

# Demonstration on New Sewage Treatment Technology Using Circulation and No-aeration

Implementer: The consortium of Kochi City, Kochi University, JS, and METAWATER Co., Ltd.

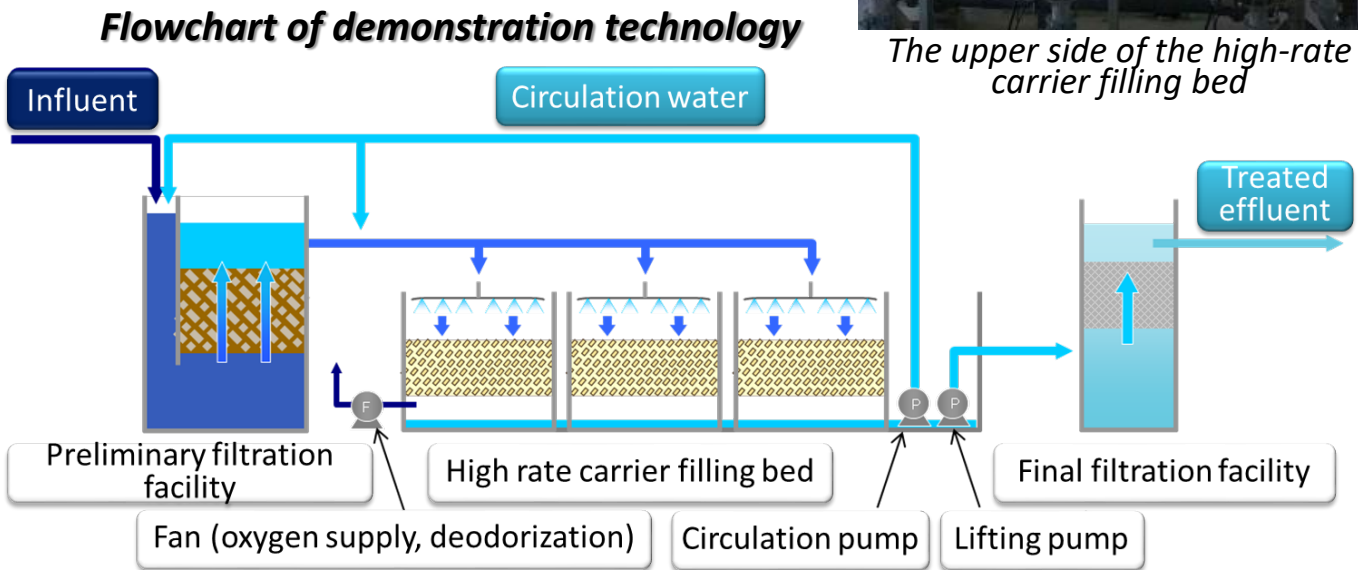
Energy-saving wastewater treatment technology replacing the Conventional Activated Sludge (CAS) Process  
Major reduction of power consumption achieved while utilizing an existing facilities

## Technology Overview

1. Oxygen supply with gas-liquid contact method substantially reduces power consumption
2. Circulation of second filtrate and final filtrate generates treated water with stable quality
3. Applicable to existing CAS facilities



The upper side of the high-rate carrier filling bed



## Achievements

- Satisfy the designed effluent water quality: BOD of less than or equal to 10-15mg/L  
⇒ Applicable to the high-load operation  
(more inflow than the existing CAS process by 25%)
- Cost reduction  
(assuming the maximum daily treatment capacity of 50,000m<sup>3</sup>. Compared to CAS process)  
⇒ Reduce construction costs by 10%, O&M costs by 36%, power consumption by 53%