

Progress of Water Environment Governance in Japan

WEPA Annual Meeting
February, 2019

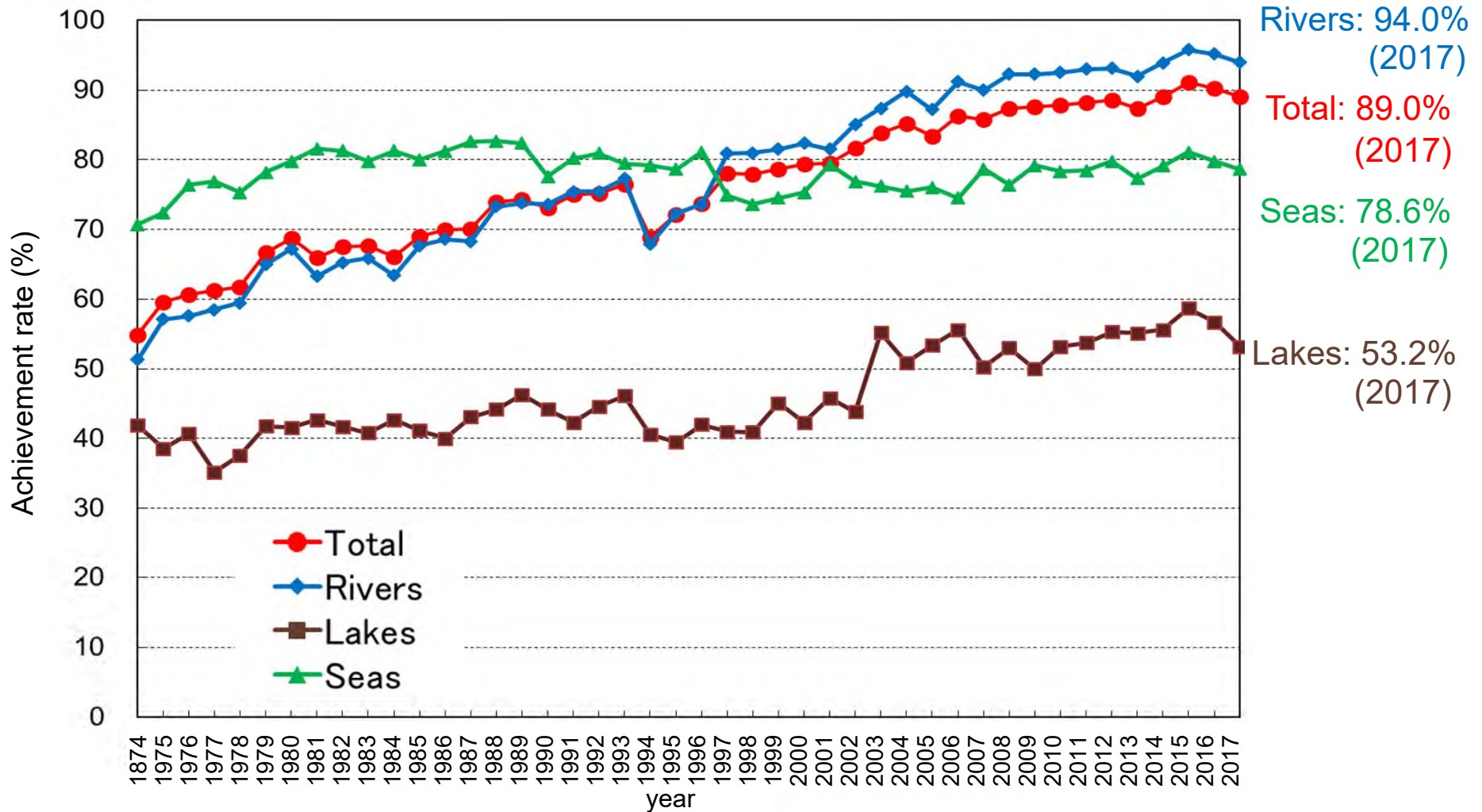
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State of Achievement of Environmental Standard

- **Living Environment Items:**

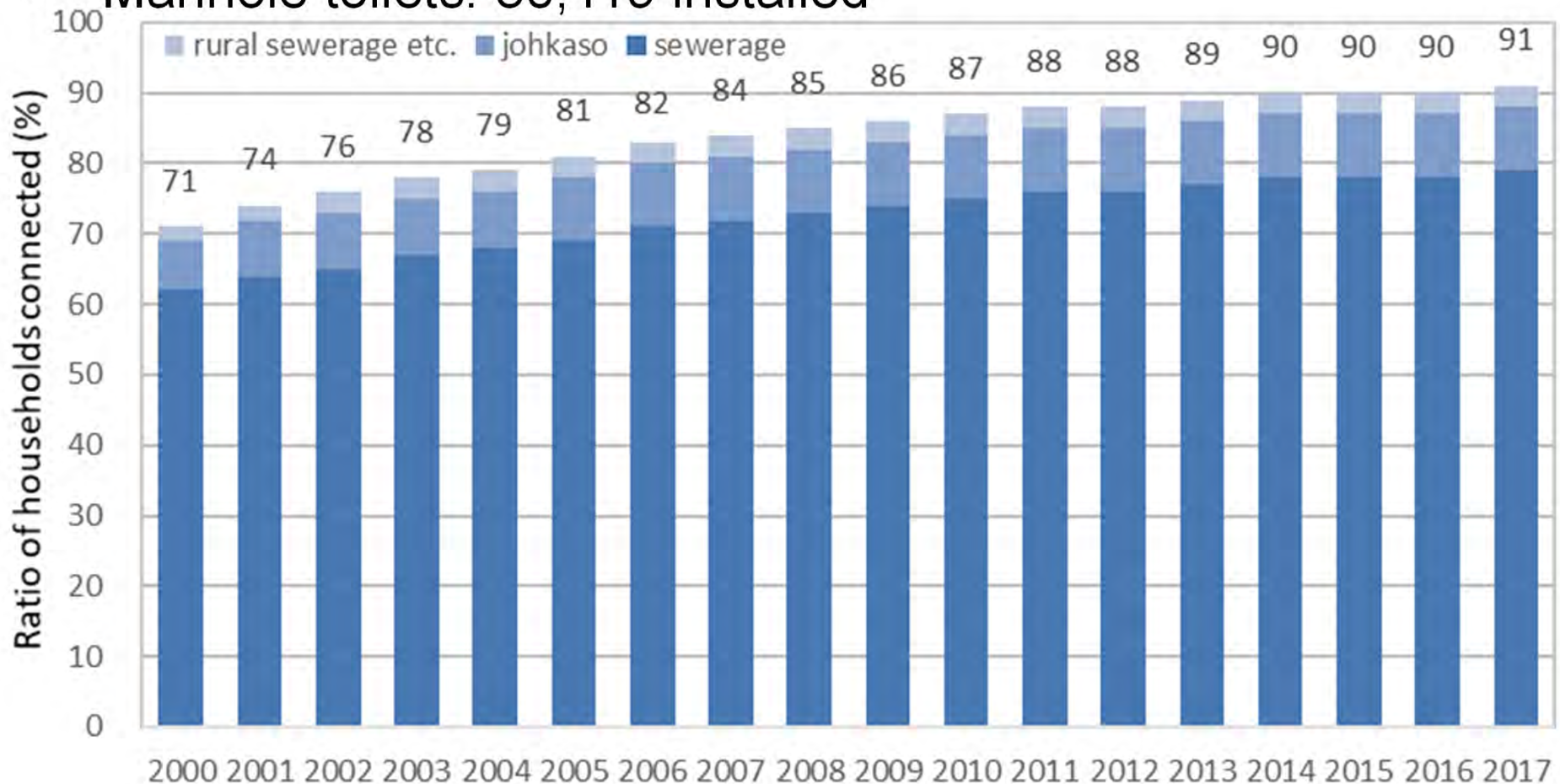
Improvement tendency as a whole, but still low achievement rate in enclosed water area such as lakes and inland seas



Trends in achievement of BOD/COD environmental standard

Domestic wastewater management

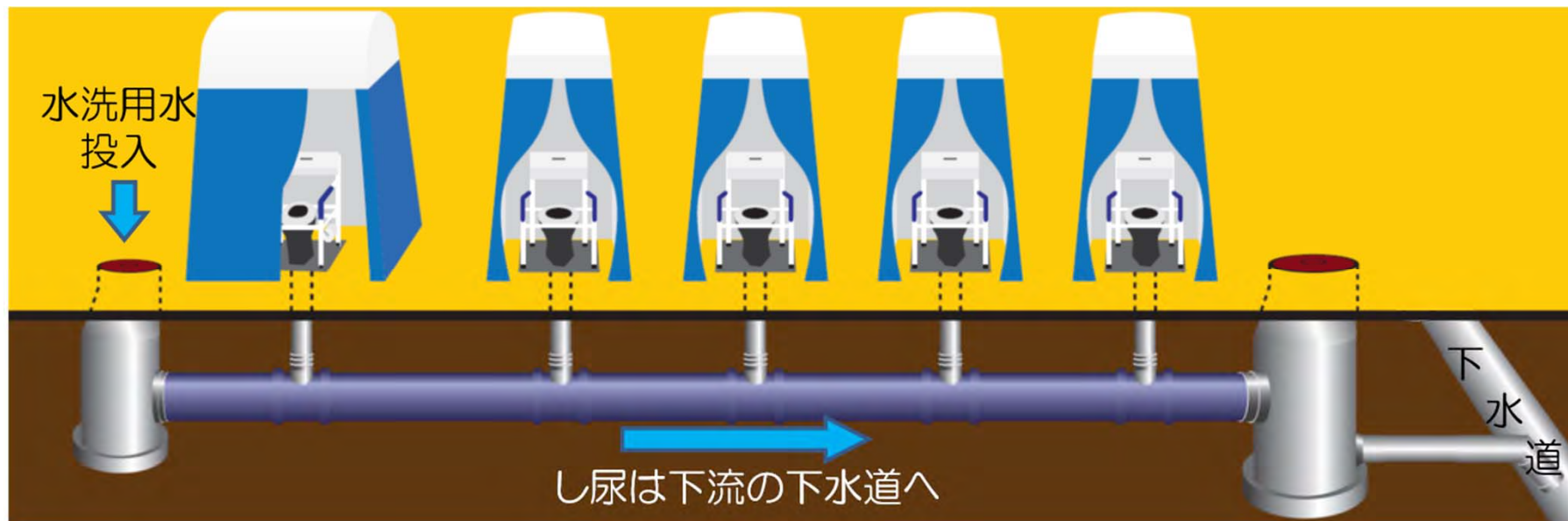
- Connection to wastewater treatment: 91%
- Advanced treatment (N, P removal): 46%
- Sludge recycle: 73%
- Manhole toilets: 30,119 installed



Connection to wastewater treatment systems (2000 – 2017)

Manhole toilets

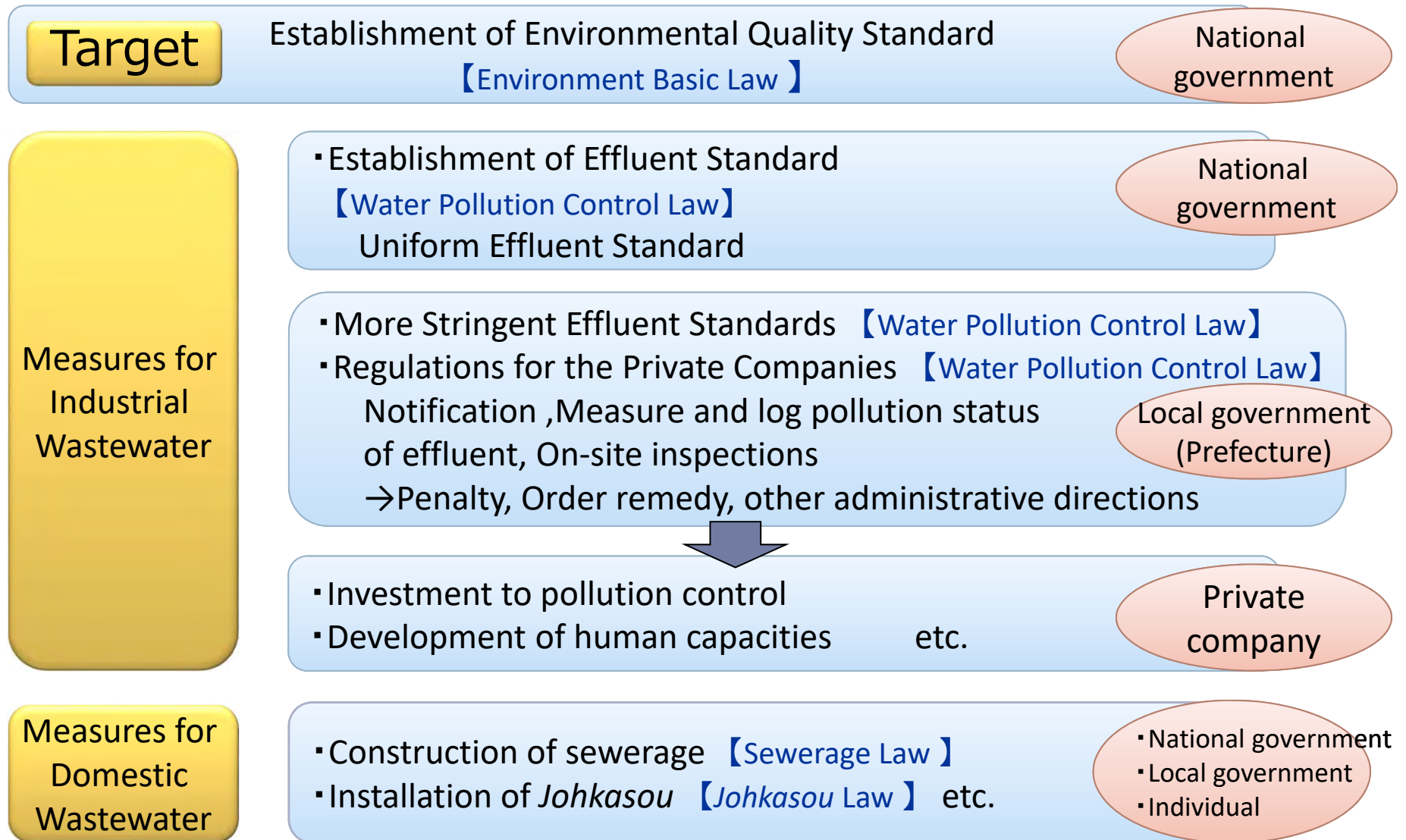
- Measure for disaster risk reduction, leading to prevention of secondary disasters (infectious diseases, etc.)
- After large-scale disaster events, electricity may be stopped, and drinking water networks may be disrupted, leading to failure in electricity-operated toilet systems.
- Local residents are trained & certified to be able to set up manhole toilets after disasters.



Manhole toilets after Kumamoto earthquake, 2016



Legislative and institutional framework



Purpose

- Getting a full understanding of the status of water pollution in public waters and underground water, and implementing control measures for the prevention of water pollution in appropriate ways.

Monitoring System

Continuous Monitoring of Water Quality (Prefectures, etc.)

- Monitoring the pollution of water in the environment plays a very important role in getting the basic data for the planning of water environment administration.
- It should be carried out throughout the country uniformly and with accuracy. The national government is required to implement this task with responsibility.
- However, the continuous monitoring of water quality is delegated to prefectural governors, as it is appropriate to conduct it based on the understanding of the local conditions and with mobility.
- It is conducted on the basis of the uniform idea shown by the nation

Monitoring of Effluent

- (to be Implemented by Specified Establishments on their own)

Monitoring System

Public waters (river, lake, sea) about 9,000 spots throughout the country (environmental standards points, etc.) and the water quality in ground water is monitored.

- ◆ Understanding of the water quality characteristics of water area
- ◆ Understanding of long-term changes & water quality trends
- ◆ Early detection of water pollution

- ◆ Achievement & maintenance of environmental standard for water quality
- ◆ Implementation of environmental protection measures
- ◆ Response to water pollution incidents

Government ordinance city

(Water quality measurement in the government ordinance city)

- ◆ Water quality measurement
- ◆ Results of water quality measurements

Prefecture

(Water quality measurement of river, lake, sea and underground water)

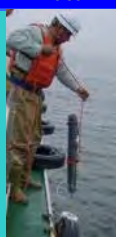
◆ Formulation of water quality measurement plan

Formulated in order to coordinate with the Ministry of Land, Infrastructure and Transport and government ordinance city and to effectively conduct continuous monitoring of water quality.

◆ Water quality measurement

- Health items (cadmium, all cyanogen, etc.)
- Living environment items (BOD, COD, all zinc, etc. of aquatic life item,)

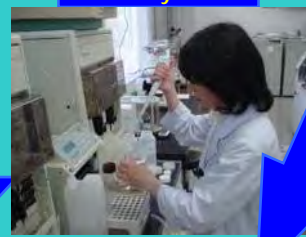
Obtaining water



Sampling



Analysis



◆ Summarizing the results of water quality measurement

- Response to a water pollution incident
- Response to the excess of environmental quality standards or the water areas that fails to achieve environmental quality standards

Direction, notice, technical advice required for the continuous monitoring of water quality

Ministry of Environment

- ◆ Decision of Environmental Conservation Measure
- ◆ Formulation of a Basic Environment Plan
- ◆ Environmental Quality Standards, effluent control
- ◆ Analytical method, research method
- ◆ Transaction standards for continuous monitoring, etc.
- ◆ Response to water pollution incident

Collection & analysis of water quality data of the country and database creation

Ministry of Land, Infrastructure and Transport

(Water quality measurement of the main parts of first-grade rivers)

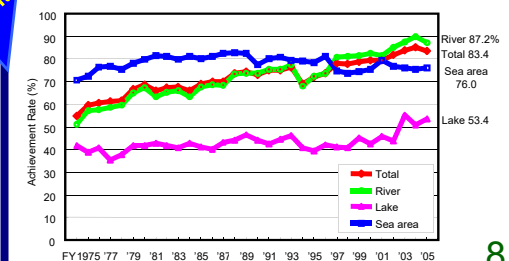
- ◆ Water quality measurement
- ◆ Results of water quality measurements

Information disclosure

- ◆ White paper
 - ◆ Homepage
 - ◆ Results of water quality measurement
- Water environmental synthesis information site
<http://www.env.go.jp/water/mizu.site/index.html>



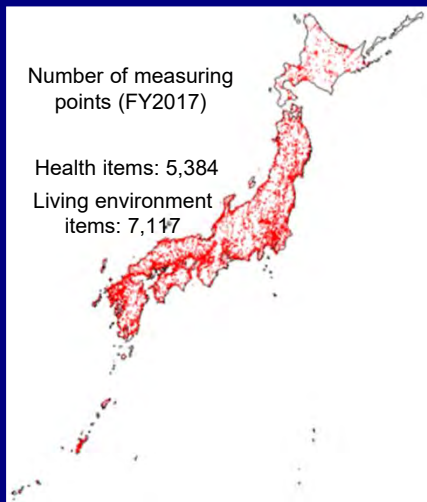
Transition of the status of achievement of environmental quality standards (BOD or COD)



Distribution of water quality measuring points in public waters throughout the country

Number of measuring points (FY2017)

Health items: 5,384
 Living environment items: 7,117



Adjustment

Consultation

Sending results

Sending results

Official announcement

Reporting the results

Official announcement

Water Pollution Control Law, Article 22

- The minister of the environment or the governor of a prefecture may in accordance with the cabinet order, call for a report from the owner of a Specified Facility concerning the condition of the Specified Facility, the method of treatment of polluted water, etc., and other necessary matters, within the limits required for the implementation of this Law; or may have his officials enter the Specified Factory and inspect the Specified Facility or other related matters.

Objective of on-site inspection

- To check whether rules for the compliance of regulation standards are operated properly in establishments so that owners always comply regulation standards, and implement necessary measures, if required.
- It is important to check not only compliance with standards by water sampling, but also comparing filed info and actual state, and self-management situation.

Results of report collection and inspection

		2012	2013	2014	2015	2016
Number of specified establishments		270,568	269,449	266,875	264,924	262,872
average effluent more than 50m ³ /day		33,067	32,589	32,381	31,935	31,699
Notification	Article 5 (Establishment of Specified facilities)	6,598	5,786	6,026	6,178	6,159
	Article 7 (Structure changes etc.)	4,427	4,105	5,006	4,627	4,141
	Article 8 (Order to change plans)	0	0	0	0	0
Number of establishments inspected (Article 22.1)		43,135	39,490	41,110	37,810	38,163
inspection during night		491	465	510	492	510
Order for Improvement (Article 13)		14	11	8	5	12
Order to suspend operation (Article 13)		1	0	3	0	0
Order to purify groundwater (Article 14.3)		0	0	0	0	0
Number of administrative direction (Public Water)	in writing	2,650	2,503	2,556	2,185	2,373
	Oral	5,432	4,753	4,981	5,168	5,701
	Total	8,082	7,256	7,537	7,353	8,074
Contents of administrative direction (Public Water)	Installation or improvement of wastewater treatment facilities	2,145	1,946	2,192	2,053	2,127
	temporary suppression of effluent	16	7	20	18	28
	Others	6,169	5,613	5,651	5,489	5,836
	total	8,330	7,566	7,863	7,560	7,991
Violation of effluent standards (Article 31.1.1)		6	4	4	3	2
Violation of order for improvement (Article 30)		0	0	0	0	0
Violation of water pollution control law (others)		0	0	0	0	0
Measures to be taken in case of an accident		540	565	557	509	483

Future Challenges for Water Environment in Japan

