

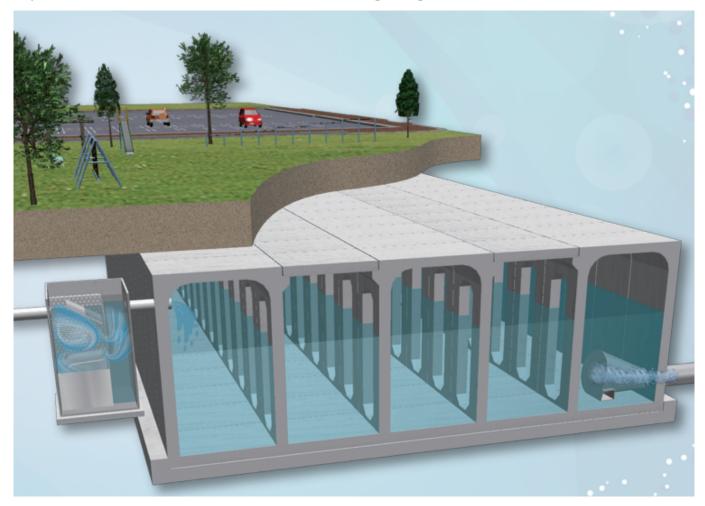






# Hybrid Water Storage & Flood Prevention System

Water storage / infiltration systems with filters and flow control functions (Systems used for Flood, Stormwater, Firefighting, etc.,)



### Hazard

Earthquake Cyclone Storm Surge Flood Drought

#### Solution Purpose

Prevention & Mitigation Recovery

#### Solution Theme

Disaster Prevention Plan Infrastructure Technology Building Technology

## **Technology Subject**

Mitigation Plan River & Basin Coast Road Railways Airport Port Essential Utilities Urban Facility for Disaster Prevention Design & Construction of Resilient Building Resilience Improvement on Existing Building

## **Advantages**

"Hybrid Water Storage & Flood Prevention System" is a highly functional storage system that combines water storage / infiltration facilities, filters to remove impurities during inflow, and flow control functions during outflow.

By combining storage facilities with equipment, it can be used for flood control and water storage.

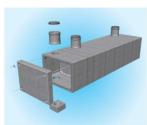
### Solution Illustrated

#### Storage facilities

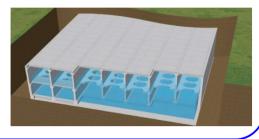
Separated storage tank



Box Culvert tank



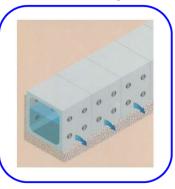
Large-scale storage tank with component assembly



Filters to remove impurities for liquid



InfiltrationDrainage



# **Background**

In recent years, climate change caused by global warming and other factors has caused various disasters, including flooding due to increased heavy rainfall from storms and torrential rains, and droughts due to prolonged lack of rainfall.

In addition, frequent earthquakes in different regions have caused damage to storage facilities and reduced facility functionality, both of which need to be reseolved.

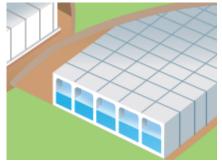
By combining earthquake-resistant storage facilities with separation functions using filters, etc., and outflow control functions, it is possible to enhance the functionality of the storage facility and implement measures.

# **Exposition of the Solution**

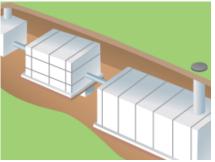
## Storage facilities

Various storage facilities are used depending on the purpose, scale, and duration of storage. Storage facilities may be also used alone.

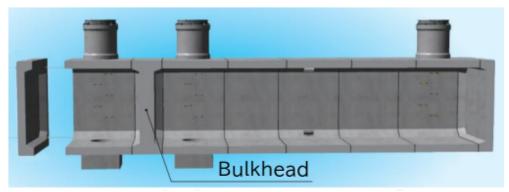
[Large-scale, component assembly type]



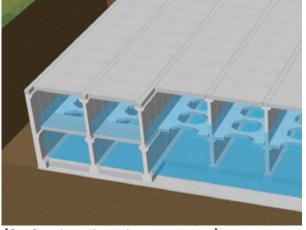
[Multipe placements and connections]



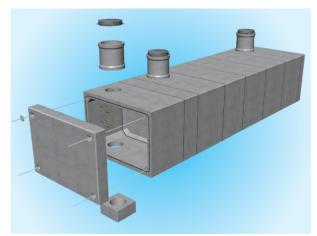
[BOX culvert tank with bulkhead]



[flood control measure]



[for fire / earthquake protection]





# Achievements of Examples

[Example: Large-scale, component assembly type, Storage capacity 10,000 m<sup>3</sup>]







[Example: Box culvert tank, Storage capacity 4,400 m<sup>3</sup>]



[Example : Open top precast concrete storage tank]



# Corporate Profile

# Vertex Co., Ltd

5-1 Kojimachi, Chiyoda-ku, Tokyo, 102-0083, JAPAN

**℃** Tel. : +81-3-3556-2801

 $\square$  E-mail : hi-minami@vertex-grp.co.jp

Website : https://vertexgrp.co.jp/