

# Towards Sustainable Water Management in Taipei - Sponge City

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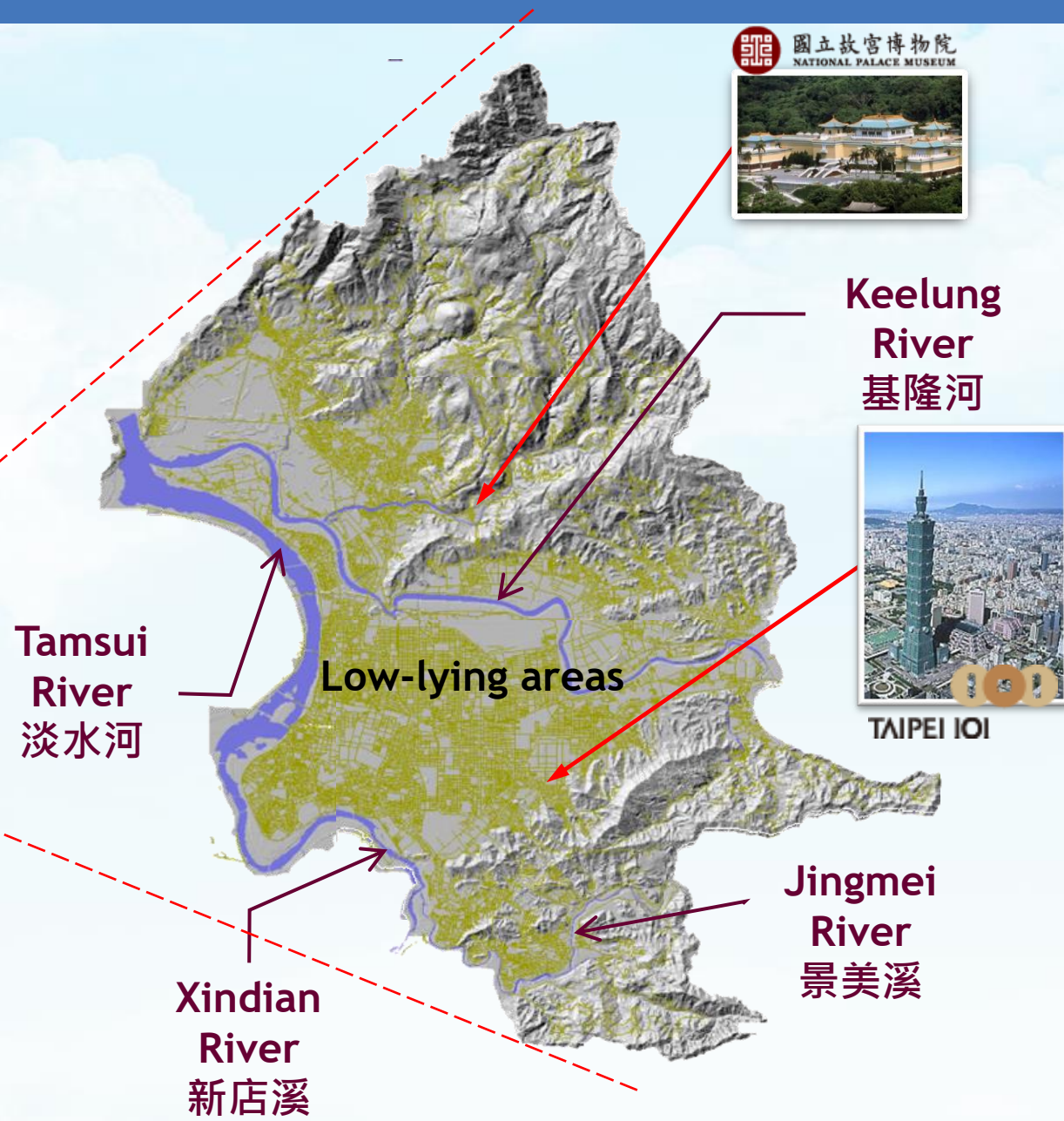
19 June 2018





## Taipei City

- Location : North Taiwan
- Population : 2.7 million
- Area : 272 km<sup>2</sup>
  - 55% mountains
  - 45% plains
- Average annual rainfall :
  - 2,400 mm/yr. on the plains
  - 4,500 mm/yr. in the mountains



Keelung River  
基隆河



Tamsui River  
淡水河

Low-lying areas

Xindian River  
新店溪

Jingmei River  
景美溪

**Trunk Sewer: 47,762 m, 100% completed**  
**Secondary Sewer: 79,160 m, 97.6% completed**  
**Branch Sewer: 905,000 m, 90.6% completed**

- Service area: 125 km<sup>2</sup>
- Serving population: 3.5 million
- 3 Sewage Treatment Plants
- 14 interception stations
- 76.03% household connection rate by the end of Apr., 2018.

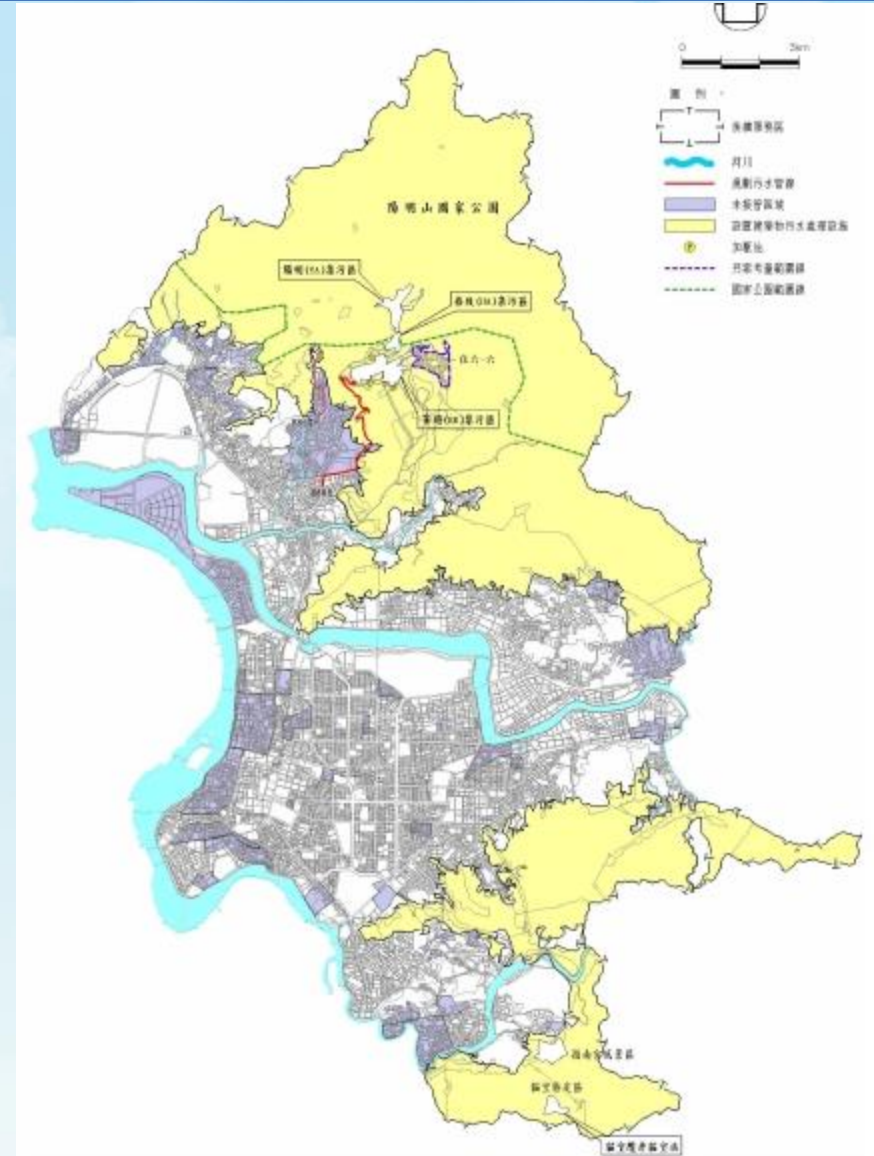


圖 7.4-2 臺北市未用戶接管大範圍區域



## Municipal Sewage Treatment System

➔ 2 million CMD treatment capacity

### Bali(八里) Treatment Plant

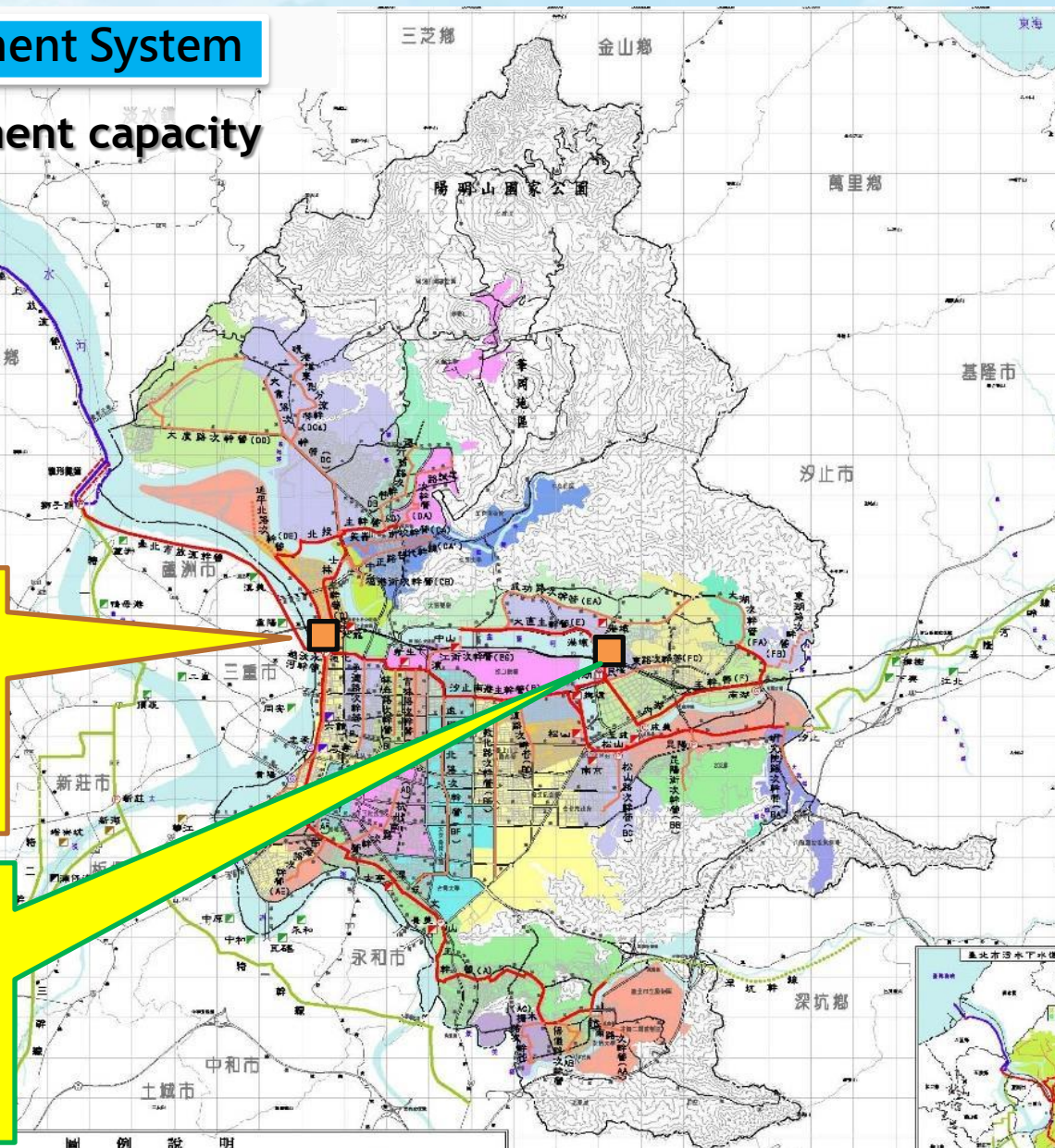
- Primary treatment  
1.32 million CMD

### Dihua(迪化) Treatment Plant

- Secondary treatment  
0.5 million CMD
- Reclaimed Water  
10 thousand CMD

### Neihu(內湖) Treatment Plant

- Secondary treatment  
0.24 million CMD
- Reclaimed Water  
20 thousand CMD





- Reclaimed Water
  - Dihua Treatment Plant: 10 thousand CMD
  - Neihu Treatment Plant: 20 thousand CMD
- Supply of secondary water for people's **livelihood** and **environmental** water use
  - Road cleaning, cooling
  - Park Road Tree Watering, Ecological Recharging
- Advocate large water users to use recycled water
- Environmental education and promotion of water resources



# Promoting Reclaimed Water



Cooling, Watering and Landscaping

Producing and collecting

Education and Participation



# Reduce, Reuse and Recycle of Energy and Resources in Municipal Sewage Treatment Plant

Sludge drying station/Heat Exchanger



Sludge before and after Dehydrated



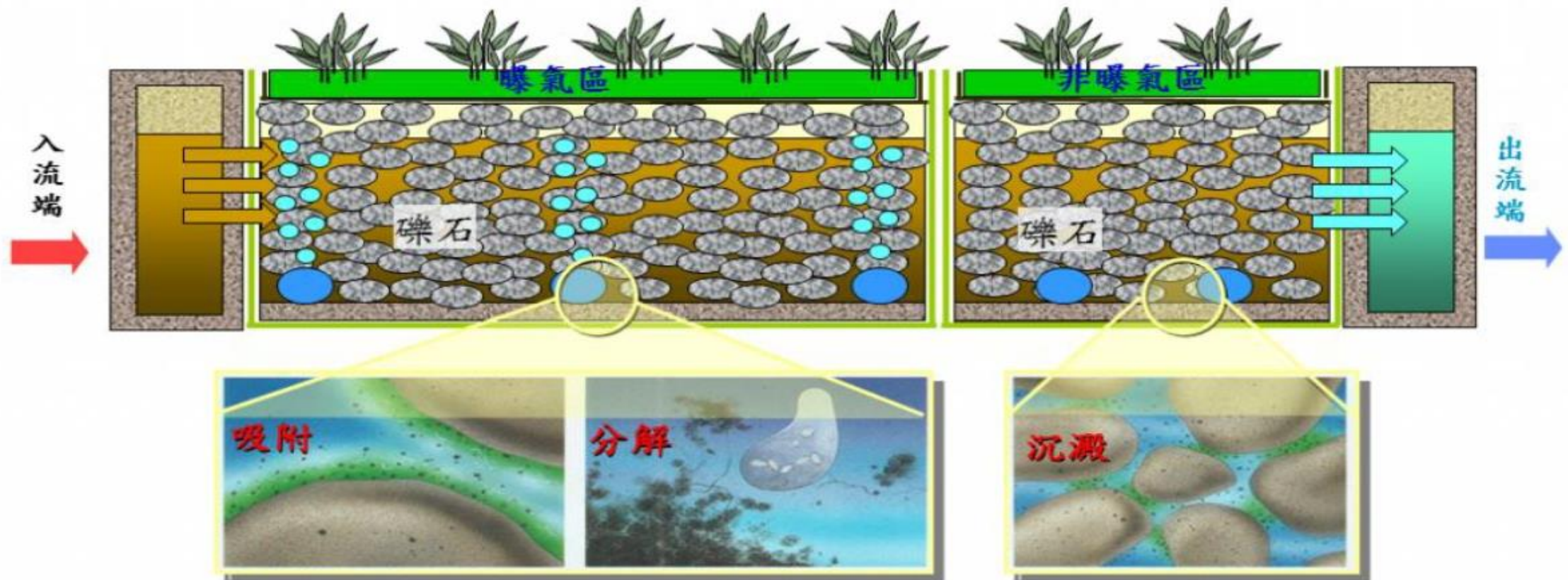
Trips of Waste to Landfill Reduced

Reuse



# On-site Sewage Treatment System

- Sewers difficult to reach the settlements in the mountains
- Build settlement type small sewage treatment facilities
- Adsorption → decomposition → settlement





## Decentralized Sewage Treatment System

- Underground MBR treatment system is used to share 20,000 CMD of wastewater sewage system
- Activated land assets, multi-target development
- Promote the use of reclaimed water resources
- Provide residents with ecological, hydrophilic and green open space





#### TOPICS

Smart Water Management	Flood Prevention, Smart Stormwater Management, Smart Water Supply Management, Datalogging and Management, Forecasting and Simulations Technology, Open Data, IoT
Green Infrastructure	Water Conservation and Infiltration Facilities, Garden Cities, Green Roofs, Restoring Urban Blue and Green, Urban Watershed Management
Circular Economy	Recycling Water Resources, Rainwater Capture and Reuse Systems, Reclaiming Water, Environmental Protection
Water Treatment	Wastewater Treatment, Purification Systems, Water Supply Systems, Water Quality Management



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**Important Date**

Jan 1, 2018  
Open Registration  
June 30, 2018  
Early-bird Closed







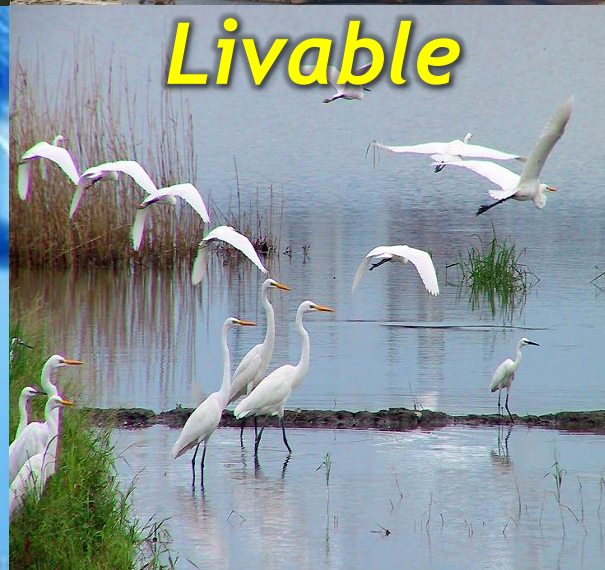
**Resilient  
Adaptive**



**Sustainable  
Reusing**



**Vibrant  
Livable**



***Thank you for Listening!***