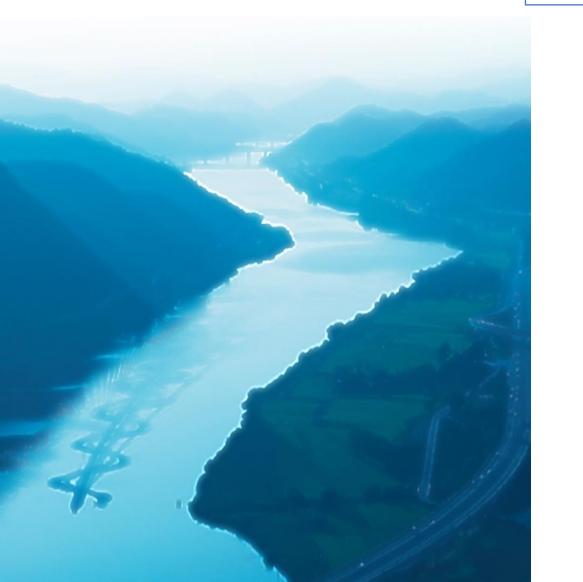
#### A1HRD 17<sup>th</sup> meeting

Theme 1: HRD in order to achieve compatibility of environmental conservation and sound business management



# K-water's HRD Strategy for Sustainable Water Supply

Kyungjin SHIN, PhD

**K-water** 



### CONTENTS

- 1. Water resources and management of K-water
- 2. HRD strategy for Sustainable Water Supply



1. Water resources and management of K-water



### Water Supply Services of K-water



No. of Employees
[As of June 2024]

## Integrated Water Management Facilities

[Dams, weirs, etc.]



55 sites

#### Organization

[As of June 2024]



Headquarters\_ 1 Vice President, 5 Divisions, 3 Head Offices, 37 Departments (Offices/Units/Centers)
On-Site Branches\_ 7 Head Offices (Divisions), 25 Departments (Centers), 81 Branches (Units)
Overseas\_ 37 projects in 16 countries

Renewable Energy Facility Capacity

[No.1 in Korea]



1,430 MWh

#### Water Supply Capacity

[61% of the total water supply in Korea]



12.5

billion m³/year

#### Korea's Largest Supplier of Tap Water



Based on national water supply facilities

49%

ater pipelines 34,000



## Water Resources for water supply

- Large scale multi-purpose dams and Water supply dams
  - Water Quality Management Challenges due to Non-Point Source Pollution and Climate Change











## Algal Bloom: Can trust our drinking water?

### Aesthetic impacts



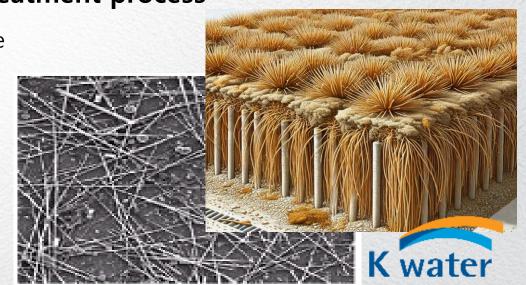


#### Health effects

Taste and odor		Toxin	
geosmin	2-MIB	microcystin	anatoxin
CH <sub>3</sub> OH CH <sub>3</sub>	H <sub>3</sub> C CH <sub>3</sub> OH H <sub>3</sub> C OH	(12) (13) (14) (15) (15) (15) (15) (15) (15) (15) (15	$ \begin{array}{c} \uparrow \\ NH_2 \end{array} $ $ \begin{array}{c} R^1 \\ R^2 \\ R^3 \end{array} $

Impact on the water treatment process

- ✓ proliferation of Sinedra algae
- ✓ Clogging filter media
- ✓ Shortening filtration time



## Step-by-step measures against Algal bloom

Growth suppression Algae removal On-site measures Algal inflow Water barrier circulator Algal harvesting boat Yellow silt spreading

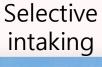
Enhanced control

Intake countermeasures

Purification process measures

Pre-chlorination

Activated carbon

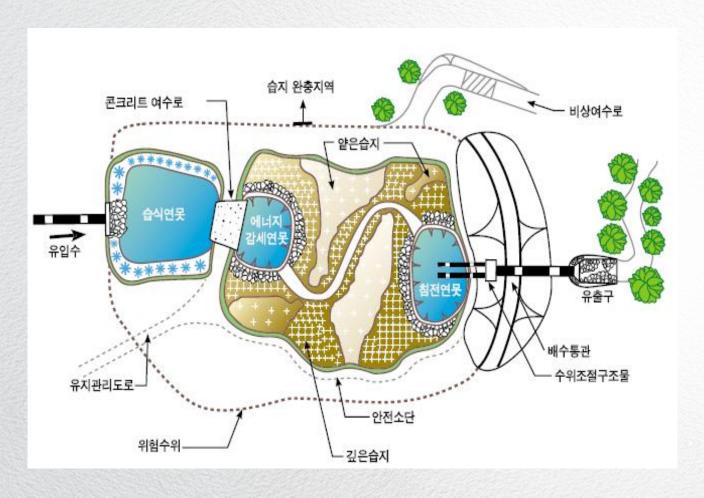






### Watershed management (Long-term solution)

Nature based technology : artificial wetland

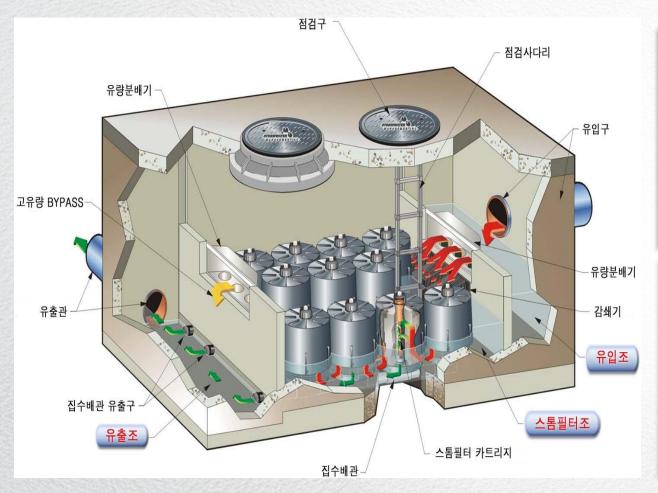






### Watershed management (Long-term solution)

Device-based non-point source pollution management technology









## 2. HRD strategy for Sustainable Water Supply



### HRD Strategy depending on Position

# **Upper Director** level (~30th) **General manager** level (~25th) Senior manager level (~20<sup>th</sup> yr) Manager level (~10<sup>th</sup> yr)

Entry level (1st -2nd yr)

#### **Core Course**

Cre dit	Course Requirement	Subject		
32	Newly promoted	Leadership		
48	Newly promoted Job USI (IV)	Technology Management		
64	Newly promoted Job USI (III)	Technology Management		
80	Newly promoted Job USI (II)	Water Resources Water Supply Green/Digital/Global Management		
112	Newly recruited Job USI (I)	Technology (Basic) Business (Basic)		
_				



### Advanced Courses depending on Job



- Finance
- Accounting
- Contract, bidding
- Tariff design and decision
- Legal
- Feasibility Study
- Strategy, management
- Accounting and finance
- HR management



- All about Water Supply
- Pipeline distribution networks
- Construction site management
- Water quality man.
- Construction
- Environmental Man.



- All about Water Supply
- All about Water resources
- Mechanical and electrical Facilities for Water purification, hydropower generation, ICT for monitoring and control
- Facility O&M for Water supply and Water resources
- Energy sector

**Business administration** 

Technology I

**Technology II** 



### Advanced and Systematic Training Program

#### **Program Overview:**

• Launch Year: 2008 (Initially called "Expert Course")

• Courses Conducted: 84 (as of 2023) // Graduates: 987 participants

#### **Key Highlights:**

- Strategic Alignment: Linked with K-water's core business to develop professionals
- Primary Objective: Fostering problem-solving experts who play a pivotal role in K-water's business

#### **Program Evolution:**

- Continuous Improvement adapting to business trends and organizational needs
- Incorporates feedback from trainees and addresses challenges in the learning process.

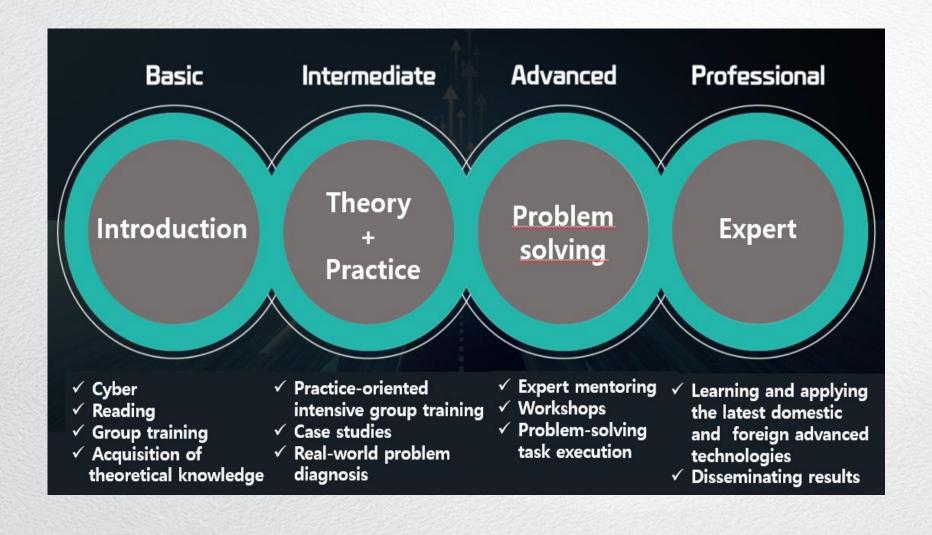
⇒ 2021 Program Upgrade with B-I-A-P modular system for a more structured and effective learning experience.

### K-Professional Program for Experts



Curriculum structure

#### 2024 Unleash Award (Paris)







#### A1HRD 17<sup>th</sup> meeting





Songsan Global Education Center, HRDI, K-water

# Thank you! 감사합니다!

ありがとうございます!

ขอบคุณครับ/ค่ะ!

謝謝!