

# The Results of Radioactive Material Monitoring of the Surface Water Bodies within Miyagi Prefecture

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In accordance with the Comprehensive Radiation Monitoring Plan determined by the Monitoring Coordination Meeting, the Ministry of the Environment (MOE) is continuing to monitor radioactive materials in water environments (surface water bodies (rivers, lakes, headwaters, and coasts), etc.).

Samples taken from the surface water bodies of Miyagi Prefecture during the period of October 3-November 7 have been measured as part of MOE's efforts to monitor radioactive materials; the results have recently been compiled and are released here. (The monitoring results for Tochigi Prefecture (samples taken during the period of October 5-24) are simultaneously released.)

\*The following monitoring results have already been released: Fukushima Prefecture (September 15-October 14 samples: Released November 15), and Ibaraki Prefecture (August 30-October 8 samples: Released December 2)

## 1. Survey Overview

### (1) Survey Locations

138 environmental reference points, etc. in the surface water bodies within Miyagi Prefecture  
(Rivers: 77 locations, Lakes and headwaters: 21 locations, Coasts and bathing areas: 40 locations)

### (2) Survey Method

- Measurement of concentrations of radioactive materials (radioactive iodine (I-131), radioactive cesium (Cs-134 and Cs-137)) in water and sediment
- Measurement of concentrations of radioactive materials and spatial dose-rate in soil in the surrounding environment of water and sediment sample collection points (river terraces, etc.)

## 2. Outline of Results

### (1) Water Quality

- Radioactive iodine (I-131) Not detectable (ND) at any location (Lower detection limit: 1Bq/L)
- Radioactive cesium (Cs-134, Cs-137)  
(Rivers) ND any location (Lower detection limit: 1Bq/L)  
(Lakes and headwaters) Detected at one location (Cs-134: 1Bq/L, Cs-137: 2Bq/L)  
(Coasts and bathing areas) ND at any location (Lower detection limit: 1Bq/L)

\*“Regulatory Guide: Emergency Preparedness for Nuclear Facilities (Nuclear Safety Commission)” Standards for Restrictions on the Intake of Food and Drink (Drinking Water)

Radioactive iodine (I-131): 300Bq/kg or more

Radioactive cesium (total for Cs-134 + Cs-137): 200Bq/kg or more

### (2) Sediment

- Radioactive iodine (I-131) ND at any location (Lower detection limit: 30Bq/kg (dried mud))
- Radioactive cesium  
(Rivers)  
Cs-134: ND-5,000Bq/kg (dried mud) (Lower detection limit: 10Bq/kg (dried mud))  
Cs-137: ND-6,100Bq/kg (dried mud) (Lower detection limit: 10Bq/kg (dried mud))

(Lakes and headwaters)

Cs-134: 14-1,200Bq/kg (dried mud)

Cs-137: 17-1,400Bq/kg (dried mud)

(Coasts and bathing areas)

Cs-134: ND-170Bq/kg (dried mud) (Lower detection limit: 10Bq/kg (dried mud))

Cs-137: ND-230Bq/kg (dried mud) (Lower detection limit: 10Bq/kg (dried mud))

### (3) Surrounding Environment

- Radioactive iodine (I-131): Not detectable at any location (Lower detection limit: 30Bq/kg (dry))

- Radioactive cesium

(Rivers)

Cs-134: ND-2,600Bq/kg (dry) (Lower detection limit: 10Bq/kg (dry))

Cs-137: ND-3,300Bq/kg (dry) (Lower detection limit: 10Bq/kg (dry))

(Lakes and headwaters)

Cs-134: 36-1,100Bq/kg (dry)

Cs-137: 75-1,500Bq/kg (dry)

(Coasts and bathing areas)

Cs-134: ND-38Bq/kg (dry) (Lower detection limit: 10Bq/kg (dry))

Cs-137: 12-42Bq/kg (dry)

- Spatial dose

(Rivers) 0.04-0.66 $\mu$ Sv/h

(Lakes and headwaters) 0.04-0.71 $\mu$ Sv/h

(Coasts and bathing areas) 0.03-0.06 $\mu$ Sv/h

(Annex for details)

(Map attached)

### Future Plans

In coordination with relevant organizations, MOE intends to continue to measure radioactive materials in water, sediment, etc. in rivers, lakes, etc. in the following prefectures: Fukushima, Miyagi, Yamagata (some parts), Iwate (some parts), Ibaraki, Tochigi, Gunma and Chiba (some parts).

ORiver (Miyagi Prefecture-1): Water Quality Monitoring Results

(Annex)

Sampling point			Sampling date	Weather	Air temperature °C	Full depth m	General items						Concentration of radioactive material Bq/L			Remarks	
Water body	Point	Municipality					Water temperature °C	Sampling depth m	Transparency cm	Electrical conductivity mS/m	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137			
Shishiorigawa River	Kinzanbashi Bridge	Kesennumashi City	2011/10/4	Clear	8.1	0.40	8.7	0.0	100 or more	61.9	<1	0.2	<1	<1	<1		
	Namitabashi Bridge	Kesennumashi City	2011/10/4	Clear	15.2	2.85	13.8	0.0	100 or more	1205.0	2	2.1	<1	<1	<1		
Kitakamigawa River System	Tateyamaohashi Bridge	Kesennumashi City	2011/10/4	Clear	20.0	0.80	12.8	0.0	100 or more	41.1	<1	0.8	<1	<1	<1		
	Kamiyamabashi Bridge	Kesennumashi City	2011/10/4	Sunny	18.0	2.05	16.1	0.0	100 or more	1523.0	2	3.0	<1	<1	<1		
	Okawa River Estuary	Kesennumashi City	2011/10/3	Sunny	13.4	4.70	19.2	0.0	100 or more	3570.0	1	1.4	<1	<1	<1		
Omosegawa River	Ozakibashi Bridge	Kesennumashi City	2011/10/4	Sunny	20.6	1.65	19.2	0.0	100 or more	3320.0	4	3.9	<1	<1	<1		
Tsuyagawa River	Gakuenbashi Bridge	Kesennumashi City	2011/10/4	Sunny	19.6	0.40	14.0	0.0	100 or more	84.7	<1	0.5	<1	<1	<1		
	Nashinokibashi Bridge	Kesennumashi City	2011/10/4	Sunny	20.0	0.50	14.3	0.0	100 or more	35.4	2	2.6	<1	<1	<1		
Hachimangawa River	Water purification plant, front	Minamisanrikucyo Town	2011/10/5	Sunny	17.6	0.20	14.7	0.0	100 or more	64.5	1	0.9	<1	<1	<1		
	Minatobashi Bridge	Minamisanrikucyo Town	2011/10/5	Cloudy	18.2	2.40	15.9	0.0	100 or more	1192.0	2	2.1	<1	<1	<1		
K i t a k a m i g a w a R i v e r	Arimagawa River	Unandabashi Bridge	Kuriharashi City	2011/10/5	Cloudy	16.8	0.12	16.2	0.0	100 or more	17.9	2	2.6	<1	<1	<1	
	Kinryugawa River	Obatabashi Bridge	Kuriharashi City	2011/10/5	Cloudy	18.0	0.25	14.6	0.0	100 or more	15.2	4	5.1	<1	<1	<1	
	Kitakamigawa River	Tomeohashi Bridge (Tome)	Tomeshi City	2011/10/5	Cloudy	19.0	3.10	15.5	0.0	100 or more	13.5	3	3.3	<1	<1	<1	
	Hasamagawa River	Hasamagawa River	Domanbashi Bridge (Kurikoma Dam)	Kuriharashi City	2011/10/5	Sunny	15.6	0.98	11.4	0.0	33	14.7	21	18	<1	<1	<1
			Kajiyabashi Bridge	Kuriharashi City	2011/10/25	Cloudy	15.2	0.70	14.6	0.0	62	14.9	9	12	<1	<1	<1
			Hanayama Dam, inflow area	Kuriharashi City	2011/10/7	Sunny	16.2	0.55	15.0	0.0	47	8.5	14	13	<1	<1	<1
			Wakayanagi	Kuriharashi City	2011/10/5	Cloudy	17.7	0.90	14.6	0.0	56	15.4	6	8.7	<1	<1	<1
			Yamayoshidabashi Bridge	Tomeshi City	2011/10/10	Sunny	19.8	0.50	17.0	0.0	56	16.7	13	11	<1	<1	<1
	Eaigawa River	Eaigawa River	Nishinaebashi Bridge (Futatsuya)	Tomeshi City	2011/10/10	Sunny	20.8	0.50	18.6	0.0	45	17.8	15	17	<1	<1	<1
			Todorokibashi Bridge (Todoroki)	Osakishi City	2011/10/25	Rain	15.0	0.70	14.0	0.0	100 or more	8.6	1	1.4	<1	<1	<1
Shimizukomon Weir			Osakishi City	2011/10/20	Sunny	18.3	0.57	14.8	0.0	100 or more	13.7	3	3.4	<1	<1	<1	
In Furukawa District, Osakishi City			Shinborisaihon, entrance	Osakishi City	2011/10/6	Sunny	17.0	1.80	17.7	0.0	54	16.6	9	12	<1	<1	<1
Dekigawa River			Kogotabashi Bridge	Misatomachi Town	2011/10/7	Sunny	16.8	0.60	15.7	0.0	35	21.7	30	29	<1	<1	<1
Eaigawa River	Oikawabashi Bridge (Tandai)	Wakuyacho Town/Ishinomakishi City	2011/10/10	Sunny	21.2	0.40	15.4	0.0	92	16.0	12	8.3	<1	<1	<1		
Kyukitakamigawa River	Kandoribashi Bridge (Wabuchi)	Ishinomakishi City	2011/10/5	Sunny	20.1	4.70	15.9	0.0	100 or more	23.5	7	7.8	<1	<1	<1		
	Kadonowaki	Ishinomakishi City	2011/10/12	Clear	19.0	3.50	15.0	0.0	100 or more	432.0	4	4.3	<1	<1	<1		
Jogawa River	Jogawaohashi Bridge	Ishinomakishi City/Higashimatsushimashi City	2011/10/12	Sunny	19.6	0.50	19.8	0.0	44	3800.0	8	10	<1	<1	<1		
S R i v e r	N a r u s e g a w a	Karafuzawagawa River	Karafuzawagawa River Lowest Reaches	Kamimachi Town	2011/10/20	Cloudy	10.6	0.40	10.4	0.0	100 or more	7.3	<1	0.3	<1	<1	<1
		Narusegawa River	Urushizawa Dam, inflow area	Kamimachi Town	2011/10/19	Cloudy	10.9	0.50	11.7	0.0	100 or more	6.2	<1	0.3	<1	<1	<1
		Tsutsusagagawa River	Tsutsusagobashi Bridge	Kamimachi Town	2011/10/19	Cloudy	14.5	1.18	12.8	0.0	78	6.2	5	6.0	<1	<1	<1
		Narusegawa River	Narusebashi Bridge (Nakaniida)	Kamimachi Town	2011/10/18	Clear	15.6	0.48	16.6	0.0	78	10.1	22	10	<1	<1	<1
			Kan-onbashi Bridge (Nango)	Osakishi City/Misatomachi Town	2011/10/8	Sunny	15.4	0.60	14.5	0.0	60	11.1	9	9.8	<1	<1	<1
			Onobashi Bridge (Ono)	Higashimatsushimashi City	2011/10/12	Sunny	21.0	0.50	16.6	0.0	57	19.4	12	13	<1	<1	<1
		Yoshidagawa River	Manaitabashi Bridge	Taiwacho Town	2011/10/13	Sunny	20.0	1.00	15.0	0.0	100 or more	13.4	2	3.2	<1	<1	<1
			Zengawabashi Bridge	Taiwacho Town	2011/10/13	Sunny	19.4	0.30	13.8	0.0	100 or more	12.5	4	3.3	<1	<1	<1
Futagoyabashi Bridge (Kashimadai)	Osakishi City/Matsushimamachi Town		2011/10/7	Sunny	16.6	1.60	16.3	0.0	36	16.9	27	27	<1	<1	<1		
Tsurutagawa River	Shimoshidabashi Bridge	Osakishi City	2011/10/13	Sunny	16.2	0.50	16.2	0.0	37	32.8	31	38	<1	<1	<1		
Takagigawa River	Myojinbashi Bridge	Matsushimamachi Town	2011/10/13	Cloudy	14.0	1.50	16.4	0.0	100 or more	2230.0	5	6.4	<1	<1	<1		
Shinmachigawa River	Tokiwabashi Bridge	Shiogamashi City	2011/10/19	Cloudy	18.4	1.10	15.6	0.0	100 or more	1479.0	1	2.5	<1	<1	<1		
Sunaoshigawa River	Tagajozeki Weir	Tagajoshi City	2011/10/14	Cloudy	17.3	0.50	14.2	0.0	28	34.2	27	27	<1	<1	<1		
	Nenbutsubashi Bridge	Tagajoshi City	2011/10/14	Sunny	22.0	1.60	18.4	0.0	68	1680.0	7	9.6	<1	<1	<1		
Teizan-unga Canal (Kyusunaoshigawa River)	Teizanbashi Bridge	Shiogamashi City/Shichigahamamachi Town/Tagajoshi City	2011/10/19	Cloudy	18.4	2.57	19.0	0.0	27	4160.0	7	7.6	<1	<1	<1		

• Sampling points for rivers are listed from north to south, and for different points along the river, from upstream to downstream.

# ○River (Miyagi Prefecture-1): Sediment Monitoring Results

Sampling point			Sampling date	Weather	Air temperature ℃	Full depth m	General items				Concentration of radioactive material Bq/kg (dried mud)			Remarks			
Water body	Point	Municipality					Mud temperature ℃	Mud sampling depth cm	Mud content %	Property	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137					
Shishiorigawa River	Kinzanbashi Bridge	Kesennumashi City	2011/10/4	Clear	8.1	0.40	9.0	5	79.3	Gravel with sand	<30	100	110				
	Namiitabashi Bridge	Kesennumashi City	2011/10/4	Clear	15.2	2.85	17.4	3	39.4	Silt with sand	<30	560	660				
Kitakamigawa River System	Tateyamaohashi Bridge	Kesennumashi City	2011/10/4	Clear	20.0	0.80	13.1	10	72.8	Sand with gravel	<30	340	410				
	Kamiyamabashi Bridge	Kesennumashi City	2011/10/4	Sunny	18.0	2.05	17.2	10	70.4	Silt with sand	<30	400	460				
	Okawa River Estuary	Kesennumashi City	2011/10/3	Sunny	13.4	4.70	19.6	5	58.3	Sand with silt	<30	10	13				
Omosegawa River	Ozakibashi Bridge	Kesennumashi City	2011/10/4	Sunny	20.6	1.65	19.8	3	37.2	Sand with silt	<30	1,000	1,200				
Tsuyagawa River	Gakuenbashi Bridge	Kesennumashi City	2011/10/4	Sunny	19.6	0.40	15.0	5	79.6	Gravel with sand	<30	80	93				
	Nashinokibashi Bridge	Kesennumashi City	2011/10/4	Sunny	20.0	0.50	15.2	5	81.9	Sand	<30	12	21				
Hachimangawa River	Water purification plant, front	Minamisanrikucho Town	2011/10/5	Sunny	17.6	0.20	14.4	3	81.1	Gravel with sand	<30	<10	<10				
	Minatobashi Bridge	Minamisanrikucho Town	2011/10/5	Cloudy	18.2	2.40	19.3	5	52.8	Silt with sand	<30	240	270				
S m y i s g a t e w m a R i v e r	Arimagawa River		Unandabashi Bridge	Kuriharashi City	2011/10/5	Cloudy	16.8	0.12	15.0	3	82.7	Sand with gravel	<30	450	550		
	Kinryugawa River		Obatabashi Bridge	Kuriharashi City	2011/10/5	Cloudy	18.0	0.25	15.1	3	81.4	Sand with gravel	<30	350	420		
	Kitakamigawa River		Tomeohashi Bridge (Tome)	Tomeshi City	2011/10/5	Cloudy	19.0	3.10	14.9	10	80.0	Sand	<30	47	66		
	Hasamagawa River	Sanhasamagawa River	Domanbashi Bridge (Kurikoma Dam)	Kuriharashi City	2011/10/5	Sunny	15.6	0.98	12.2	3	82.3	Sand with gravel	<30	41	44		
		Nihasamagawa River	Kajiyabashi Bridge	Kuriharashi City	2011/10/25	Cloudy	15.2	0.70	14.0	10	77.9	Sand with gravel	<30	350	400		
		Hasamagawa River		Hanayama Dam, inflow area	Kuriharashi City	2011/10/7	Sunny	16.2	0.55	15.3	3	82.1	Sand with gravel	<30	19	25	
				Wakayanagi	Kuriharashi City	2011/10/5	Cloudy	17.7	0.90	14.6	10	78.0	Sand	<30	170	230	
				Yamayoshidabashi Bridge	Tomeshi City	2011/10/10	Sunny	19.8	0.50	17.2	5	35.1	Silt	<30	770	960	
	Eaigawa River	Eaigawa River		Todorokibashi Bridge (Todoroki)	Osakishi City	2011/10/25	Rain	15.0	0.70	13.8	10	76.6	Sand	<30	120	140	
				Shimizuomon Weir	Osakishi City	2011/10/20	Sunny	18.3	0.57	14.6	5	84.4	Sand with gravel	<30	67	74	
		In Furukawa District, Osakishi City		Shinborisaihon, entrance	Osakishi City	2011/10/6	Sunny	17.0	1.80	17.5	3	64.4	Gravel/sand with silt	<30	540	650	
		Eaigawa River		Kogotabashi Bridge	Misatomachi Town	2011/10/7	Sunny	16.8	0.60	17.1	3	69.0	Gravel/sand with silt	<30	160	200	
	Eaigawa River		Oikawabashi Bridge (Tandai)	Wakuyacho Town/Ishinomakishi City	2011/10/10	Sunny	21.2	0.40	17.0	5	67.0	Sand	<30	100	160		
Kyukitakamigawa River		Kandoribashi Bridge (Wabuchi)	Ishinomakishi City	2011/10/5	Sunny	20.1	4.70	16.2	5	69.2	Silt with sand	<30	100	130			
		Kadonowaki	Ishinomakishi City	2011/10/12	Clear	19.0	3.50	17.4	3	67.5	Sand with silt	<30	110	130			
Jogawa River	Jogawaohashi Bridge	Ishinomakishi City/Higashimatsushima City	2011/10/12	Sunny	19.6	0.50	19.8	5	71.9	Sand	<30	<10	20				
S R i v e r Y s t e m T e g a w a	Karafuzawagawa River		Karafuzawagawa River Lowest Reaches	Kamimachi Town	2011/10/20	Cloudy	10.6	0.40	9.8	5	75.3	Sand with gravel	<30	52	81		
	Narusegawa River		Urushizawa Dam, inflow area	Kamimachi Town	2011/10/19	Cloudy	10.9	0.50	11.1	5	71.5	Sand with gravel	<30	48	77		
	Tsutsusagogawa River		Tsutsusagobashi Bridge	Kamimachi Town	2011/10/19	Cloudy	14.5	1.18	-	-	-	-	-	-	-	(Samples not collected due to river bottom covered with gravel)	
	Narusegawa River		Narusebashi Bridge (Nakaniida)	Kamimachi Town	2011/10/18	Clear	15.6	0.48	15.8	5	77.2	Sand with gravel	<30	52	61		
	Narusegawa River		Kan-onbashi Bridge (Nango)	Osakishi City/Misatomachi Town	2011/10/8	Sunny	15.4	0.60	14.9	3	79.9	Sand with gravel	<30	43	60		
	Narusegawa River		Onobashi Bridge (Ono)	Higashimatsushima City	2011/10/12	Sunny	21.0	0.50	16.8	5	83.2	Sand	<30	<10	<10		
	Yoshidagawa River		Manaitabashi Bridge	Taiwacho Town	2011/10/13	Sunny	20.0	1.00	15.8	3	77.5	Sand with gravel	<30	24	31		
	Yoshidagawa River		Zengawabashi Bridge	Taiwacho Town	2011/10/13	Sunny	19.4	0.30	14.4	5	70.9	Sand	<30	190	200		
Yoshidagawa River		Futagoyabashi Bridge (Kashimadai)	Osakishi City/Matsushimamachi Town	2011/10/7	Sunny	16.6	1.60	16.2	3	70.2	Sand	<30	29	41			
Tsurutagawa River	Shimoshidabashi Bridge	Osakishi City	2011/10/13	Sunny	16.2	0.50	16.2	10	40.2	Silt	<30	18	31				
Takagigawa River	Myojinbashi Bridge	Matsushimamachi Town	2011/10/13	Cloudy	14.0	1.50	16.8	3	77.9	Gravel/sand with silt	<30	36	39				
Shinmachigawa River	Tokiwabashi Bridge	Shiogamashi City	2011/10/19	Cloudy	18.4	1.10	18.8	3	79.9	Sand	<30	250	320				
Sunaoshigawa River	Tagajozeki Weir	Tagajoshi City	2011/10/14	Cloudy	17.3	0.50	15.8	5	50.8	Silt with sand	<30	660	870				
	Neubutsubashi Bridge	Tagajoshi City	2011/10/14	Sunny	22.0	1.60	20.0	10	48.8	Silt with sand	<30	1,300	1,600				
Teizan-unga Canal (Kyusunaoshigawa River)	Teizanbashi Bridge	Shiogamashi City/Shichigahamamachi Town/Tagajoshi City	2011/10/19	Cloudy	18.4	2.57	19.3	10	39.3	Gravel/silt with sand	<30	640	770				

\* Sampling points for rivers are listed from north to south, and for different points along the river, from upstream to downstream.

# ○River (Miyagi Prefecture-1): Surrounding Environment (River Terrace) Monitoring Results

Sampling point			Sampling date	Weather	Air temperature ℃	Left bank					Right bank					Remarks		
						Soil			Air dose μSv/h	Soil			Air dose μSv/h					
						Property	Concentration of radioactive material Bq/kg (dry)			Property	Concentration of radioactive material Bq/kg (dry)							
Water body	Point	Municipality	Radioactive iodine I-131	Radioactive cesium Cs-134	Radioactive cesium Cs-137	Radioactive iodine I-131	Radioactive cesium Cs-134	Radioactive cesium Cs-137										
Kitakamigawa River System	Kinzanbashi Bridge	Kesennumashi City	2011/10/4	Clear	8.1	-	-	-	-	0.14	Loamy	<30	810	980	0.16			
	Namiitabashi Bridge	Kesennumashi City	2011/10/4	Clear	15.2	-	-	-	-	0.06	-	-	-	-	-	0.05	(Soil not exposed)	
Okawa River	Tateyamaohashi Bridge	Kesennumashi City	2011/10/4	Clear	20.0	Loamy	<30	420	510	0.14	Loamy	<30	450	540	0.14			
	Kamiyamabashi Bridge	Kesennumashi City	2011/10/4	Sunny	18.0	Sandy	<30	390	460	0.11	Sandy	<30	610	780	0.11			
	Okawa River Estuary	Kesennumashi City	2011/10/3	Sunny	13.4	-	-	-	-	0.08	-	-	-	-	-	0.07	(Soil not exposed)	
Omosegawa River	Ozakibashi Bridge	Kesennumashi City	2011/10/4	Sunny	20.6	-	-	-	-	0.06	-	-	-	-	-	0.06	(Soil not exposed)	
Tsuyagawa River	Gakuenbashi Bridge	Kesennumashi City	2011/10/4	Sunny	19.6	Loamy	<30	200	250	0.14	Loamy	<30	110	110	0.13			
	Nashinokibashi Bridge	Kesennumashi City	2011/10/4	Sunny	20.0	Sandy	<30	100	150	0.12	Loamy	<30	23	28	0.11			
Kitakamigawa River System	Water purification plant, front	Minamisanrikucho Town	2011/10/5	Sunny	17.6	Sandy	<30	13	22	0.07	Sandy	<30	510	640	0.10			
	Minatobashi Bridge	Minamisanrikucho Town	2011/10/5	Cloudy	18.2	-	-	-	-	0.06	-	-	-	-	-	0.06	(Soil not exposed)	
K i t a k a m i g a w a R i v e r	Arimagawa River	Unandabashi Bridge	Kuriharashi City	2011/10/5	Cloudy	16.8	Sandy	<30	1,600	2,200	0.31	Sandy	<30	210	270	0.25		
	Kinryugawa River	Obatabashi Bridge	Kuriharashi City	2011/10/5	Cloudy	18.0	Sandy	<30	2,600	3,300	0.36	Sandy	<30	370	450	0.34		
	Kitakamigawa River	Tomeohashi Bridge (Tome)	Tomeshi City	2011/10/5	Cloudy	19.0	Loamy	<30	870	1,100	0.14	Loamy	<30	170	250	0.10		
	Hasamagawa River	Sanhasamagawa River	Domanbashi Bridge (Kurikoma Dam)	Kuriharashi City	2011/10/5	Sunny	15.6	Sandy	<30	190	240	0.16	Sandy	<30	110	130	0.11	
			Nihasamagawa River	Kajiyabashi Bridge	Kuriharashi City	2011/10/25	Cloudy	15.2	Loamy	<30	420	530	0.48	Loamy	<30	330	400	0.46
		Hasamagawa River	Hanayama Dam, inflow area	Kuriharashi City	2011/10/7	Sunny	16.2	Loamy	<30	600	720	0.30	Sandy	<30	110	150	0.16	
			Wakayanagi	Kuriharashi City	2011/10/5	Cloudy	17.7	Loamy	<30	360	450	0.14	Sandy	<30	970	1,200	0.28	
	Eaigawa River	Yamayoshidabashi Bridge	Tomeshi City	2011/10/10	Sunny	19.8	Loamy	<30	180	230	0.10	Loamy	<30	260	340	0.10		
			Tomeshi City	2011/10/10	Sunny	20.8	Loamy	<30	110	110	0.09	Loamy	<30	180	240	0.09		
		Eaigawa River	Todorokibashi Bridge (Todoroki)	Osakishi City	2011/10/25	Rain	15.0	Loamy	<30	330	410	0.19	Loamy	<30	360	490	0.21	*1
Shimizukomon Weir			Osakishi City	2011/10/20	Sunny	18.3	Loamy	<30	400	580	0.07	Loamy	<30	130	150	0.09		
Kyukitakamigawa River	In Furukawa District, Osakishi City	Shinborisaihon, entrance	Osakishi City	2011/10/6	Sunny	17.0	Loamy	<30	240	290	0.10	Loamy	<30	460	560	0.09		
	Dekigawa River	Kogotabashi Bridge	Misatomachi Town	2011/10/7	Sunny	16.8	Loamy	<30	440	600	0.10	Loamy	<30	71	110	0.09		
Eaigawa River	Oikawabashi Bridge (Tandai)	Wakuyacho Town/Ishinomakishi City	2011/10/10	Sunny	21.2	Loamy	<30	49	41	0.10	Loamy	<30	100	120	0.09			
	Kandoribashi Bridge (Wabuchi)	Ishinomakishi City	2011/10/5	Sunny	20.1	Loamy	<30	140	200	0.09	Loamy	<30	<10	<10	0.10			
Kadonowaki	Ishinomakishi City	2011/10/12	Clear	19.0	Loamy	<30	150	180	0.08	Loamy	<30	110	150	0.09				
Jogawa River	Jogawaohashi Bridge	Ishinomakishi City/Higashimatsushimashi City	2011/10/12	Sunny	19.6	Sandy	<30	60	100	0.08	Loamy	<30	200	230	0.07			
S R u t s u g a w a R i v e r	Karafuzawagawa River	Karafuzawagawa River Lowest Reaches	Kamimachi Town	2011/10/20	Cloudy	10.6	Loamy	<30	430	540	0.04	Loamy	<30	85	100	0.04		
		Urushizawa Dam, inflow area	Kamimachi Town	2011/10/19	Cloudy	10.9	Loamy	<30	160	170	0.04	Loamy	<30	33	47	0.04		
	Tsutsusagogawa River	Tsutsusagobashi Bridge	Kamimachi Town	2011/10/19	Cloudy	14.5	Loamy	<30	140	160	0.05	Loamy	<30	330	450	0.05		
		Narusebashi Bridge (Nakaniida)	Kamimachi Town	2011/10/18	Clear	15.6	Loamy	<30	380	510	0.06	Sandy	<30	280	330	0.06		
	Narusegawa River	Kan-onbashi Bridge (Nango)	Osakishi City/Misatomachi Town	2011/10/8	Sunny	15.4	Loamy	<30	82	95	0.09	Loamy	<30	58	70	0.10		
		Onobashi Bridge (Ono)	Higashimatsushimashi City	2011/10/12	Sunny	21.0	Loamy	<30	140	180	0.11	Loamy	<30	190	220	0.12		
	Yoshidagawa River	Manaitabashi Bridge	Taiwacho Town	2011/10/13	Sunny	20.0	Loamy	<30	260	350	0.09	Loamy	<30	220	250	0.08		
		Zengawabashi Bridge	Taiwacho Town	2011/10/13	Sunny	19.4	Loamy	<30	310	360	0.11	Loamy	<30	340	430	0.10		
Futagoyabashi Bridge (Kashimadai)		Osakishi City/Matsushimamachi Town	2011/10/7	Sunny	16.6	Loamy	<30	45	72	0.10	Loamy	<30	66	68	0.11			
Tsurutagawa River	Shimoshidabashi Bridge	Osakishi City	2011/10/13	Sunny	16.2	Loamy	<30	120	150	0.08	Loamy	<30	150	190	0.09			
Takagigawa River	Myojinbashi Bridge	Matsushimamachi Town	2011/10/13	Cloudy	14.0	Loamy	<30	90	130	0.10	Loamy	<30	460	570	0.09			
Shinmachi River	Tokiwabashi Bridge	Shiogamashi City	2011/10/19	Cloudy	18.4	-	-	-	-	-	-	-	-	-	0.09	(Soil not exposed) *2		
Sunaoshigawa River	Tagajozeki Weir	Tagajoshi City	2011/10/14	Cloudy	17.3	Loamy	<30	270	340	0.09	Loamy	<30	200	240	0.09			
	Nenbutsubashi Bridge	Tagajoshi City	2011/10/14	Sunny	22.0	Loamy	<30	360	390	0.10	Loamy	<30	150	220	0.08			
Teizan-unga Canal (Kiyusunaoshigawa River)	Teizanbashi Bridge	Shiogamashi City/Shichigaharamachi Town/Tagajoshi City	2011/10/19	Cloudy	18.4	Loamy	<30	150	180	0.14	Loamy	<30	320	400	0.17	*2		

\* Air dose was measured with a survey meter, TCS-172 or TCS-161 of Hitachi-Aloka Medical, Ltd. For points with \*1 in the Remarks column, a survey meter, Model 3 of Ludlum Measurement Inc., and for those with \*2, a Model 5000 of Health Physics Instruments was used. Figures measured with either a Model 3 or a Model 5000 had a tendency to be a little higher than those measured with a TCS-172 or TCS-161 (about 1.6 times higher).

\* Sampling points for rivers are listed from north to south, and for different points along the river, from upstream to downstream.

## ORiver (Miyagi Prefecture-2): Water Quality Monitoring Results

Sampling point			Sampling date	Weather	Air temperature °C	Full depth m	General items						Concentration of radioactive material Bq/L			Remarks			
Water body	Point	Municipality					Water temperature °C	Sampling depth m	Transparency cm	Electrical conductivity mS/m	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137					
Nanakitagawa River System	Nanakitagawa River	Hanagebashi Bridge	Sendaishi City	2011/10/20	Cloudy	10.7	0.40	11.4	0.0	100 or more	17.2	2	3.3	<1	<1	<1			
		Nanakitabashi Bridge	Sendaishi City	2011/10/20	Sunny	19.2	0.40	14.4	0.0	100 or more	21.3	4	4.9	<1	<1	<1			
		Fukudaohashi Bridge	Sendaishi City	2011/10/18	Clear	18.4	0.30	17.6	0.0	34	47.4	13	14	<1	<1	<1			
	Umedagawa River	Karekibashi Bridge	Sendaishi City	2011/10/19	Cloudy	15.8	0.30	14.8	0.0	100 or more	30.6	2	5.2	<1	<1	<1			
		Otamibashi Bridge	Sendaishi City	2011/10/20	Sunny	20.4	0.40	16.5	0.0	100 or more	23.5	2	2.9	<1	<1	<1			
		Fukudabashi Bridge	Sendaishi City	2011/10/18	Sunny	17.0	0.50	18.2	0.0	29	888.0	17	18	<1	<1	<1			
	Nanakitagawa River	Takasagobashi Bridge	Sendaishi City	2011/10/14	Sunny	21.0	2.50	19.2	0.0	90	1402.0	3	6.3	<1	<1	<1			
Natorigawa River System	Hirosegawa River	Hirosegawa River	Nogawabashi Bridge	Sendaishi City	2011/10/18	Clear	14.8	0.35	14.4	0.0	100 or more	19.6	<1	2.8	<1	<1	<1		
		Okuragawa River	Takinouebashi Bridge	Sendaishi City	2011/10/19	Sunny	10.8	1.15	9.0	0.0	100 or more	9.9	1	1.0	<1	<1	<1		
		Okuragawa River Lowest Reaches	Sendaishi City	2011/10/18	Clear	11.6	0.45	14.0	0.0	100 or more	7.7	3	4.8	<1	<1	<1			
		Hirosegawa River	Nariaibashi Bridge	Sendaishi City	2011/10/18	Clear	18.4	0.35	14.4	0.0	100 or more	17.6	2	3.0	<1	<1	<1		
		Hirosegawa River	Atagobashi Bridge	Sendaishi City	2011/10/20	Sunny	18.0	1.03	15.8	0.0	100 or more	18.3	1	2.2	<1	<1	<1		
		Hirosegawa River	Mitsuhashi Bridge	Sendaishi City	2011/10/20	Sunny	18.2	0.60	15.8	0.0	100 or more	19.4	2	2.7	<1	<1	<1		
	Natorigawa River	Natorigawa River	Fukanobashi Bridge	Sendaishi City	2011/10/18	Clear	17.2	0.65	14.2	0.0	100 or more	8.1	<1	0.7	<1	<1	<1		
		Natorigawa River	Konosuonsen	Sendaishi City	2011/10/18	Clear	17.0	0.40	15.2	0.0	100 or more	10.2	1	1.8	<1	<1	<1		
		Tarogawa River (Goishigawa River)	Imokubobashi Bridge	Kawasakimachi Town	2011/10/19	Sunny	16.0	0.50	12.2	0.0	100 or more	10.3	1	2.3	<1	<1	<1		
		Natorigawa River	Kitagawabashi Bridge	Kawasakimachi Town	2011/10/19	Sunny	15.4	0.20	13.0	0.0	100 or more	11.6	2	2.6	<1	<1	<1		
		Natorigawa River	Maekawabashi Bridge	Kawasakimachi Town	2011/10/18	Sunny	15.8	0.85	14.6	0.0	100 or more	11.9	1	1.5	<1	<1	<1		
		Natorigawa River	Kurikibashi Bridge	Sendaishi City/Natorishi City	2011/10/27	Sunny	16.9	0.80	13.0	0.0	100 or more	16.3	1	2.6	<1	<1	<1		
		Natorigawa River	Zarugawa River	Before the confluence with Natorigawa River	Sendaishi City	2011/10/26	Sunny	16.9	0.50	15.0	0.0	100 or more	29.4	2	2.9	<1	<1	<1	
	Natorigawa River	Yuriageobashi Bridge	Sendaishi City/Natorishi City	2011/10/20	Sunny	18.4	0.25	16.8	0.0	100 or more	670.0	6	7.3	<1	<1	<1			
	Masudagawa River	Masudagawa River	Yakushibashi Bridge	Natorishi City	2011/10/27	Sunny	16.9	0.60	12.9	0.0	100 or more	5.4	<1	1.1	<1	<1	<1		
		Masudagawa River	Koyamabashi Bridge	Natorishi City	2011/10/26	Sunny	15.0	0.50	14.2	0.0	66	19.0	9	11	<1	<1	<1		
		Masudagawa River	Bishamonbashi Bridge	Natorishi City	2011/10/8	Clear	15.1	0.95	15.1	0.0	42	26.9	19	24	<1	<1	<1		
	Kawauchisawagawa River	Kawauchibashi Bridge	Natorishi City	2011/10/7	Sunny	20.4	0.75	17.6	0.0	50	20.7	27	29	<1	<1	<1			
	Shitaboriyosuiro Irrigation Channel	Sakaibashi Bridge	Natorishi City	2011/10/7	Clear	21.5	0.30	19.1	0.0	52	11.7	10	13	<1	<1	<1			
Abukumagawa River System	Gokenborigawa River	Edobashi Bridge	Iwanumashi City	2011/10/8	Sunny	19.8	0.35	14.1	0.0	62	20.5	17	19	<1	<1	<1			
		Yanomebashi Bridge	Iwanumashi City	2011/10/7	Sunny	19.2	1.25	16.6	0.0	33	25.4	32	31	<1	<1	<1			
	Shiroishigawa River	Shiroishigawa River	Before the confluence with Kawaragawa River (Sanaoibashi Bridge)	Shiroishishi City	2011/10/24	Rain	15.9	0.80	15.4	0.0	100 or more	7.7	3	2.7	<1	<1	<1		
		Shiroishigawa River	Saikawa River	Etsubobashi Bridge	Shiroishishi City	2011/10/25	Cloudy	16.8	0.70	15.5	0.0	100 or more	13.3	8	7.1	<1	<1	<1	
		Shiroishigawa River	Matsukawa River	Miyaohashi Bridge	Zaomachi Town	2011/10/24	Rain	16.2	0.30	13.8	0.0	100 or more	12.7	3	3.0	<1	<1	<1	
		Shiroishigawa River	Arakawa River	Niragambashi Bridge	Muratamachi Town/Ogawaramachi Town	2011/10/17	Cloudy	21.7	0.73	17.0	0.0	100 or more	19.5	12	13	<1	<1	<1	
	Shiroishigawa River	Shirahatabashi Bridge	Shibatamachi Town	2011/10/23	Sunny	24.8	0.55	17.8	0.0	100 or more	12.0	3	5.6	<1	<1	<1			
	Abukumagawa River	Abukumagawa River	Marumorbashi Bridge	Marumorimachi Town	2011/10/23	Sunny	27.2	3.85	17.2	0.0	100 or more	17.3	6	6.8	<1	<1	<1		
Abukumagawa River		Abukumaohashi Bridge (Iwanuma)	Iwanumashi City/Wataricho Town	2011/10/8	Sunny	21.0	1.25	16.4	0.0	42	14.3	23	22	<1	<1	<1			

\* Sampling points for rivers are listed from north to south, and for different points along the river, from upstream to downstream.

## ○River (Miyagi Prefecture-2): Sediment Monitoring Results

Sampling point				Sampling date	Weather	Air temperature ℃	Full depth m	General items				Concentration of radioactive material Bq/kg (dried mud)			Remarks	
Water body	Point	Municipality	Mud temperature ℃					Mud sampling depth cm	Mud content %	Property	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137				
			Nanakitagawa River System	Nanakitagawa River	Hanagebashi Bridge	Sendaishi City	2011/10/20	Cloudy	10.7		0.40	11.4	10	76.0	Sand with gravel	<30
Nanakitabashi Bridge	Sendaishi City	2011/10/20			Sunny	19.2	0.40	15.2	5	87.9	Sand with gravel	<30	47	62		
Fukudaohashi Bridge	Sendaishi City	2011/10/18			Clear	18.4	0.30	18.0	10	83.8	Sand	<30	<10	10		
Umedagawa River	Karekibashi Bridge	Sendaishi City		2011/10/19	Cloudy	15.8	0.30	14.8	3	83.6	Sand with gravel	<30	150	170		
	Otamibashi Bridge	Sendaishi City		2011/10/20	Sunny	20.4	0.40	16.8	5	83.0	Sand with gravel	<30	56	78		
	Fukudabashi Bridge	Sendaishi City		2011/10/18	Sunny	17.0	0.50	19.2	8	59.9	Sand with silt	<30	610	740		
Nanakitagawa River	Takasagobashi Bridge	Sendaishi City		2011/10/14	Sunny	21.0	2.50	19.6	5	54.0	Silt with sand	<30	5,000	6,100		
Natorigawa River System	Hirosegawa River	Hirosegawa River	Nogawabashi Bridge	Sendaishi City	2011/10/18	Clear	14.8	0.35	13.8	5	78.7	Sand	<30	57	65	
		Okuragawa River	Takinouebashi Bridge	Sendaishi City	2011/10/19	Sunny	10.8	1.15	9.6	10	84.3	Sand with gravel	<30	100	150	
		Okuragawa River Lowest Reaches	Sendaishi City	2011/10/18	Clear	11.6	0.45	14.0	5	75.9	Sand with gravel	<30	100	130		
		Nariaibashi Bridge	Sendaishi City	2011/10/18	Clear	18.4	0.35	15.6	5	78.8	Sand	<30	79	82		
		Hirosegawa River	Atagobashi Bridge	Sendaishi City	2011/10/20	Sunny	18.0	1.03	16.4	5	80.8	Sand with gravel	<30	29	34	
	Natorigawa River	Natorigawa River	Fukanobashi Bridge	Sendaishi City	2011/10/18	Clear	17.2	0.65	14.7	5	75.8	Sand	<30	97	93	
			Konosuonsen	Sendaishi City	2011/10/18	Clear	17.0	0.40	15.4	5	81.3	Sand	<30	19	21	
		Tanogawa River (Goishigawa River)	Imokubobashi Bridge	Kawasakimachi Town	2011/10/19	Sunny	16.0	0.50	12.2	10	74.0	Sand with gravel	<30	17	25	
		Kitagawa River	Kitagawabashi Bridge	Kawasakimachi Town	2011/10/19	Sunny	15.4	0.20	13.2	5	78.4	Sand	<30	25	44	
		Maekawa River	Kitamukaibashi Bridge	Kawasakimachi Town	2011/10/18	Sunny	15.8	0.85	13.8	5	83.6	Sand with gravel	<30	21	25	
		Natorigawa River	Kurikibashi Bridge	Sendaishi City/Natorishi City	2011/10/27	Sunny	16.9	0.80	13.6	10	76.2	Sand	<30	41	50	
		Zarugawa River	Before the confluence with Natorigawa River	Sendaishi City	2011/10/26	Sunny	16.9	0.50	15.2	5	76.7	Sand with gravel	<30	180	210	
		Natorigawa River	Yuriageohashi Bridge	Sendaishi City/Natorishi City	2011/10/20	Sunny	18.4	0.25	17.4	10	54.1	Silt with sand	<30	280	330	
	Masudagawa River	Yakushibashi Bridge	Natorishi City	2011/10/27	Sunny	16.9	0.60	13.7	10	74.9	Sand with gravel	<30	24	32		
		Koyamabashi Bridge	Natorishi City	2011/10/26	Sunny	15.0	0.50	15.2	10	39.5	Silt	<30	2,300	2,900		
		Bishamonbashi Bridge	Natorishi City	2011/10/8	Clear	15.1	0.95	15.8	5	58.0	Sand	<30	510	630		
	Kawauchisawagawa River	Kawauchibashi Bridge	Natorishi City	2011/10/7	Sunny	20.4	0.75	17.4	5	75.1	Sand	<30	25	32		
Shitaboriyosuuro Irrigation Channel	Sakaibashi Bridge	Natorishi City	2011/10/7	Clear	21.5	0.30	18.8	5	77.7	Sand with gravel	<30	280	360			
Abukumagawa River System	Gokenborigawa River	Edobashi Bridge	Iwanumashi City	2011/10/8	Sunny	19.8	0.35	17.6	5	86.0	Sand	<30	510	590		
		Yanomebashi Bridge	Iwanumashi City	2011/10/7	Sunny	19.2	1.25	16.9	5	65.7	Sand	<30	100	130		
	Shiroishigawa River	Shiroishigawa River	Before the confluence with Kawaragawa River (Sanaohashi Bridge)	Shiroishishi City	2011/10/24	Rain	15.9	0.80	15.3	10	68.5	Sand	<30	760	970	
		Saikawa River	Etsubobashi Bridge	Shiroishishi City	2011/10/25	Cloudy	16.8	0.70	15.2	10	85.8	Sand with gravel	<30	200	230	
		Matsukawa River	Miyaohashi Bridge	Zaomachi Town	2011/10/24	Rain	16.2	0.30	14.0	3	85.5	Sand with gravel	<30	48	71	
		Arakawa River	Niragamibashi Bridge	Muratamachi Town/Ogawaramachi Town	2011/10/17	Cloudy	21.7	0.73	17.0	5	84.7	Sand	<30	15	18	
		Shiroishigawa River	Shirahatabashi Bridge	Shibatamachi Town	2011/10/23	Sunny	24.8	0.55	17.5	5	81.8	Sand	<30	12	20	
	Abukumagawa River	Marumoribashi Bridge	Marumorimachi Town	2011/10/23	Sunny	27.2	3.85	17.8	5	83.0	Sand	<30	100	120		
Abukumaohashi Bridge (Iwanuma)		Iwanumashi City/Wataricho Town	2011/10/8	Sunny	21.0	1.25	16.8	5	81.0	Sand	<30	44	47			

\* Sampling points for rivers are listed from north to south, and for different points along the river, from upstream to downstream.

## ○River (Miyagi Prefecture-2): Surrounding Environment (River Terrace) Monitoring Results

Sampling point			Sampling date	Weather	Air temperature ℃	Left bank					Right bank					Remarks		
						Soil			Air dose μSv/h	Soil			Air dose μSv/h					
Water body	Point	Municipality	Property	Concentration of radioactive material Bq/kg (dry)			Property	Concentration of radioactive material Bq/kg (dry)										
				Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137			Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137									
Kitakamigawa River System	Nanakitagawa River	Hanagebashi Bridge	Sendaishi City	2011/10/20	Cloudy	10.7	Loamy	<30	200	260	0.10	Sandy	<30	25	31	0.08	*2	
		Nanakitabashi Bridge	Sendaishi City	2011/10/20	Sunny	19.2	Loamy	<30	860	1,000	0.14	Loamy	<30	200	300	0.14	*2	
		Fukudaohashi Bridge	Sendaishi City	2011/10/18	Clear	18.4	Loamy	<30	120	140	0.14	Loamy	<30	150	170	0.14	*2	
	Umedagawa River	Karekibashi Bridge	Sendaishi City	2011/10/19	Cloudy	15.8	Loamy	<30	300	380	0.12	Loamy	<30	140	180	0.11	*2	
		Otamibashi Bridge	Sendaishi City	2011/10/20	Sunny	20.4	Loamy	<30	210	280	0.18	Sandy	<30	250	300	0.12	*2	
		Fukudabashi Bridge	Sendaishi City	2011/10/18	Sunny	17.0	Loamy	<30	220	280	0.18	Loamy	<30	310	360	0.18	*2	
Nanakitagawa River	Takasagobashi Bridge	Sendaishi City	2011/10/14	Sunny	21.0	Loamy	<30	220	260	0.11	Loamy	<30	310	410	0.10			
Natorishigawa River System	Hirosegawa River	Hirosegawa River	Nogawabashi Bridge	Sendaishi City	2011/10/18	Clear	14.8	Loamy	<30	43	60	0.06	Loamy	<30	59	68	0.06	
		Okuragawa River	Takinouebashi Bridge	Sendaishi City	2011/10/19	Sunny	10.8	Loamy	<30	66	82	0.06	Loamy	<30	72	100	0.06	
			Okuragawa River Lowest Reaches	Sendaishi City	2011/10/18	Clear	11.6	Loamy	<30	49	72	0.07	-	-	-	-	-	
		Hirosegawa River	Nariaibashi Bridge	Sendaishi City	2011/10/18	Clear	18.4	Loamy	<30	160	180	0.07	-	-	-	-	-	
			Atagobashi Bridge	Sendaishi City	2011/10/20	Sunny	18.0	-	-	-	-	-	Loamy	<30	190	300	0.12	
	Mitsuhashi Bridge	Sendaishi City	2011/10/20	Sunny	18.2	Loamy	<30	230	270	0.12	Loamy	<30	410	480	0.12			
	Natorigawa River	Natorigawa River	Fukanobashi Bridge	Sendaishi City	2011/10/18	Clear	17.2	-	-	-	-	Loamy	<30	280	310	0.06		
		Konosuonsen	Sendaishi City	2011/10/18	Clear	17.0	Loamy	<30	130	160	0.06	Loamy	<30	200	240	0.08		
		Tarogawa River (Goishigawa River)	Imokubobashi Bridge	Kawasakimachi Town	2011/10/19	Sunny	16.0	Loamy	<30	83	99	0.07	Loamy	<30	150	200	0.07	
		Kitagawa River	Kitagawabashi Bridge	Kawasakimachi Town	2011/10/19	Sunny	15.4	Loamy	<30	98	130	0.08	-	-	-	-		
		Maekawa River	Kitamukaibashi Bridge	Kawasakimachi Town	2011/10/18	Sunny	15.8	Loamy	<30	530	600	0.06	Loamy	<30	110	130	0.04	
		Natorigawa River	Kurikibashi Bridge	Sendaishi City/Natorishi City	2011/10/27	Sunny	16.9	Loamy	<30	560	800	0.15	Loamy	<30	320	410	0.17	*1
		Zarugawa River	Before the confluence with Natorigawa River	Sendaishi City	2011/10/26	Sunny	16.9	Loamy	<30	170	220	0.21	Loamy	<30	450	520	0.20	*1
	Natorigawa River	Yuriageohashi Bridge	Sendaishi City/Natorishi City	2011/10/20	Sunny	18.4	Clay-loamy	<30	400	510	0.12	Loamy	<30	260	300	0.12		
	Masudagawa River	Yakushibashi Bridge	Natorishi City	2011/10/27	Sunny	16.9	Loamy	<30	1,600	2,000	0.25	Loamy	<30	260	320	0.21	*1	
Koyamabashi Bridge		Natorishi City	2011/10/26	Sunny	15.0	Loamy	<30	410	520	0.21	Loamy	<30	200	280	0.25	*1		
Bishamonbashi Bridge		Natorishi City	2011/10/8	Clear	15.1	Loamy	<30	320	370	0.09	Loamy	<30	400	460	0.08			
Kawauchisawagawa River	Kawauchibashi Bridge	Natorishi City	2011/10/7	Sunny	20.4	Loamy	<30	180	220	0.07	Loamy	<30	540	630	0.09			
Shitaboriyosuiro Irrigation Channel	Sakaibashi Bridge	Natorishi City	2011/10/7	Clear	21.5	Loamy	<30	510	570	0.07	Loamy	<30	480	610	0.07			
Aburakuyama River System	Gokenborigawa River	Edobashi Bridge	Iwanumashi City	2011/10/8	Sunny	19.8	Loamy	<30	510	670	0.09	Loamy	<30	750	920	0.07		
		Yanomebashi Bridge	Iwanumashi City	2011/10/7	Sunny	19.2	Loamy	<30	580	700	0.07	Loamy	<30	300	390	0.09		
	Shiroishigawa River	Shiroishigawa River	Before the confluence with Kitakamigawa River (Danaobashi Bridge)	Shiroishishi City	2011/10/24	Rain	15.9	Loamy	<30	1,600	2,100	0.51	Loamy	<30	530	700	0.52	*1
		Saikawa River	Etsubobashi Bridge	Shiroishishi City	2011/10/25	Cloudy	16.8	Loamy	<30	160	180	0.38	Loamy	<30	340	470	0.37	*1
		Matsukawa River	Miyaohashi Bridge	Zaomachi Town	2011/10/24	Rain	16.2	Loamy	<30	250	310	0.31	Loamy	<30	430	490	0.27	*2
		Arakawa River	Niragamibashi Bridge	Muratamachi Town/Ogawaramachi Town	2011/10/17	Cloudy	21.7	Loamy	<30	860	1,000	0.15	Loamy	<30	1,200	1,600	0.15	
	Shiroishigawa River	Shirahatabashi Bridge	Shibatamachi Town	2011/10/23	Sunny	24.8	Loamy	<30	450	560	0.30	Loamy	<30	400	520	0.34	*2	
	Abukumagawa River	Marumoribashi Bridge	Marumorimachi Town	2011/10/23	Sunny	27.2	Loamy	<30	680	820	0.66	Sandy	<30	260	340	0.42	*2	
Abukumaohashi Bridge (Iwanuma)		Iwanumashi City/Wataricho Town	2011/10/8	Sunny	21.0	Loamy	<30	1,700	2,200	0.23	Loamy	<30	740	930	0.17			

\* Air dose was measured with a survey meter, TCS-172 or TCS-161 of Hitachi-Aloka Medical, Ltd. For points with \*1 in the Remarks column, a survey meter, Model 3 of Ludlum Measurement Inc., and for those with \*2, a Model 5000 of Health Physics Instruments was used. Figures measured with either a Model 3 or a Model 5000 had a tendency to be a little higher than those measured with a TCS-172 or TCS-161 (about 1.6 times higher).

• Sampling points for rivers are listed from north to south, and for different points along the river, from upstream to downstream.



## OLake and Headwater (Miyagi Prefecture): Water Quality Monitoring Results

Sampling point			Sampling date	Weather	Air temperature °C	Full depth m	General items						Concentration of radioactive material Bq/L			Remarks
Water body	Point	Water temperature °C					Sampling depth m	Secchi disk depth m	Electrical conductivity mS/m	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium			
			Cs-134	Cs-137												
R K i i v t e a r k a  S m y i s g t a e w m a	Kurikoma Dam	Dam site	2011/10/5	Sunny	11.3	13.3	15.2	0.5	0.7	12.1	10	15	<1	<1	<1	
		1 m from the bottom	-	-	-	-	13.9	12.3	-	13.1	42	58	<1	<1	<1	
	Hanayama Dam	Dam site	2011/10/6	Rain	15.0	22.1	15.4	0.5	2.1	8.2	2	2.6	<1	<1	<1	
		1 m from the bottom	-	-	-	-	10.4	21.1	-	9.4	30	40	<1	<1	<1	
	Izunuma Lake	Lake exit	2011/10/7	Sunny	17.8	1.6	18.0	0.5	0.5	14.3	20	25	<1	<1	<1	
		1 m from the bottom	-	-	-	-	17.9	0.6	-	13.7	20	21	<1	<1	<1	
	Naganuma Lake	Lake exit	2011/10/7	Sunny	14.2	0.9	15.9	0.0	0.9 or more	15.5	2	2.4	<1	<1	<1	
	Shukunosawatameike Pond	Pond exit	2011/10/11	Sunny	15.2	0.5	17.6	0.0	0.5 or more	10.5	13	10	<1	<1	<1	
Narugo Dam	Dam site	2011/10/26	Sunny	9.7	46.6	13.8	0.5	2.0	14.5	4	5.4	<1	<1	<1		
	1 m from the bottom	-	-	-	-	7.0	45.6	-	16.7	14	16	<1	<1	<1		
Narusegawa River System	Futatsuishi Dam		2011/10/19	Clear	13.6	0.65	14.8	0.0	0.65 or more	6.7	4	3.2	<1	<1	<1	
	Urushizawa Dam	Dam site	2011/11/7	Sunny	16.4	29.7	12.6	0.5	2.0	5.9	3	4.3	<1	<1	<1	
		1 m from the bottom	-	-	-	-	8.8	28.7	-	7.2	10	16	<1	<1	<1	
	Minamikawa Dam	Dam site	2011/10/13	Sunny	17.0	26.0	17.8	0.5	3.0	7.5	2	1.5	<1	<1	<1	
		1 m from the bottom	-	-	-	-	8.2	25.0	-	11.1	150	100	<1	<1	<1	
Miyatoko Dam	Dam site	2011/10/20	Sunny	16.2	2.5	15.8	0.0	2.1	8.1	3	4.0	<1	<1	<1		
Sunaoshigawa River System	Sonoseki Dam		2011/10/19	Sunny	12.6	7.7	16.0	0.5	0.5	13.6	16	21	<1	<1	<1	
	1 m from the bottom		-	-	-	-	15.8	6.7	-	13.8	19	24	<1	<1	<1	
Janakitagawa River System	Nanakita Dam		2011/10/20	Cloudy	14.0	0.3	14.4	0.0	0.3 or more	7.0	2	3.8	<1	<1	<1	
Marutazawatameike Pond		Pond exit	2011/10/20	Sunny	16.2	0.4	16.4	0.0	0.4 or more	26.3	13	15	<1	<1	<1	
Amanuma Lake		Lake exit	2011/10/28	Sunny	11.3	1.0	13.0	0.0	0.9	22.7	4	4.6	<1	<1	<1	
Natorigawa River System	Okura Dam	Dam site	2011/10/19	Sunny	13.2	25.0	14.9	0.5	2.7	7.3	2	2.6	<1	<1	<1	
		1 m from the bottom	-	-	-	-	9.0	24.0	-	7.7	17	20	<1	<1	<1	
	Kamafusa Dam	Dam site	2011/10/21	Cloudy	17.4	25.5	15.3	0.5	1.7	10.1	4	4.0	<1	<1	<1	
		1 m from the bottom	-	-	-	-	14.8	24.5	-	11.0	13	15	<1	<1	<1	
Tarumizu Dam	Dam site	2011/10/27	Sunny	11.2	0.5	15.8	0.0	2.0	8.9	3	4.0	<1	<1	<1		
Abukumagawa River System	Murata Dam		2011/10/18	Sunny	17.2	0.7	15.6	0.0	0.8	7.8	9	11	<1	<1	<1	
	Kawarago Dam	Dam site	2011/10/6	Cloudy	20.8	0.5	15.2	0.0	1.8	11.9	2	1.9	<1	<1	<1	
	Shichikashuku Dam	Dam site	2011/10/6	Cloudy	16.2	30.5	17.3	0.5	2.4	6.9	2	3.8	<1	<1	<1	
1 m from the bottom		-	-	-	-	10.1	29.5	-	6.9	2	5.8	<1	<1	<1		
Bagyunuma Lake		Lake exit	2011/10/24	Rain	18.0	0.7	16.8	0.0	0.5	10.9	86	85	<1	1	2	

• Sampling points are listed from north to south.

## ○Lake and Headwater (Miyagi Prefecture): Sediment and Surrounding Environment (Lake Shore) Monitoring Results

Sampling point			Sampling date	Weather	Air temperature ℃	Full depth m	Sediment							Surrounding environment (lake shore)					Remarks
							General items				Concentration of radioactive material Bq/kg (dried)			Soil			Air dose μSv/h		
Water body		Citakamigawa River System			℃	m	Mud temperature	Mud sampling depth	Mud content	Property	Radioactive iodine	Radioactive cesium		Property	Concentration of radioactive material Bq/kg (dried)				
							℃	cm	%		I-131	Cs-134	Cs-137		Radioactive iodine	Radioactive cesium			
															I-131	Cs-134	Cs-137		
Citakamigawa River System	Kurikoma Dam	Dam site	2011/10/5	Sunny	11.3	13.3	14.9	3	39.5	Silt	<30	470	630	Loamy	<30	370	470	0.21	
	Hanayama Dam	Dam site	2011/10/6	Rain	15.0	22.1	8.8	15	32.3	Silt	<30	210	230	Loamy	<30	910	1,100	0.21	
	Izunuma Lake	Lake exit	2011/10/7	Sunny	17.8	1.6	18.1	5	31.8	Silt with sand	<30	390	510	Loamy	<30	380	410	0.08	
	Naganuma Lake	Lake exit	2011/10/7	Sunny	14.2	0.9	16.8	10	20.5	Silt	<30	500	680	Loamy	<30	120	160	0.07	
	Shukunosawatameike Pond	Pond exit	2011/10/11	Sunny	15.2	0.5	17.8	5	72.1	Sand	<30	210	230	Loamy	<30	350	460	0.11	
	Narugo Dam	Dam site	2011/10/26	Sunny	9.7	46.6	7.2	10	31.6	Silt	<30	240	250	Clay-loamy	<30	130	160	0.21 *1	
Narusegawa River System	Futatsuishi Dam		2011/10/19	Clear	13.6	0.65	14.6	10	44.1	Sand with silt	<30	1,000	1,300	Loamy	<30	140	150	0.04	
	Urushizawa Dam	Dam site	2011/11/7	Sunny	16.4	29.7	9.8	10	31.8	Silt	<30	300	400	Loamy	<30	160	200	0.13 *2	
	Minamikawa Dam	Dam site	2011/10/13	Sunny	17.0	26.0	7.8	10	20.2	Silt	<30	1,200	1,400	Loamy	<30	380	450	0.09	
	Miyatoko Dam	Dam site	2011/10/20	Sunny	16.2	2.5	17.6	10	69.9	Gravel/sand with silt	<30	14	17	Clay-loamy	<30	60	75	0.07	
Citakamigawa River System	Sonoseki Dam		2011/10/19	Sunny	12.6	7.7	15.0	10	15.1	Silt	<30	260	450	Loamy	<30	180	230	0.14 *2	
Sanakitagawa River System	Nanakita Dam	Dam site	2011/10/20	Cloudy	14.0	0.3	14.8	10	30.8	Sand with silt	<30	160	240	Loamy	<30	36	78	0.07	
Marutazawatameike Pond		Pond exit	2011/10/20	Sunny	16.2	0.4	16.2	5	68.0	Sand with gravel	<30	480	620	Loamy	<30	560	710	0.14 *2	
Amanuma Lake		Lake exit	2011/10/28	Sunny	11.3	1.0	14.0	10	87.3	Sand with gravel	<30	1,000	1,200	Loamy	<30	310	390	0.19 *1	
Natorigawa River System	Okura Dam	Dam site	2011/10/19	Sunny	13.2	25.0	7.8	10	35.4	Silt	<30	190	250	Loamy	<30	110	110	0.05	
	Kamafusa Dam	Dam site	2011/10/21	Cloudy	17.4	25.5	14.8	15	32.6	Silt	<30	39	46	Loamy	<30	74	92	0.08	
	Tarumizu Dam	Dam site	2011/10/27	Sunny	11.2	0.5	15.7	10	65.6	Gravel with sand	<30	85	100	Loamy	<30	620	780	0.21 *1	
Mukumagawa River System	Murata Dam		2011/10/18	Sunny	17.2	0.7	15.6	5	56.6	Silt with gravel	<30	160	210	Loamy	<30	810	940	0.07	
	Kawarago Dam	Dam site	2011/10/6	Cloudy	20.8	0.5	14.8	3	67.7	Silt with gravel	<30	320	410	Loamy	<30	150	150	0.10	
	Shichikashuku Dam	Dam site	2011/10/6	Cloudy	16.2	30.5	12.0	10	34.1	Silt	<30	960	1,200	Loamy	<30	1,100	1,500	0.20	
Bagyunuma Lake		Lake exit	2011/10/24	Rain	18.0	0.7	16.3	10	63.6	Gravel/silt with sand	<30	810	1,000	Loamy	<30	730	910	0.71 *1	

• Air dose was measured with a survey meter, TCS-172 or TCS-161 of Hitachi-Aloka Medical, Ltd. For points with \*1 in the Remarks column, a survey meter, Model 3 of Ludlum Measurement Inc., and for those with \*2, a Model 5000 of Health Physics Instruments was used. Figures measured with either a Model 3 or a Model 5000 had a tendency to be a little higher than those measured with a TCS-172 or TCS-161 (about 1.6 times higher).

• Sampling points are listed from north to south.

# OCoast and Bathing Area (Miyagi Prefecture-1): Water Quality Monitoring Results

Sampling point		Sampling date	Weather	Air temperature ℃	Full depth m	General items						Concentration of radioactive material Bq/L			Remarks
Water body	Point					Water temperature ℃	Sampling depth m	Secchi disk depth m	Salinity	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137		
		All other neighboring sea areas	Kitakamigawa River System	2011/10/3	Sunny	14.6	35.9	19.3	0.5	13.5	32.9	<1	0.1	<1	<1
1 m from the bottom	-		-	-	-	18.3	34.9	-	33.5	1	0.8	<1	<1	<1	
Kesennumawan Bay (B)	Offshore of Hachigasaki	2011/10/3	Rain	12.8	16.7	19.6	0.5	4.8	32.5	1	0.7	<1	<1	<1	
	1 m from the bottom	-	-	-	-	19.4	15.7	-	33.3	<1	0.3	<1	<1	<1	
Kesennumawan Bay (C)	K-3 (Hinatagai)	2011/10/3	Sunny	13.2	29.4	19.3	0.5	9.0	33.1	1	0.7	<1	<1	<1	
	1 m from the bottom	-	-	-	-	19.3	28.4	-	33.3	<1	0.7	<1	<1	<1	
Kesennumawan Bay (C)	Offshore of Oshimakita	2011/10/3	Cloudy	13.2	37.4	19.2	0.5	8.7	32.4	1	0.7	<1	<1	<1	
	1 m from the bottom	-	-	-	-	19.0	36.4	-	33.4	1	1.2	<1	<1	<1	
All other neighboring sea areas	Odanohama Beach	2011/10/3	Cloudy	14.3	10.2	19.0	0.5	7.7	33.2	<1	0.3	<1	<1	<1	
	1 m from the bottom	-	-	-	-	18.8	9.2	-	33.2	1	0.5	<1	<1	<1	
Kesennumawan Bay (C)	K-2 (Futatsune)	2011/10/3	Cloudy	14.6	9.2	19.0	0.5	5.4	32.6	<1	0.5	<1	<1	<1	
	1 m from the bottom	-	-	-	-	18.8	8.2	-	32.9	<1	0.8	<1	<1	<1	
Offshore of Tsunaga Bay Estuary		2011/10/3	Cloudy	17.2	10.6	19.4	0.5	7.9	32.9	1	1.0	<1	<1	<1	
	1 m from the bottom	-	-	-	-	19.6	9.6	-	33.3	<1	1.1	<1	<1	<1	
All other neighboring sea areas	Sodehama Beach	2011/10/5	Cloudy	16.0	6.4	18.9	0.5	3.9	33.1	1	1.5	<1	<1	<1	
	1 m from the bottom	-	-	-	-	18.8	5.4	-	33.1	2	2.0	<1	<1	<1	
All other neighboring sea areas	Oppawan Bay (Jyusanhama Beach)	2011/10/5	Cloudy	17.5	18.0	19.7	0.5	8.3	31.2	1	1.3	<1	<1	<1	
	1 m from the bottom	-	-	-	-	19.7	17.0	-	33.4	1	1.4	<1	<1	<1	
All other neighboring sea areas	Neighboring sea area of Ogatsu	2011/10/5	Cloudy	19.8	35.4	19.2	0.5	7.1	33.0	<1	0.5	<1	<1	<1	
	1 m from the bottom	-	-	-	-	18.8	34.4	-	33.5	1	2.1	<1	<1	<1	
Onagawawan Bay (A)	Fish market, front	2011/10/5	Cloudy	18.7	6.5	19.6	0.5	2.8	32.5	2	1.6	<1	<1	<1	
	1 m from the bottom	-	-	-	-	19.1	5.5	-	33.1	2	2.6	<1	<1	<1	
Ayukawawan Bay (A)	In Ayukawa Fishing Port	2011/10/5	Cloudy	18.4	11.0	19.9	0.5	5.2	32.6	<1	0.6	<1	<1	<1	
	1 m from the bottom	-	-	-	-	19.7	10.0	-	33.2	1	1.4	<1	<1	<1	
All other neighboring sea areas	Neighboring sea area of Oginohama Beach	2011/10/5	Cloudy	18.2	15.5	19.8	0.5	3.8	30.4	<1	1.6	<1	<1	<1	
	1 m from the bottom	-	-	-	-	19.8	14.5	-	33.2	11	12	<1	<1	<1	
Neighboring sea area of Ishinomaki (C)	Mangokuura Lake, M-6 (center)	2011/10/5	Cloudy	17.8	4.0	19.0	0.5	3.2	31.4	1	1.4	<1	<1	<1	
	1 m from the bottom	-	-	-	-	18.6	3.0	-	31.8	5	5.6	<1	<1	<1	
Neighboring sea area of Ishinomaki (C)	Offshore of Nagahama Beach (N-4)	2011/10/6	Cloudy	16.8	8.5	18.6	0.5	3.3	28.3	3	3.2	<1	<1	<1	
	1 m from the bottom	-	-	-	-	19.6	7.5	-	32.1	30	24	<1	<1	<1	
Neighboring sea area of Ishinomaki (D-1)	Offshore of Kitakamigawa River Estuary	2011/10/6	Cloudy	16.9	7.5	17.4	0.5	0.8	25.0	17	13	<1	<1	<1	
	1 m from the bottom	-	-	-	-	19.9	6.5	-	32.6	8	4.9	<1	<1	<1	
Neighboring sea area of Ishinomaki (A-1)	Industrial port, entrance	2011/10/6	Cloudy	16.7	15.0	18.5	0.5	1.8	27.7	4	4.0	<1	<1	<1	
	1 m from the bottom	-	-	-	-	19.9	14.0	-	33.2	15	15	<1	<1	<1	
Neighboring sea area of Ishinomaki (C)	Offshore of industrial port (K-3)	2011/10/6	Cloudy	17.2	15.0	18.8	0.5	4.0	29.0	2	1.9	<1	<1	<1	
	1 m from the bottom	-	-	-	-	20.0	14.0	-	32.9	1	1.8	<1	<1	<1	
Neighboring sea area of Ishinomaki (C)	Offshore of Naruse	2011/10/6	Cloudy	17.0	15.2	18.9	0.5	2.9	28.3	3	2.8	<1	<1	<1	
	1 m from the bottom	-	-	-	-	19.7	14.2	-	32.7	9	10	<1	<1	<1	

\* Sampling points are listed from north to south.

## ○Coast and Bathing Area (Miyagi Prefecture-2) : Water Quality Monitoring Results

Sampling point		Sampling date	Weather	Air temperature ℃	Full depth m	General items						Concentration of radioactive material Bq/L			Remarks	
Water body	Point					Water temperature ℃	Sampling depth m	Secchi disk depth m	Salinity	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137			
C o a s t	Matsushima Bay (C)	Kitakamigawa River System	2011/10/6	Cloudy	18.0	2.9	18.2	0.5	1.3	28.4	11	12	<1	<1	<1	
		1 m from the bottom	-	-	-	-	18.3	1.9	-	30.4	24	25	<1	<1	<1	
	Matsushima Bay (C)	Isozaki	2011/10/6	Sunny	18.6	2.6	18.3	0.5	1.2	28.9	11	13	<1	<1	<1	
		1 m from the bottom	-	-	-	-	18.4	1.6	-	29.6	14	16	<1	<1	<1	
	Matsushima Bay (C)	Katsurajima	2011/10/6	Cloudy	18.2	4.2	18.4	0.5	2.0	30.7	3	4.2	<1	<1	<1	
		1 m from the bottom	-	-	-	-	18.4	3.2	-	30.9	6	7.7	<1	<1	<1	
	Matsushima Bay (B)	Nishihama Beach	2011/10/6	Cloudy	18.3	14.3	19.2	0.5	1.6	31.5	3	4.7	<1	<1	<1	
		1 m from the bottom	-	-	-	-	19.2	13.3	-	31.9	40	38	<1	<1	<1	
	Matsushima Bay (A)	Minatobashi Bridge	2011/10/6	Sunny	19.1	6.5	19.4	0.5	3.0	27.5	5	6.3	<1	<1	<1	
		1 m from the bottom	-	-	-	-	19.9	5.5	-	31.7	4	6.7	<1	<1	<1	
	Neighboring sea area of Sendai Port (B)	Gotenzaki-1	2011/10/6	Cloudy	18.4	12.5	20.1	0.5	2.5	32.4	4	4.4	<1	<1	<1	
		1 m from the bottom	-	-	-	-	20.2	11.5	-	32.6	9	9.5	<1	<1	<1	
	Neighboring sea area of Sendai Port (C)	Naiko Inner Port, 4-Nai	2011/10/6	Cloudy	18.0	19.0	19.6	0.5	1.3	25.6	9	13	<1	<1	<1	
		1 m from the bottom	-	-	-	-	20.3	18.0	-	33.1	5	7.5	<1	<1	<1	
	Neighboring sea area of Sendai Port (D)	Gamo-3	2011/10/7	Sunny	18.9	17.5	19.8	0.5	2.7	31.4	2	3.1	<1	<1	<1	
		1 m from the bottom	-	-	-	-	20.0	16.5	-	33.2	80	91	<1	<1	<1	
	All other neighboring sea areas	Ido-5	2011/10/7	Sunny	19.0	5.5	19.5	0.5	2.2	26.2	5	4.0	<1	<1	<1	
		1 m from the bottom	-	-	-	-	20.0	4.5	-	32.5	7	3.7	<1	<1	<1	
Neighboring sea area of Nonaka (A)	Ninokuramae-1	2011/10/7	Sunny	18.8	13.9	19.9	0.5	3.0	32.0	4	2.5	<1	<1	<1		
	1 m from the bottom	-	-	-	-	20.0	12.9	-	33.2	6	7.1	<1	<1	<1		
Offshore of Aburatsubo River Estuary		2011/10/7	Sunny	18.5	10.0	19.6	0.5	0.5	26.1	18	12	<1	<1	<1		
	1 m from the bottom	-	-	-	-	20.2	9.0	-	32.9	4	3.0	<1	<1	<1		
B a t h i n g a r e a s	Minamisanriku	Oya	2011/10/6	Rain	16.2	0.6	18.4	0.0	-	-	15	17	<1	<1	<1	
		Koizumi	2011/10/6	Rain	17.1	0.5	18.2	0.0	-	-	94	100	<1	<1	<1	
		Nagasuka	2011/10/6	Rain	16.8	0.5	18.4	0.0	-	-	12	11	<1	<1	<1	
		Natsuhama Beach	2011/10/11	Cloudy	19.0	1.0	18.8	0.0	-	-	6	4.7	<1	<1	<1	
	Ishinomakiwan	Nobiru	2011/10/12	Clear	19.4	1.0	19.4	0.0	-	-	9	9.4	<1	<1	<1	
	Sendaiwan Bay	Shobuda	2011/10/14	Cloudy	20.8	0.6	20.0	0.0	-	-	36	2.4	<1	<1	<1	
	Minamisanriku	Ajishirahama Beach	2011/10/11	Cloudy	17.2	1.0	18.8	0.0	-	-	6	4.1	<1	<1	<1	
		Fukanuma Lake	2011/10/20	Sunny	18.6	0.3	19.6	0.0	-	-	4	3.1	<1	<1	<1	
	Sendaiwan Bay	Yuriage	2011/10/6	Sunny	18.2	0.3	20.3	0.0	-	-	15	9.3	<1	<1	<1	
		Arahama Beach (Watariki)	2011/10/6	Cloudy	18.9	0.4	19.7	0.0	-	-	17	16	<1	<1	<1	

• Sampling points are listed from north to south.

# ○Coast and Bathing area (Miyagi Prefecture): Sediment and Surrounding Environment (Beach) Monitoring Results

Sampling point		Sampling date	Weather	Air temperature ℃	Full depth m	Sediment							Surrounding Environment (Beach)					Remarks
						General items				concentration of radioactive material Bq/kg (dried)			Soil			Air dose (μSv/h)		
						Mud temperature ℃	Mud sampling depth cm	Mud content %	Property	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137		Property	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137			
Water body	Kitakamigawa River System																	
K i t a k a m i g a w a  R i v e r  S e a s h i m a r u	All other neighboring sea areas	Hirotawan Bay (Osawa)	2011/10/3	Sunny	14.6	35.9	18.2	5	62.6	Silt with sand	<30	<10	<10	-	-	-	-	-
	Kesennumawan Bay (B)	Offshore of Hachigasaki	2011/10/3	Rain	12.8	16.7	19.8	3	73.6	Gravel with silt	<30	<10	17	-	-	-	-	-
	Kesennumawan Bay (C)	K-3 (Hinatagai)	2011/10/3	Sunny	13.2	29.4	18.6	5	39.6	Silt	<30	<10	<10	-	-	-	-	-
	Kesennumawan Bay (C)	Offshore of Oshimakita	2011/10/3	Cloudy	13.2	37.4	18.8	5	45.5	Silt with sand	<30	<10	<10	-	-	-	-	-
	All other neighboring sea areas	Odanohama Beach	2011/10/3	Cloudy	14.3	10.2	18.6	3	81.2	Sand with gravel	<30	<10	<10	-	-	-	-	-
	Kesennumawan Bay (C)	K-2 (Futatsune)	2011/10/3	Cloudy	14.6	9.2	18.7	3	65.1	Silt with sand	<30	20	29	-	-	-	-	-
	Offshore of Tsuyugawa River Estuary		2011/10/3	Cloudy	17.2	10.6	18.4	3	82.2	Sand	<30	<10	<10	-	-	-	-	-
	All other neighboring sea areas	Sodehama Beach	2011/10/5	Cloudy	16.0	6.4	19.0	5	50.8	Gravel/silt with sand	<30	100	110	-	-	-	-	-
	All other neighboring sea areas	Oppawan Bay (Jyusanhama Beach)	2011/10/5	Cloudy	17.5	18.0	19.3	5	52.3	Silt	<30	170	180	-	-	-	-	-
	All other neighboring sea areas	Neighboring sea area of Ogatsu	2011/10/5	Cloudy	19.8	35.4	18.3	10	58.0	Sand with silt	<30	<10	<10	-	-	-	-	-
	Onagawawan Bay (A)	Fish market, front	2011/10/5	Cloudy	18.7	6.5	18.3	10	48.9	Silt with gravel	<30	120	140	-	-	-	-	-
	Ayukawawan Bay (A)	In Ayukawa Fishing Port	2011/10/5	Cloudy	18.4	11.0	19.2	5	68.2	Gravel/sand with silt	<30	37	38	-	-	-	-	-
	All other neighboring sea areas	Neighboring sea area of Oginohama Beach	2011/10/5	Cloudy	18.2	15.5	19.3	15	40.7	Silt	<30	<10	<10	-	-	-	-	-
	Neighboring sea area of Misato (C)	Mangukuura Lake, M-6 (center)	2011/10/5	Cloudy	17.8	4.0	18.9	5	41.9	Silt with sand	<30	<21	<21	-	-	-	-	-
	Neighboring sea area of Misato (C)	Offshore of Nagahama Beach (N-4)	2011/10/6	Cloudy	16.8	8.5	19.2	5	75.1	Sand	<30	<10	10	-	-	-	-	-
	Neighboring sea area of Misato (B-3)	Offshore of Kitakamigawa River Estuary	2011/10/6	Cloudy	16.9	7.5	19.6	5	72.8	Sand	<30	42	63	-	-	-	-	-
	Neighboring sea area of Misato (A-1)	Industrial port, entrance	2011/10/6	Cloudy	16.7	15.0	20.0	5	40.6	Silt	<30	84	100	-	-	-	-	-
	Neighboring sea area of Misato (C)	Offshore of industrial port (K-3)	2011/10/6	Cloudy	17.2	15.0	19.7	5	47.7	Silt with sand	<30	<10	<16	-	-	-	-	-
	Neighboring sea area of Misato (C)	Offshore of Naruse	2011/10/6	Cloudy	17.0	15.2	19.8	5	55.1	Sand with silt	<30	65	100	-	-	-	-	-
	Matsushimawan Bay (C)	Hebujimazakihigashi	2011/10/6	Cloudy	18.0	2.9	18.8	15	36.1	Silt with sand	<30	<14	29	-	-	-	-	-
	Matsushimawan Bay (C)	Isozaki	2011/10/6	Sunny	18.6	2.6	18.8	15	36.2	Silt with sand	<30	<11	<15	-	-	-	-	-
	Matsushimawan Bay (C)	Katsurajima	2011/10/6	Cloudy	18.2	4.2	19.6	15	41.7	Silt	<30	<10	12	-	-	-	-	-
	Matsushimawan Bay (B)	Nishihama Beach	2011/10/6	Cloudy	18.3	14.3	19.5	10	29.0	Silt	<30	55	84	-	-	-	-	-
Matsushimawan Bay (A)	Minatobashi Bridge	2011/10/6	Sunny	19.1	6.5	19.7	15	40.4	Silt with sand	<30	<10	<11	-	-	-	-	-	
Neighboring sea area of Sendai Port (B)	Gotenzaki-1	2011/10/6	Cloudy	18.4	12.5	20.0	10	43.5	Silt with sand	<30	47	37	-	-	-	-	-	
Neighboring sea area of Sendai Port (A)	Naiko Inner Port, 4-Nai	2011/10/6	Cloudy	18.0	19.0	19.8	5	43.6	Gravel/silt with sand	<30	130	140	-	-	-	-	-	
Neighboring sea area of Sendai Port (B)	Gamo-3	2011/10/7	Sunny	18.9	17.5	19.2	5	66.4	Sand with silt	<30	23	21	-	-	-	-	-	
All other neighboring sea areas	Ido-5	2011/10/7	Sunny	19.0	5.5	19.3	3	79.8	Sand	<30	27	44	-	-	-	-	-	
Neighboring sea area of Sendai (A)	Ninokuramae-1	2011/10/7	Sunny	18.8	13.9	19.3	3	77.8	Sand	<30	27	41	-	-	-	-	-	
Offshore of Nakagawa River Estuary		2011/10/7	Sunny	18.5	10.0	20.0	3	75.8	Sand	<30	160	230	-	-	-	-	-	
B a t h i n g  a r e a s	Minamisanriku	Oya	2011/10/6	Rain	16.2	0.6	17.9	10	84.9	Sand	<30	<10	<10	Sandy	<30	<10	<10	0.04
		Koizumi	2011/10/6	Rain	17.1	0.5	18.0	10	82.9	Sand	<30	<10	<10	Sandy	<30	<10	<10	0.06
		Nagasuka	2011/10/6	Rain	16.8	0.5	18.0	10	82.4	Sand	<30	<10	<10	Sandy	<30	<10	<10	0.04
		Natsuhama Beach	2011/10/11	Cloudy	19.0	1.0	19.0	10	87.0	Sand with gravel	<30	<10	<10	Sandy	<30	<10	<10	0.05
	Ishinomakiwan	Nobiru	2011/10/12	Clear	19.4	1.0	19.6	10	77.9	Sand	<30	<10	12	Sandy	<30	15	30	0.05
	Sendaiwan Bay	Shobuda	2011/10/14	Cloudy	20.8	0.6	19.8	10	79.5	Sand	<30	11	26	Sandy	<30	26	29	0.06
	Minamisanriku	Ajishirahama Beach	2011/10/11	Cloudy	17.2	1.0	18.8	10	90.6	Sand	<30	<10	<10	Sandy	<30	<10	<10	0.06
Sendaiwan Bay	Fukanuma Lake	2011/10/20	Sunny	18.6	0.3	19.6	10	82.6	Sand	<30	12	13	Sandy	<30	27	33	0.06	
	Yuriage	2011/10/6	Sunny	18.2	0.3	20.2	5	83.2	Sand	<30	<10	<10	Sandy	<30	38	42	0.04	
	Arahama Beach (Wataric)	2011/10/6	Cloudy	18.9	0.4	19.8	5	82.3	Sand	<30	<10	23	Sandy	<30	20	38	0.03	

\* Sampling points are listed from north to south.

