

The Summary of survey by Horikawa Sen-nin Chosatai 2010 (HSC).

■ Horikawa Sen-nin Chosatai started accepting participation on 26th March, 2007

Thousands of citizens started survey to verify the effect of the raw water from the Kiso River (TRWKR)

1. Survey Items

- | | | | |
|----------------|------------------|--------------------------|-------------|
| 1) Impression, | 2) Transparency, | 3) Color, | 4) Bubbles, |
| 5) Smell, | 6) Garbages, | 7) Living things ...etc. | |

2. Survey Period

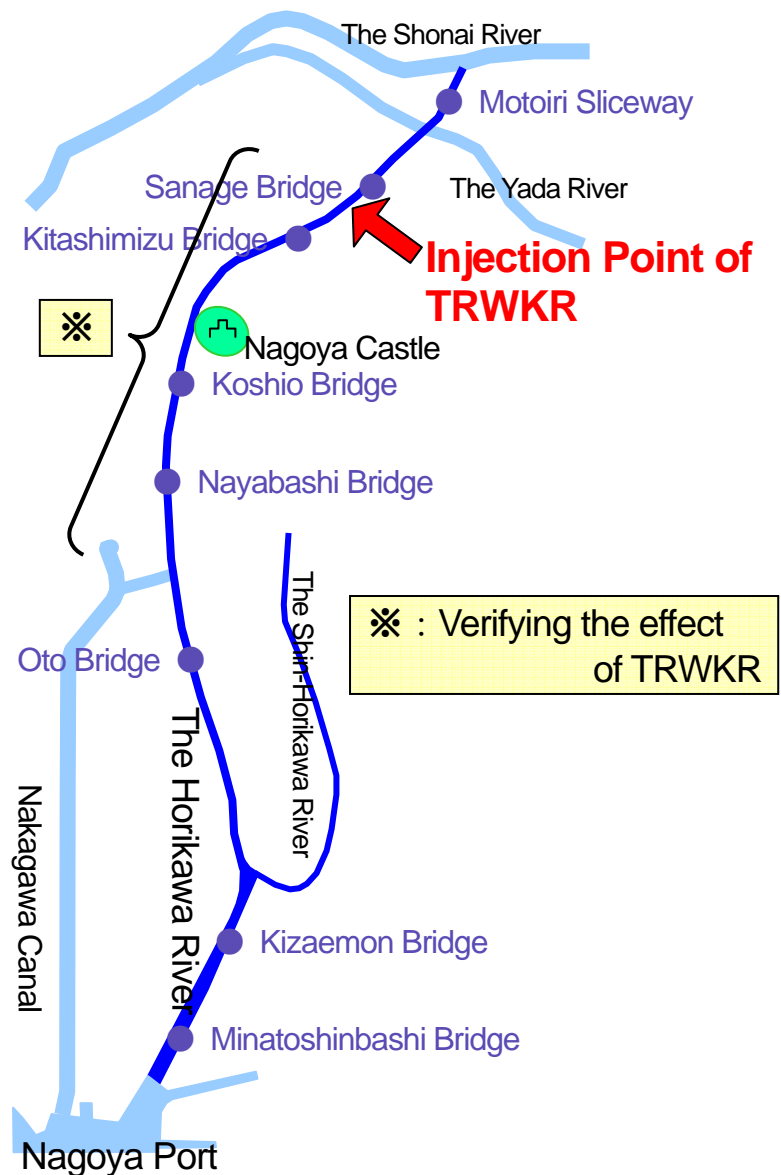
- 1st Stage: Apr. – Jun. 2007
- 2nd Stage: Sep. – Dec. 2007
- 3rd Stage: Apr. – Jun. 2008
- 4th Stage: Sep. – Dec. 2008
- 5th Stage: Apr. – Jun. 2009
- 6th Stage: Sep. – Dec. 2009

3. Number of Participants of HSC

1,762 Groups
14,123 Citizens

4. Number of Survey Reports

1,758
(22nd Apr. 2007 ~ 16th Dec. 2009)



■ It was confirmed that there are many changes by the effect of TRWKR from the Matsushige Bridge to the Sanage Bridge.

○ : Improvements were seen.

Items	Method of Evaluation	Minatoshin-bashi ~Ohseko Bridge	Ohseko~ Matsushige Bridge	Matsushige ~Asahi Bridge	Asahi ~Johoku Bridge	Johoku ~Sanage Bridge
Impression of Clearness	Improvements stage by stage			○	○	○
	Improvements by TRWKR			○	○	○
Transparency	Improvements stage by stage			○		○
	Improvements by TRWKR		○	○	○	
COD	Improvements stage by stage			○	○	○
	Improvements by TRWKR			○	○	○
Bubbles	Improvements stage by stage			○		○
Smell	Improvements stage by stage				○	○

■ It was understood that water quality from fall to early winter is better than from spring to early summer.



1. Water Quality

- 1) Impression on the 5th stage has been improved 21% on average (10-37%) than it on the 1st stage.
- 2) Impression after TRWKR on the 5th stage has been improved 13% on average (11-17%) than before TRWKR.

2. Transparency

- 1) Transparency on the 5th stage has been improved average 9 cm than it on the 1st stage by TRWKR.
- 2) Transparency after TRWKR on the 5th stage has been improved average 12 cm than before TRWKR.

3. COD

- 3) COD on the 5th stage after TRWKR has been improved 3 mg/l on average (2-4mg/l) than on the 1st stage.
- 4) COD after TRWKR has been improved 2mg/l on average (2-3mg/l) than before TRWKR.

4. Bubbles

The rate of no bubble on the 5th stage increased 20% on average (15-25%) than on the 1st stage just after aqueducts.

5. Smell

The rate of smell (“odor” and “little odor”) on the 5th stage increased average 26% (17-34%) than on the 1st stage (just after aqueducts) .

6. Garbage

The garbage in suspended or on the street is generally decreased.

7. Living things

Behavior of living things and their habitats surrounding their growing environment was changed as follows.

- There was no waterweed for one year after TRWKR, however many waterweed was growing until the Sujikai bridge.
- We could see many young mullets around the Koshio bridge.

... Etc.

■ The water environment has been synergistic improved by the recover of the self-purification capacity.

It is considered the water environment of the Horikawa River for these three years has been improved by some synergistic effects.

Their synergistic effects are the social and environmental changes surround the Horikawa River, improvement of consciousness for the Horikawa River basin, the recover of the self-purification capacity, the implementation of additional sewer maintenance and not only the directly effect by TRWKR.

We hope that the water environment for the Horikawa River will be improved more by the implementation for the cleanup action continuity of citizen and water purification by TRWKR.