



# **Cities of the Future Partnership**

## ***Urban Water Strategy for Turkey***

**Kayseri and Trabzon  
Workshops  
July, 2010**



**International  
Water Association**

# KAYSERI



# Kayseri, Turkey

1.2 Million Current, Growing to ~ 2.2 to 2.5 Million



IWA  
The World Water Institute  
SKATMK  
KASKI  
GELECEĞİN ŞEHİRLERİ TÜRKİYE  
KAYSERİ ÇALIŞTAYI  
26-28 Temmuz 2010  
NOVOTEL / KAYSERİ  
CITIES OF THE FUTURE TURKEY  
KAYSERİ WORKSHOP  
July 26-28, 2010  
NOVOTEL / KAYSERİ



ibis hotel ibis

Kayseri participants





Microsoft Office Outlook Ink

[www.kayseriliyim.com](http://www.kayseriliyim.com)

# ERCIYES MOUNTAIN

# Existing Water Supply

- Groundwater coming from Erciyes Mountain with very good quality
- Existing Basin within Developed Urban Area
- New Well Field Being Developed Outside Existing Urban Area.
- Groundwater level has decreased 4 m in last 30 years

# Water Distribution System and Wastewater Treatment

- Major Rehabilitation of Water Supply and Distribution System Largely Completed.
- Non-revenue water is 16 %.
- Combined Wastewater and Stormwater System
- Wastewater Treatment Plant ~ 10 Years Old in good condition, overloaded.

# Kayseri Strategy Components

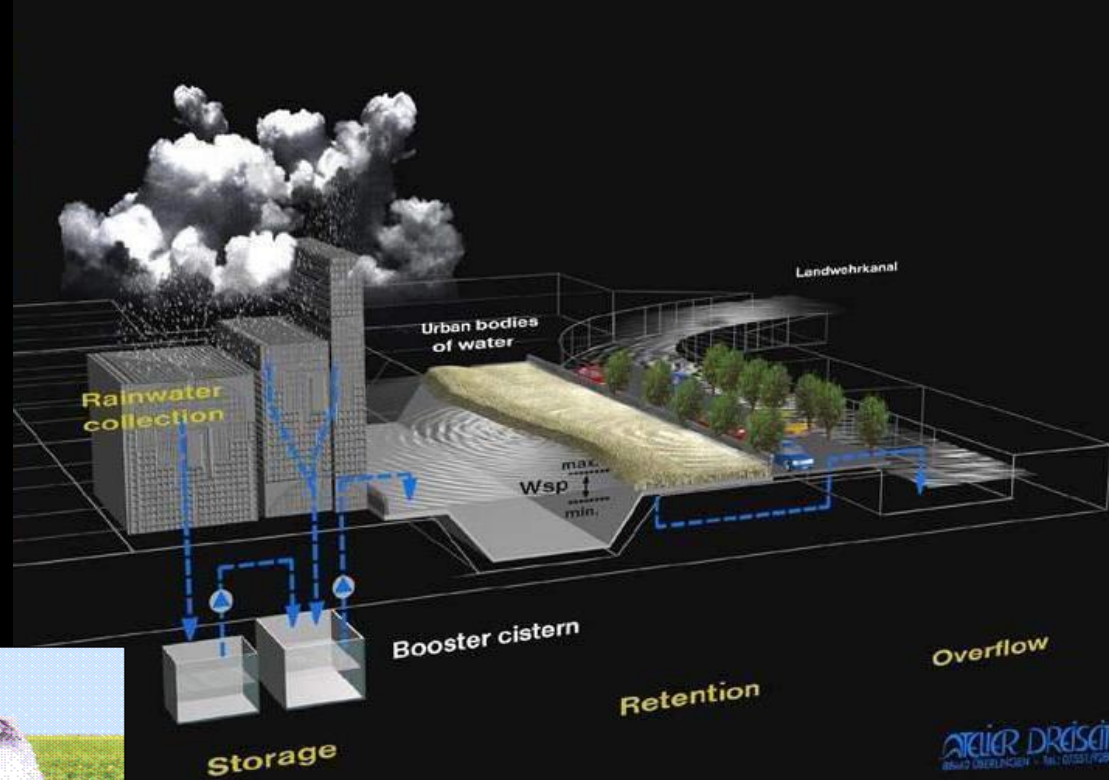
1. Multiple aquifer strategy
2. Multiple grades of water
3. Wastewater reuse and energy recovery  
– linked to solid waste solution
4. Revised strategy for urban drainage  
-- separation of stormwater and wastewater  
-- drainage canals as urban amenities
5. Water as a central feature of Kayseri urban design



# 1. Multi-aquifer strategy

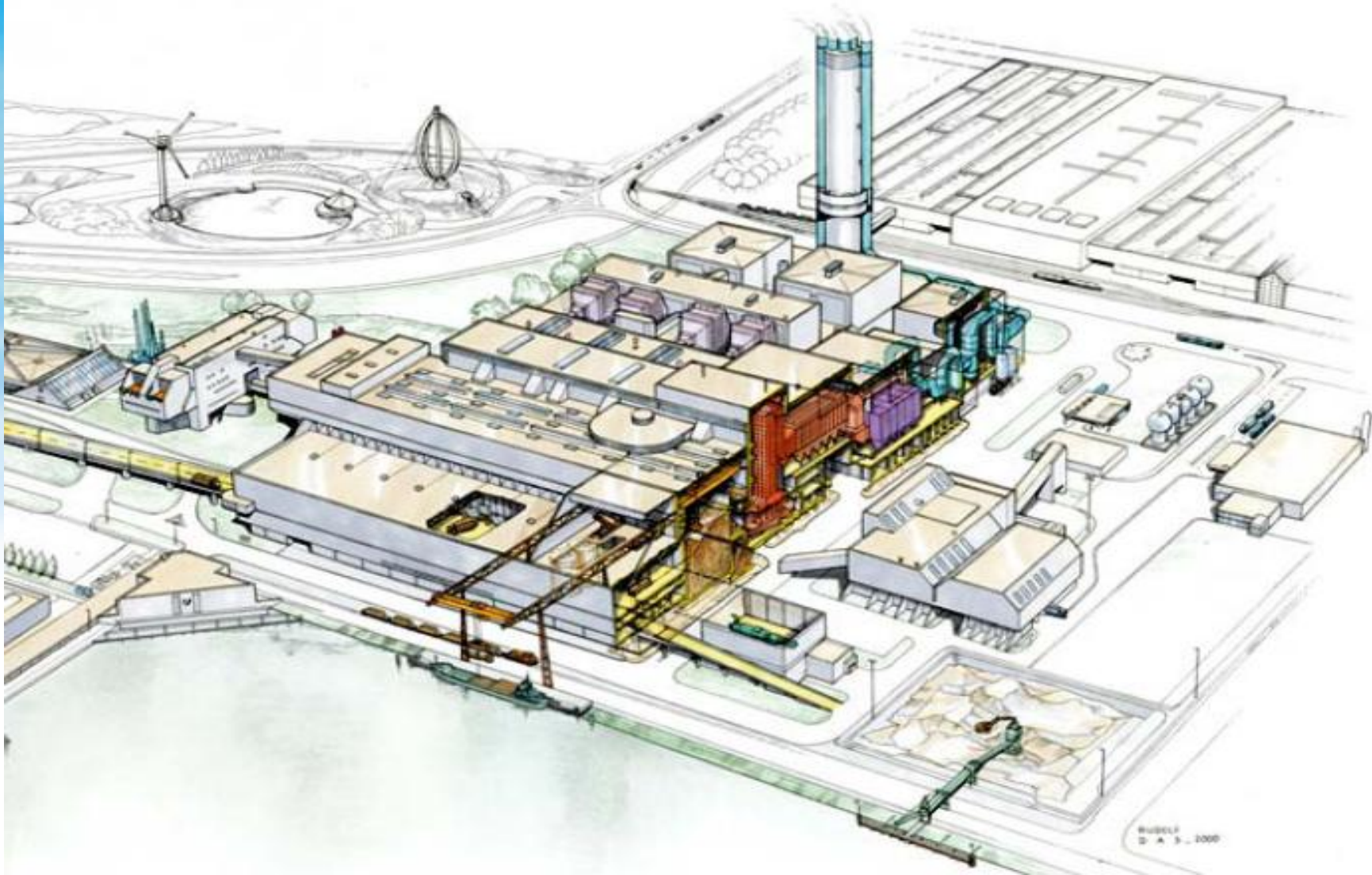


# 2. Multi-grades of water



ATELIER DREISCHIL  
BUND UBERLEBEN - MAL GUTSICHER

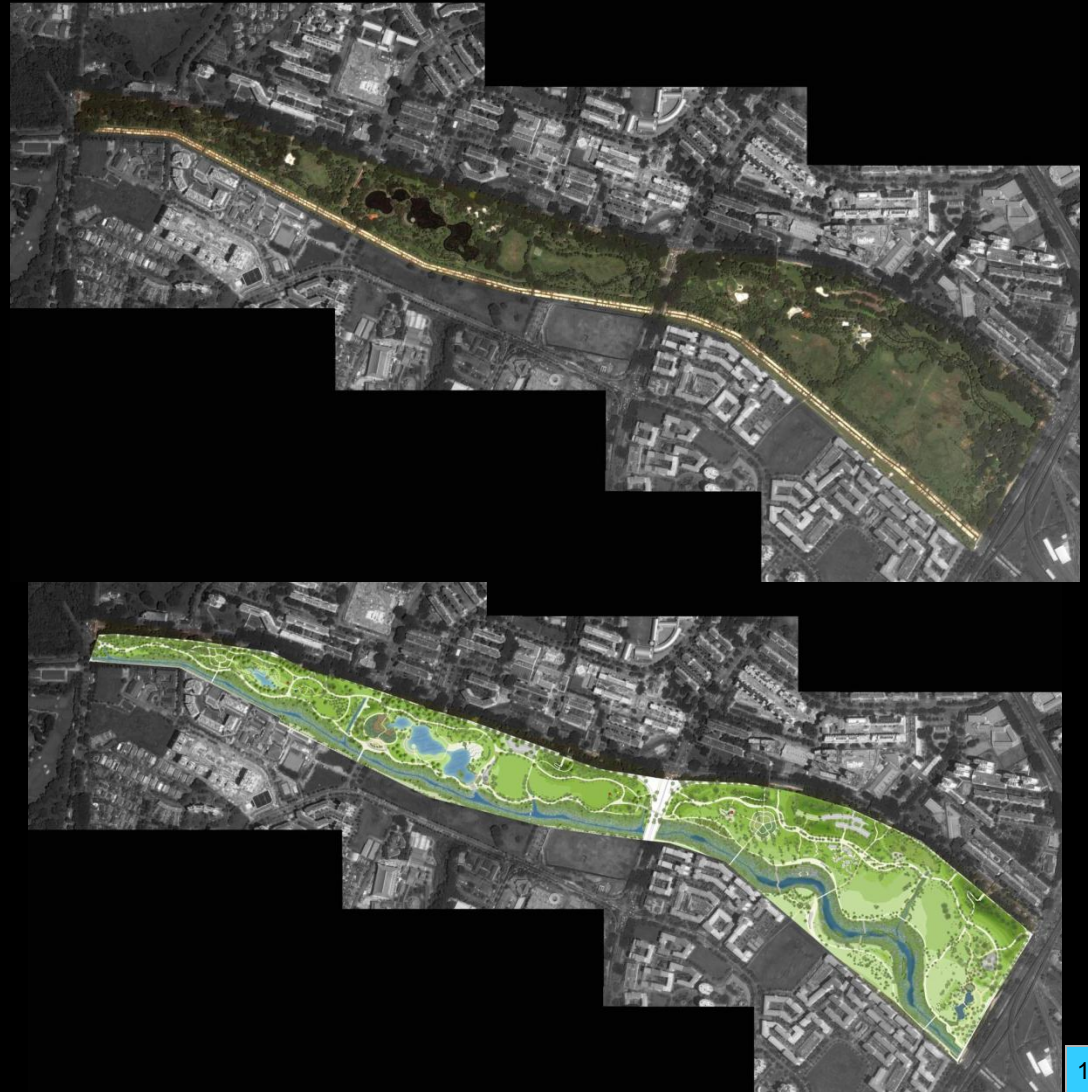
### 3. Water reuse and energy recovery linked to solid waste solution



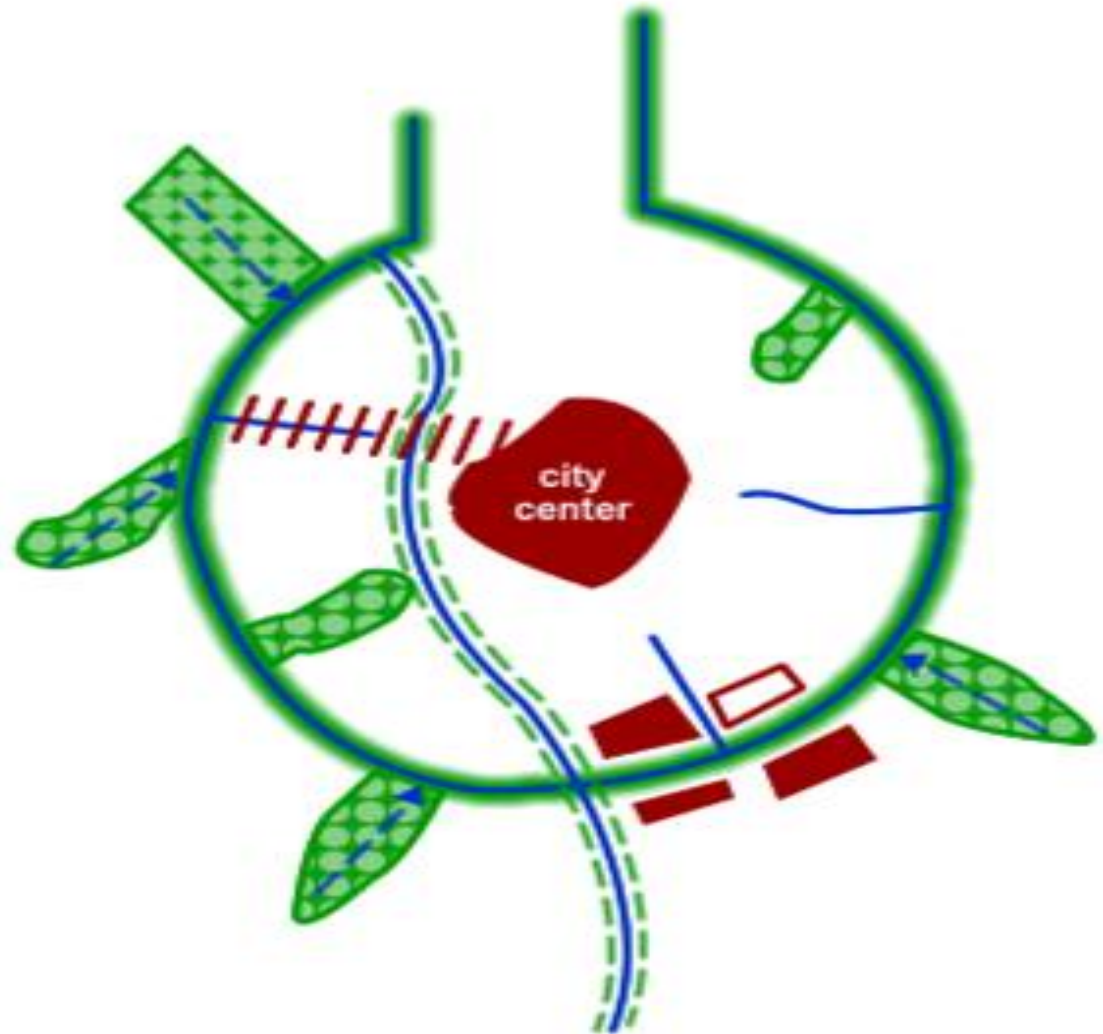
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# 4. Revised strategy for urban drainage



# 5. Water as central feature in city design



# Kayseri 2020/2050

- All water needs are met by supplies under the control of and managed by KASKI
- •Water supply is reliable in the face of drought and climate change
- •Water is a central and integrating feature of the City
- •Service levels exceed international norms and standards
- All resources (energy, nutrients, carbon) in the waste stream are productively used
- •KASKI is financially sound and is widely recognized as the best Water Management Utility in Turkey

# TRABZON



# Trabzon





750.000 Current , growth plan is uncertain  
High fluctuation between summer and winter





CITIES OF THE FUTURE, TURKEY

TRABZON WORKSHOP

Trabzon participants

# Water Distribution System and Wastewater Treatment

- Surface Water From River Flowing Out of Upland Areas. (Rainfall 800 mm/yr)
- New Dam Being Constructed to Provide Storage and Drought-Proofing (along with Hydropower). Conventional water Treatment Plant to be expanded.
- Water Distribution System Old. Only Portion of Wastewater Collected in Combined System.
- Existing Deep Sea Discharge System being rehabilitated.
- No Wastewater Treatment.

# ATASU DAM



# Existing Drinking Water Treatment System



# Trabzon Strategy Components

1. Expand concepts for distribution system renewal
2. Position the city for a smart strategy for wastewater
3. Build buildings and stormwater projects that are resilient

# 1. Expand concepts for distribution system renewal



## 2. Position the city for a smart strategy for wastewater





# 3. Build resilient buildings and stormwater projects



# Trabzon Vision: 2050

By 2050 Trabzon is a metropolitan government that:

- Plans for population growth and infrastructure and maintains and manages the systems well
- Public knows and appreciates the water cycle, how it works, how it affects their lives and their responsibilities in the water cycle

# Briefing to Mayor



Teşekkür ederim!  
Thank you!

