

Anti-seismic Measures of Water Supply Facility in Great Taipei Area

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I .Forewords



✦ Chi Chi Earthquake → Damage in Taipei



✦ Chi Chi Earthquake

→ **Damaged segment of ϕ 2000mm steel pipe**






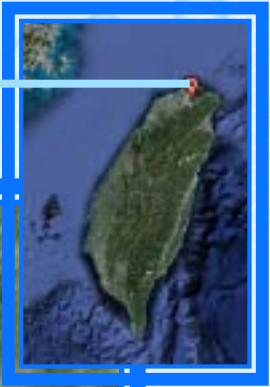
II .Present Disaster Preventing Preparation Actions

✦ Scope of Great Taipei Area

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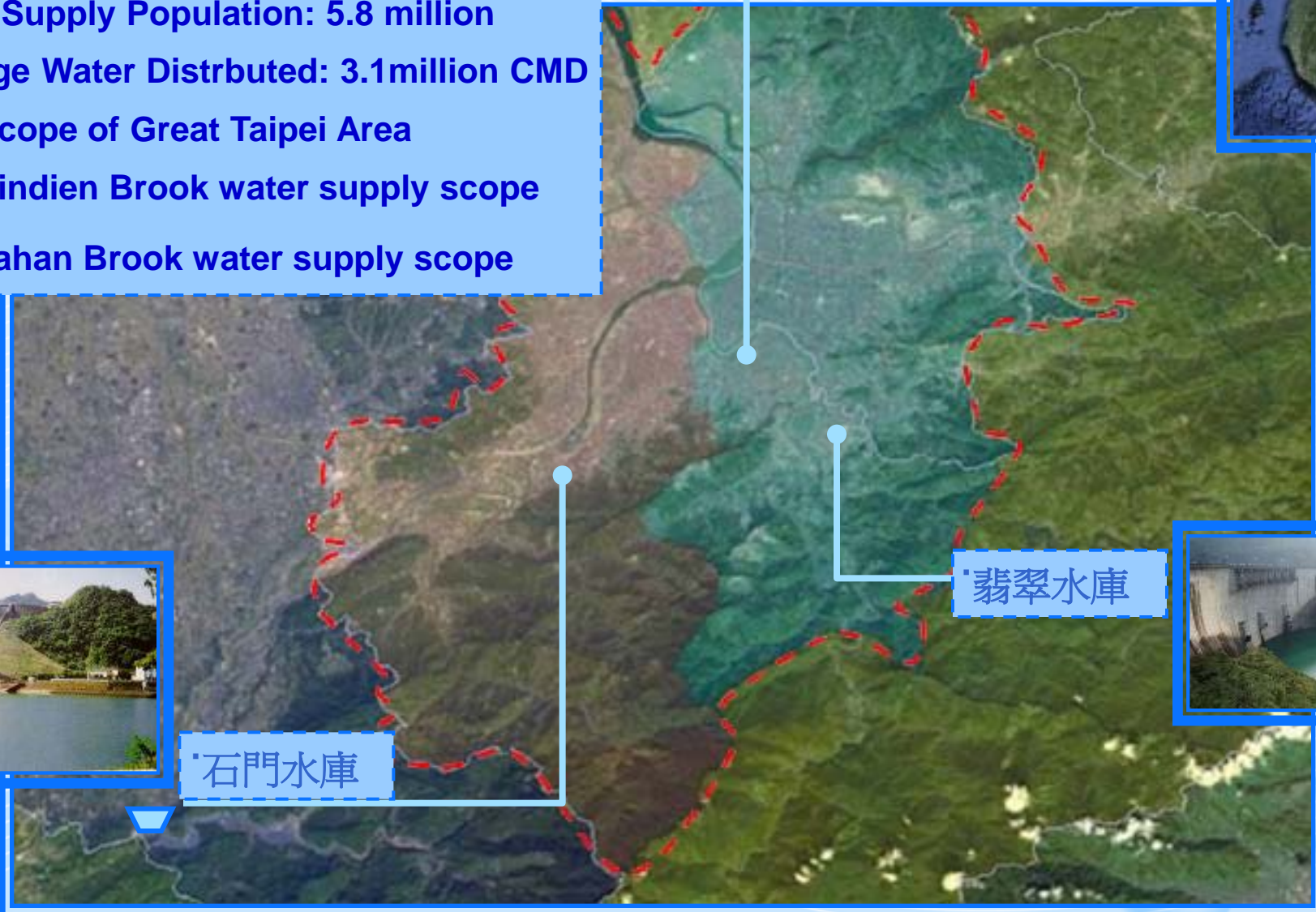
Water Supply Population: 5.8 million
Average Water Distributed: 3.1million CMD

-  Scope of Great Taipei Area
-  Sindien Brook water supply scope
-  Dahan Brook water supply scope



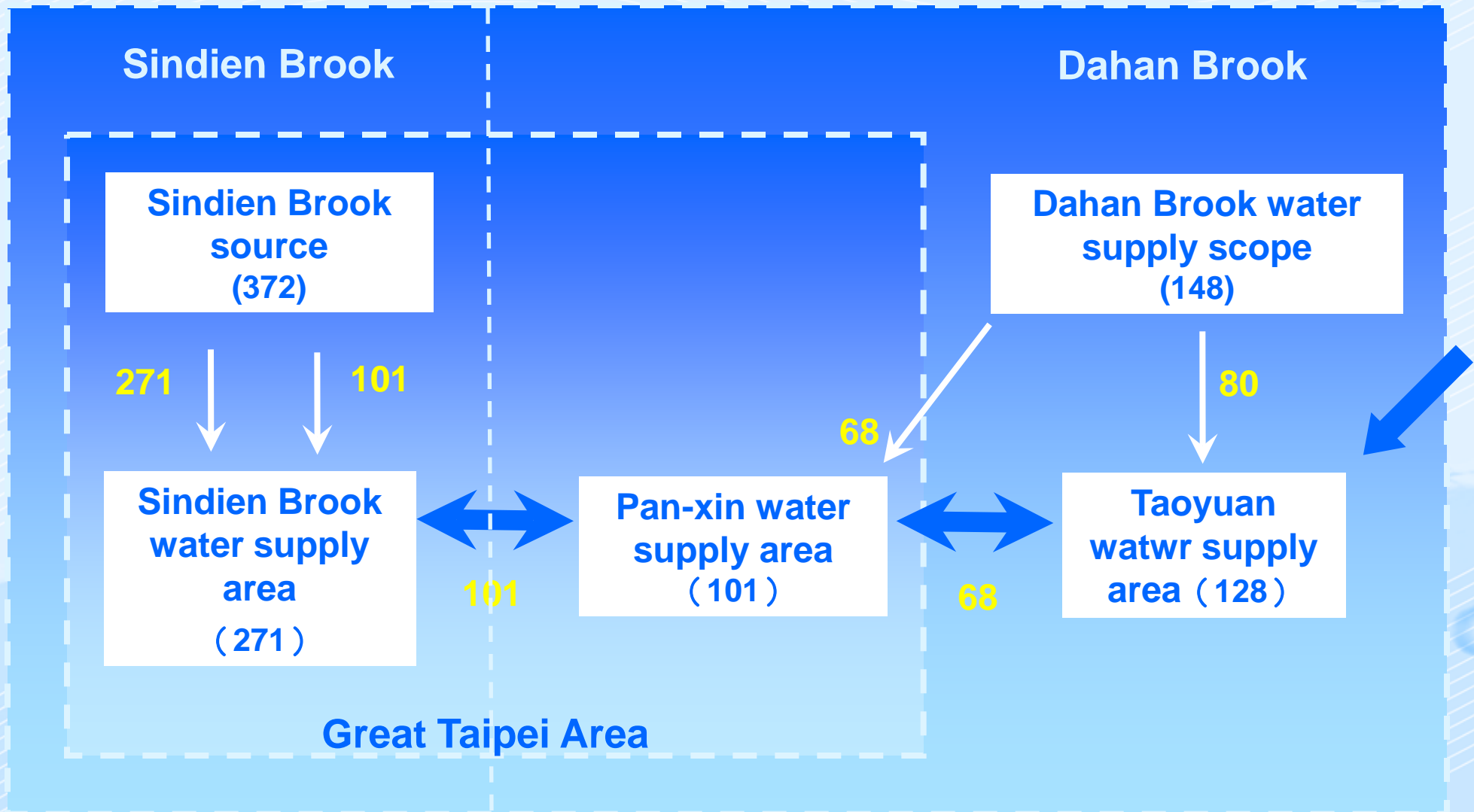
石門水庫

翡翠水庫



✦ Establish Cross Brooks Support Transmission System

(Unit: 10^4m^3)

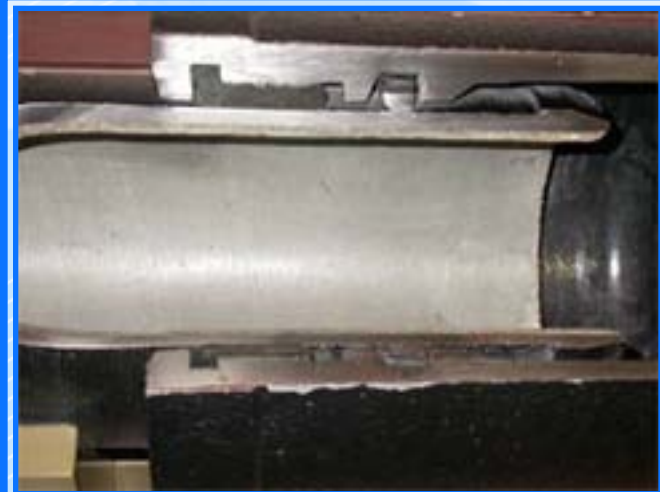


✦ Storage Emergency Materials



✦ Application Earthquake-proof Pipes

→ Earthquake-proof Restrained Joint of Ductile Iron Pipes



K type joint of ductile iron pipes

Push-on restrained joint DIP

Mechanical restrained joint DIP

Service Pipes Replace with Stainless Steel Pipes



✦ Disaster Preparation Reality and Actions (1)

Ψ Establish Supporting System

1. Install emergency power supply.
2. Construct the 2nd clear water trunk line.
3. 2nd raw water transmission trunk line.
4. Guandu water transmission trunk line.
5. Minsheng-Neihu water transmission trunk line.
6. Xinyi branch of 2nd clear water trunk line.

Under
planning,
design or
construction

✦ Disaster Preparation Reality and Actions (2)

Ψ Establish Redundant System

1. 5th Zhitan purification plant.
2. Minsheng boost station distribution pond.
3. 6th Zhitan purification plant.
4. Zhongxiao boost station distribution pond.
5. Anhua boost station.
6. Sanchung 2nd boost station distribution pond.

Under
planning,
design or
construction

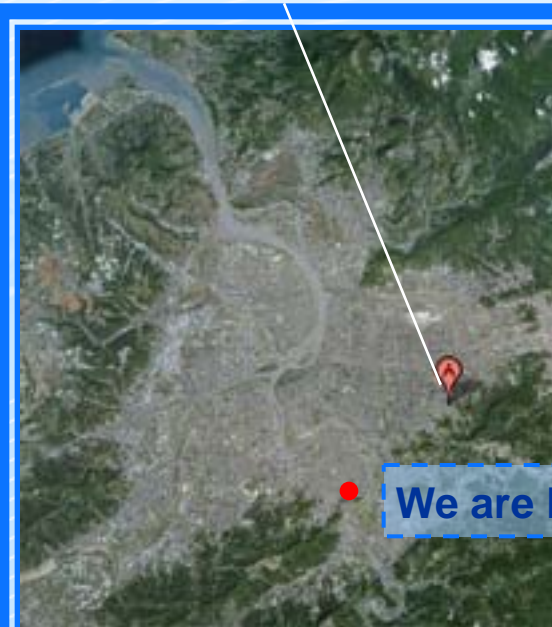
✦ Disaster Preparation Reality and Actions (3)

Ψ Fortify Emergency Countermeasures

1. Review Disaster Preventing Emergency Plan regularly.
2. Stock material and equipment needed for rescue and repair.
3. Establish Active disaster preventing organization, commanding and reporting systems.
4. Enter into Open Contract for rescue and repair with firms at ordinary times.
5. Establish strict water quality monitoring system.
6. Establish pipe and boost station monitoring system.
7. Prepare for the emergency Life-Supporting water supply.
8. Hold training and drills as well as providing guidance for disaster prevention.

III. Emergency Life-Supporting Water Supply Program

✦ Emergency Operations Center of Taipei City



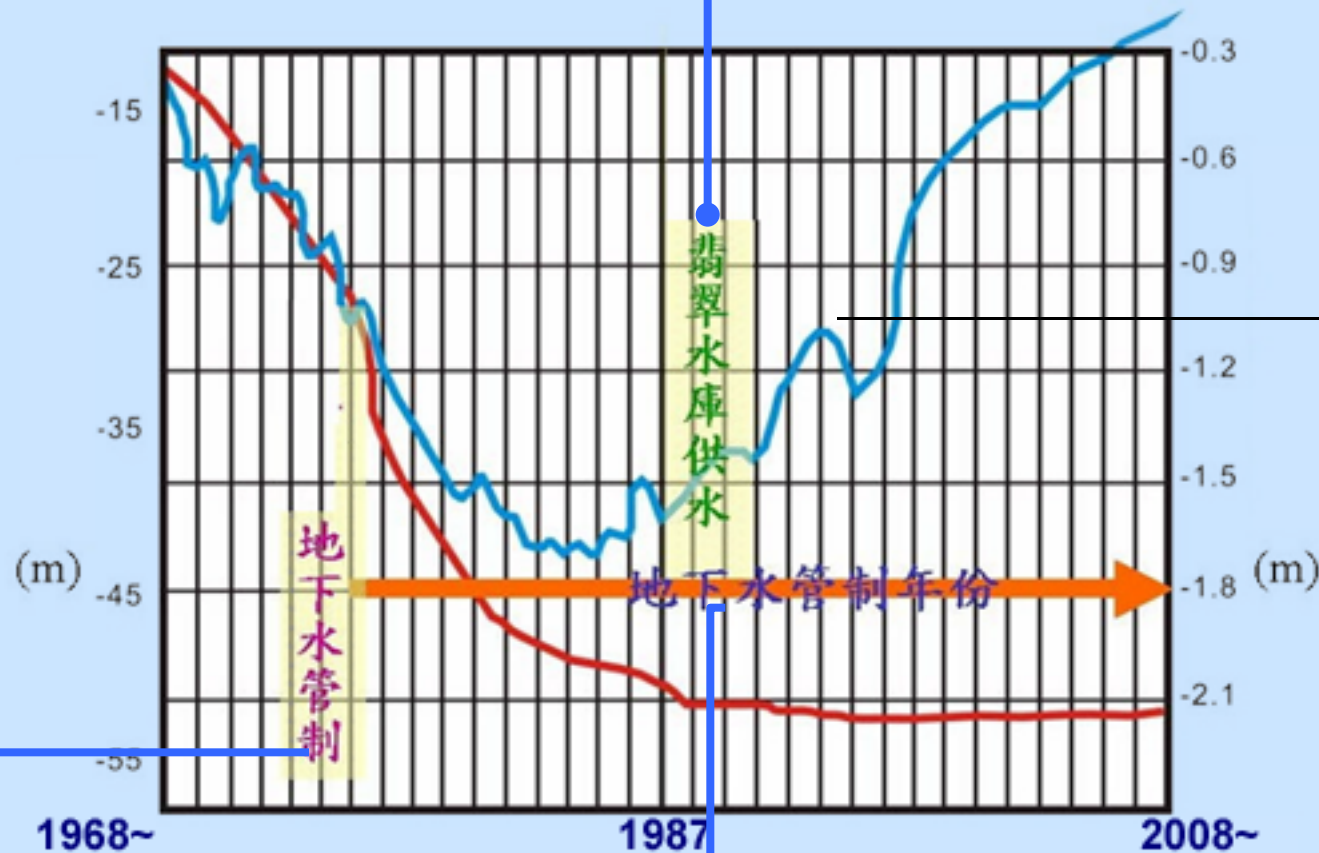
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⊕ Ground Water Application in Emergency Water Supply

Feitsui Reservoir operation

Ground water level of the Taipei Basin



Stratum accumulation settlement quantity

Ground water limit

Ground water limit period

IV. Conclusion

✦ Conclusion

Ψ In preparing for emergency of earthquake, the best way is “Do the best to prepare for the worst”

Ψ Strengthen cooperation and coordination for disaster prevention, and integrate resources and present corresponding action at the right time.

Ψ Continue to building the preparation facility up to against disaster.

Long term preparation is to use on one critical day.



Thank You !