



**BE KOBE**

# Lessons from the Great Hanshin-Awaji Earthquake Building Resilient Water Systems

 **Kobe City Waterworks Bureau**

# Agenda

## 1. Strategic context

Geography and lessons from 1995

## 2. An integrated approach

Infrastructure resilience and community partnerships

## 3. Institutional frameworks

Mutual aid logistics and continuous improvement





# Strategic Context

Why resilience matters in Kobe

01

# Kobe's Geography and Our Mission

- A densely populated city  
between mountains and the sea
- Exposure to multiple hazards
- Our mission:  
ensuring safe water for life





**January 17,  
1995  
5:46 AM**

### **Date of earthquake occurrence**

January 17, 1995  
5:46 AM

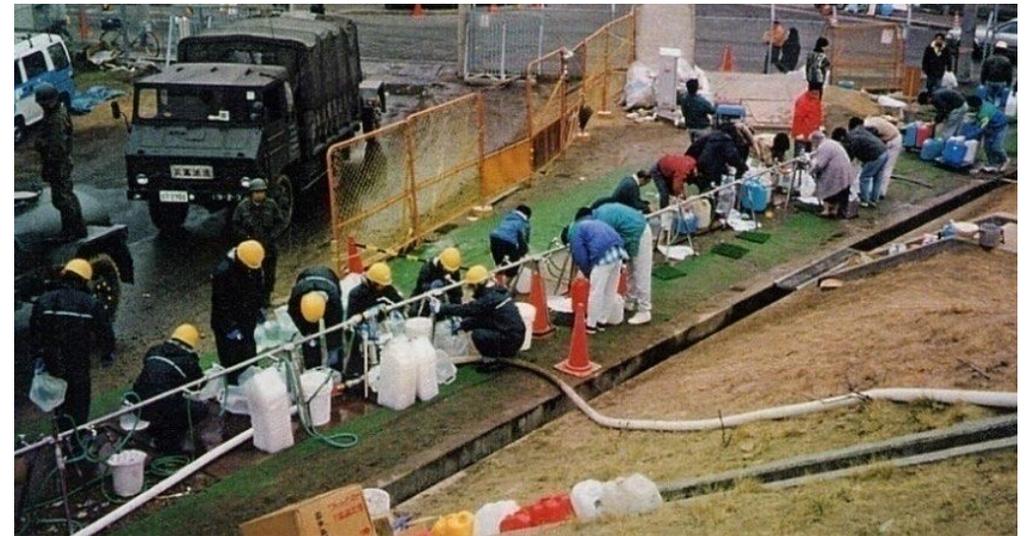
The earthquake occurred at 5:46:51.8 a.m. on January 17th (Tuesday), 1995.

# Lessons from 1995

- Prolonged water outages
- A fundamental shift in thinking

## Three Strategic Pillars

1. Rapid restoration of lifeline services
2. Emergency water supply to sustain life
3. External partnerships  
with other cities and agencies





# From Lessons to Action

Investing in resilient water infrastructure

02

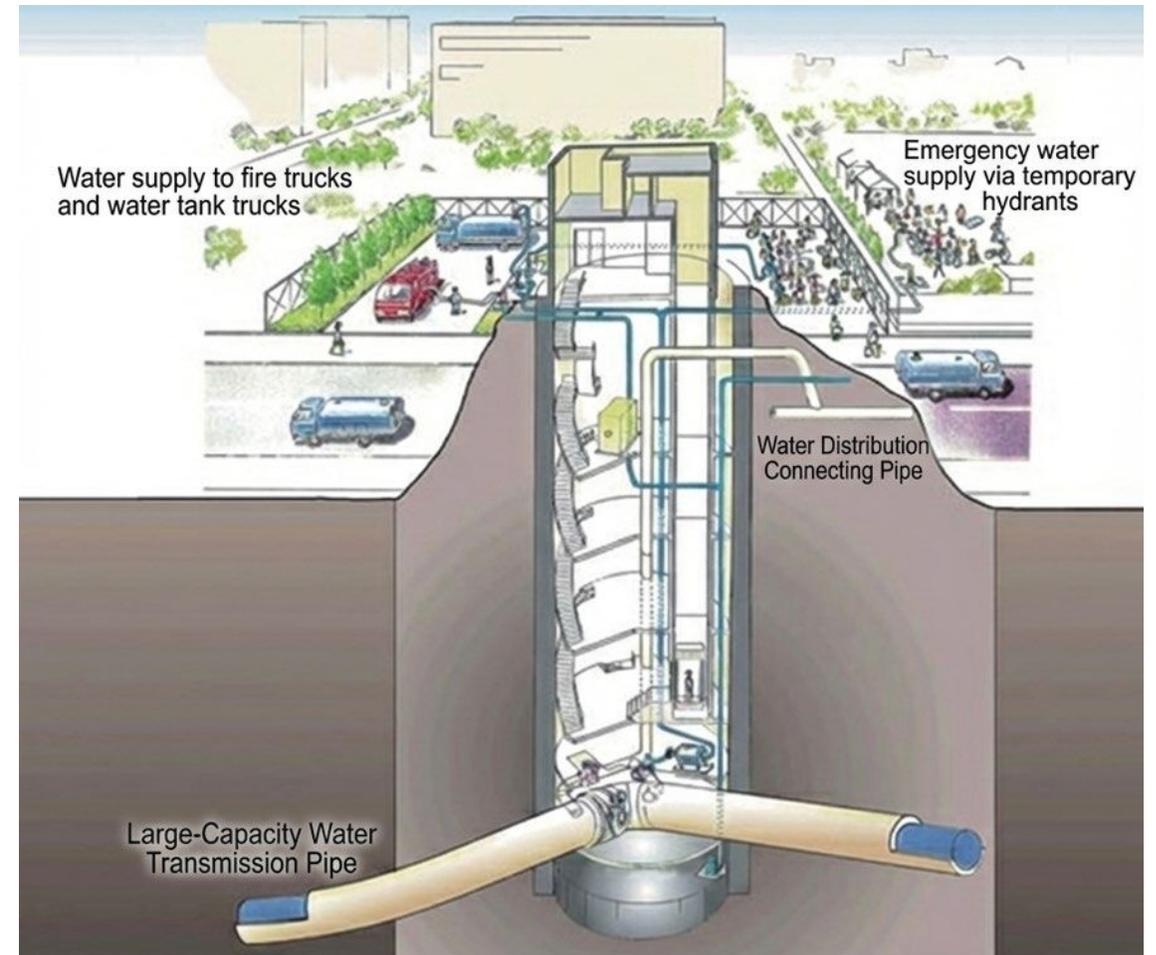
# A “Second Artery” for the City

- Large-Capacity Transmission Pipe
- Built-in redundancy for emergency supply
- Backup for the distribution network



# Dual-Use Design

- Shafts designed as permanent emergency water hubs
- Supply for water tankers and emergency services
- Direct connection to the distribution network



# Community-Led Emergency Water Supply

- Addressing the “response gap” immediately after a disaster
- Delegating authority to local communities
- Community-managed emergency water points



# Training and Trust-Building

- Regular joint drills
  - with communities and schools
- Disaster education focused on self-help and mutual support
- Building trust before a crisis





# From Cooperation to Systems

Managing external support effectively

03

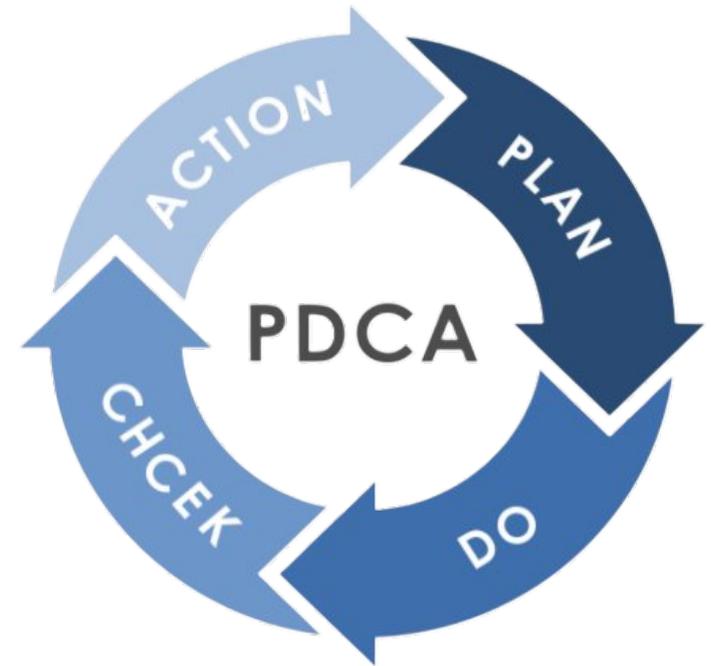
# Mutual Aid Logistics

- Turning goodwill into effective action
- Standardised procedures for receiving support
- Mutual aid agreements with other utilities and cities



# Continuous Improvement

- Applying lessons from disasters and drills
- Updating systems, manuals, and infrastructure
- Resilience as an ongoing process





# Technology Needs Trust

Building a Resilient Future, Together

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