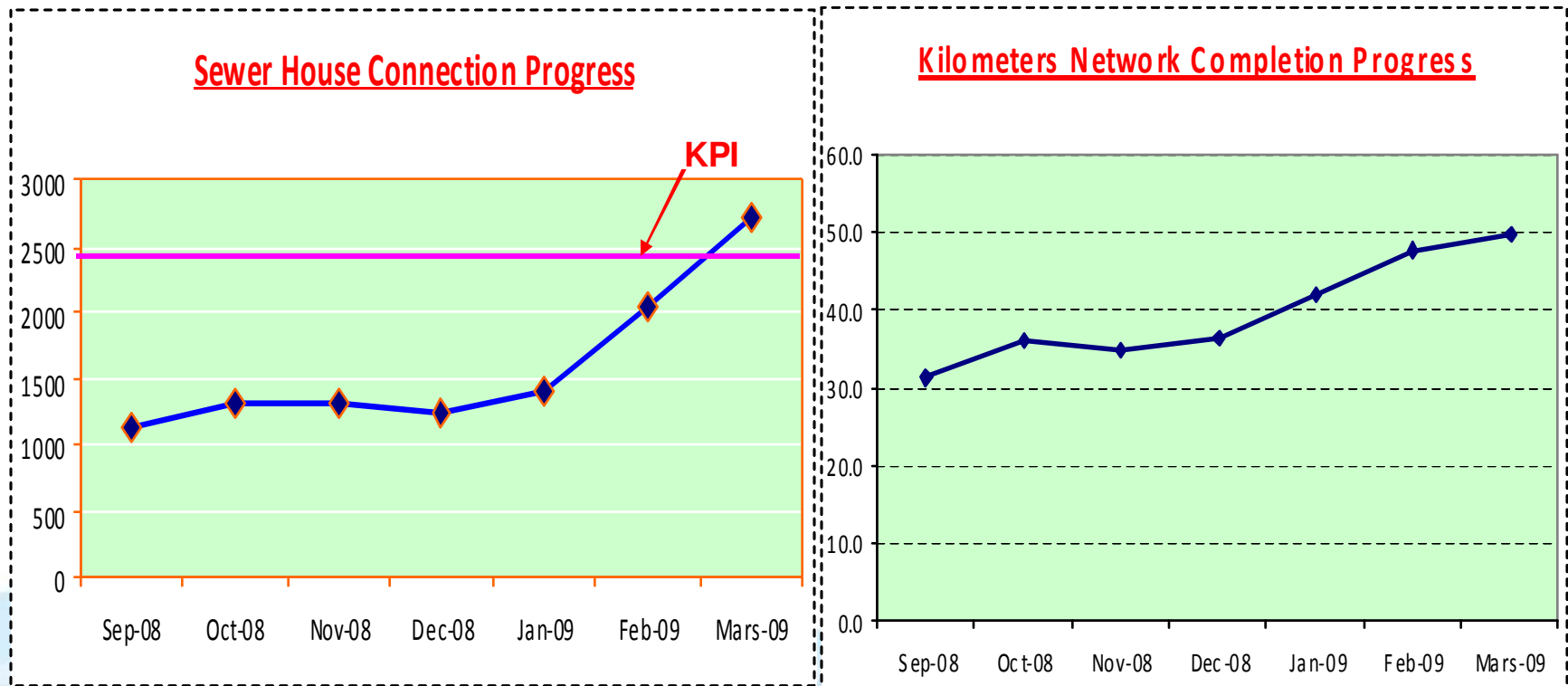
DMZs and DMAs implementation will cover Total service area of Riyadh city.

This would benefit in Monitoring the leakages and in extending 24x7 continuity of service to new areas.

Achievements

SEWER PROJECTS

1. Increase monthly progress in term of house connections and length of network completed



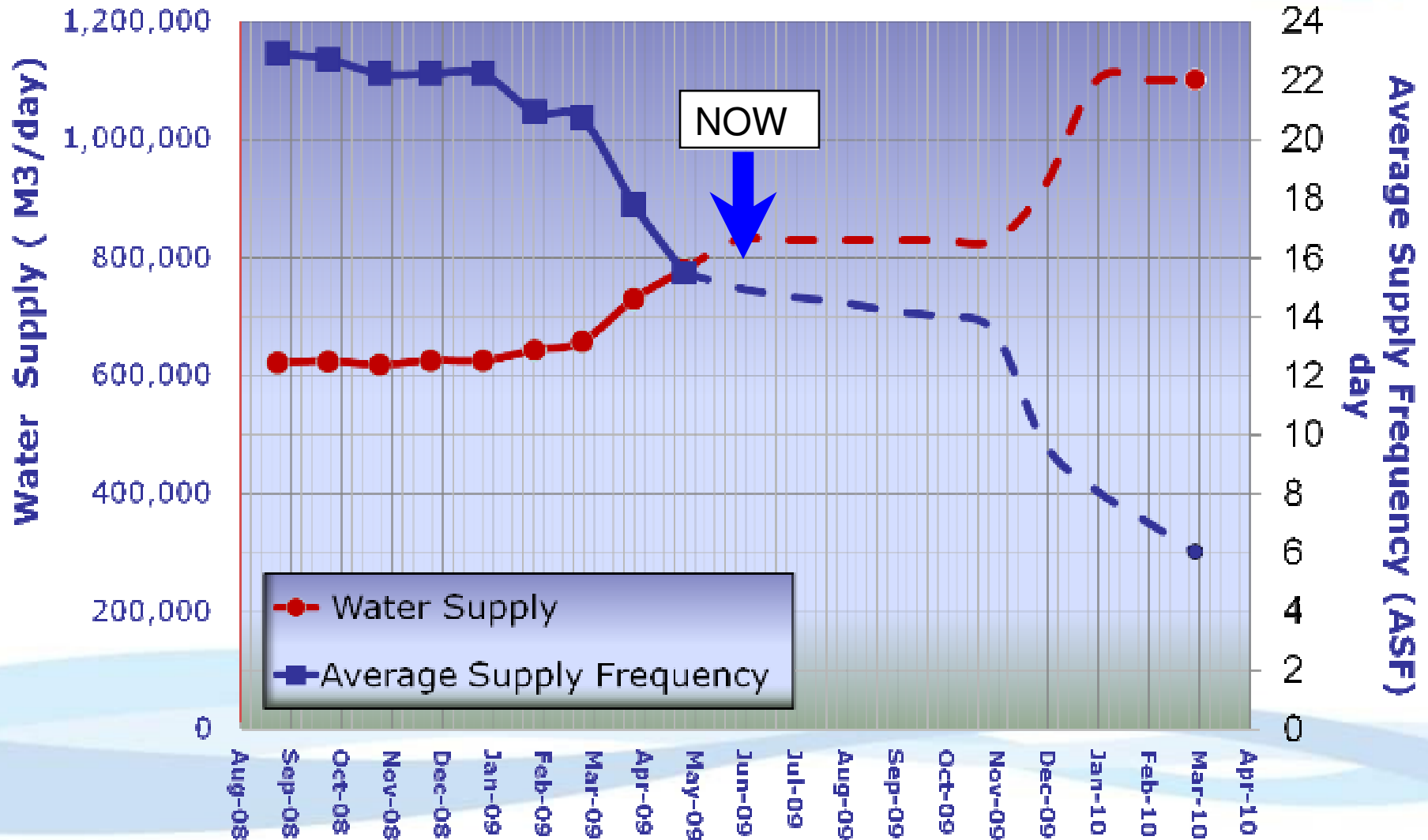


شركة المياه الوطنية
National Water Company

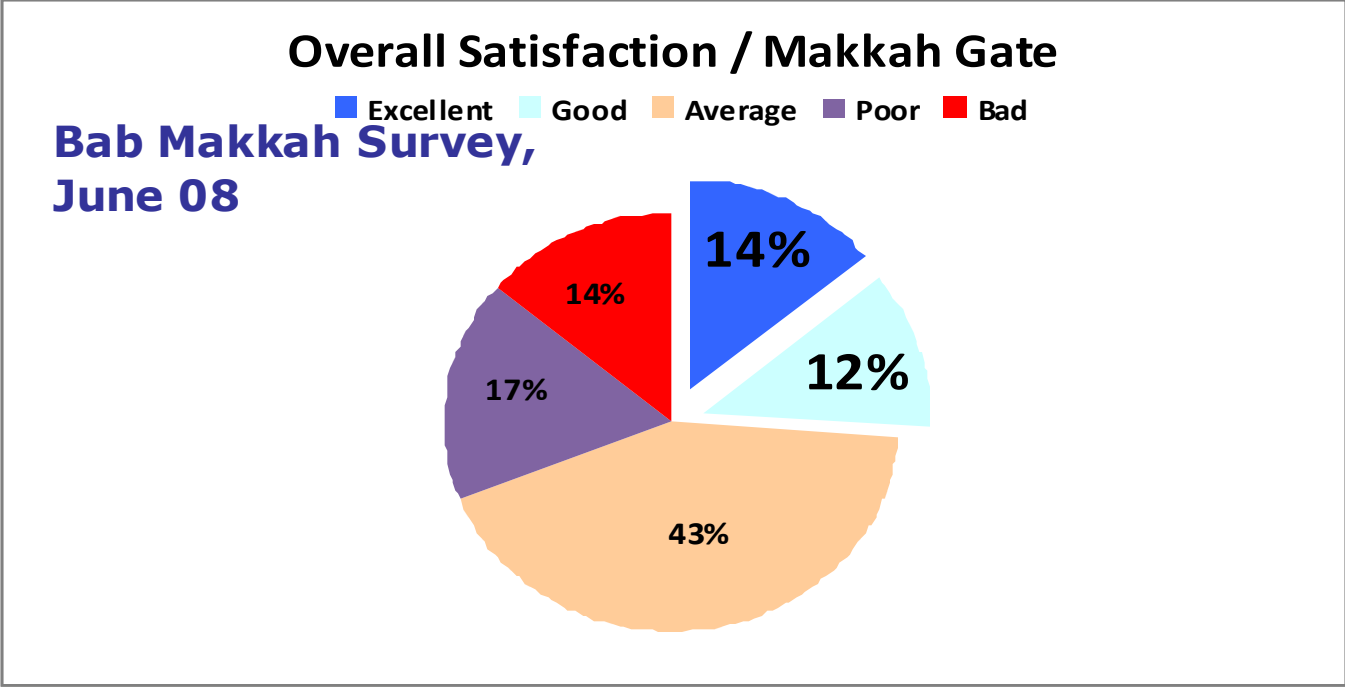
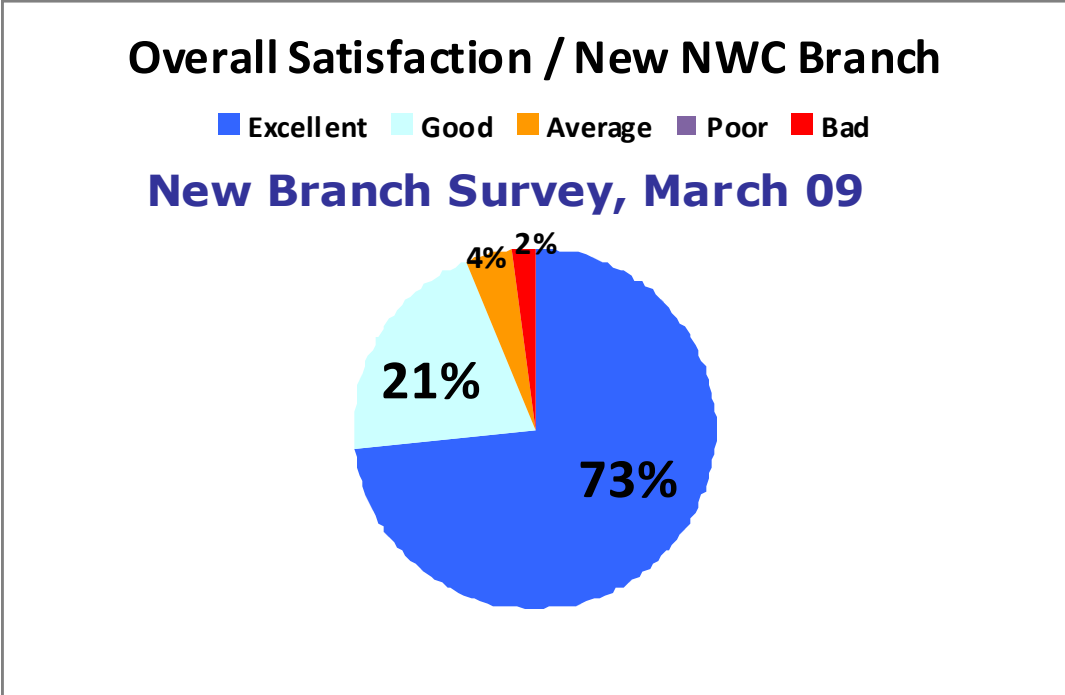
www.nwc.com.sa

Jeddah Business unit Accomplishments

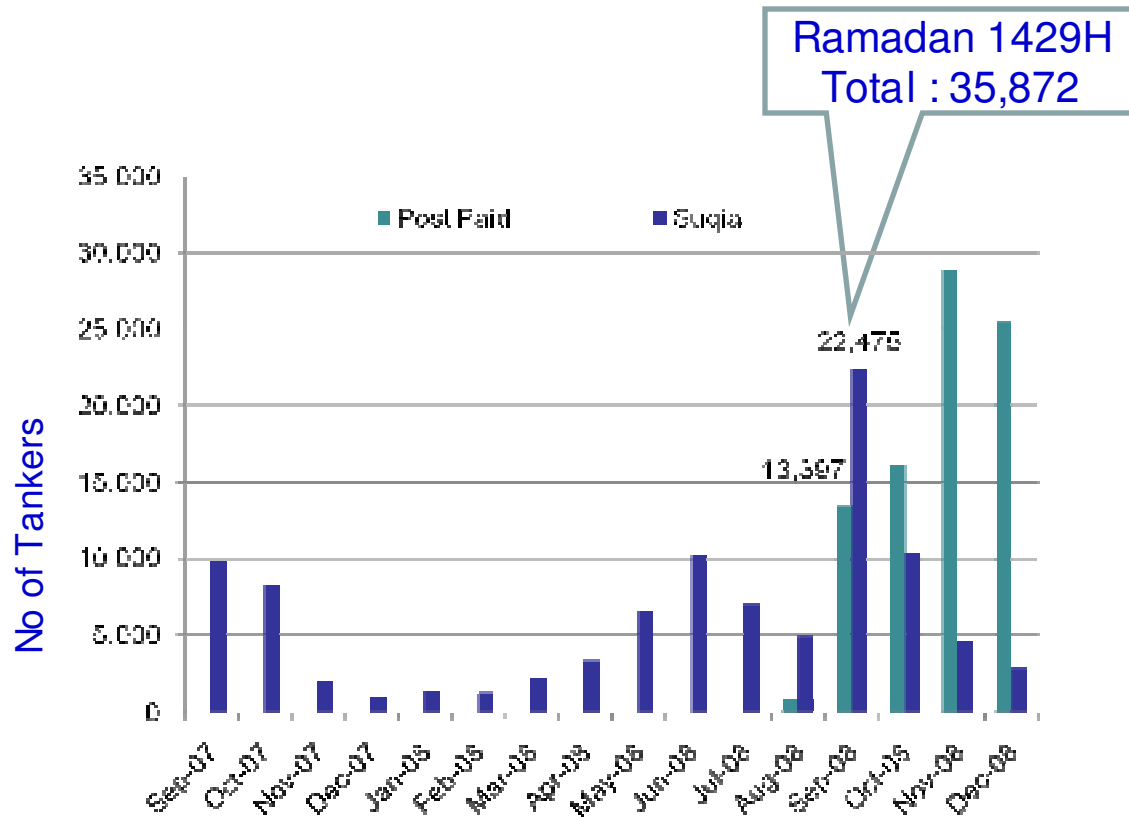
Water Rationing Improvement - Jeddah



Customer Satisfaction survey



Suqia and Post-paid Services - Jeddah



* Post paid service was launched on 9th of August,2008 as a pilot Test



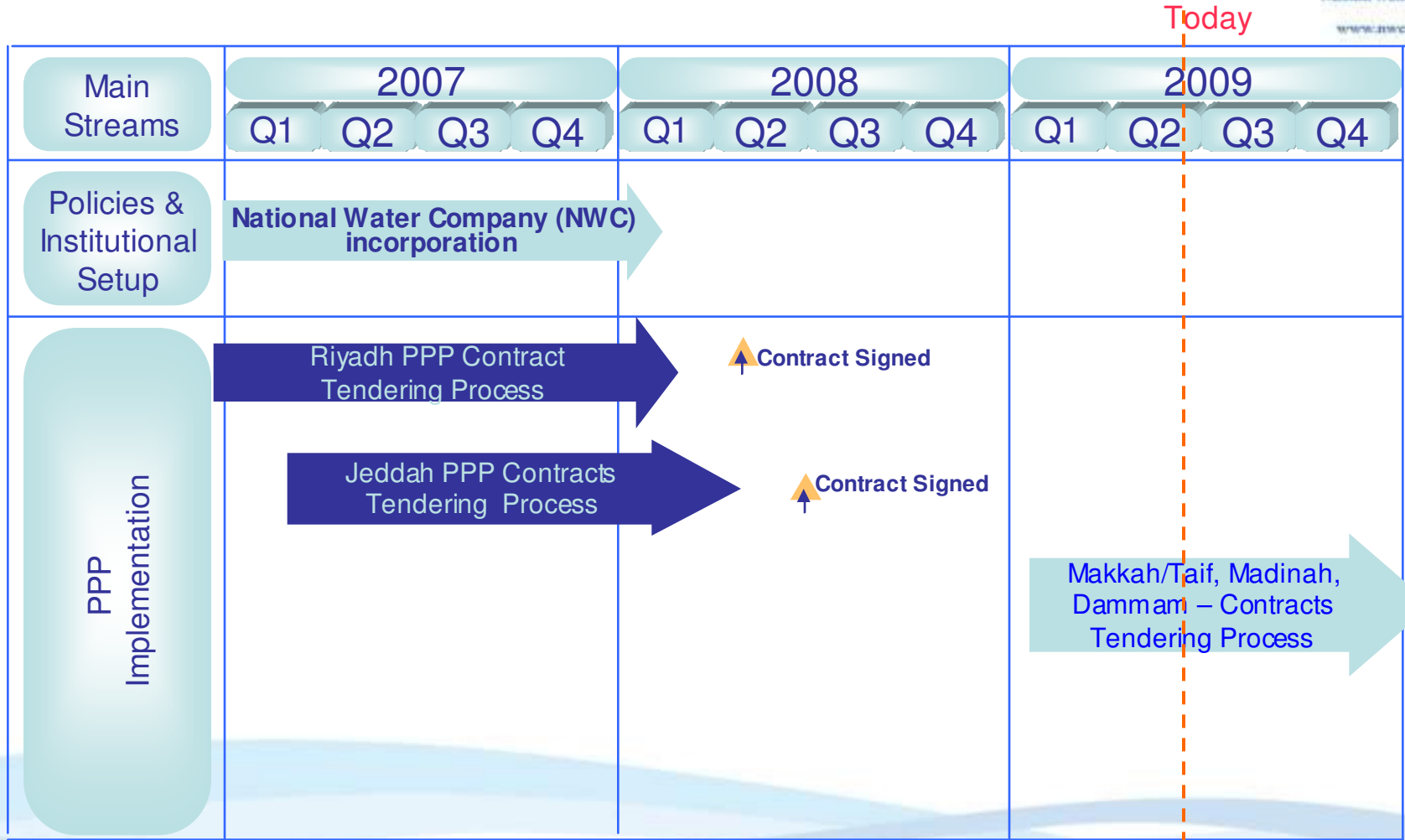
شركة المياه الوطنية
National Water Company
www.nwc.com.sa

1. Introduction
2. NWC Accomplishments
3. Progress of Management Contracts
4. Business Opportunities



Privatization – Roadmap

Potable Water Network & Sewage Collection



Cities Targeted for privatization



شركة المياه الوطنية
National Water Company
www.nwc.com.sa

City	Population	% of KSA population	Daily potable water supply (M3/day)	% of KSA total potable water supply	Status
Riyadh	4,583,764	18.35 %	1,403,293	28 %	Finalized
Jeddah	3,068,485	12.29 %	626,173	12 %	Finalized
Greater Dammam	1,203,839	4.82 %	528,445	11 %	Consultants Appointed Tendering process will start soon
Madinah	994,175	3.98 %	281,333	6 %	
Makkah	1,424,954	5.71 %	201,530	4 %	
Taif	771,123	3.09 %	116,184	2 %	
Buraida & Onaizah	567,427	2.27 %	189,111	4 %	
Khamis mushayat & Abha	642,821	2.57 %	67,362	1%	Under Study
Tabuk	507,495	2.03 %	79,842	2 %	
Jubail ,Al-Hofuf & Al mubarraj	869,660	3.49 %	255,411	5 %	
Yanbu	244,730	0.98 %	68,407	1 %	
Total (15 cities)	14,878,473	59.58 %	3,817,091	76.17 %	

Management Contract



Objectives

- Improve operational efficiency for instant reduction in water leakage , Continuity of water supply, improve revenue collection, billing & metering, training, customer services, Coverage, etc
- **Major Scope of performance based Management Contract Services :**
 - 6 to 7 years Performance based Management Contract
 - Water production & Treatment, Distribution and Wastewater services
 - NRW reduction
 - Customer services improvement
 - Training Program for Employees
 - Implementation of IT systems (GIS, SCADA, CRM, AMR Asset Management)
- **Performance standards & incentive KPIs**
 - Target performance standards
 - Incentive KPIs
 - Quick Wins--Performance bonus for implementing within a period of 12 to 24 months)



شركة المياه الوطنية
National Water Company
www.nwc.com.sa

- 1. Introduction**
- 2. NWC Accomplishments**
- 3. Progress of Management Contracts**
- 4. Business Opportunities**



PPP Targeted Cities



شركة المياه الوطنية
National Water Company

City	Population	% of KSA population	Avg. potable water supply (M3/day)	% of KSA total potable water supply	Status
Riyadh	4,583,764	18.35 %	1,403,293	28 %	Management Contract commenced – July 2008
Jeddah	3,068,485	12.29 %	626,173	12 %	Management Contract commenced – Sep 2008
Dammam & Khobar	1,203,839	4.82 %	528,445	11 %	Consultancy Contracts to begin from Feb 2009
Madinah	994,175	3.98 %	281,333	6 %	
Makkah	1,424,954	5.71 %	201,530	4 %	
Taif	771,123	3.09 %	116,184	2 %	Management Contracts from Oct, Dec 2009 and Mar 2010.
Buraida & Onaizah	567,427	2.27 %	189,111	4 %	Consultancy - June 2010 Management - July 2011
Khamis mushayat & Abha	642,821	2.57 %	67,362	1%	Consultancy - June 2010 Management - Apr 2011
Tabuk	507,495	2.03 %	79,842	2 %	Consultancy – Feb 2013
Jubail ,Al-Hofuf & Al mubarraj	869,660	3.49 %	255,411	5 %	Management - Dec 2013
Yanbu	244,730	0.98 %	68,407	1 %	Consultancy – Oct 2011 Management - Aug / Dec 2012
Yanbu	244,730	0.98 %	68,407	1 %	Consultancy – Feb 2013 Management - Mar 2014
Total (15 cities)	14,878,473	59.58 %	3,817,091	76.17 %	

Progress of Management Contract

(Greater Dammam, Madinah & Makkah)



City	Population	% of KSA population	Daily potable water supply (M3/day)	% of KSA total potable water supply
Greater Dammam	1,203,839	4.82 %	528,445	11 %
Madinah	994,175	3.98 %	281,333	6 %
Makkah	1,424,954	5.71 %	201,530	4 %

City	Pre-Qualification	Tentative date for RFP Release	Tentative date for awarding Management Contract
Greater Dammam	July 2009	Sep 2009	Will be completed by 2010 in a phased manner
Madinah		Nov 2009	
Makkah		Jan 2010	

More than seven leading international water operators have already expressed their keen interest to participate in the tendering process

Business Opportunities

in Water, Wastewater & TSE



- PPP contracts – Management / O & M of urban water & sewage operations in major cities
- Infrastructure requirements in major cities under privatization
- Consultancy and technical studies opportunities
- ICT – Implementation of ERP and technology solutions
- Building New wastewater treatment plants on Build Own Operate (BOO) basis in major cities
- Rehabilitate, operate & transfer of existing wastewater treatment plants
- Re-use of treated water and sludge on commercial basis



Project Concept

Wastewater Treatment Plants



- The Project comprises a mix of “brownfield” and “greenfield” WWTP assets
- NWC is the off-taker of treated water
- NWC will participate in equity in the project company (SPV)
- Assets will be transferred to the relevant Project Company (SPV)
- Greenfield projects will be financed by the project company
- Sewage Treatment Agreement : 25 years



Opportunities in Wastewater Treatment Plants (Riyadh and Jeddah Cities)



City	Location	Brownfields (M3/Day)	Greenfields (BOO) (M3/Day)
Riyadh (1,100,000 M3/Day)	Al-Kharj Road (Package – 1)	2 X 100,000	1 X 100,000
	Al-Hayer (Package – 2)	1 X 400,000	1 X 400,000
Jeddah (990,000 M3/Day)	Al-Khumrah	4 plants (Total 490,000)	
	Airport	1 X 250,000	1 X 250,000

These plants will be tendered in a phased manner.

Makkah, Madinah & Greater Dammam RFPs will be issued after completion of Riyadh & Jeddah city WWTP tendering process





شركة المياه الوطنية
National Water Company

www.nwc.com.sa

Business Opportunities *in TSE Reuse*



Concept of TSE reuse



- NWC has started a major initiative for utilization of treated sewage effluent (TSE) for non potable purposes in major cities like Riyadh, Jeddah, Medina & Makah cities
- NWC has identified major market in these cities for TSE reuse in industries, Commercial district cooling, Public parks, Landscaping, Agriculture etc,
- The benefits of this reuse includes
 - ✓ Reduction in environmental impact
 - ✓ Helps in managing the demand on potable water
 - ✓ Helps in commercial sustainability of NWC
 - ✓ Protection of natural ground water resources (non-renewable water resources)
- At present in KSA, only around 18 % of the treated sewage effluent is reused

Potential TSE Demand in Riyadh City



Sector	Expected TSE Demand (M3/day)
Agriculture	1,350,000
Environmental	300,000
Commercial	220,000
Industrial / District cooling	120,000
Municipal	100,000
Total	2,090,000

Grand total : 2,090,000 M3/day

Interested Parties



- Communications with the interested parties have been established , potential customers having the interest to sign Treated water supply agreement:-
 - Saudi Aramco (20,000 m³/day)
 - Madden (10,000 m³/day)
 - Bareq Al-Madden (5,000 m³/day)
 - The Knowledge Economic City (65,000 m³/day)



Proposed Partnership Structure



NWC has already signed four MOUs with Veolia, ACWA Power, Suez & Jeddah Amana(Municipality) for TSE reuse
In near future NWC is looking forward to sign similar MOUs with Riyadh Amana(Municipality)

Formation of TWO Joint Venture companies for TSE Reuse in Riyadh & Jeddah Cities

- NWC will participate in equity in the project company
- Take or Pay agreements with NWC with an agreed unit price
- TSE off-take from the respective treatment plant
- Build and operate required infrastructure for transportation
- Identify potential customers and sign agreements
- Develop marketing strategy and Mechanism for TSE reuse
- Identify potential customers for sludge reuse

Conclusion



- NWC has implemented a unique privatization model in major cities and will roll out to 15 cities during next 3-5 years.
- NWC has brought in international operators and confident of achieving rapid and effective operational improvements and offer high class customer services.
- NWC is making best efforts for knowledge transfer, Manpower training, skills development and employee culture change to fit commercial orientation
- We believe this business model will be the dominant model for the region
- We at NWC strongly believe that the business model we adopted will benefit NWC to be a regional leading water utility in the next 3 -5 years.
- We are happy and look forward to sharing our experience of successful PPP models and the lessons learnt in the journey so far with other regional water utilities.





شركة المياه الوطنية
National Water Company

www.nwc.com.sa

Thank You