



# Introduction of APCWS' Urban Water Security Learning Week

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# Background



# Background

Urban water security issues draw more and more attention in the Asia-Pacific region due to the fast economic growth and urbanization progress, especially for the developing countries.

- Limited water resources
- Deteriorating water quality
- Water and wastewater infrastructures lack of capacities, outdated and ineffective treatment technologies and inefficient operation and management systems.
- China has accumulated numerous successful experiences and meantime lessons



# Objectives

- To introduce the up-to-date approaches in dealing with urban water security issues in China
- To showcase the application of these approaches in urban water and wastewater infrastructures in China
- To discuss the major current issues in dealing with urban water security issues in the developing countries and the possible solutions
- propose follow-up actions after the learning week for the future cooperation to improve the urban water security in the region



# Target Groups



# Target Groups

- About 30 participants from the government, industry, academic and financial sectors of the developing countries from the Asia-Pacific region
- About 15 participants from Chinese environmental protection agencies, enterprises, research institutes and universities



# Topics



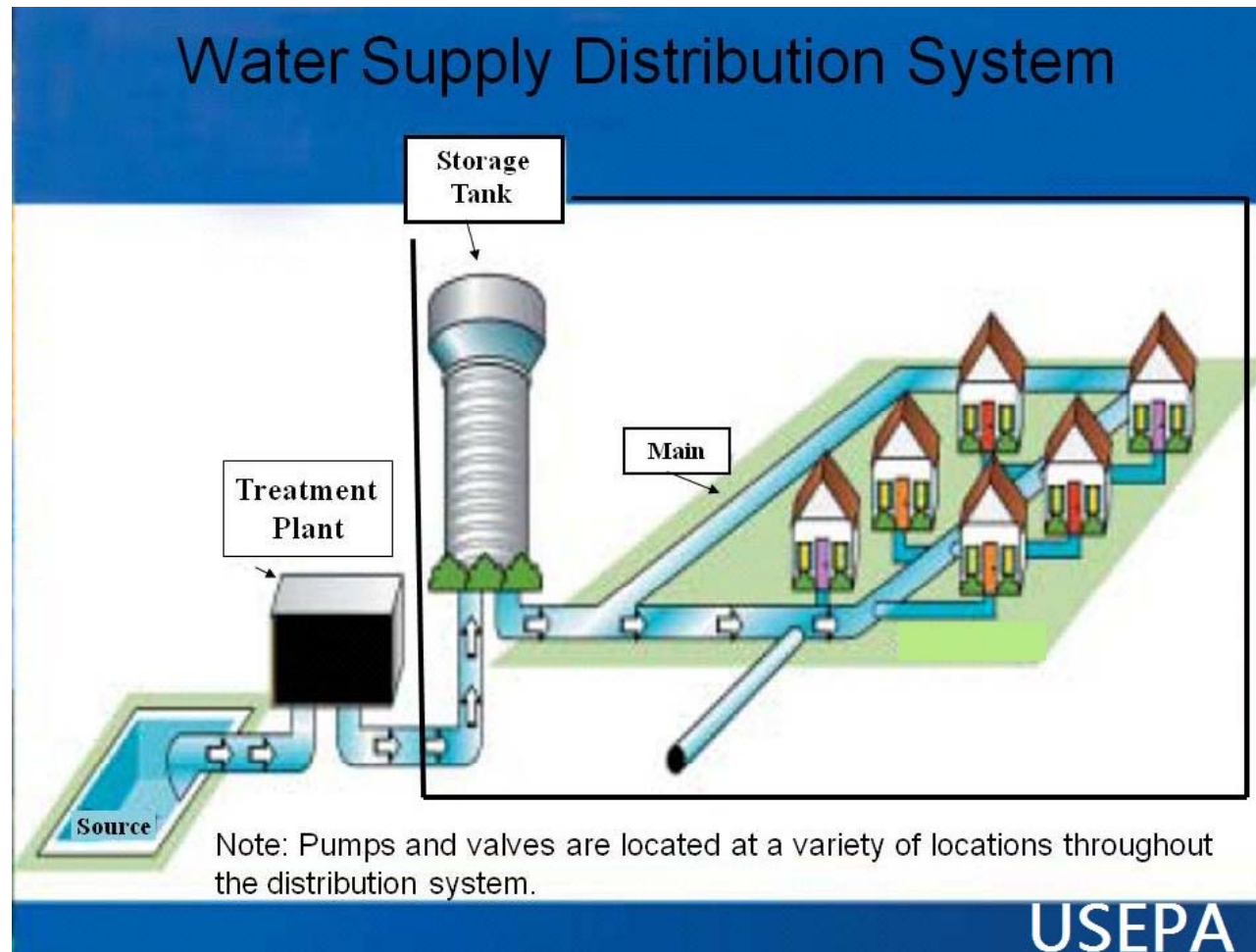


# Topics

- Urban water supply security issues
- Risk management for urban drinking water
- Micro-pollutants in water
- Urban wastewater treatment technology
- The current wastewater treatment situation in China
- Urban stormwater control and management
- Water industry in China
- International management approaches for water pollution prevention and control
- Water sensitive cities framework



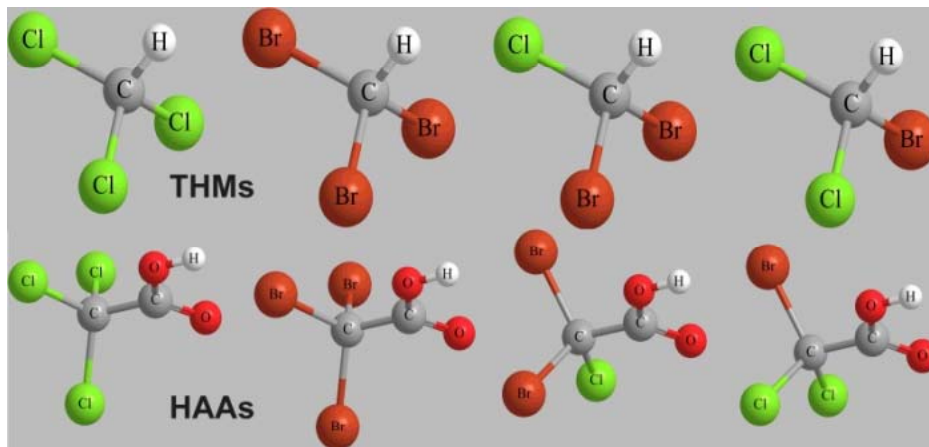
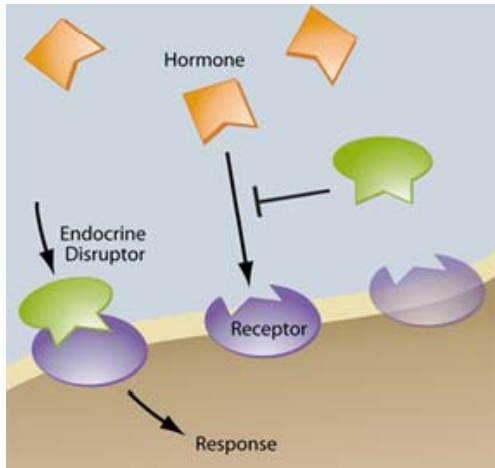
# Urban water supply security issues



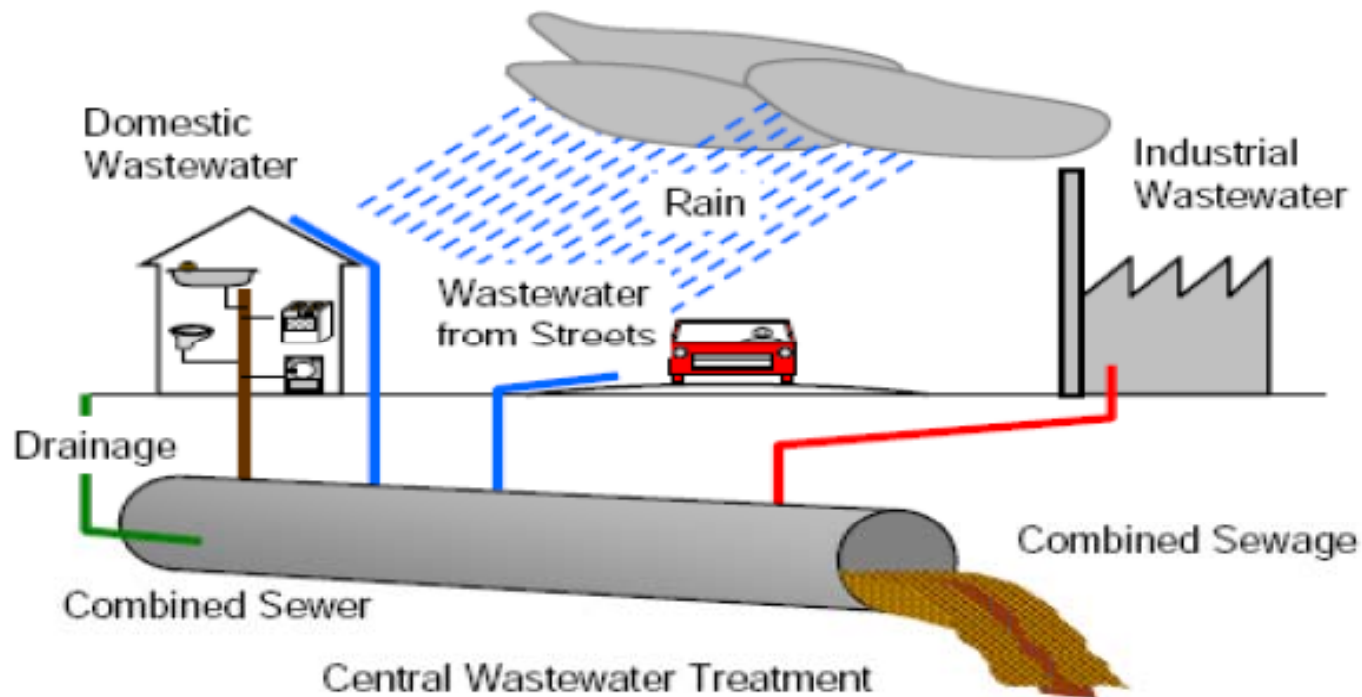
# Risk management for urban drinking water



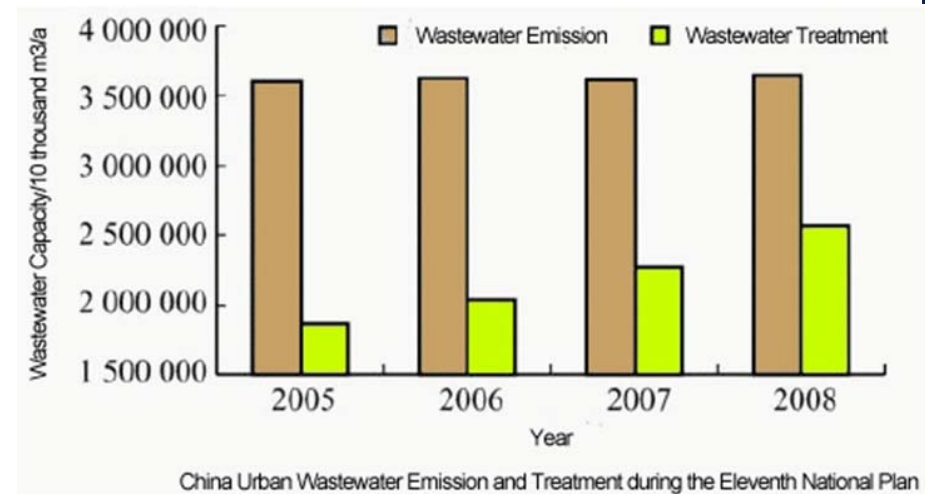
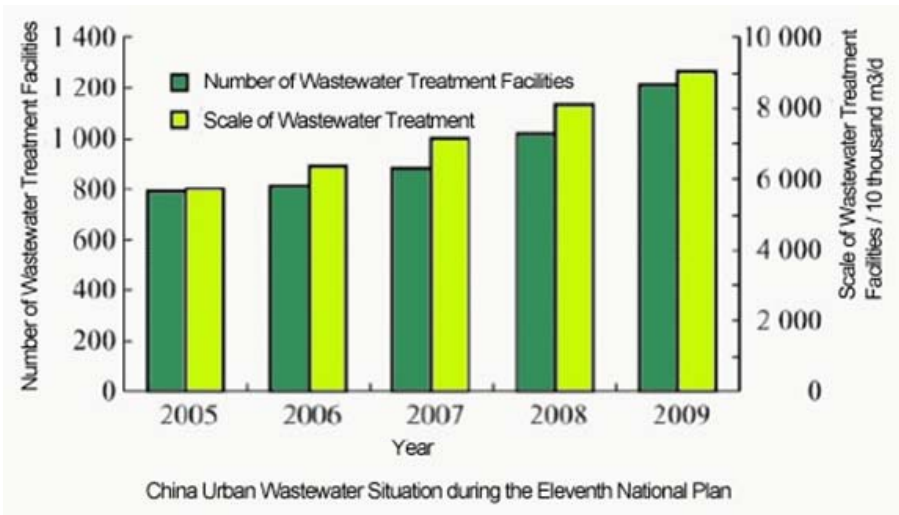
# Micro-pollutants in water



# Urban wastewater treatment technology



# The current wastewater treatment situation in China



# Urban stormwater control and management



# Water industry in China

## Water Plant and Piping System Construction and Expansion Plan for before 2010

Province	Newly Built or Expanded Plants		Piping System	
	Capacity (1,000 m <sup>3</sup> /day)	Investment (\$ billion)	Length (km)	Investment (\$ billion)
Beijing	138.9	0.9	196.4	0.4
Hebei	420.3	0.4	257.6	0.3
Henan	696.9	0.6	570.1	0.6
Jiangsu	2,155.8	3.0	1,083.9	3.0
Shandong	519.3	0.3	170.1	0.3
Tianjin	380.4	0.9	66.4	1.4

Source: PRC, Ministry of Water Resources, Municipal Water Resource Planning Group of the South to North Water Diversion Project, "Introduction on the Planning for Municipal Water Resource of the South to North Water Diversion Project" (April 23, 2003); Chinese text available at [www.cws.net.cn/journal/cwr/200301B/07.htm](http://www.cws.net.cn/journal/cwr/200301B/07.htm).

## Construction Plan for Municipal Wastewater Treatment Plants

Year	Budget (\$ billion)	Number of Plants	Capacity (million m <sup>3</sup> /day)
2001–2008	1.17	78	3.785
2009–2013	0.77	57	2.905
Total	1.94	135	6.690

Source: PRC, State Environmental Protection Administration, "The Progress on the Wastewater Treatment on the Eastern Route of the South to North Water Diversion Project" (December 27, 2002); Chinese text available at [www.zhb.gov.cn/eic/652460104116862976/20030103/1036571.shtml](http://www.zhb.gov.cn/eic/652460104116862976/20030103/1036571.shtml).





# International Experiences

- International management approaches for water pollution prevention and control
- Water sensitive cities framework



# Technical Tours

- Indoor storm simulation system
- Constructed wetland in Beijing Olympic Forest Park
- Recycled wastewater treatment plant in the campus of Tsinghua University



# Expected Outcomes



# Expected Outcomes

- The cooperation and communication in the water sector between China and other developing countries in the Asia-Pacific region could be enhanced.
- Relevant issues of urban water security, including related planning on urban water and management of wastewater infrastructures, the cooperation between government and the private sector will be explored.



# Expected Outcomes

- Leaders from water industry could learn about the experiences of their Chinese counterparts in operation and management of water and wastewater infrastructures, e.g. selection of cost-effective treatment technologies, establishment of an efficient management system, etc.
- Researchers could get to know more about the current research trends in China on the urban water security issues and exchange their thoughts and ideas with Chinese researchers.
- Future actions for further collaboration to improve the urban water security in the region could be proposed.



THANK YOU FOR  
YOUR ATTENTION...



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