

FY2011 Miyagi Prefecture Survey Results

[Survey Dates]

Survey	Rivers	Lakes	Sea Areas	Bathing Areas
1 st Time	Oct. 3-27, 2011	Oct. 5-Nov. 7, 2011	Oct. 3-7, 2011	Oct. 6-20, 2011
2 nd Time	Jan. 23-Feb. 24, 2012	Feb. 17-21, 2012	Jan. 24-Feb. 23, 2012	—

[Survey Results]

1st Time:

Water Quality (Lower detection limit: 1Bq/L)

- Radioactive iodine (I-131) was not detectable at any of the locations tested
- Radioactive cesium ((Cs-134, Cs-137)
 - Rivers: Not detectable at any location
 - Lakes and headwaters: Detected at one location (Cs-134: 1Bq/L, Cs-137: 2Bq/L)
 - Coasts and bathing areas: Not detectable at any location

Sediment

- Radioactive iodine (I-131) was not detectable at any of the locations tested (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))

Surrounding Environment

- Radioactive iodine (I-131) was not detectable at any of the locations tested. (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 0.04-0.66μSv/h

Lakes and headwaters 0.04-0.71μSv/h

Coasts and bathing areas 0.03-0.06μSv/h

2nd Time:

Water Quality (Lower detection limit: 1Bq/L)

- Radioactive iodine (I-131) was not detectable at any of the locations tested
- Radioactive cesium (Cs-134, Cs-137) was not detectable at any of the locations tested

Sediment

- Radioactive iodine (I-131) was not detectable at any of the locations tested.
- Radioactive cesium

Rivers

Cs-134: 12-1,100Bq/kg (dried mud)

Cs-137: 24-1,600Bq/kg (dried mud)

Lakes and headwaters

Cs-134: 130-1,200Bq/kg (dried mud)

Cs-137: 220-1,800Bq/kg (dried mud)

Coasts and bathing areas

Cs-134: 10-360Bq/kg (dried mud)

Cs-137: 15-470Bq/kg (dried mud)

Surrounding Environment

- Radioactive iodine (I-131) was not detectable at any of the locations tested.
- Radioactive cesium

Rivers

Cs-134: 23-1,600Bq/kg (dry)

Cs-137: 55 -2,200Bq/kg (dry)

Lakes and headwaters

Cs-134: 100- 1,600Bq/ kg (dry)

Cs-137: 130-2,300Bq/ kg (dry)

- Spatial Dose

Rivers 0.03-0.36 μ Sv/h

Lakes and headwaters 0.06-0.29 μ Sv/h

River-1: 1st Water Quality Monitoring Results

Sampling point				Sampling date	Weather	Air temperature	Full depth m	Water quality										Remarks	
No.	Water body	Point	Municipality					General items							Radioactive material concentrations (Bq/L)				
								Water temperature	Sampling depth	Color	Odor	Transparency cm	Electrical conductivity/μS/cm	SS mg/L	Turbidity	Radioactive iodine-131	Radioactive cesium		
											Cs-134	Cs-137							
1	Shishiorigawa River	Kinzanbashi Bridge	Kesenumashi City	2011/10/4	Clear	8.1	0.40	8.7	0.0	Colorless transparent	None	100 or more	61.9	<1	0.2	<1	<1	<1	
2	Shishiorigawa River	Namitabashi Bridge	Kesenumashi City	2011/10/4	Clear	15.2	2.85	13.8	0.0	Dark green	None	100 or more	1205.0	2	2.1	<1	<1	<1	
3	Okawa River	Tateyamaohashi Bridge	Kesenumashi City	2011/10/4	Clear	20.0	0.80	12.8	0.0	Colorless transparent	None	100 or more	41.1	<1	0.8	<1	<1	<1	
4	Okawa River	Kamiyamabashi Bridge	Kesenumashi City	2011/10/4	Sunny	18.0	2.05	16.1	0.0	Dark green	None	100 or more	1523.0	2	3.0	<1	<1	<1	
5	Okawa River	Okawa River Estuary	Kesenumashi City	2011/10/3	Sunny	13.4	4.70	19.2	0.0	Dark green	None	100 or more	3570.0	1	1.4	<1	<1	<1	
6	Omoegawa River	Ozakibashi Bridge	Kesenumashi City	2011/10/4	Sunny	20.6	1.65	19.2	0.0	Dark green	None	100 or more	3320.0	4	3.9	<1	<1	<1	
7	Tsuyagawa River	Gakuenbashi Bridge	Kesenumashi City	2011/10/4	Sunny	19.6	0.40	14.0	0.0	Colorless transparent	None	100 or more	84.7	<1	0.5	<1	<1	<1	
8	Tsuyagawa River	Nashinokibashi Bridge	Kesenumashi City	2011/10/4	Sunny	20.0	0.50	14.3	0.0	Colorless transparent	None	100 or more	35.4	2	2.6	<1	<1	<1	
9	Hachimangawa River	Water purification plant, front	Minamisanrikucyo Town	2011/10/5	Sunny	17.6	0.20	14.7	0.0	Colorless transparent	None	100 or more	64.5	1	0.9	<1	<1	<1	
10	Hachimangawa River	Minatobashi Bridge	Minamisanrikucyo Town	2011/10/5	Cloudy	18.2	2.40	15.9	0.0	Dark green	None	100 or more	1192.0	2	2.1	<1	<1	<1	
11	Arimagawa River	Unandabashi Bridge	Kuriharashi City	2011/10/5	Cloudy	16.8	0.12	16.2	0.0	Dark green	None	100 or more	17.9	2	2.6	<1	<1	<1	
12	Kiryugawa River	Obatabashi Bridge	Kuriharashi City	2011/10/5	Cloudy	18.0	0.25	14.6	0.0	Colorless transparent	None	100 or more	15.2	4	5.1	<1	<1	<1	
13	Kitakamigawa River	Tomeohashi Bridge (Tome)	Tomeshi City	2011/10/5	Cloudy	19.0	3.10	15.5	0.0	Dark green	None	100 or more	13.5	3	3.3	<1	<1	<1	
14	Kitakamigawa River System	Sanhasamagawa River	Domanbashi Bridge (Kurikoma Dam)	Kuriharashi City	2011/10/5	Sunny	15.6	0.98	11.4	0.0	Greenish yellow	None	33	14.7	21	18	<1	<1	<1
15		Nihasamagawa River	Kaiyabashi Bridge	Kuriharashi City	2011/10/25	Cloudy	15.2	0.70	14.6	0.0	Greenish yellow	None	62	14.9	9	12	<1	<1	<1
16		Hasamagawa River	Hanayama Dam, inflow area	Kuriharashi City	2011/10/7	Sunny	16.2	0.55	15.0	0.0	Yellow green	None	47	8.5	14	13	<1	<1	<1
17		Hasamagawa River	Wakayanagi	Kuriharashi City	2011/10/5	Cloudy	17.7	0.90	14.6	0.0	Yellow green	None	56	15.4	6	8.7	<1	<1	<1
18		Hasamagawa River	Yamayoshidabashi Bridge	Tomeshi City	2011/10/10	Sunny	19.8	0.50	17.0	0.0	Dark green	None	56	16.7	13	11	<1	<1	<1
19	Hasamagawa River	Nishimabashi Bridge (Futatsuya)	Tomeshi City	2011/10/10	Sunny	20.8	0.50	18.6	0.0	Dark green	None	45	17.8	15	17	<1	<1	<1	
20	Eaigawa River	Todorokibashi Bridge (Todoroki)	Osakishi City	2011/10/25	Rain	15.0	0.70	14.0	0.0	Colorless transparent	None	100 or more	8.6	1	1.4	<1	<1	<1	
21	Eaigawa River	Shimzikomon Weir	Osakishi City	2011/10/20	Sunny	18.3	0.57	14.8	0.0	Colorless transparent	None	100 or more	13.7	3	3.4	<1	<1	<1	
22	Eaigawa River	In Furukawa District, Osakishi City	Shinborisaihon, entrance	Osakishi City	2011/10/6	Sunny	17.0	1.80	17.7	0.0	Greenish brown	Faint sewage	54	16.6	9	12	<1	<1	<1
23	Dekigawa River	Kogotabashi Bridge	Misatomachi Town	2011/10/7	Sunny	16.8	0.60	15.7	0.0	Greenish brown	None	35	21.7	30	29	<1	<1	<1	
24	Eaigawa River	Oikawabashi Bridge (Tandai)	Wakuyacho Town/Ishinomakishi City	2011/10/10	Sunny	21.2	0.40	15.4	0.0	Dark green	None	92	16.0	12	8.3	<1	<1	<1	
25	Kyukitakamigawa River	Kandoribashi Bridge (Wabuchi)	Ishinomakishi City	2011/10/5	Sunny	20.1	4.70	15.9	0.0	Dark green	None	100 or more	23.5	7	7.8	<1	<1	<1	
26	Kyukitakamigawa River	Kadonowaki	Ishinomakishi City	2011/10/12	Clear	19.0	3.50	15.0	0.0	Dark green	None	100 or more	432.0	4	4.3	<1	<1	<1	
27	Jogawa River	Jogawaohashi Bridge	Ishinomakishi City/Higashimatsushimashi City	2011/10/12	Sunny	19.6	0.50	19.8	0.0	Dark green	None	44	3800.0	8	10	<1	<1	<1	
28	Karafuzawagawa River	Karafuzawagawa River Lowest Reaches	Kamimachi Town	2011/10/20	Cloudy	10.6	0.40	10.4	0.0	Colorless transparent	None	100 or more	7.3	<1	0.3	<1	<1	<1	
29	Narusegawa River	Urushizawa Dam, inflow area	Kamimachi Town	2011/10/19	Cloudy	10.9	0.50	11.7	0.0	Colorless transparent	None	100 or more	6.2	<1	0.3	<1	<1	<1	
30	Tsutsusagagawa River	Tsutsusagobashi Bridge	Kamimachi Town	2011/10/19	Cloudy	14.5	1.18	12.8	0.0	Dark green	None	78	6.2	5	6.0	<1	<1	<1	
31	Narusegawa River	Narusebashi Bridge (Nakaniida)	Kamimachi Town	2011/10/18	Clear	15.6	0.48	16.6	0.0	Dark green	None	78	10.1	22	10	<1	<1	<1	
32	Narusegawa River	Kan-onbashi Bridge (Nango)	Osakishi City/Misatomachi Town	2011/10/8	Sunny	15.4	0.60	14.5	0.0	Greenish brown	None	60	11.1	9	9.8	<1	<1	<1	
33	Narusegawa River	Onobashi Bridge (Ono)	Higashimatsushimashi City	2011/10/12	Sunny	21.0	0.50	16.6	0.0	Dark green	None	57	19.4	12	13	<1	<1	<1	
34	Yoshidagawa River	Manaitabashi Bridge	Taiwacho Town	2011/10/13	Sunny	20.0	1.00	15.0	0.0	Dark green	None	100 or more	13.4	2	3.2	<1	<1	<1	
35	Yoshidagawa River	Zengawabashi Bridge	Taiwacho Town	2011/10/13	Sunny	19.4	0.30	13.8	0.0	Colorless transparent	None	100 or more	12.5	4	3.3	<1	<1	<1	
36	Yoshidagawa River	Futagoyabashi Bridge (Kashimadai)	Osakishi City/Matsushimamachi Town	2011/10/7	Sunny	16.6	1.60	16.3	0.0	Greenish brown	Faint mold	36	16.9	27	27	<1	<1	<1	
37	Tsurutagawa River	Shimoshidabashi Bridge	Osakishi City	2011/10/13	Sunny	16.2	0.50	16.2	0.0	Greenish yellow	Faint sewage	37	32.8	31	38	<1	<1	<1	
38	Takagawa River	Myojinbashi Bridge	Matsushimamachi Town	2011/10/13	Cloudy	14.0	1.50	16.4	0.0	Dark green	None	100 or more	2230.0	5	6.4	<1	<1	<1	
39	Shinmachigawa River	Tokiwabashi Bridge	Shiogamashi City	2011/10/19	Cloudy	18.4	1.10	15.6	0.0	Dark green	Faint mold	100 or more	1479.0	1	2.5	<1	<1	<1	
40	Sunaoshigawa River	Tagajozeki Weir	Tagajoshi City	2011/10/14	Cloudy	17.3	0.50	14.2	0.0	Greenish brown	Faint sewage	28	34.2	27	27	<1	<1	<1	
41	Sunaoshigawa River	Nenbutsubashi Bridge	Tagajoshi City	2011/10/14	Sunny	22.0	1.60	18.4	0.0	Dark green	None	68	1680.0	7	9.6	<1	<1	<1	
42	Teizan-unga Canal (Kyunasunaoshigawa River)	Teizanbashi Bridge	Shiogamashi City/Shiogamamachi Town/Tagajoshi City	2011/10/19	Cloudy	18.4	2.57	19.0	0.0	Grayish green	Sewage	27	4160.0	7	7.6	<1	<1	<1	
43	Nanakitagawa River	Hanagebashi Bridge	Sendaishi City	2011/10/20	Cloudy	10.7	0.40	11.4	0.0	Colorless transparent	None	100 or more	17.2	2	3.3	<1	<1	<1	
44	Nanakitagawa River	Nanakitagawa River	Sendaishi City	2011/10/20	Sunny	19.2	0.40	14.4	0.0	Colorless transparent	None	100 or more	21.3	4	4.9	<1	<1	<1	
45	Nanakitagawa River	Fukudaohashi Bridge	Sendaishi City	2011/10/18	Clear	18.4	0.30	17.6	0.0	Greenish brown	None	34	47.4	13	14	<1	<1	<1	
46	Umedagawa River	Karekibashi Bridge	Sendaishi City	2011/10/19	Cloudy	15.8	0.30	14.8	0.0	Greenish yellow	Faint detergent	100 or more	30.6	2	5.2	<1	<1	<1	
47	Umedagawa River	Otamabashi Bridge	Sendaishi City	2011/10/20	Sunny	20.4	0.40	16.5	0.0	Colorless transparent	Faint sewage	100 or more	23.5	2	2.9	<1	<1	<1	
48	Umedagawa River	Fukudabashi Bridge	Sendaishi City	2011/10/18	Sunny	17.0	0.50	18.2	0.0	Dark green	Faint sewage	29	888.0	17	18	<1	<1	<1	
49	Nanakitagawa River	Takasagobashi Bridge	Sendaishi City	2011/10/14	Sunny	21.0	2.50	19.2	0.0	Dark green	Faint putrescence	90	1402.0	3	6.3	<1	<1	<1	

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

River-2: 1st Water Quality Monitoring Results

Sampling point					Sampling date	Weather	Air temperature	Full depth m	Water quality										Remarks
No.	Water body		Point	Municipality					General items							Radioactive material concentrations (Bq/L)			
									Water temperature	Sampling depth	Color	Odor	Transparency/cm	Electrical conductivity/μS/cm	SS mg/L	Turbidity	Radioactive cesium Cs-134	Radioactive cesium Cs-137	
50	Hirosegawa River	Hirosegawa River	Nogawabashi Bridge	Sendaishi City	2011/10/18	Clear	14.8	0.35	14.4	0.0	Colorless transparent	None	100 or more	19.6	<1	2.8	<1	<1	<1
51		Okuragawa River	Takinouebashi Bridge	Sendaishi City	2011/10/19	Sunny	10.8	1.15	9.0	0.0	Colorless transparent	None	100 or more	9.9	1	1.0	<1	<1	<1
52		Okuragawa River	Okuragawa River Lowest Reaches	Sendaishi City	2011/10/18	Clear	11.6	0.45	14.0	0.0	Colorless transparent	None	100 or more	7.7	3	4.8	<1	<1	<1
53		Hirosegawa River	Nariaibashi Bridge	Sendaishi City	2011/10/18	Clear	18.4	0.35	14.4	0.0	Colorless transparent	None	100 or more	17.6	2	3.0	<1	<1	<1
54		Hirosegawa River	Atagobashi Bridge	Sendaishi City	2011/10/20	Sunny	18.0	1.03	15.8	0.0	Colorless transparent	None	100 or more	18.3	1	2.2	<1	<1	<1
55	Hirosegawa River	Mitsuhashi Bridge	Sendaishi City	2011/10/20	Sunny	18.2	0.60	15.8	0.0	Colorless transparent	None	100 or more	19.4	2	2.7	<1	<1	<1	
56	Natorigawa River System	Natorigawa River	Fukanobashi Bridge	Sendaishi City	2011/10/18	Clear	17.2	0.65	14.2	0.0	Colorless transparent	None	100 or more	8.1	<1	0.7	<1	<1	<1
57		Natorigawa River	Konosuonsen	Sendaishi City	2011/10/18	Clear	17.0	0.40	15.2	0.0	Colorless transparent	None	100 or more	10.2	1	1.8	<1	<1	<1
58		Tarogawa River (Goishigawa River)	Imokubobashi Bridge	Kawasakimachi Town	2011/10/19	Sunny	16.0	0.50	12.2	0.0	Colorless transparent	None	100 or more	10.3	1	2.3	<1	<1	<1
59		Kitagawa River	Kitagawabashi Bridge	Kawasakimachi Town	2011/10/19	Sunny	15.4	0.20	13.0	0.0	Colorless transparent	None	100 or more	11.6	2	2.6	<1	<1	<1
60		Maekawa River	Kitamukaibashi Bridge	Kawasakimachi Town	2011/10/18	Sunny	15.8	0.85	14.6	0.0	Colorless transparent	None	100 or more	11.9	1	1.5	<1	<1	<1
61		Natorigawa River	Kurikibashi Bridge	Sendaishi City/Natorishi City	2011/10/27	Sunny	16.9	0.80	13.0	0.0	Dark grayish yellow green	None	100 or more	16.3	1	2.6	<1	<1	<1
62		Zarugawa River	Before the confluence with Natorigawa River	Sendaishi City	2011/10/26	Sunny	16.9	0.50	15.0	0.0	Colorless transparent	None	100 or more	29.4	2	2.9	<1	<1	<1
63		Natorigawa River	Yuriageobashi Bridge	Sendaishi City/Natorishi City	2011/10/20	Sunny	18.4	0.25	16.8	0.0	Yellow green	Faint mold	100 or more	670.0	6	7.3	<1	<1	<1
64		Masudagawa River	Yakushibashi Bridge	Natorishi City	2011/10/27	Sunny	16.9	0.60	12.9	0.0	Colorless transparent	None	100 or more	5.4	<1	1.1	<1	<1	<1
65		Masudagawa River	Koyamabashi Bridge	Natorishi City	2011/10/26	Sunny	15.0	0.50	14.2	0.0	Dark grayish yellow red	Faint sewage	66	19.0	9	11	<1	<1	<1
66	Masudagawa River	Bishamonbashi Bridge	Natorishi City	2011/10/8	Clear	15.1	0.95	15.1	0.0	Greenish brown	Faint mold	42	26.9	19	24	<1	<1	<1	
67	Kawauchisawagawa River	Kawauchibashi Bridge	Natorishi City	2011/10/7	Sunny	20.4	0.75	17.6	0.0	Grayish yellow	None	50	20.7	27	29	<1	<1	<1	
68	Shitaboriyosuiro Irrigation Channel	Sakaibashi Bridge	Natorishi City	2011/10/7	Clear	21.5	0.30	19.1	0.0	Colorless transparent	Faint mold	52	11.7	10	13	<1	<1	<1	
69	Abukumagawa River System	Gokenborigawa River	Edobashi Bridge	Iwanumashi City	2011/10/8	Sunny	19.8	0.35	14.1	0.0	Colorless transparent	None	62	20.5	17	19	<1	<1	<1
70		Gokenborigawa River	Yanomebashi Bridge	Iwanumashi City	2011/10/7	Sunny	19.2	1.25	16.6	0.0	Grayish yellow	Faint mold	33	25.4	32	31	<1	<1	<1
71		Shiroishigawa River	Before the confluence with Kawaragawa River (Sanoabashi Bridge)	Shiroishishi City	2011/10/24	Rain	15.9	0.80	15.4	0.0	Colorless transparent	None	100 or more	7.7	3	2.7	<1	<1	<1
72		Saikawa River	Etsubobashi Bridge	Shiroishishi City	2011/10/25	Cloudy	16.8	0.70	15.5	0.0	Dark grayish yellow green	None	100 or more	13.3	8	7.1	<1	<1	<1
73		Matsukawa River	Miyaohashi Bridge	Zaomachi Town	2011/10/24	Rain	16.2	0.30	13.8	0.0	Colorless transparent	None	100 or more	12.7	3	3.0	<1	<1	<1
74		Arakawa River	Niragamibashi Bridge	Muratamachi Town/Ogawaramachi Town	2011/10/17	Cloudy	21.7	0.73	17.0	0.0	Dark grayish yellow green	None	100 or more	19.5	12	13	<1	<1	<1
75		Shiroishigawa River	Shirahatabashi Bridge	Shibatamachi Town	2011/10/23	Sunny	24.8	0.55	17.8	0.0	Dark grayish yellow green	None	100 or more	12.0	3	5.6	<1	<1	<1
76		Abukumagawa River	Marumoribashi Bridge	Marumorimachi Town	2011/10/23	Sunny	27.2	3.85	17.2	0.0	Dark grayish yellow green	None	100 or more	17.3	6	6.8	<1	<1	<1
77	Abukumagawa River	Abukumaohashi Bridge (Iwanuma)	Iwanumashi City/Wataricho Town	2011/10/8	Sunny	21.0	1.25	16.4	0.0	Greenish brown	None	42	14.3	23	22	<1	<1	<1	

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

River-2: 1st Sediment Monitoring Results

Sampling point				Sampling date	Weather	Air temperature	Fall depth (m)	Sediment														Remarks				
No.	Water body							General items										Concentration of radioactive material (Bq/kg)								
	Water body	Point	Municipality					Color	Odor	Mechanical composition						Property	Radioactive cesium									
				Mad (mg/g)	Red (mg/g)	Yellow (mg/g)	Black (mg/g)	Coarse gravel	Medium gravel	Fine gravel	Coarse sand	Medium sand	Fine sand	Silt	Clay	Mad (g/g)	Property	Cs-134	Cs-137							
50	Hirosegawa River	Hirosegawa River	Nogawabashi Bridge	Sendaishi City	2011/10/18	Clear	14.8	0.35	13.8	5	Brownish black	None	—	—	3.0	27.2	63.1	4.0	2.7	78.7	2.636	Sand	<30	57	65	
51		Okuragawa River	Takinouebashi Bridge	Sendaishi City	2011/10/19	Sunny	10.8	1.15	9.6	10	Brownish black	None	—	18.9	20.4	39.2	17.7	1.4	2.4	84.3	2.670	Sand with gravel	<30	100	150	
52		Okuragawa River	Okuragawa River Lowest Reaches	Sendaishi City	2011/10/18	Clear	11.6	0.45	14.0	5	Brownish black	None	—	7.4	23.3	34.3	29.7	2.8	2.5	75.9	2.640	Sand with gravel	<30	100	130	
53		Hirosegawa River	Nariaibashi Bridge	Sendaishi City	2011/10/18	Clear	18.4	0.35	15.6	5	Brownish black	None	—	3.2	3.4	8.8	55.8	22.6	3.9	2.3	78.8	2.630	Sand	<30	79	82
54		Hirosegawa River	Atagobashi Bridge	Sendaishi City	2011/10/20	Sunny	18.0	1.03	16.4	5	Dark olive	None	—	13.3	18.7	40.5	18.2	2.4	4.8	2.1	80.8	2.627	Sand with gravel	<30	29	34
55		Hirosegawa River	Mitsuhashi Bridge	Sendaishi City	2011/10/20	Sunny	18.2	0.60	15.8	10	Grayish olive	None	—	1.9	2.8	22.0	61.4	11.8	0.1	81.2	2.666	Sand with gravel	<30	46	70	
56		Natorigawa River	Fukanobashi Bridge	Sendaishi City	2011/10/18	Clear	17.2	0.65	14.7	5	Grayish olive	None	—	—	0.1	3.6	81.6	12.5	2.2	75.8	2.671	Sand	<30	97	93	
57		Natorigawa River	Konosuonsen	Sendaishi City	2011/10/18	Clear	17.0	0.40	15.4	5	Grayish olive	None	—	1.3	7.5	45.6	42.3	0.4	2.9	81.3	2.632	Sand	<30	19	21	
58		Natorigawa River (Gaiishigawa River)	Imokubobashi Bridge	Kawasakimachi Town	2011/10/19	Sunny	16.0	0.50	12.2	10	Grayish olive	None	—	—	5.2	14.2	75.9	4.5	0.2	74.0	2.605	Sand with gravel	<30	17	25	
59		Natorigawa River	Kitagawa River	Kitagawabashi Bridge	Kawasakimachi Town	2011/10/19	Sunny	15.4	0.20	13.2	5	Grayish olive	None	—	—	0.3	11.0	80.3	8.1	0.3	78.4	2.649	Sand	<30	25	44
60	Natorigawa River	Maekawa River	Kitamukaibashi Bridge	Kawasakimachi Town	2011/10/18	Sunny	15.8	0.85	13.8	5	Olive black	None	—	—	1.1	32.3	63.7	2.8	0.1	83.6	2.637	Sand with gravel	<30	21	25	
61	Natorigawa River	Kurikibashi Bridge	Sendaishi City/Natorishi City	2011/10/27	Sunny	16.9	0.80	13.6	10	Olive black	None	—	—	0.2	2.3	47.1	39.9	6.8	3.7	76.2	2.678	Sand	<30	41	50	
62	Natorigawa River	Zarugawa River	Before the confluence with Natorigawa River	Sendaishi City	2011/10/26	Sunny	16.9	0.50	15.2	5	Brownish black	Green grass	—	14.0	21.2	28.4	26.7	4.8	4.9	76.7	2.614	Sand with gravel	<30	180	210	
63	Natorigawa River	Yuriageohashi Bridge	Sendaishi City/Natorishi City	2011/10/20	Sunny	18.4	0.25	17.4	10	Olive black	None	—	—	0.9	1.0	4.4	37.3	37.6	18.8	54.1	2.559	Silt with sand	<30	280	330	
64	Masudagawa River	Yakushibashi Bridge	Natorishi City	2011/10/27	Sunny	16.9	0.60	13.7	10	Brownish black	None	—	28.5	33.0	22.3	6.0	1.0	6.3	2.9	74.9	2.721	Sand with gravel	<30	24	32	
65	Masudagawa River	Koyamabashi Bridge	Natorishi City	2011/10/26	Sunny	15.0	0.50	15.2	10	Black	Earth	—	—	0.2	0.5	8.4	21.7	46.9	22.3	39.5	2.498	Silt	<30	2,300	2,900	
66	Masudagawa River	Bishamonbashi Bridge	Natorishi City	2011/10/8	Clear	15.1	0.95	15.8	5	Olive black	Red-brown silt	—	—	—	—	1.7	69.0	16.2	13.1	58.0	2.622	Sand	<30	510	630	
67	Kawauchisawagawa River	Kawauchibashi Bridge	Natorishi City	2011/10/7	Sunny	20.4	0.75	17.4	5	Brownish black	None	—	—	1.2	7.2	82.0	8.3	1.3	75.1	2.729	Sand	<30	25	32		
68	Shitaboriyosuiro Irrigation Channel	Sakabashi Bridge	Natorishi City	2011/10/7	Clear	21.5	0.30	18.8	5	Brownish black	None	—	39.8	19.2	21.5	14.5	4.3	0.7	77.7	2.660	Sand with gravel	<30	280	360		
69	Gokenborigawa River	Edobashi Bridge	Iwanumashi City	2011/10/8	Sunny	19.8	0.35	17.6	5	Dark brown	Red-brown silt	—	1.1	7.7	22.1	63.4	5.2	0.5	86.0	2.698	Sand	<30	510	590		
70	Gokenborigawa River	Yanomebashi Bridge	Iwanumashi City	2011/10/7	Sunny	19.2	1.25	16.9	5	Brownish black	None	—	—	0.4	0.7	27.3	66.0	5.6	65.7	2.687	Sand	<30	100	130		
71	Abukumagawa River System	Shiroishigawa River	Before the confluence with Abukumagawa River (Shiroishigawa Bridge)	Shiroishishi City	2011/10/24	Rain	15.9	0.80	15.3	10	Olive black	Hydrogen sulfide	—	1.1	0.7	2.0	29.4	43.0	15.9	7.9	68.5	2.583	Sand	<30	760	970
72		Saikawa River	Eisubobashi Bridge	Shiroishishi City	2011/10/25	Cloudy	16.8	0.70	15.2	10	Brownish black	None	—	35.8	41.2	15.4	5.8	0.4	1.4	85.8	2.655	Sand with gravel	<30	200	230	
73		Matsukawa River	Miyaohashi Bridge	Zaomachi Town	2011/10/24	Rain	16.2	0.30	14.0	3	Brownish black	None	—	30.9	21.1	23.1	20.8	3.8	0.3	85.5	2.704	Sand with gravel	<30	48	71	
74		Arakawa River	Niragamibashi Bridge	Maunamachi Town/Gigenamachi Town	2011/10/17	Cloudy	21.7	0.73	17.0	5	Dark olive brown	None	—	1.1	7.4	65.1	25.9	0.3	0.2	84.7	2.657	Sand	<30	15	18	
75		Shiroishigawa River	Shirahatabashi Bridge	Shibatamachi Town	2011/10/23	Sunny	24.8	0.55	17.5	5	Olive black	None	—	—	0.3	1.5	90.4	6.1	1.7	81.8	2.697	Sand	<30	12	20	
76		Abukumagawa River	Marumoribashi Bridge	Marumorimachi Town	2011/10/23	Sunny	27.2	3.85	17.8	5	Olive brown	None	—	—	0.2	4.1	91.4	3.1	1.2	83.0	2.713	Sand	<30	100	120	
77		Abukumagawa River	Abukumaohashi Bridge (Iwanuma)	Iwanumashi City/Wataricho Town	2011/10/8	Sunny	21.0	1.25	16.8	5	Dark olive brown	None	—	0.3	2.9	17.0	76.2	1.0	2.6	81.0	2.661	Sand	<30	44	47	

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

River-1: 1st Surrounding Environment (River Terrace (Left bank)) Monitoring Results

No.	Sampling point			Sampling date	Weather	Water temp (°C)	pH	Dissolved oxygen (%)	Surrounding environment (soil/herb/air dose)										Remarks	
									Left bank											Air dose (μSv/h)
									Soil			Herb								
									General items			Concentration of radioactive material (Bq/kg)		Concentration of radioactive material (Bq/kg)						
Color	Odor	Property	Radioactive iodine-131	Radioactive cesium	Radioactive iodine-131	Radioactive cesium														
			Cs-134	Cs-137	Cs-134	Cs-137														
1	Shishiorigawa River	Kinzanbashi Bridge	Kesennumashi City	2011/10/4	Clear	8.1	0.40	—	—	—	—	—	—	—	—	—	0.14			
2	Shishiorigawa River	Namiitabashi Bridge	Kesennumashi City	2011/10/4	Clear	15.2	2.85	—	—	—	—	—	—	—	—	—	0.06	Surrounding environment (soil/herb/air dose): Unable to collect soil due to no exposed soil		
3	Okawa River	Tateyamaohashi Bridge	Kesennumashi City	2011/10/4	Clear	20.0	0.80	Brownish black	Earth	Loamy	<30	420	510	<30	<10	<10	0.14			
4	Okawa River	Kamiyamabashi Bridge	Kesennumashi City	2011/10/4	Sunny	18.0	2.05	Olive black	None	Sandy	<30	390	460	<30	11	21	0.11			
5	Okawa River	Okawa River Estuary	Kesennumashi City	2011/10/3	Sunny	13.4	4.70	—	—	—	—	—	—	—	—	—	0.08	Surrounding environment (soil/herb/air dose): Unable to collect soil due to no exposed soil		
6	Omosogawa River	Ozakibashi Bridge	Kesennumashi City	2011/10/4	Sunny	20.6	1.65	—	—	—	—	—	—	—	—	—	0.06	Surrounding environment (soil/herb/air dose): Unable to collect soil due to no exposed soil		
7	Tsuyagawa River	Gakuenbashi Bridge	Kesennumashi City	2011/10/4	Sunny	19.6	0.40	Olive brown	None	Loamy	<30	200	250	<30	<10	<10	0.14			
8	Tsuyagawa River	Nashinokibashi Bridge	Kesennumashi City	2011/10/4	Sunny	20.0	0.50	Dark brown	None	Sandy	<30	100	150	<30	<10	<10	0.12			
9	Hachimangawa River	Water purification plant, front	Minamisankuoyo Town	2011/10/5	Sunny	17.6	0.20	Brownish black	None	Sandy	<30	13	22	<30	<10	<10	0.07			
10	Hachimangawa River	Minatobashi Bridge	Minamisankuoyo Town	2011/10/5	Cloudy	18.2	2.40	—	—	—	—	—	—	—	—	—	0.06	Surrounding environment (soil/herb/air dose): Unable to collect soil due to no exposed soil		
11	Kitakamigawa River System	Arimagawa River	Unadabashi Bridge	Kuriharashi City	2011/10/5	Cloudy	16.8	0.12	Dark brown	Earth	Sandy	<30	1,600	2,200	<30	28	32	0.31		
12		Kinryugawa River	Obatabashi Bridge	Kuriharashi City	2011/10/5	Cloudy	18.0	0.25	Yellowish brown	Earth	Sandy	<30	2,600	3,300	<30	11	18	0.36		
13		Kitakamigawa River	Tomeohashi Bridge (Tome)	Tomeshi City	2011/10/5	Cloudy	19.0	3.10	Olive brown	None	Loamy	<30	870	1,100	<30	12	18	0.14		
14		Hasamagawa River	Sanhasamagawa River	Domambashi Bridge (Kurikoma Dam)	Kuriharashi City	2011/10/5	Sunny	15.6	0.98	Dark brown	Earth	Sandy	<30	190	240	<30	140	170	0.16	
15			Nihasamagawa River	Kajiyabashi Bridge	Kuriharashi City	2011/10/25	Cloudy	15.2	0.70	Brownish black	Earth	Loamy	<30	420	530	<30	39	55	0.48	*1
16			Hasamagawa River	Hanayama Dam, inflow area	Kuriharashi City	2011/10/7	Sunny	16.2	0.55	Black	Earth	Loamy	<30	600	720	<30	120	140	0.30	
17			Hasamagawa River	Wakayanagi	Kuriharashi City	2011/10/5	Cloudy	17.7	0.90	Black	Earth	Loamy	<30	360	450	<30	<10	14	0.14	
18			Hasamagawa River	Yamayoshidabashi Bridge	Tomeshi City	2011/10/10	Sunny	19.8	0.50	Brownish black	Earth	Loamy	<30	180	230	<30	<10	<10	0.10	
19			Hasamagawa River	Nishimachibashi Bridge (Futatsuya)	Tomeshi City	2011/10/10	Sunny	20.8	0.50	Brownish black	Earth	Loamy	<30	110	140	<30	<10	<10	0.09	
20			Eaigawa River	Todorokibashi Bridge (Todoroki)	Osakishi City	2011/10/25	Rain	15.0	0.70	Dark brown	Earth	Loamy	<30	330	410	—	—	—	0.19	*1
21			Eaigawa River	Shimizuomon Weir	Osakishi City	2011/10/20	Sunny	18.3	0.57	Olive brown	Earth	Loamy	<30	400	580	<30	11	18	0.07	
22		Eaigawa River	In Furukawa District, Osakishi City	Shinborisaihon, entrance	Osakishi City	2011/10/6	Sunny	17.0	1.80	Brownish black	Earth	Loamy	<30	240	290	<30	16	22	0.10	
23			Dekigawa River	Kogotabashi Bridge	Misatomachi Town	2011/10/7	Sunny	16.8	0.60	Brownish black	Earth	Loamy	<30	440	600	<30	22	25	0.10	
24			Eaigawa River	Oikawabashi Bridge (Tandai)	Wakayacho Town/Ishinomakishi City	2011/10/10	Sunny	21.2	0.40	Brownish black	Earth	Loamy	<30	49	41	<30	<10	<10	0.10	
25			Kyukitakamigawa River	Kandoribashi Bridge (Wabuchi)	Ishinomakishi City	2011/10/5	Sunny	20.1	4.70	Brownish black	Earth	Loamy	<30	140	200	<30	<10	<10	0.09	
26		Kyukitakamigawa River	Kadonowaki	Ishinomakishi City	2011/10/12	Clear	19.0	3.50	Brownish black	Earth	Loamy	<30	150	180	<30	<10	<10	0.08		
27		Jogawa River	Jogawaohashi Bridge	Ishinomakishi City/Ishinomakishi City	2011/10/12	Sunny	19.6	0.50	Dark olive brown	None	Sandy	<30	60	100	<30	<10	<10	0.08		
28		Narusegawa River System	Karafuzawagawa River	Karafuzawagawa River Lowest Reaches	Kamimachi Town	2011/10/20	Cloudy	10.6	0.40	Dark olive brown	Earth	Loamy	<30	430	540	<30	<10	<10	0.04	
29			Narusegawa River	Urushizawa Dam, inflow area	Kamimachi Town	2011/10/19	Cloudy	10.9	0.50	Olive brown	Earth	Loamy	<30	160	170	<30	12	13	0.04	
30			Tsutsusagagawa River	Tsutsusagobashi Bridge	Kamimachi Town	2011/10/19	Cloudy	14.5	1.18	Dark greenish brown	Earth	Loamy	<30	140	160	<30	18	29	0.05	Unable to sample due to most sediment being gravel
31	Narusegawa River		Narusebashi Bridge (Nakaida)	Kamimachi Town	2011/10/18	Clear	15.6	0.48	Dark olive brown	Faint mold	Loamy	<30	380	510	<30	<10	<10	0.06		
32	Narusegawa River		Kan-onbashi Bridge (Nango)	Osakishi City/Misatomachi Town	2011/10/8	Sunny	15.4	0.60	Dark olive brown	Earth	Loamy	<30	82	95	<30	<10	11	0.09		
33	Narusegawa River		Onobashi Bridge (Ono)	Higashimatsushimashi City	2011/10/12	Sunny	21.0	0.50	Brownish black	Earth	Loamy	<30	140	180	<30	<10	<10	0.11		
34	Yoshidagawa River		Manaitabashi Bridge	Taiwacho Town	2011/10/13	Sunny	20.0	1.00	Brownish black	Earth	Loamy	<30	260	350	<30	14	24	0.09		
35	Yoshidagawa River		Zengawabashi Bridge	Taiwacho Town	2011/10/13	Sunny	19.4	0.30	Brownish black	Earth	Loamy	<30	310	360	<30	<10	<10	0.11		
36	Yoshidagawa River		Futagoyabashi Bridge (Kashimadai)	Osakishi City/Matsushimashi City	2011/10/7	Sunny	16.6	1.60	Very dark brown	Earth	Loamy	<30	45	72	<30	<10	<10	0.10		
37	Tsurutagawa River		Shimoshidabashi Bridge	Osakishi City	2011/10/13	Sunny	16.2	0.50	Brownish black	Earth	Loamy	<30	120	150	<30	<10	<10	0.08		
38	Takagigawa River	Myojinbashi Bridge	Matsushimashi City	2011/10/13	Cloudy	14.0	1.50	Brownish black	Earth	Loamy	<30	90	130	<30	<10	12	0.10			
39	Shimachigawa River	Tokiwabashi Bridge	Shiogamashi City	2011/10/19	Cloudy	18.4	1.10	—	—	—	—	—	—	—	—	—	—	Surrounding environment (soil/herb/air dose): Unable to collect soil due to no exposed soil *2		
40	Sunaoshigawa River	Tagajoshi Weir	Tagajoshi City	2011/10/14	Cloudy	17.3	0.50	Brown	Earth	Loamy	<30	270	340	<30	16	14	0.09			
41	Sunaoshigawa River	Nenbutsubashi Bridge	Tagajoshi City	2011/10/14	Sunny	22.0	1.60	Dark olive brown	Earth	Loamy	<30	360	390	<30	<10	<10	0.10			
42	Teizan-unga Canal (Kyunasunoshigawa River)	Teizanbashi Bridge	Teizan-unga Canal/Kyunasunoshigawa River	2011/10/19	Cloudy	18.4	2.57	Dark olive brown	Earth	Loamy	<30	150	180	<30	<10	15	0.14	*2		
43	Nanakitagawa River System	Nanakitagawa River	Hanagebashi Bridge	Sendaishi City	2011/10/20	Cloudy	10.7	0.40	Brownish black	Earth	Loamy	<30	200	260	<30	<10	<10	0.10	*2	
44		Nanakitagawa River	Nanakitabashi Bridge	Sendaishi City	2011/10/20	Sunny	19.2	0.40	Brownish black	Green grass	Loamy	<30	860	1,000	<30	<10	<10	0.14	*2	
45		Nanakitagawa River	Fukudaohashi Bridge	Sendaishi City	2011/10/18	Clear	18.4	0.30	Olive brown	Earth	Loamy	<30	120	140	<30	<10	<10	0.14	*2	
46		Umedagawa River	Karekibashi Bridge	Sendaishi City	2011/10/19	Cloudy	15.8	0.30	Dark olive brown	Earth	Loamy	<30	300	380	<30	15	21	0.12	*2	
47		Umedagawa River	Otamibashi Bridge	Sendaishi City	2011/10/20	Sunny	20.4	0.40	Dark olive brown	Earth	Loamy	<30	210	280	<30	42	52	0.18	*2	
48		Umedagawa River	Fukudabashi Bridge	Sendaishi City	2011/10/18	Sunny	17.0	0.50	Dark olive brown	Earth	Loamy	<30	220	280	<30	<10	<10	0.18	*2	
49	Nanakitagawa River	Takasagobashi Bridge	Sendaishi City	2011/10/14	Sunny	21.0	2.50	Olive brown	Earth	Loamy	<30	220	260	<30	<10	<10	0.11			

Note: * 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.

River-2: 1st Surrounding Environment (River Terrace (Left bank)) Monitoring Results

No.	Sampling point			Sampling date	Weather	Air temperature (°C)	Relative humidity (%)	Surrounding environment (soil/herb/air dose)										Remarks
								Left bank					Air dose (μSv/h)					
	Water body							Soil		Herb		Air dose (μSv/h)						
								General items		Concentration of radioactive material (Bq/kg)							Concentration of radioactive material (Bq/kg)	
Color	Odor	Property	Radioactive iodine-131	Radioactive cesium	Radioactive iodine-131	Radioactive cesium	Cs-134	Cs-137	Cs-134	Cs-137	Cs-134	Cs-137						
50	Hirosegawa River	Hirosegawa River	Nogawabashi Bridge	Sendaishi City	2011/10/18	Clear	14.8	0.35	Brownish black	Earth	Loamy	<30	43	60	<30	<10	<10	0.06
51		Okuragawa River	Takinoueabashi Bridge	Sendaishi City	2011/10/19	Sunny	10.8	1.15	Brownish black	Earth	Loamy	<30	66	82	<30	<10	14	0.06
52		Okuragawa River	Okuragawa River Lowest Reaches	Sendaishi City	2011/10/18	Clear	11.6	0.45	Dark brown	Earth	Loamy	<30	49	72	<30	81	95	0.07
53		Hirosegawa River	Nariaibashi Bridge	Sendaishi City	2011/10/18	Clear	18.4	0.35	Brownish black	Earth	Loamy	<30	160	180	<30	<10	<10	0.07
54		Hirosegawa River	Atagobashi Bridge	Sendaishi City	2011/10/20	Sunny	18.0	1.03	—	—	—	—	—	—	—	—	—	—
55	Hirosegawa River	Mitsuhashi Bridge	Sendaishi City	2011/10/20	Sunny	18.2	0.60	Brownish black	Earth	Loamy	<30	230	270	<30	<10	<10	0.12	
56	Natorigawa River System	Natorigawa River	Fukanobashi Bridge	Sendaishi City	2011/10/18	Clear	17.2	0.65	—	—	—	—	—	—	—	—	—	—
57		Natorigawa River	Konosuonsen	Sendaishi City	2011/10/18	Clear	17.0	0.40	Grayish brown	Earth	Loamy	<30	130	160	<30	17	21	0.06
58		Tarogawa River (Goishigawa River)	Imokubobashi Bridge	Kawasakimachi Town	2011/10/19	Sunny	16.0	0.50	Black	Earth	Loamy	<30	83	99	<30	<10	13	0.07
59		Kitagawa River	Kitagawabashi Bridge	Kawasakimachi Town	2011/10/19	Sunny	15.4	0.20	Brownish black	Earth	Loamy	<30	98	130	<30	11	15	0.08
60		Maekawa River	Kitamukaibashi Bridge	Kawasakimachi Town	2011/10/18	Sunny	15.8	0.85	Brownish black	Leaf mold	Loamy	<30	530	600	<30	<10	<10	0.06
61		Natorigawa River	Kurikibashi Bridge	Sendaishi City/Natorishi City	2011/10/27	Sunny	16.9	0.80	Black	Earth	Loamy	<30	560	800	<30	38	53	0.15 *1
62		Zarugawa River	Before the confluence with Natorigawa River	Sendaishi City	2011/10/26	Sunny	16.9	0.50	Brownish black	Earth	Loamy	<30	170	220	<30	<10	<10	0.21 *1
63		Natorigawa River	Yuriageohashi Bridge	Sendaishi City/Natorishi City	2011/10/20	Sunny	18.4	0.25	Yellowish brown	Earth	Clay-loamy	<30	400	510	<30	<10	<10	0.12
64		Masudagawa River	Yakushibashi Bridge	Natorishi City	2011/10/27	Sunny	16.9	0.60	Dark brown	Earth	Loamy	<30	1,600	2,000	<30	46	59	0.25 *1
65		Masudagawa River	Koyamabashi Bridge	Natorishi City	2011/10/26	Sunny	15.0	0.50	Brownish black	Earth	Loamy	<30	410	520	<30	<10	<10	0.21 *1
66	Masudagawa River	Bishamonbashi Bridge	Natorishi City	2011/10/8	Clear	15.1	0.95	Brownish black	Faint earth	Loamy	<30	320	370	<30	<10	11	0.09	
67	Kawauchisawagawa River	Kawauchibashi Bridge	Natorishi City	2011/10/7	Sunny	20.4	0.75	Brownish black	Faint earth	Loamy	<30	180	220	<30	<10	<10	0.07	
68	Shitaboriyosuiro Irrigation Channel	Sakaibashi Bridge	Natorishi City	2011/10/7	Clear	21.5	0.30	Brownish black	Faint earth	Loamy	<30	510	570	<30	12	10	0.07	
69	Gokenborgawa River	Edobashi Bridge	Iwanumashi City	2011/10/8	Sunny	19.8	0.35	Brownish black	Faint earth	Loamy	<30	510	670	<30	<10	<10	0.09	
70	Gokenborgawa River	Yanomebashi Bridge	Iwanumashi City	2011/10/7	Sunny	19.2	1.25	Brownish black	Faint earth	Loamy	<30	580	700	<30	<10	<10	0.07	
71	Abukumagawa River System	Shiroishigawa River	Before the confluence with Hirosegawa River (Nariaibashi Bridge)	Shiroishishi City	2011/10/24	Rain	15.9	0.80	Brownish black	Earth	Loamy	<30	1,600	2,100	—	—	—	0.51 *1
72		Saikawa River	Etsubobashi Bridge	Shiroishishi City	2011/10/25	Cloudy	16.8	0.70	Brownish black	Earth	Loamy	<30	160	180	<30	16	18	0.38 *1
73		Matsukawa River	Miyaohashi Bridge	Zaomachi Town	2011/10/24	Rain	16.2	0.30	Brownish black	Faint earth	Loamy	<30	250	310	<30	<10	<10	0.31 *2
74		Akakawa River	Niragamibashi Bridge	Matsunashi Town/Opagamachi Town	2011/10/17	Cloudy	21.7	0.73	Brownish black	Faint earth	Loamy	<30	860	1,000	<30	<10	<10	0.15
75		Shiroishigawa River	Shirahatabashi Bridge	Shibatamachi Town	2011/10/23	Sunny	24.8	0.55	Brownish black	Faint earth	Loamy	<30	450	560	<30	<10	<10	0.30 *2
76		Abukumagawa River	Marumorbashi Bridge	Marumorimachi Town	2011/10/23	Sunny	27.2	3.85	Olive brown	Faint earth	Loamy	<30	680	820	<30	34	40	0.66 *2
77	Abukumagawa River	Abukumaobashi Bridge (Iwanuma)	Iwanumashi City/Wataricho Town	2011/10/8	Sunny	21.0	1.25	Brownish black	Faint earth	Loamy	<30	1,700	2,200	<30	130	180	0.23	

Note: * 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.

River-1: 1st Surrounding Environment (River Terrace (Right Bank)) Monitoring Results

Sampling point				Sampling date	Weather	Water depth (m)	Surrounding environment (soil/herb/air dose)										Remarks		
							Right bank											Air dose (μSv/h)	
							Soil			Herb									
							General items			Concentration of radioactive material (Bq/kg)									
No.	Water body	Point	Municipality	Color	Odor	Property	Radioactive cesium Cs-134	Radioactive cesium Cs-137	Radioactive iodine I-131	Concentration of radioactive material (Bq/kg)	Air dose (μSv/h)								
												Radioactive cesium Cs-134	Radioactive cesium Cs-137						
1	Shishorigawa River	Kinzanbashi Bridge	Kesenumashi City	2011/10/4	Clear	8.1	0.40	Brownish black	None	Loamy	<30	810	980	—	—	—	0.16		
2	Shishorigawa River	Namitabashi Bridge	Kesenumashi City	2011/10/4	Clear	15.2	2.85	—	—	—	—	—	—	—	—	—	0.05	Surrounding environment (soil/herb/air dose): Unable to collect soil due to no exposed soil	
3	Okawa River	Tateyamaohashi Bridge	Kesenumashi City	2011/10/4	Clear	20.0	0.80	Brownish black	None	Loamy	<30	450	540	<30	<10	<10	0.14		
4	Okawa River	Kamiyamabashi Bridge	Kesenumashi City	2011/10/4	Sunny	18.0	2.05	Olive black	None	Sandy	<30	610	780	<30	<10	<10	0.11		
5	Okawa River	Okawa River Estuary	Kesenumashi City	2011/10/3	Sunny	13.4	4.70	—	—	—	—	—	—	—	—	—	0.07	Surrounding environment (soil/herb/air dose): Unable to collect soil due to no exposed soil	
6	Omosegawa River	Ozakibashi Bridge	Kesenumashi City	2011/10/4	Sunny	20.6	1.65	—	—	—	—	—	—	—	—	—	0.06	Surrounding environment (soil/herb/air dose): Unable to collect soil due to no exposed soil	
7	Tsuyagawa River	Gakuenbashi Bridge	Kesenumashi City	2011/10/4	Sunny	19.6	0.40	Brownish black	None	Loamy	<30	110	110	<30	130	150	0.13		
8	Tsuyagawa River	Nashinokibashi Bridge	Kesenumashi City	2011/10/4	Sunny	20.0	0.50	Dark grass yellow	None	Loamy	<30	23	28	<30	<10	<10	0.11		
9	Hachimangawa River	Water purification plant, front	Minamisanriku City	2011/10/5	Sunny	17.6	0.20	Yellowish brown	None	Sandy	<30	510	640	<30	<10	<10	0.10		
10	Hachimangawa River	Minatobashi Bridge	Minamisanriku City	2011/10/5	Cloudy	18.2	2.40	—	—	—	—	—	—	—	—	—	0.06	Surrounding environment (soil/herb/air dose): Unable to collect soil due to no exposed soil	
11	Kitakamigawa River System	Arimagawa River	Unandabashi Bridge	Kuriharashi City	2011/10/5	Cloudy	16.8	0.12	Dark brown	Earth	Sandy	<30	210	270	<30	25	26	0.25	
12		Kinryugawa River	Obatabashi Bridge	Kuriharashi City	2011/10/5	Cloudy	18.0	0.25	Brownish black	Earth	Sandy	<30	370	450	<30	64	78	0.34	
13		Kitakamigawa River	Tomeohashi Bridge (Tome)	Tomeshi City	2011/10/5	Cloudy	19.0	3.10	Dark brown	Earth	Loamy	<30	170	250	<30	<10	<10	0.10	
14		Hasamaga wa River	Sanhasamagawa River	Domanbashi Bridge (Kurikoma Dam)	Kuriharashi City	2011/10/5	Sunny	15.6	0.98	Brownish black	Earth	Sandy	<30	110	130	<30	190	230	0.11
15			Nihasamagawa River	Kaitiyabashi Bridge	Kuriharashi City	2011/10/25	Cloudy	15.2	0.70	Brownish black	Earth	Loamy	<30	330	400	<30	91	110	0.46
16			Hasamagawa River	Hanayama Dam, inflow area	Kuriharashi City	2011/10/7	Sunny	16.2	0.55	Dark brown	None	Sandy	<30	110	150	<30	13	17	0.16
17			Hasamagawa River	Wakavanagi	Kuriharashi City	2011/10/5	Cloudy	17.7	0.90	Dark brown	Earth	Sandy	<30	970	1,200	<30	44	46	0.28
18		Hasamaga wa River	Hasamagawa River	Yamashidabashi Bridge	Tomeshi City	2011/10/10	Sunny	19.8	0.50	Dark brown	Earth	Loamy	<30	260	340	<30	<10	13	0.10
19			Hasamagawa River	Nishimabashi Bridge (Futatsuya)	Tomeshi City	2011/10/10	Sunny	20.8	0.50	Dark brown	Earth	Loamy	<30	180	240	<30	<10	<10	0.09
20			Eaigawa River	Todorokibashi Bridge (Todoroki)	Osakishi City	2011/10/25	Rain	15.0	0.70	Brownish black	Earth	Loamy	<30	360	490	—	—	—	0.21
21	Eaigawa River		Eaigawa River	Shimizukomon Weir	Osakishi City	2011/10/20	Sunny	18.3	0.57	Dark olive brown	Faint earth	Loamy	<30	130	150	<30	16	19	0.09
22		In Furukawa District, Osakishi City	Shimborsaihon, entrance	Osakishi City	2011/10/6	Sunny	17.0	1.80	Black	Earth	Loamy	<30	460	560	<30	<10	<10	0.09	
23		Dekigawa River	Kogotabashi Bridge	Misatomachi Town	2011/10/7	Sunny	16.8	0.60	Brownish black	Earth	Loamy	<30	71	110	<30	<10	<10	0.09	
24		Eaigawa River	Oikawabashi Bridge (Tandai)	Wakayachi Town/Ishinomakishi City	2011/10/10	Sunny	21.2	0.40	Brownish black	Earth	Loamy	<30	100	120	<30	11	18	0.09	
25	Kyukitakamigawa River	Kandoribashi Bridge (Wabuchi)	Ishinomakishi City	2011/10/5	Sunny	20.1	4.70	Olive brown	Earth	Loamy	<30	<10	<10	<30	<10	<10	0.10		
26	Kyukitakamigawa River	Kadonowaki	Ishinomakishi City	2011/10/2	Clear	19.0	3.50	Olive brown	Earth	Loamy	<30	110	150	<30	<10	<10	0.09		
27	Jogawa River	Jogawaohashi Bridge	Ishinomakishi City/Ishinomakishi City	2011/10/12	Sunny	19.6	0.50	Brownish black	None	Loamy	<30	200	230	<30	<10	<10	0.07		
28	Narusegawa River System	Karafuzagawa River	Karafuzagawa River Lowest Reaches	Kamimachi Town	2011/10/20	Cloudy	10.6	0.40	Brownish black	Earth	Loamy	<30	85	100	<30	<10	11	0.04	
29		Narusegawa River	Urushizawa Dam, inflow area	Kamimachi Town	2011/10/19	Cloudy	10.9	0.50	Dark olive brown	Earth	Loamy	<30	33	47	<30	<10	<10	0.04	
30		Tsutsugawa River	Tsutsugobashi Bridge	Kamimachi Town	2011/10/19	Cloudy	14.5	1.18	Dark olive brown	Earth	Loamy	<30	330	450	<30	12	21	0.05	Unable to sample due to most sediment being gravel
31		Narusegawa River	Narusebashi Bridge (Nakamida)	Kamimachi Town	2011/10/18	Clear	15.6	0.48	Dark olive brown	Faint mold	Sandy	<30	280	330	<30	<10	12	0.06	
32		Narusegawa River	Kan-onbashi Bridge (Nango)	Osakishi City/Misatomachi Town	2011/10/8	Sunny	15.4	0.60	Brownish black	Earth	Loamy	<30	58	70	<30	<10	<10	0.10	
33		Narusegawa River	Onobashi Bridge (Ono)	Higashimatsushimashi City	2011/10/12	Sunny	21.0	0.50	Dark brown	Earth	Loamy	<30	190	220	<30	30	37	0.12	
34		Yoshidagawa River	Manaitabashi Bridge	Taiwacho Town	2011/10/13	Sunny	20.0	1.00	Brownish black	Earth	Loamy	<30	220	250	<30	55	57	0.08	
35		Yoshidagawa River	Zengawabashi Bridge	Taiwacho Town	2011/10/13	Sunny	19.4	0.30	Brownish black	Earth	Loamy	<30	340	430	<30	12	<10	0.10	
36		Yoshidagawa River	Futagobashi Bridge (Kashimada)	Osakishi City/Matsushimashi Town	2011/10/7	Sunny	16.6	1.60	Brownish black	Earth	Loamy	<30	66	68	<30	<10	<10	0.11	
37		Tsurugawa River	Shimoshidabashi Bridge	Osakishi City	2011/10/13	Sunny	16.2	0.50	Dark brown	Earth	Loamy	<30	150	190	<30	<10	<10	0.09	
38	Takagawa River	Myojinbashi Bridge	Matsushimashi Town	2011/10/13	Cloudy	14.0	1.50	Brownish black	Earth	Loamy	<30	460	570	<30	<10	<10	0.09		
39	Shimachigawa River	Tokiwabashi Bridge	Shiogamashi City	2011/10/19	Cloudy	18.4	1.10	—	—	—	—	—	—	—	—	—	0.09	Surrounding environment (soil/herb/air dose): Unable to collect soil due to no exposed soil *2	
40	Sunaoshigawa River	Tagajozeki Weir	Tagajoshi City	2011/10/4	Cloudy	17.3	0.50	Dark brown	Earth	Loamy	<30	200	240	<30	<10	<10	0.09		
41	Sunaoshigawa River	Nenbutsubashi Bridge	Tagajoshi City	2011/10/14	Sunny	22.0	1.60	Brownish black	Earth	Loamy	<30	150	220	<30	<10	<10	0.08		
42	Teizan-unga Canal (Kyunasunaoshigawa River)	Terzanbashi Bridge	Tagajoshi City	2011/10/19	Cloudy	18.4	2.57	Dark olive brown	Earth	Loamy	<30	320	400	<30	<10	<10	0.17		
43	Nanakitagawa River System	Nanakitagawa River	Hanagebashi Bridge	Sendaishi City	2011/10/20	Cloudy	10.7	0.40	Olive brown	None	Sandy	<30	25	31	<30	<10	<10	0.08	
44		Nanakitagawa River	Nanakitabashi Bridge	Sendaishi City	2011/10/20	Sunny	19.2	0.40	Dark olive brown	Green grass	Loamy	<30	200	300	<30	<10	<10	0.14	
45		Nanakitagawa River	Fukudaohashi Bridge	Sendaishi City	2011/10/18	Clear	18.4	0.30	Brownish black	Earth	Loamy	<30	150	170	<30	<10	<10	0.14	
46		Umedagawa River	Karekibashi Bridge	Sendaishi City	2011/10/19	Cloudy	15.8	0.30	Brown	Earth	Loamy	<30	140	180	<30	16	22	0.11	
47		Umedagawa River	Otamibashi Bridge	Sendaishi City	2011/10/20	Sunny	20.4	0.40	Dark olive brown	Faint green grass	Sandy	<30	250	300	<30	33	53	0.12	
48		Umedagawa River	Fukudabashi Bridge	Sendaishi City	2011/10/18	Sunny	17.0	0.50	Dark grass yellow	Earth	Loamy	<30	310	360	<30	<10	<10	0.18	
49	Nanakitagawa River	Takasagobashi Bridge	Sendaishi City	2011/10/14	Sunny	21.0	2.50	Dark brown	Earth	Loamy	<30	310	410	<30	<10	<10	0.10		

Note: * Air dose was measured with a survey meter, TCS-172 or TCS-161 of Hitachi-Aloka Medical, Ltd. For point 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.

River-2: 1st Surrounding Environment (River Terrace (Right Bank)) Monitoring Results

Sampling point				Sampling date	Weather	Water temperature (°C)	Water depth (m)	Surrounding environment (soil/herb/air dose)										Remarks	
								Right bank											Air dose (μSv/h)
								Soil			Herb								
General items			Concentration of radioactive material (Bq/kg)				Concentration of radioactive material (Bq/kg)												
No.	Water body	Point	Municipality	Color	Odor	Property	Radioactive cesium Cs-134	Radioactive cesium Cs-137	Radioactive cesium Cs-134	Radioactive cesium Cs-137									
50	Hirosegawa River	Hirosegawa River	Nogawabashi Bridge	Sendaishi City	2011/10/18	Clear	14.8	0.35	Brownish-brown	Earth	Loamy	<30	59	68	<30	<10	0.06		
51		Hirosegawa River	Takinoueabashi Bridge	Sendaishi City	2011/10/19	Sunny	10.8	1.15	Brownish black	Earth	Loamy	<30	72	100	<30	86	92	0.06	
52		Okuragawa River	Okuragawa River Lowest Reaches	Sendaishi City	2011/10/18	Clear	11.6	0.45	—	—	—	—	—	—	—	—	—	—	
53		Hirosegawa River	Nariaibashi Bridge	Sendaishi City	2011/10/18	Clear	18.4	0.35	—	—	—	—	—	—	—	—	—	—	
54		Hirosegawa River	Atagobashi Bridge	Sendaishi City	2011/10/20	Sunny	18.0	1.03	Olive black	Earth	Loamy	<30	190	300	<30	14	23	0.12	
55		Hirosegawa River	Mitsuhashi Bridge	Sendaishi City	2011/10/20	Sunny	18.2	0.60	Brownish black	Earth	Loamy	<30	410	480	<30	<10	<10	0.12	
56		Natorigawa River	Fukanobashi Bridge	Sendaishi City	2011/10/18	Clear	17.2	0.65	Brownish black	Earth	Loamy	<30	280	310	<30	11	16	0.06	
57		Natorigawa River	Konosuonsen	Sendaishi City	2011/10/18	Clear	17.0	0.40	Brownish black	Earth	Loamy	<30	200	240	<30	15	16	0.08	
58		Natorigawa River System	Tarogawa River (Goshigawa River)	Imokubobashi Bridge	Kawasakimachi Town	2011/10/19	Sunny	16.0	0.50	Black	Earth	Loamy	<30	150	200	<30	<10	<10	0.07
59			Kitagawa River	Kitagawabashi Bridge	Kawasakimachi Town	2011/10/19	Sunny	15.4	0.20	—	—	—	—	—	—	—	—	—	—
60	Maekawa River		Kitamukaibashi Bridge	Kawasakimachi Town	2011/10/18	Sunny	15.8	0.85	Dark olive brown	Leaf mold	Loamy	<30	110	130	<30	13	13	0.04	
61	Natorigawa River		Kurikibashi Bridge	Sendaishi City/Natorishi City	2011/10/27	Sunny	16.9	0.80	Brownish black	Earth	Loamy	<30	320	410	<30	14	18	0.17 *1	
62	Zarugawa River		Before the confluence with Natorigawa River	Sendaishi City	2011/10/26	Sunny	16.9	0.50	Dark olive brown	Earth	Loamy	<30	450	520	<30	<10	<10	0.20 *1	
63	Natorigawa River		Yurigeohashi Bridge	Sendaishi City/Natorishi City	2011/10/20	Sunny	18.4	0.25	Brownish black	Earth	Loamy	<30	260	300	<30	<10	16	0.12	
64	Masudagawa River		Yakushibashi Bridge	Natorishi City	2011/10/27	Sunny	16.9	0.60	Dark brown	Earth	Loamy	<30	260	320	<30	<10	<10	0.21 *1	
65	Masudagawa River		Kovamabashi Bridge	Natorishi City	2011/10/26	Sunny	15.0	0.50	Dark olive brown	Earth	Loamy	<30	200	280	<30	<10	10	0.25 *1	
66	Masudagawa River		Bishamonbashi Bridge	Natorishi City	2011/10/8	Clear	15.1	0.95	Brownish black	Faint earth	Loamy	<30	400	460	<30	<10	<10	0.08	
67	Kawauchisawagawa River		Kawauchibashi Bridge	Natorishi City	2011/10/7	Sunny	20.4	0.75	Brownish black	Faint earth	Loamy	<30	540	630	<30	16	24	0.09	
68	Shitaboriyosuiro Irrigation Channel	Sakaibashi Bridge	Natorishi City	2011/10/7	Clear	21.5	0.30	Brownish black	Faint earth	Loamy	<30	480	610	<30	<10	<10	0.07		
69		Gokenborigawa River	Idobashi Bridge	Iwanumashi City	2011/10/8	Sunny	19.8	0.35	Brownish black	Faint earth	Loamy	<30	750	920	<30	<10	<10	0.07	
70		Gokenborigawa River	Yanomebashi Bridge	Iwanumashi City	2011/10/7	Sunny	19.2	1.25	Brownish black	Faint earth	Loamy	<30	300	390	<30	<10	<10	0.09	
71		Shiroshigawa River	Shiroshigawa River (Iwanumashi Bridge)	Shiroshishi City	2011/10/24	Rain	15.9	0.80	Brownish black	Earth	Loamy	<30	550	700	—	—	—	0.52 *1	
72		Saikawa River	Itsubobashi Bridge	Shiroshishi City	2011/10/25	Cloudy	16.8	0.70	Brownish black	Earth	Loamy	<30	340	470	<30	<10	10	0.37 *1	
73		Matsukawa River	Miyaohashi Bridge	Zaomachi Town	2011/10/24	Rain	16.2	0.30	Brownish black	Faint earth	Loamy	<30	430	490	<30	16	19	0.27 *2	
74		Arakawa River	Niragambashi Bridge	Marumachi Town/Iwanumashi Town	2011/10/17	Cloudy	21.7	0.73	Brownish black	Faint earth	Loamy	<30	1,200	1,600	<30	19	27	0.15	
75		Shiroshigawa River	Shirahatabashi Bridge	Shibatamachi Town	2011/10/23	Sunny	24.8	0.55	Olive black	Faint earth	Loamy	<30	400	520	<30	<10	14	0.34 *2	
76		Abukumagawa River	Marumoriabashi Bridge	Marumori Town	2011/10/23	Sunny	27.2	3.85	Dark olive brown	Faint earth	Sandy	<30	260	340	<30	23	23	0.42 *2	
77		Abukumagawa River	Abukumaohashi Bridge (Iwanuma)	Iwanumashi City/Wataricho Town	2011/10/8	Sunny	21.0	1.25	Dark grayish yellow	Faint earth	Loamy	<30	740	930	<30	<10	<10	0.17	

Note: * Air dose was measured with a survey meter, TCS-172 or TCS-161 of Hitachi-Aloka Medical, Ltd. For point 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.

Lake and Headwater: 1st Water Quality Monitoring Results

Sampling point				Sampling date	Weather	Air temperature	Full depth m	Water quality											Remarks
No.	Water body	Point	Municipality					General items							Radioactive material concentrations (Bq/L)				
								Water temperature	Sampling depth	Color	Odor	Secchi disk depth	Electrical conductivity	SS mg/L	Turbidity	Radioactive iodine-131	Radioactive cesium		
										Radioactive iodine-131	Cs-134	Cs-137							
78	Kitakamigawa River System	Kurikoma Dam Dam site	—	2011/10/5	Sunny	11.3	13.3	15.2	0.5	Grayish yellow green	None	0.7	12.1	10	15	<1	<1	<1	
		1 m from the bottom	—	—	—	—	—	13.9	12.3	—	None	—	13.1	42	58	<1	<1	<1	
79	Kitakamigawa River System	Hanayama Dam Dam site	—	2011/10/6	Rain	15.0	22.1	15.4	0.5	Dark grayish yellow green	None	2.1	8.2	2	2.6	<1	<1	<1	
		1 m from the bottom	—	—	—	—	—	10.4	21.1	—	None	—	9.4	30	40	<1	<1	<1	
80	Kitakamigawa River System	Izumuma Lake Lake exit	—	2011/10/7	Sunny	17.8	1.6	18.0	0.5	Greenish brown	Faint mold	0.5	14.3	20	25	<1	<1	<1	
		1 m from the bottom	—	—	—	—	—	17.9	0.6	—	Faint mold	—	13.7	20	21	<1	<1	<1	
81	Kitakamigawa River System	Naganuma Lake Lake exit	—	2011/10/7	Sunny	14.2	0.9	15.9	0.0	Dark grayish yellow green	None	0.9 or more	15.5	2	2.4	<1	<1	<1	
82	Kitakamigawa River System	Shukunosawatameike Pond Pond exit	—	2011/10/11	Sunny	15.2	0.5	17.6	0.0	Greenish brown	None	0.5 or more	10.5	13	10	<1	<1	<1	
83	Kitakamigawa River System	Narugo Dam Dam site	—	2011/10/26	Sunny	9.7	46.6	13.8	0.5	Dark grayish yellow green	None	2.0	14.5	4	5.4	<1	<1	<1	
		1 m from the bottom	—	—	—	—	—	7.0	45.6	—	None	—	16.7	14	16	<1	<1	<1	
84	Kitakamigawa River System	Futatsuishi Dam	—	2011/10/19	Clear	13.6	0.65	14.8	0.0	Dark green	None	0.65 or more	6.7	4	3.2	<1	<1	<1	
85	Narusegawa River System	Urushizawa Dam Dam site	—	2011/11/7	Sunny	16.4	29.7	12.6	0.5	Greenish brown	None	2.0	5.9	3	4.3	<1	<1	<1	
		1 m from the bottom	—	—	—	—	—	8.8	28.7	—	None	—	7.2	10	16.0	<1	<1	<1	
86	Narusegawa River System	Minamikawa Dam Dam site	—	2011/10/13	Sunny	17.0	26.0	17.8	0.5	Dark green	None	3.0	7.5	2	1.5	<1	<1	<1	
		1 m from the bottom	—	—	—	—	—	8.2	25.0	—	Faint putrescence	—	11.1	150	100	<1	<1	<1	
87	Kitakamigawa River System	Miyatoko Dam Dam site	—	2011/10/20	Sunny	16.2	2.5	15.8	0.0	Dark grayish yellow green	None	2.1	8.1	3	4.0	<1	<1	<1	
88	Sunaoshigawa River System	Sonoseki Dam	—	2011/10/19	Sunny	12.6	7.7	16.0	0.5	Greenish brown	None	0.5	13.6	16	21	<1	<1	<1	
		1 m from the bottom	—	—	—	—	—	15.8	6.7	—	None	—	13.8	19	24	<1	<1	<1	
89	Nanakitagawa River System	Nanakita Dam Dam site	—	2011/10/20	Cloudy	14.0	0.3	14.4	0.0	Dark grayish yellow green	None	0.3 or more	7.0	2	3.8	<1	<1	<1	
90	Marutazawatameike Pond	Pond exit	—	2011/10/20	Sunny	16.2	0.4	16.4	0.0	Dark grayish yellow green	None	0.4 or more	26.3	13	15	<1	<1	<1	
91	Amanuma Lake	Lake exit	—	2011/10/28	Sunny	11.3	1.0	13.0	0.0	Dark grayish yellow green	Faint sewage	0.9	22.7	4	4.6	<1	<1	<1	
92	Natorigawa River System	Okura Dam Dam site	—	2011/10/19	Sunny	13.2	25.0	14.9	0.5	Dark grayish yellow green	None	2.7	7.3	2	2.6	<1	<1	<1	
		1 m from the bottom	—	—	—	—	—	9.0	24.0	—	Faint hydrogen sulfide	—	7.7	17	20	<1	<1	<1	
93	Natorigawa River System	Kamafusa Dam Dam site	—	2011/10/21	Cloudy	17.4	25.5	15.3	0.5	Yellow green	None	1.7	10.1	4	4.0	<1	<1	<1	
		1 m from the bottom	—	—	—	—	—	14.8	24.5	—	None	—	11.0	13	15	<1	<1	<1	
94	Kitakamigawa River System	Tarumizu Dam Dam site	—	2011/10/27	Sunny	11.2	0.5	15.8	0.0	Dark grayish yellow green	None	2.0	8.9	3	4.0	<1	<1	<1	
95	Kitakamigawa River System	Murata Dam	—	2011/10/18	Sunny	17.2	0.7	15.6	0.0	Grayish yellow green	None	0.8	7.8	9	11	<1	<1	<1	
96	Abukumagawa River System	Kawarago Dam Dam site	—	2011/10/6	Cloudy	20.8	0.5	15.2	0.0	Dark green	None	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	Dark grayish yellow green	None	2.4	6.9	2	3.8	<1	<1	<1	
97	Abukumagawa River System	1 m from the bottom	—	—	—	—	—	10.1	29.5	—	None	—	6.9	2	5.8	<1	<1	<1	
		Bagyunuma Lake Lake exit	—	2011/10/24	Rain	18.0	0.7	16.8	0.0	Dark grayish yellow green	None	0.5	10.9	86	85	<1	1	2	

Note: Sampling points are listed from north to south.

Lake and Headwater: 1st Sediment Monitoring Results

Sampling point				Sampling date	Weather	Air temperature	Full depth m	Sediment															Remarks				
No.	Water body		Point					Municipality	General items										Concentration of radioactive material (Bq/kg)								
									Water temperature	Mud sampling depth cm	Color	Odor	Mechanical composition					Mud content	Water content	Property	Radioactive cesium						
				Coarse gravel	Medium gravel	Fine gravel	Coarse sand	Medium sand	Fine sand	Silt	Clay			Radioactive cesium-134	Radioactive cesium-137												
78	Kitakamigawa River System	Kurikoma Dam	Dam site	—	2011/10/5	Sunny	11.3	13.3	14.9	3	Yellowish brown	None	—	0.5	0.6	0.2	0.3	0.3	55.9	42.2	39.5	2,500	Silt	<30	470	630	
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Hanayama Dam	Dam site	—	2011/10/6	Rain	15.0	22.1	8.8	15	Grayish olive	Earth	—	—	—	—	—	—	0.3	31.2	68.5	32.3	2,454	Silt	<30	210	230
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
80		Izunuma Lake	Lake exit	—	2011/10/7	Sunny	17.8	1.6	18.1	5	Olive black	None	—	—	0.3	0.3	3.0	23.7	35.4	37.3	31.8	2,469	Silt with sand	<30	390	510	
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
81		Naganuma Lake	Lake exit	—	2011/10/7	Sunny	14.2	0.9	16.8	10	Black	Faint hydrogen sulfide	—	1.0	2.4	2.0	4.0	10.3	34.4	45.9	20.5	2,323	Silt	<30	500	680	
82		Shukunosawatameike Pond	Pond exit	—	2011/10/11	Sunny	15.2	0.5	17.8	5	Olive black	Faint fish and insect fish	—	3.7	7.7	20.4	30.7	15.9	10.4	11.2	72.1	2,606	Sand	<30	210	230	
83		Narugo Dam	Dam site	—	2011/10/26	Sunny	9.7	46.6	7.2	10	Grayish olive	Earth	—	—	—	—	0.3	1.1	65.5	33.1	31.6	2,544	Silt	<30	240	250 *1	
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
84	Narusegawa River System	Futatsuisui Dam	Dam site	—	2011/10/19	Clear	13.6	0.65	14.6	10	Dark olive	None	—	40.3	14.1	6.7	7.0	3.8	19.0	9.1	44.1	2,446	Sand with silt	<30	1,000	1,300	
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Urushizawa Dam	Dam site	—	2011/11/7	Sunny	16.4	29.7	9.8	10	Olive gray	None	—	—	—	0.2	0.3	0.5	66.3	32.7	31.8	2,446	Silt	<30	300	400 *2	
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
86		Minamikawa Dam	Dam site	—	2011/10/13	Sunny	17.0	26.0	7.8	10	Dark olive	Sewage	—	—	—	0.5	1.1	1.6	29.0	67.8	20.2	2,392	Silt	<30	1,200	1,400	
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
87		Miyatoko Dam	Dam site	—	2011/10/20	Sunny	16.2	2.5	17.6	10	Brown	Earth	7.1	32.9	9.6	8.4	19.5	8.3	9.5	4.7	69.9	2,673	Gravel/sand with silt	<30	14	17	
88	Sumaoshigawa River System	Sonoseki Dam	Dam site	—	2011/10/19	Sunny	12.6	7.7	15.0	10	Black	hydrogen sulfide	—	—	—	0.2	0.8	1.5	65.3	32.2	15.1	2,281	Silt	<30	260	450 *2	
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
89	Nanakitagawa River System	Nanakita Dam	Dam site	—	2011/10/20	Cloudy	14.0	0.3	14.8	10	Black	Earth	—	—	3.0	3.4	13.5	7.0	49.2	23.9	30.8	2,255	Sand with silt	<30	160	240	
90		Marutazawatameike Pond	Pond exit	—	2011/10/20	Sunny	16.2	0.4	16.2	5	Olive black	Earth	8.5	22.6	9.7	7.4	22.4	22.2	4.7	2.5	68.0	2,634	Sand with gravel	<30	480	620 *2	
91		Amanuma Lake	Lake exit	—	2011/10/28	Sunny	11.3	1.0	14.0	10	Black	Sewage	—	15.8	9.9	20.6	50.4	3.2	0.1	—	87.3	2,648	Sand with gravel	<30	1,000	1,200 *1	
92	Natorigawa River System	Okura Dam	Dam site	—	2011/10/19	Sunny	13.2	25.0	7.8	10	Grayish olive	None	—	—	—	0.1	0.1	0.9	65.7	33.2	35.4	2,534	Silt	<30	190	250	
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
93		Kamafusa Dam	Dam site	—	2011/10/21	Cloudy	17.4	25.5	14.8	15	Grayish olive	None	—	—	—	0.2	0.3	0.4	66.7	32.4	32.6	2,571	Silt	<30	39	46	
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
94		Tarumizu Dam	Dam site	—	2011/10/27	Sunny	11.2	0.5	15.7	10	Brownish black	Earth	—	5.8	11.5	14.9	26.4	18.2	15.6	7.6	65.6	2,604	Gravel with sand	<30	85	100 *1	
95		Murata Dam	Dam site	—	2011/10/18	Sunny	17.2	0.7	15.6	5	Olive black	None	—	—	—	0.9	82.1	16.7	0.3	—	56.6	2,637	Silt with gravel	<30	160	210	
96	Abukumagawa River System	Kawarago Dam	Dam site	—	2011/10/6	Cloudy	20.8	0.5	14.8	3	Brown	None	—	40.3	8.2	7.1	7.5	6.7	11.2	19.0	67.7	2,705	Silt with gravel	<30	320	410	
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
97		Shichikashuku Dam	Dam site	—	2011/10/6	Cloudy	16.2	30.5	12.0	10	Grayish olive	None	—	—	0.2	0.0	0.3	0.9	27.1	71.5	34.1	2,617	Silt	<30	960	1,200	
98		Bagyunuma Lake	Lake exit	—	2011/10/24	Rain	18.0	0.7	16.3	10	Brownish black	Mineral oil	—	22.5	10.6	11.5	20.3	9.5	17.1	8.5	63.6	2,723	Gravel/silt with sand	<30	810	1,000 *1	

Note: Sampling points are listed from north to south.

Lake and Headwater: 1st Surrounding Environment (Lake Shore) Monitoring Results

Sampling point				Sampling date	Weather	Air temperature	Full depth m	Surrounding environment (soil/herb/air dose)									Air dose (μSv/h)	Remarks	
								Soil			Herb								
								General items			Concentration of radioactive material (Bq/kg)			Concentration of radioactive material (Bq/kg)					
No.	Water body		Point	Municipality	Color	Odor	Property	Radioactive iodine-131	Radioactive cesium		Radioactive iodine-131	Radioactive cesium							
								Cs-134	Cs-137		Cs-134	Cs-137							
78	Kitakamigawa River System	Kurikoma Dam	Dam site	—	2011/10/5	Sunny	11.3	13.3	Brownish black	Earth	Loamy	<30	370	470	<30	910	1,100	0.21	
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
79	Kitakamigawa River System	Hanayama Dam	Dam site	—	2011/10/6	Rain	15.0	22.1	Brownish black	Earth	Loamy	<30	910	1,100	<30	130	140	0.21	
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
80	Kitakamigawa River System	Izunuma Lake	Lake exit	—	2011/10/7	Sunny	17.8	1.6	Dark brown	Earth	Loamy	<30	380	410	<30	16	22	0.08	
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
81		Naganuma Lake	Lake exit	—	2011/10/7	Sunny	14.2	0.9	Brownish black	None	Loamy	<30	120	160	<30	<10	<10	0.07	
82		Shukunosawatameike Pond	Pond exit	—	2011/10/11	Sunny	15.2	0.5	Brownish black	Earth	Loamy	<30	350	460	<30	<10	13	0.11	
83		Narugo Dam	Dam site	—	2011/10/26	Sunny	9.7	46.6	Brownish black	Earth	Clay-loamy	<30	130	160	—	—	—	0.21	*1
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
84		Futatsuishi Dam		—	2011/10/19	Clear	13.6	0.65	Dark grayish yellow	Earth	Loamy	<30	140	150	<30	34	43	0.04	
85	Narusegawa River System	Urushizawa Dam	Dam site	—	2011/11/7	Sunny	16.4	29.7	Olive black	Earth	Loamy	<30	160	200	<30	10	21	0.13	*2
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
86	Narusegawa River System	Minamikawa Dam	Dam site	—	2011/10/13	Sunny	17.0	26.0	Brownish black	Earth	Loamy	<30	380	450	<30	45	62	0.09	
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
87		Miyatoko Dam	Dam site	—	2011/10/20	Sunny	16.2	2.5	Dull yellowish brown	Earth	Clay-loamy	<30	60	75	<30	<10	<10	0.07	
88	Sunaoshigawa River System	Sonoseki Dam		—	2011/10/19	Sunny	12.6	7.7	Dull yellowish brown	Earth	Loamy	<30	180	230	<30	<10	<10	0.14	*2
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
89		Nanakita Dam	Dam site	—	2011/10/20	Cloudy	14.0	0.3	Dark olive brown	Earth	Loamy	<30	36	78	<30	15	19	0.07	
90		Marutazawatameike Pond	Pond exit	—	2011/10/20	Sunny	16.2	0.4	Dark olive brown	Green grass	Loamy	<30	560	710	<30	48	68	0.14	*2
91		Amanuma Lake	Lake exit	—	2011/10/28	Sunny	11.3	1.0	Brownish black	Earth	Loamy	<30	310	390	<30	47	69	0.19	*1
92	Natorigawa River System	Okura Dam	Dam site	—	2011/10/19	Sunny	13.2	25.0	Brownish black	Earth	Loamy	<30	110	110	<30	<10	<10	0.05	
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
93	Natorigawa River System	Kamafusa Dam	Dam site	—	2011/10/21	Cloudy	17.4	25.5	Brownish gray	Earth	Loamy	<30	74	92	<30	<10	<10	0.08	
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
94		Tarumizu Dam	Dam site	—	2011/10/27	Sunny	11.2	0.5	Dark brown	Earth	Loamy	<30	620	780	<30	<10	<10	0.21	*1
95		Murata Dam		—	2011/10/18	Sunny	17.2	0.7	Dark olive brown	Leaf mold	Loamy	<30	810	940	<30	11	19	0.07	
96	Abukumagawa River System	Kawarago Dam	Dam site	—	2011/10/6	Cloudy	20.8	0.5	Dark brown	Faint earth	Loamy	<30	150	150	—	—	—	0.10	
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
97	Abukumagawa River System	Shichikashuku Dam	Dam site	—	2011/10/6	Cloudy	16.2	30.5	Brownish black	Faint earth	Loamy	<30	1,100	1,500	—	—	—	0.20	
			1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
98		Bagyunuma Lake	Lake exit	—	2011/10/24	Rain	18.0	0.7	Brownish black	Earth	Loamy	<30	730	910	<30	1,000	1,200	0.71	*1

Note: • Air dose was measured with a survey meter, TCS-172 or TCS-161 of Hitachi-Aloka Medical, Ltd. For point 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.

Coast and Bathing Area-1: 1st Water Quality Monitoring Results

Sampling point				Sampling date	Weather	Air temperature	Full depth m	Water quality										Remarks
No.	Water body	Point	Municipality					General items							Radioactive material concentrations (Bq/L)			
								Water temperature	Sampling depth	Color	Odor	Secchi disk depth	Salinity	SS mg/L	Turbidity	Radioactive iodine-131	Radioactive cesium	
										Cs-134	Cs-137							
99	All other neighboring sea areas	Hiroatan Bay (Osawa)	—	2011/10/3	Sunny	14.6	35.9	19.3	0.5	Green	None	13.5	32.9	<1	0.1	<1	<1	<1
		1 m from the bottom	—	—	—	—	—	18.3	34.9	—	None	—	33.5	1	0.8	<1	<1	<1
100	Kesenumawan Bay (B)	Offshore of Hachigasaki	—	2011/10/3	Rain	12.8	16.7	19.6	0.5	Dark green	None	4.8	32.5	1	0.7	<1	<1	<1
		1 m from the bottom	—	—	—	—	—	19.4	15.7	—	None	—	33.3	<1	0.3	<1	<1	<1
101	Kesenumawan Bay (C)	K-3 (Himatagai)	—	2011/10/3	Sunny	13.2	29.4	19.3	0.5	Dark green	None	9.0	33.1	1	0.7	<1	<1	<1
		1 m from the bottom	—	—	—	—	—	19.3	28.4	—	None	—	33.3	<1	0.7	<1	<1	<1
102	Kesenumawan Bay (C)	Offshore of Oshimakita	—	2011/10/3	Cloudy	13.2	37.4	19.2	0.5	Dark green	None	8.7	32.4	1	0.7	<1	<1	<1
		1 m from the bottom	—	—	—	—	—	19.0	36.4	—	None	—	33.4	1	1.2	<1	<1	<1
103	All other neighboring sea areas	Odanohama Beach	—	2011/10/3	Cloudy	14.3	10.2	19.0	0.5	Green	None	7.7	33.2	<1	0.3	<1	<1	<1
		1 m from the bottom	—	—	—	—	—	18.8	9.2	—	None	—	33.2	1	0.5	<1	<1	<1
104	Kesenumawan Bay (C)	K-2 (Futatsune)	—	2011/10/3	Cloudy	14.6	9.2	19.0	0.5	Dark greenish yellow-green	None	5.4	32.6	<1	0.5	<1	<1	<1
		1 m from the bottom	—	—	—	—	—	18.8	8.2	—	None	—	32.9	<1	0.8	<1	<1	<1
105	Offshore of Tsuyagawa River Estuary		—	2011/10/3	Cloudy	17.2	10.6	19.4	0.5	Yellow green	None	7.9	32.9	1	1.0	<1	<1	<1
		1 m from the bottom	—	—	—	—	—	19.6	9.6	—	None	—	33.3	<1	1.1	<1	<1	<1
106	All other neighboring sea areas	Sodehama Beach	—	2011/10/5	Cloudy	16.0	6.4	18.9	0.5	Yellow green	None	3.9	33.1	1	1.5	<1	<1	<1
		1 m from the bottom	—	—	—	—	—	18.8	5.4	—	None	—	33.1	2	2.0	<1	<1	<1
107	All other neighboring sea areas	Oppawan Bay (Jyusanhama Beach)	—	2011/10/5	Cloudy	17.5	18.0	19.7	0.5	Green	None	8.3	31.2	1	1.3	<1	<1	<1
		1 m from the bottom	—	—	—	—	—	19.7	17.0	—	None	—	33.4	1	1.4	<1	<1	<1
108	All other neighboring sea areas	Neighboring sea area of Ogatsu	—	2011/10/5	Cloudy	19.8	35.4	19.2	0.5	Green	None	7.1	33.0	<1	0.5	<1	<1	<1
		1 m from the bottom	—	—	—	—	—	18.8	34.4	—	None	—	33.5	1	2.1	<1	<1	<1
109	Onagawawan Bay (A)	Fish amarket, front	—	2011/10/5	Cloudy	18.7	6.5	19.6	0.5	Yellow green	None	2.8	32.5	2	1.6	<1	<1	<1
		1 m from the bottom	—	—	—	—	—	19.1	5.5	—	None	—	33.1	2	2.6	<1	<1	<1
110	Ayukawawan Bay (A)	In Ayukawa Fishing Port	—	2011/10/5	Cloudy	18.4	11.0	19.9	0.5	Green	None	5.2	32.6	<1	0.6	<1	<1	<1
		1 m from the bottom	—	—	—	—	—	19.7	10.0	—	None	—	33.2	1	1.4	<1	<1	<1
111	All other neighboring sea areas	Neighboring sea area of Oginohama Beach	—	2011/10/5	Cloudy	18.2	15.5	19.8	0.5	Green	None	3.8	30.4	<1	1.6	<1	<1	<1
		1 m from the bottom	—	—	—	—	—	19.8	14.5	—	None	—	33.2	11	12	<1	<1	<1
112	Neighboring sea area of Ishinomaki (C)	Mangokuura Lake, M-6 (center)	—	2011/10/5	Cloudy	17.8	4.0	19.0	0.5	Green	None	3.2	31.4	1	1.4	<1	<1	<1
		1 m from the bottom	—	—	—	—	—	18.6	3.0	—	None	—	31.8	5	5.6	<1	<1	<1
113	Neighboring sea area of Ishinomaki (C)	Offshore of Nagahama Beach (N-4)	—	2011/10/6	Cloudy	16.8	8.5	18.6	0.5	Dark green	None	3.3	28.3	3	3.2	<1	<1	<1
		1 m from the bottom	—	—	—	—	—	19.6	7.5	—	None	—	32.1	30	24	<1	<1	<1
114	Neighboring sea area of Ishinomaki (B-3)	Offshore of Kitakamigawa River Estuary	—	2011/10/6	Cloudy	16.9	7.5	17.4	0.5	Grayish yellow-green	None	0.8	25.0	17	13	<1	<1	<1
		1 m from the bottom	—	—	—	—	—	19.9	6.5	—	None	—	32.6	8	4.9	<1	<1	<1
115	Neighboring sea area of Ishinomaki (A-1)	Industrial port, entrance	—	2011/10/6	Cloudy	16.7	15.0	18.5	0.5	Grayish yellow-green	None	1.8	27.7	4	4.0	<1	<1	<1
		1 m from the bottom	—	—	—	—	—	19.9	14.0	—	None	—	33.2	15	15	<1	<1	<1
116	Neighboring sea area of Ishinomaki (C)	Offshore of industrial port (K-3)	—	2011/10/6	Cloudy	17.2	15.0	18.8	0.5	Dark green	None	4.0	29.0	2	1.9	<1	<1	<1
		1 m from the bottom	—	—	—	—	—	20.0	14.0	—	None	—	32.9	1	1.8	<1	<1	<1
117	Neighboring sea area of Ishinomaki (C)	Offshore of Naruse	—	2011/10/6	Cloudy	17.0	15.2	18.9	0.5	Dark green	None	2.9	28.3	3	2.8	<1	<1	<1
		1 m from the bottom	—	—	—	—	—	19.7	14.2	—	None	—	32.7	9	10	<1	<1	<1

Note: Sampling points are listed from north to south.

Coast and Bathing Area-2: 1st Water Quality Monitoring Results

Sampling point				Sampling date	Weather	Air temperature	Full depth m	Water quality										Remarks	
No.	Water body	Point	Municipality					General items							Radioactive material concentrations (Bq/L)				
								Water temperature	Sampling depth	Color	Odor	Secchi disk depth	Salinity	SS mg/L	Turbidity	Radioactive iodine-131	Radioactive cesium		
											Cs-134	Cs-137							
118	Matsushimawan Bay (C)	Hebijimazakihigashi	—	2011/10/6	Cloudy	18.0	2.9	18.2	0.5	Dark green-yellow green	None	1.3	28.4	11	12	<1	<1	<1	
		1 m from the bottom	—	—	—	—	—	18.3	1.9	—	None	—	30.4	24	25	<1	<1	<1	
119	Matsushimawan Bay (C)	Isozaki	—	2011/10/6	Sunny	18.6	2.6	18.3	0.5	Dark green-yellow green	None	1.2	28.9	11	13	<1	<1	<1	
		1 m from the bottom	—	—	—	—	—	18.4	1.6	—	None	—	29.6	14	16	<1	<1	<1	
120	Matsushimawan Bay (C)	Katsurajima	—	2011/10/6	Cloudy	18.2	4.2	18.4	0.5	Dark green-yellow green	None	2.0	30.7	3	4.2	<1	<1	<1	
		1 m from the bottom	—	—	—	—	—	18.4	3.2	—	None	—	30.9	6	7.7	<1	<1	<1	
121	Matsushimawan Bay (B)	Nishihama Beach	—	2011/10/6	Cloudy	18.3	14.3	19.2	0.5	Dark green-yellow green	None	1.6	31.5	3	4.7	<1	<1	<1	
		1 m from the bottom	—	—	—	—	—	19.2	13.3	—	None	—	31.9	40	38	<1	<1	<1	
122	Matsushimawan Bay (A)	Minatobashi Bridge	—	2011/10/6	Sunny	19.1	6.5	19.4	0.5	Dark green	Faint sewage	3.0	27.5	5	6.3	<1	<1	<1	
		1 m from the bottom	—	—	—	—	—	19.9	5.5	—	Faint sewage	—	31.7	4	6.7	<1	<1	<1	
123	Neighboring sea area of Sendai Port (B)	Gotenzaki-1	—	2011/10/6	Cloudy	18.4	12.5	20.1	0.5	Dark green	None	2.5	32.4	4	4.4	<1	<1	<1	
		1 m from the bottom	—	—	—	—	—	20.2	11.5	—	None	—	32.6	9	9.5	<1	<1	<1	
124	Neighboring sea area of Sendai Port (A)	Naiko Inner Port, 4-Nai	—	2011/10/6	Cloudy	18.0	19.0	19.6	0.5	Grayish yellow green	Faint sewage	1.3	25.6	9	13	<1	<1	<1	
		1 m from the bottom	—	—	—	—	—	20.3	18.0	—	None	—	33.1	5	7.5	<1	<1	<1	
125	Neighboring sea area of Sendai Port (B)	Gamo-3	—	2011/10/7	Sunny	18.9	17.5	19.8	0.5	Green	None	2.7	31.4	2	3.1	<1	<1	<1	
		1 m from the bottom	—	—	—	—	—	20.0	16.5	—	None	—	33.2	80	91	<1	<1	<1	
126	All other neighboring sea areas	Ido-5	—	2011/10/7	Sunny	19.0	5.5	19.5	0.5	Yellow green	None	2.2	26.2	5	4.0	<1	<1	<1	
		1 m from the bottom	—	—	—	—	—	20.0	4.5	—	None	—	32.5	7	3.7	<1	<1	<1	
127	Neighboring sea area of Ninokura (A)	Ninokuramac-1	—	2011/10/7	Sunny	18.8	13.9	19.9	0.5	Yellow green	None	3.0	32.0	4	2.5	<1	<1	<1	
		1 m from the bottom	—	—	—	—	—	20.0	12.9	—	None	—	33.2	6	7.1	<1	<1	<1	
128	Offshore of Abukumagawa River Estuary		—	2011/10/7	Sunny	18.5	10.0	19.6	0.5	Ocher	None	0.5	26.1	18	12	<1	<1	<1	
		1 m from the bottom	—	—	—	—	—	20.2	9.0	—	None	—	32.9	4	3.0	<1	<1	<1	
129	B a t h i n g A r e a	Oya	—	2011/10/6	Rain	16.2	0.6	18.4	0.0	Grayish green	None	—	—	15	17	<1	<1	<1	
130		Minamisanrikukaigan Seashore	Koizumi	—	2011/10/6	Rain	17.1	0.5	18.2	0.0	Grayish yellow green	None	—	—	94	100	<1	<1	<1
131			Nagasuka	—	2011/10/6	Rain	16.8	0.5	18.4	0.0	Grayish yellow green	None	—	—	12	11	<1	<1	<1
132			Natsuhama Beach	—	2011/10/11	Cloudy	19.0	1.0	18.8	0.0	Dark greenish yellow green	None	—	—	6	4.7	<1	<1	<1
133	Ishinomakiwan Bay	Nobiru	—	2011/10/12	Clear	19.4	1.0	19.4	0.0	Dark greenish yellow green	None	—	—	9	9.4	<1	<1	<1	
134	Sendaiwan Bay	Shobuda	—	2011/10/14	Cloudy	20.8	0.6	20.0	0.0	Dark greenish yellow green	None	—	—	36	2.4	<1	<1	<1	
135	Minamisanrikukaigan Seashore	Ajishirahama Beach	—	2011/10/11	Cloudy	17.2	1.0	18.8	0.0	Dark green	None	—	—	6	4.1	<1	<1	<1	
136	Sendaiwan Bay	Fukanuma Lake	—	2011/10/20	Sunny	18.6	0.3	19.6	0.0	Dark greenish yellow green	None	—	—	4	3.1	<1	<1	<1	
137		Yuriage	—	2011/10/6	Sunny	18.2	0.3	20.3	0.0	Dark green	None	—	—	15	9.3	<1	<1	<1	
138		Arahama Beach (Wataricho)	—	2011/10/6	Cloudy	18.9	0.4	19.7	0.0	Dark greenish yellow green	None	—	—	17	16	<1	<1	<1	

Note: Sampling points are listed from north to south.

Coast and Bathing Area-1: 1st Sediment Monitoring Results

Sampling point				Sampling date	Weather	Air temperature	Full depth m	Sediment													Remarks				
No.	Water body	Point	Municipality					General items										Concentration of radioactive material (Bq/kg)							
								Mid temperature	Mid turbidity (ppm)	Color	Odor	Mechanical composition					Moist content	2- ϕ particle density (g/cm ³)	Property	Radioactive cesium					
								Coarse gravel	Medium gravel	Fine gravel	Coarse sand	Medium sand	Fine sand	Silt	Clay				Cs-134	Cs-137					
99	All other neighboring sea areas	Hiroatan Bay (Osawa)	—	2011/10/3	Sunny	14.6	35.9	18.2	5	Olive black	None	—	—	—	0.4	26.1	53.3	20.2	62.6	2.727	Silt with sand	<30	<10	<10	
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
100	Kesenumawan Bay (B)	Offshore of Hachigasaki	—	2011/10/3	Rain	12.8	16.7	19.8	3	Olive black	Faint mineral oil	—	2.5	3.2	9.2	30.8	21.2	15.4	17.7	73.6	2.705	Gravel with silt	<30	<10	17
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
101	Kesenumawan Bay (C)	K-3 (Hinatagai)	—	2011/10/3	Sunny	13.2	29.4	18.6	5	Black	Mineral oil	—	—	—	—	—	1.1	50.0	48.9	39.6	2.637	Silt	<30	<10	<10
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
102	Kesenumawan Bay (C)	Offshore of Oshimakita	—	2011/10/3	Cloudy	13.2	37.4	18.8	5	Black	Mineral oil	—	—	0.2	0.9	8.4	49.1	41.4	45.5	2.648	Silt with sand	<30	<10	<10	
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
103	All other neighboring sea areas	Odanohama Beach	—	2011/10/3	Cloudy	14.3	10.2	18.6	3	Gray	None	—	—	0.5	1.6	26.2	70.8	—	0.9	81.2	2.777	Sand with gravel	<30	<10	<10
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
104	Kesenumawan Bay (C)	K-2 (Putatsune)	—	2011/10/3	Cloudy	14.6	9.2	18.7	3	Black	Faint hydrogen sulfide	—	0.9	0.8	1.0	12.9	50.3	19.4	14.7	65.1	2.697	Silt with sand	<30	20	29
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
105	Offshore of Tsuyagawa River	Estuary	—	2011/10/3	Cloudy	17.2	10.6	18.4	3	Dark olive	None	—	—	—	0.1	9.6	88.9	—	1.4	82.2	2.757	Sand	<30	<10	<10
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
106	All other neighboring sea areas	Sodehama Beach	—	2011/10/5	Cloudy	16.0	6.4	19.0	5	Olive black	None	—	17.6	1.4	1.1	5.0	14.0	34.7	26.2	50.8	2.527	Gravel/silt with sand	<30	100	110
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
107	All other neighboring sea areas	Oppawan Bay (Yusanhama Beach)	—	2011/10/5	Cloudy	17.5	18.0	19.3	5	Olive black	Faint earth	—	—	—	0.2	2.5	74.9	22.4	52.3	2.637	Silt	<30	170	180	
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
108	All other neighboring sea areas	Neighboring sea area of Ogatsu	—	2011/10/5	Cloudy	19.8	35.4	18.3	10	Olive black	Faint earth	—	—	—	0.3	4.1	39.4	31.9	24.3	58.0	2.638	Sand with silt	<30	<10	<10
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
109	Onagawawan Bay (A)	Fish market, front	—	2011/10/5	Cloudy	18.7	6.5	18.3	10	Dark olive brown	Faint mineral oil	—	—	0.2	0.2	1.0	11.4	53.8	33.4	48.9	2.571	Silt with gravel	<30	120	140
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
110	Ayukawawan Bay (A)	In Ayukawa Fishing Port	—	2011/10/5	Cloudy	18.4	11.0	19.2	5	Olive black	Faint earth	—	0.1	0.3	1.2	19.8	55.4	8.9	14.3	68.2	2.698	Gravel/sand with silt	<30	37	38
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
111	All other neighboring sea areas	Neighboring sea area of Oginohama Beach	—	2011/10/5	Cloudy	18.2	15.5	19.3	15	Olive black	Faint earth	—	—	—	—	—	0.8	29.1	70.1	40.7	2.573	Silt	<30	<10	<10
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
112	Neighboring sea area of Ishinomaki (C)	Mangokura Lake, M-6 (center)	—	2011/10/5	Cloudy	17.8	4.0	18.9	5	Olive black	None	—	0.7	2.0	1.7	4.4	23.2	24.2	43.8	41.9	2.623	Silt with sand	<30	<21	<21
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
113	Neighboring sea area of Ishinomaki (C)	Offshore of Nagahama Beach (N-4)	—	2011/10/6	Cloudy	16.8	8.5	19.2	5	Olive black	None	—	—	—	0.7	70.0	24.0	—	5.3	75.1	2.692	Sand	<30	<10	10
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
114	Neighboring sea area of Ishinomaki (B-3)	Offshore of Kitakamiyawa River Estuary	—	2011/10/6	Cloudy	16.9	7.5	19.6	5	Olive black	None	—	—	0.3	6.2	69.5	13.6	10.4	72.8	2.697	Sand	<30	42	63	
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
115	Neighboring sea area of Ishinomaki (A-1)	Industrial port, entrance	—	2011/10/6	Cloudy	16.7	15.0	20.0	5	Olive black	None	—	—	—	2.0	12.8	39.9	45.3	40.6	2.616	Silt	<30	84	100	
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
116	Neighboring sea area of Ishinomaki (C)	Offshore of industrial port (K-3)	—	2011/10/6	Cloudy	17.2	15.0	19.7	5	Olive black	Faint earth	—	—	—	0.6	12.5	51.8	35.1	47.7	2.634	Silt with sand	<30	<10	<16	
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
117	Neighboring sea area of Ishinomaki (C)	Offshore of Naruse	—	2011/10/6	Cloudy	17.0	15.2	19.8	5	Olive black	None	—	—	—	0.5	45.0	37.1	17.4	55.1	2.639	Sand with silt	<30	65	100	
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Note: Sampling points are listed from north to south.

Coast and Bathing Area-2: 1st Sediment Monitoring Results

Sampling point				Sampling date	Weather	Air temperature	Full depth m	Sediment																Remarks				
No.	Water body	Point	Municipality					General items										Concentration of radioactive material (Bq/kg)										
								Mid temperature	Mid sampling depth	Color	Odor	Mechanical composition				Mid content	Mid particle diameter	Property	Radioactive iodine-131	Radioactive cesium								
				Coarse gravel	Medium gravel	Fine gravel	Coarse sand	Medium sand	Fine sand	Silt	Clay							Cs-134	Cs-137									
118	Matsushima Bay (C)	Hebijimazakihgashi	—	2011/10/6	Cloudy	18.0	2.9	18.8	15	Olive black	Faint earth	—	—	—	0.3	6.1	39.5	54.1	36.1	2.621	Silt with sand	<30	<14	29				
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
119	Matsushima Bay (C)	Isozaki	—	2011/10/6	Sunny	18.6	2.6	18.8	15	Olive black	None	—	0.3	0.5	0.3	0.6	3.0	32.4	62.9	36.2	2.605	Silt with sand	<30	<11	<15			
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
120	Matsushima Bay (C)	Katsurajima	—	2011/10/6	Cloudy	18.2	4.2	19.6	15	Olive black	Faint earth	—	—	—	0.3	1.0	20.2	31.8	46.7	41.7	2.578	Silt	<30	<10	12			
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
121	Matsushima Bay (B)	Nishihama Beach	—	2011/10/6	Cloudy	18.3	14.3	19.5	10	Olive black	None	—	—	—	—	—	0.3	34.1	65.6	29.0	2.604	Silt	<30	55	84			
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
122	Matsushima Bay (A)	Minatobashi Bridge	—	2011/10/6	Sunny	19.1	6.5	19.7	15	Olive black	None	—	0.5	1.0	1.0	3.5	5.9	33.8	54.3	40.4	2.593	Silt with sand	<30	<10	<11			
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
123	Neighboring sea area of Sendai Port (B) Gotenzaki-1	—	—	2011/10/6	Cloudy	18.4	12.5	20.0	10	Olive black	Faint earth	—	—	—	—	0.2	1.2	24.8	33.2	40.6	43.5	2.612	Silt with sand	<30	47	37		
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
124	Neighboring sea area of Sendai Port (A) Naiko Inner Port, 4-Nai	—	—	2011/10/6	Cloudy	18.0	19.0	19.8	5	Olive black	Faint mineral oil	—	—	—	—	0.4	1.2	0.7	7.8	48.7	16.1	25.1	43.6	2.626	Gravel/silt with sand	<30	130	140
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
125	Neighboring sea area of Sendai Port (B) Gamo-3	—	—	2011/10/7	Sunny	18.9	17.3	19.2	5	Olive black	None	—	—	—	—	—	23.2	59.7	4.6	12.5	66.4	2.648	Sand with silt	<30	23	21		
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
126	All other neighboring sea areas Ido-5	—	—	2011/10/7	Sunny	19.0	5.5	19.3	3	Olive black	None	—	—	—	—	0.7	17.3	75.8	—	6.2	79.8	2.706	Sand	<30	27	44		
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
127	Neighboring sea area of Ninokura (A) Ninokuramae-1	—	—	2011/10/7	Sunny	18.8	13.9	19.3	3	Olive black	None	—	—	—	0.1	0.2	3.3	90.4	—	6.0	77.8	2.719	Sand	<30	27	41		
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
128	Offshore of Abukumagawa River Estuary	—	—	2011/10/7	Sunny	18.5	10.0	20.0	3	Olive black	None	—	—	—	—	6.7	78.1	5.9	9.3	75.8	2.704	Sand	<30	160	230			
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
129	Minamisanriku Kaigan Seashore	Oya	—	2011/10/6	Rain	16.2	0.6	17.9	10	Olive black	None	—	—	0.3	2.4	84.9	11.6	—	0.8	84.9	2.743	Sand	<30	<10	<10			
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
130	Minamisanriku Kaigan Seashore	Koizumi	—	2011/10/6	Rain	17.1	0.5	18.0	10	Olive black	None	—	0.4	0.2	1.2	16.6	79.7	—	1.9	82.9	2.797	Sand	<30	<10	<10			
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
131	Minamisanriku Kaigan Seashore	Nagasuka	—	2011/10/6	Rain	16.8	0.5	18.0	10	Gray	None	—	0.4	1.5	5.5	32.1	59.3	—	1.2	82.4	2.745	Sand	<30	<10	<10			
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
132	Minamisanriku Kaigan Seashore	Natsuhama Beach	—	2011/10/11	Cloudy	19.0	1.0	19.0	10	Yellowish brown	Faint seaweed	—	—	—	0.3	4.4	87.2	6.9	—	1.2	87.0	2.636	Sand with gravel	<30	<10	<10		
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
133	Ishinomakiwan Bay	Nobiru	—	2011/10/12	Clear	19.4	1.0	19.6	10	Olive black	None	—	14.5	11.9	10.1	16.9	7.2	26.4	13.0	77.9	2.458	Sand	<30	<10	12			
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
134	Sendaiwan Bay	Shobuda	—	2011/10/14	Cloudy	20.8	0.6	19.8	10	Olive black	None	—	—	—	0.6	1.5	33.4	63.3	—	1.2	79.5	2.671	Sand	<30	11	26		
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
135	Minamisanriku Kaigan Seashore	Ajishirahama Beach	—	2011/10/11	Cloudy	17.2	1.0	18.8	10	Grayish olive brown	None	—	5.9	2.6	69.8	20.5	0.8	—	0.4	90.6	2.688	Sand	<30	<10	<10			
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
136	Sendaiwan Bay	Fukanuma Lake	—	2011/10/20	Sunny	18.6	0.3	19.6	10	Grayish olive	None	—	—	—	—	1.5	73.2	24.6	—	0.7	82.6	2.650	Sand	<30	12	13		
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
137	Sendaiwan Bay	Yuriage	—	2011/10/6	Sunny	18.2	0.3	20.2	5	Grayish olive	None	—	—	—	0.1	10.0	86.2	2.8	—	0.9	83.2	2.660	Sand	<30	<10	<10		
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
138	Sendaiwan Bay	Arahama Beach (Wataricho)	—	2011/10/6	Cloudy	18.9	0.4	19.8	5	Dark grayish yellow	None	—	—	—	—	0.1	38.1	59.1	—	2.7	82.3	2.687	Sand	<30	<10	23		
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				

Note: Sampling points are listed from north to south.

Coast and Bathing Area-1: 1st Surrounding Environment (Beach) Monitoring Results

Sampling point				Sampling date	Weather	Air temperature	Surrounding environment (soil/herb/air dose)								Remarks		
No.	Water body	Point	Municipality				Soil			Herb						Air dose (μSv/h)	
							General items			Concentration of radioactive material (Bq/kg)			Concentration of radioactive material (Bq/kg)				
							Color	Odor	Property	Radioactive iodine-131	Radioactive cesium		Radioactive iodine-131	Radioactive cesium			
			Cs-134	Cs-137		Cs-134	Cs-137		Cs-134	Cs-137							
129	B a t h i n g A r e a 1 M i n a m i s a n r i k u k a i g a n S e a s h o r e	Oya	—	2011/10/6	Rain	16.2	Olive black	None	Sandy	<30	<10	<10	—	—	—	0.04	
130		Koizumi	—	2011/10/6	Rain	17.1	Olive black	None	Sandy	<30	<10	<10	—	—	—	0.06	
131		Nagasuka	—	2011/10/6	Rain	16.8	Gray	None	Sandy	<30	<10	<10	—	—	—	0.04	
132	I s h i n o m a k i w a n B a y	Natsuhama Beach	—	2011/10/11	Cloudy	19.0	Dull yellow	None	Sandy	<30	<10	<10	—	—	—	0.05	
133		Nobiru	—	2011/10/12	Clear	19.4	Olive gray	None	Sandy	<30	15	30	—	—	—	0.05	
134	S e n d a i w a n B a y	Shobuda	—	2011/10/14	Cloudy	20.8	Dark yellowish brown	None	Sandy	<30	26	29	—	—	—	0.06	
135	M i n a m i s a n r i k u k a i g a n S e a s h o r e	Ajishirahama Beach	—	2011/10/11	Cloudy	17.2	Yellowish brown	None	Sandy	<30	<10	<10	—	—	—	0.06	
136		Fukanuma Lake	—	2011/10/20	Sunny	18.6	Grayish olive	None	Sandy	<30	27	33	—	—	—	0.06	
137	S e n d a i w a n B a y	Yuriage	—	2011/10/6	Sunny	18.2	Grayish olive	None	Sandy	<30	38	42	—	—	—	0.04	
138		Arahama Beach (Wataricho)	—	2011/10/6	Cloudy	18.9	Grayish olive	None	Sandy	<30	20	38	—	—	—	0.03	

Note: Sampling points are listed from north to south.

River: 2nd Water Quality Monitoring Results

Sampling point				Sampling date	Weather	Air temperature	Full depth m	Water quality										Remarks	
No.	Water body	Point	Municipality					General items							Radioactive material concentrations (Bq/L)				
								Water temperature	Sampling depth	Color	Odor	Transparencym	Electrical conductivity/m	SS mg/L	Turbidity	Radioactive iodine-131	Radioactive cesium		
										Cs-134	Cs-137								
1	Shishorigawa River	Kinzanbashi Bridge	Kesemumashi City	2012/2/24	Cloudy	2.8	0.30	2.8	0.0	Colorless transparent	None	100 or more	14.2	2	1.2	<1	<1		
2	Shishorigawa River	Namitabashi Bridge	Kesemumashi City	2012/2/23	Cloudy	2.5	3.05	5.3	0.0	Greenish brown	Faint seaweed	26	2190.0	33	6.3	<1	<1		
3	Okawa River	Tateyamaohashi Bridge	Kesemumashi City	2012/2/23	Cloudy	2.6	1.05	2.0	0.0	Greenish brown	None	23	15.8	20	2.1	<1	<1		
4	Okawa River	Kamiyamabashi Bridge	Kesemumashi City	2012/2/23	Cloudy	2.6	2.26	2.5	0.0	Greenish brown	None	27	127.4	43	5.6	<1	<1		
5	Okawa River	Okawa River Estuary	Kesemumashi City	2012/1/27	Cloudy	-2.5	3.40	4.5	0.0	Dark blue green	None	100 or more	4030.0	1	2.8	<1	<1		
6	Omosogawa River	Ozakibashi Bridge	Kesemumashi City	2012/2/23	Cloudy	2.4	1.60	2.6	0.0	Grayish yellow	Faint sewage	30	388.0	74	100	<1	<1		
11		Arimagawa River	Unandabashi Bridge	Kuriharashi City	2012/2/24	Sunny	3.0	0.20	1.0	0.0	Yellow green	None	84	20.3	5	7.0	<1	<1	
12		Kiryugawa River	Obatabashi Bridge	Kuriharashi City	2012/2/24	Cloudy	3.5	0.30	1.2	0.0	Grayish yellow green	None	67	17.7	9	8.7	<1	<1	
13		Kitakamigawa River	Tomeohashi Bridge (Tome)	Tomeshi City	2012/2/21	Cloudy	3.8	1.00	1.7	0.0	Dark green	None	100 or more	17.1	1	2.0	<1	<1	
14		Sanhasamagawa River	Domanbashi Bridge (Kurikoma Dam)	Kuriharashi City	2012/2/24	Sunny	3.4	0.90	4.8	0.0	Grayish yellow green	None	73	27.4	8	8.0	<1	<1	
15		Nihasamagawa River	Kajiyabashi Bridge	Kuriharashi City	2012/2/24	Cloudy	4.0	0.60	2.2	0.0	Yellow green	None	100 or more	14.5	4	3.8	<1	<1	
16		Hasamagawa River	Hanayama Dam, inflow area	Kuriharashi City	2012/2/24	Snow	3.2	0.65	10.5	0.0	Grayish yellow green	None	100 or more	9.0	5	3.2	<1	<1	
17	Kitakamigawa River	Hasamagawa River	Wakayanagi	Kuriharashi City	2012/2/21	Sunny	4.0	1.00	3.7	0.0	Colorless transparent	None	100 or more	19.5	4	4.1	<1	<1	
18	System	Hasamagawa River	Yamayoshiabashi Bridge	Tomeshi City	2012/2/21	Cloudy	4.2	0.40	1.8	0.0	Grayish yellow green	None	52	20.8	8	10	<1	<1	
20		Eaigawa River	Todorokibashi Bridge (Todoroki)	Osakishi City	2012/2/24	Cloudy	4.6	0.40	3.0	0.0	Colorless transparent	None	100 or more	18.1	3	3.2	<1	<1	
21		Eaigawa River	Shimzukunft Weir	Osakishi City	2012/2/24	Sunny	4.7	0.30	3.9	0.0	Dark green	None	96	23.6	4	4.6	<1	<1	
22		Eaigawa River	In Furukawa District, Osakishi City	Shimborishon, entrance	Osakishi City	2012/2/24	Sunny	4.1	1.85	3.1	0.0	Greenish brown	Faint sewage	54	40.5	9	12	<1	<1
23		Eaigawa River	Dekigawa River	Kogotabashi Bridge	Miastomachi Town	2012/2/24	Sunny	6.4	0.60	5.1	0.0	Dark grayish yellow red	None	23	27.1	48	40	<1	<1
24		Eaigawa River	Eaigawa River	Okawabashi Bridge (Ilandai)	Osakishi City	2012/2/20	Sunny	5.8	1.00	4.2	0.0	Dark green	None	100 or more	25.4	5	5.7	<1	<1
26		Kyukitakamigawa River	Kadonowaki	Ishinomakishi City	2012/2/20	Sunny	1.9	1.50	2.6	0.0	Dark green	None	100 or more	892.0	3	3.2	<1	<1	
33	Narusegawa River System	Narusegawa River	Onobashi Bridge (Ono)	Ishinomakishi City	2012/2/20	Sunny	6.8	1.00	2.2	0.0	Dark green	None	100 or more	17.5	4	4.4	<1	<1	
40	Sunaoshigawa River	Tagajozeki Weir	Tagajoshi City	2012/2/16	Sunny	3.8	0.50	4.0	0.0	Greenish brown	None	50	63.0	13	13	<1	<1		
41	Sunaoshigawa River	Neubutsubashi Bridge	Tagajoshi City	2012/1/23	Sunny	4.4	3.25	5.2	0.0	Dark green	None	76	4660.0	3	4.8	<1	<1		
42	Teizan-unga Canal (Kysunaoshigawa River)	Teizanbashi Bridge	Tagajoshi City	2012/2/16	Sunny	4.0	2.20	6.4	0.0	Greenish brown	Faint sewage	21	4810.0	27	18	<1	<1		
44		Nanakitagawa River	Nanakitabashi Bridge	Sendai-shi City	2012/2/16	Sunny	2.4	0.50	5.0	0.0	Colorless transparent	None	100 or more	35.3	2	4.1	<1	<1	
45	Nanakitagawa River	Nanakitagawa River	Fukudaohashi Bridge	Sendai-shi City	2012/2/16	Sunny	5.0	0.30	3.3	0.0	Greenish brown	None	90	51.3	6	6.0	<1	<1	
48	System	Umedagawa River	Fukudabashi Bridge	Sendai-shi City	2012/2/16	Sunny	3.8	1.40	4.4	0.0	Greenish brown	None	51	1660.0	9	11	<1	<1	
49		Nanakitagawa River	Takasagobashi Bridge	Sendai-shi City	2012/2/17	Snow	-2.6	2.30	2.6	0.0	Yellow green	None	67	2690.0	11	4.9	<1	<1	
63	Natorigawa River	Natorigawa River	Yuriageohashi Bridge	Sendai-shi City	2012/1/31	Cloudy	-0.7	0.80	1.1	0.0	Yellow green	None	100 or more	1985.0	2	2.7	<1	<1	
64	Natorigawa River	Masudagawa River	Yakushibashi Bridge	Natorishi City	2012/2/17	Sunny	2.0	0.50	1.1	0.0	Colorless transparent	None	100 or more	22.4	<1	0.2	<1	<1	
65	System	Masudagawa River	Koyamabashi Bridge	Natorishi City	2012/2/17	Sunny	2.0	0.80	3.0	0.0	Colorless transparent	None	100 or more	21.5	5	4.9	<1	<1	
66		Masudagawa River	Bishamonbashi Bridge	Natorishi City	2012/2/17	Sunny	2.2	1.20	2.6	0.0	Greenish brown	Faint mold	69	15.9	8	7.4	<1	<1	
71		Shiroishigawa River	Shiroishigawa River	Shiroishishi City	2012/2/17	Cloudy	1.2	0.80	1.8	0.0	Colorless transparent	None	100 or more	12.0	6	4.9	<1	<1	
74	Abukumagawa River	Shiroishigawa River	Akakawa River	Niragambashi Bridge	Shiroishishi City	2012/2/17	Cloudy	-0.4	0.50	2.4	0.0	Greenish brown	None	72	24.3	7	8.8	<1	<1
75	System	Shiroishigawa River	Shirahatabashi Bridge	Shirahata Town	2012/2/17	Sunny	1.2	0.80	3.0	0.0	Dark grayish yellow green	None	100 or more	18.1	2	2.8	<1	<1	
76		Abukumagawa River	Marumoriabashi Bridge	Marumori Town	2012/2/18	Sunny	-2.0	3.30	3.0	0.0	Dark grayish yellow green	None	79	24.7	15	7.1	<1	<1	
77		Abukumagawa River	Abukumaohashi Bridge (Iwanuma)	Shiroishishi City	2012/1/30	Sunny	1.5	0.40	2.0	0.0	Grayish green	None	100 or more	64.8	5	3.8	<1	<1	

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

River: 2nd Sediment Monitoring Results

Sampling point				Sampling date	Weather	Air temperature	Full depth in	Sediment														Remarks					
No.	Water body	Point	Municipality					General items										Radioactive material concentrations (Bq/kg (dried matter))									
								Moisture content	Color	Odor	Mechanical composition						Moisture content	Property	Radioactive cesium								
				Moisture content	Color	Odor	Clay	Silt	Clay	Coarse sand	Medium sand	Fine sand	Silt	Clay	Moisture content	Property	Cs-134	Cs-137									
1	Shishiorigawa River	Kinzanbashi Bridge	Keenemashi City	2012/2/24	Cloudy	2.8	0.30	2.8	3	Brownish black	None	—	41.3	43.6	13.1	1.8	0.2	88.2	2.715	Gravel with sand	<30	91	120				
2	Shishiorigawa River	Namitabashi Bridge	Keenemashi City	2012/2/23	Cloudy	2.5	3.05	5.5	5	Olive black	Faint seaweed	—	3.9	1.6	1.4	3.5	47.2	23.1	19.3	47.3	2.662	Silt with sand	<30	330	480		
3	Okawa River	Tateyamaohashi Bridge	Keenemashi City	2012/2/23	Cloudy	2.6	1.05	2.2	5	Dark olive brown	None	—	1.3	10.4	72.5	15.5	0.3	0.0	80.1	2.710	Sand with gravel	<30	46	69			
4	Okawa River	Kamiyabashi Bridge	Keenemashi City	2012/2/23	Cloudy	2.6	2.26	2.8	5	Dark green yellow	None	—	1.4	1.8	14.7	47.6	19.4	15.1	47.9	2.662	Silt with sand	<30	390	600			
5	Okawa River	Okawa River Estuary	Keenemashi City	2012/1/27	Cloudy	-3.5	5.40	6.8	5	Olive black	Faint oil	—	2.7	3.7	7.2	11.3	12.3	41.2	21.6	43.3	2.640	Gravel/silt with sand	<30	730	930		
6	Omosegawa River	Ozakibashi Bridge	Keenemashi City	2012/2/23	Cloudy	2.4	1.60	5.0	3	Olive black	None	—	—	0.5	1.4	4.1	17.4	51.3	25.3	42.5	2.620	Sand with silt	<30	1,000	1,500		
11	Kitakamigawa River System	Arimagawa River	Kuriharashi City	2012/2/24	Sunny	3.0	0.20	1.2	3	Brownish black	None	—	29.4	32.5	21.1	13.3	2.0	1.7	89.1	2.711	Gravel with sand	<30	340	460			
12		Kiryugawa River	Obatabashi Bridge	Kuriharashi City	2012/2/24	Cloudy	3.5	0.30	1.2	3	Brownish black	None	—	14.7	21.2	36.4	22.1	4.0	1.6	82.6	2.708	Sand with gravel	<30	220	310		
13		Kitakamigawa River	Tomeohashi Bridge (Tome)	Tomeshi City	2012/2/21	Cloudy	3.8	1.00	2.0	10	Olive black	None	—	—	0.3	0.2	1.3	24.3	41.1	32.8	40.8	2.628	Silt with sand	<30	35	63	
14		Hasamagawa River	Sanhasamagawa River	Domanbashi Bridge (Kurikoma Dam)	Kuriharashi City	2012/2/24	Sunny	3.4	0.90	4.0	3	Dark olive brown	None	—	19.2	25.2	21.7	26.6	3.9	3.4	72.7	2.714	Sand with gravel	<30	62	75	
15		Hasamagawa River	Nihasamagawa River	Kajiyabashi Bridge	Kuriharashi City	2012/2/24	Cloudy	4.0	0.60	2.0	3	Dark olive brown	None	—	27.6	14.1	19.5	33.0	3.4	2.4	77.8	2.708	Sand with gravel	<30	210	280	
16		Hasamagawa River	Hasamagawa River	Hanayama Dam, inflow area	Kuriharashi City	2012/2/24	Snow	3.2	0.65	10.0	3	Brownish black	None	—	29.3	19.3	16.9	29.9	2.8	1.8	81.2	2.711	Sand with gravel	<30	23	37	
17		Hasamagawa River	Hasamagawa River	Wakayanagi	Kuriharashi City	2012/2/21	Sunny	4.0	1.00	3.7	10	Brownish black	None	—	—	0.4	5.5	74.9	17.8	1.4	73.3	2.708	Sand	<30	260	410	
18		Hasamagawa River	Hasamagawa River	Yamayoshidabashi Bridge	Tomeshi City	2012/2/21	Cloudy	4.2	0.40	1.8	10	Olive black	Faint putrescence	—	—	0.2	1.3	15.9	38.2	21.6	22.8	43.6	2.653	Silt	<30	590	750
20		Eaigawa River	Eaigawa River	Todorokibashi Bridge (Todoroki)	Osakishi City	2012/2/24	Cloudy	4.6	0.40	4.2	5	Dark green yellow	None	—	0.7	0.9	1.1	23.0	44.8	21.1	8.4	64.1	2.673	Sand with gravel	<30	28	49
21		Eaigawa River	Eaigawa River	Shimizukomon Weir	Osakishi City	2012/2/24	Sunny	4.7	0.30	4.8	5	Brownish black	None	—	—	0.6	78.1	17.6	3.7	73.7	2.706	Sand	<30	130	200		
22	Eaigawa River	In Furukawa District, Osakishi City	Shinborisaihon, entrance	Osakishi City	2012/2/24	Sunny	4.1	1.85	3.6	10	Black	Faint sewage	—	1.8	1.2	2.3	11.3	50.4	16.6	16.4	49.5	2.677	Silt with silt	<30	1,100	1,600	
23	Eaigawa River	Dekigawa River	Kogotabashi Bridge	Mitsunomachi Town	2012/2/24	Sunny	6.4	0.60	4.7	10	Olive black	Faint earth	—	—	1.5	1.3	25.8	22.3	30.3	18.8	51.0	2.648	Sand	<30	250	340	
24	Eaigawa River	Eaigawa River	Oikawabashi Bridge (Tandai)	Osakishi City	2012/2/20	Sunny	5.8	1.00	4.2	10	Olive black	None	—	—	0.9	9.9	83.6	3.0	2.6	78.4	2.711	Sand with gravel	<30	72	100		
26	Kyukitakamigawa River	Kadonowaki	Ihigomatsubashi City	2012/2/20	Sunny	1.9	1.50	2.6	10	Brownish black	None	—	4.0	5.4	6.6	34.1	32.9	8.4	8.6	74.0	2.690	Sand with silt	<30	76	99		
33	Narusugawa River System	Narusugawa River	Onobashi Bridge (Ono)	Osakishi City	2012/2/20	Sunny	6.8	1.00	2.8	10	Olive black	None	—	1.0	7.1	72.9	4.9	6.5	7.6	77.4	2.692	Sand with silt	<30	31	43		
40	Sunaoshigawa River	Tagajozeki Weir	Tagajoshi City	2012/2/16	Sunny	3.8	0.50	5.4	5	Dark olive brown	None	—	—	11.2	23.1	63.9	1.7	0.1	68.7	2.714	Sand	<30	19	43			
41	Sunaoshigawa River	Neubutsuhashi Bridge	Tagajoshi City	2012/1/23	Sunny	4.4	3.25	6.2	5	Olive black	None	—	—	0.6	2.1	62.3	29.0	6.0	73.7	2.702	Sand with silt	<30	51	78			
42	Teizan-unga Canal (Kiyusunaoshigawa River)	Teizanbashi Bridge	Tagajoshi City	2012/2/16	Sunny	4.0	2.20	7.2	5	Black	Faint putrescence	—	1.2	1.6	3.3	30.6	59.8	3.5	73.3	2.704	Sand with silt	<30	36	59			
44	Nanakitagawa River System	Nanakitagawa River	Nanakitabashi Bridge	Sendaishi City	2012/2/16	Sunny	2.4	0.50	4.0	5	Olive black	None	—	9.1	3.4	8.8	49.7	25.2	3.8	77.4	2.702	Sand with gravel	<30	60	97		
45		Nanakitagawa River	Fukudaohashi Bridge	Sendaishi City	2012/2/16	Sunny	5.0	0.30	2.8	5	Dark olive brown	None	—	—	3.5	17.3	70.7	8.1	0.4	76.6	2.710	Sand	<30	26	34		
48		Umedagawa River	Fukudabashi Bridge	Sendaishi City	2012/2/16	Sunny	3.8	1.40	4.0	5	Dark olive	None	—	—	0.7	1.1	37.2	56.3	4.7	68.1	2.705	Sand with silt	<30	120	180		
49	Nanakitagawa River	Takasagobashi Bridge	Sendaishi City	2012/2/17	Snow	-2.6	2.30	2.0	5	Olive brown	Faint putrescence	—	1.6	0.7	5.9	64.2	17.0	5.9	4.7	74.3	2.702	Sand with silt	<30	90	130		
63	Natorigawa River System	Natorigawa River	Yuriageohashi Bridge	Sendai City/Natori City	2012/1/31	Cloudy	-0.7	0.80	3.4	5	Olive brown	None	—	—	2.1	1.5	55.1	34.3	7.0	78.0	2.695	Sand with silt	<30	40	68		
64		Masudagawa River	Yakushibashi Bridge	Natorishi City	2012/2/17	Sunny	2.0	0.50	2.2	3	Olive brown	None	—	21.8	35.1	26.9	8.9	0.9	6.4	63.3	2.706	Sand with gravel	<30	19	28		
65		Masudagawa River	Koyamabashi Bridge	Natorishi City	2012/2/17	Sunny	2.0	0.80	2.2	5	Olive black	Faint putrescence	—	—	0.3	4.2	71.6	14.4	9.5	73.7	2.703	Sand with silt	<30	46	70		
66		Masudagawa River	Bishamonbashi Bridge	Natorishi City	2012/2/17	Sunny	2.2	1.20	2.2	5	Dark olive brown	Faint putrescence	—	—	0.1	0.2	15.3	51.8	18.1	14.5	58.7	2.667	Sand with silt	<30	600	790	
71	Abukumagawa River System	Shiroishigawa River	Shiroishigawa River	Shiroishishi City	2012/2/17	Cloudy	1.2	0.80	1.8	10	Dark olive brown	None	—	3.0	25.0	55.8	15.9	0.3	0.0	76.3	2.714	Sand	<30	81	110		
74		Arakawa River	Niragambashi Bridge	Shiroishishi City	2012/2/17	Cloudy	-0.4	0.50	2.2	3	Dark olive brown	None	—	7.5	19.1	40.0	25.2	4.4	3.8	82.2	2.705	Sand with gravel	<30	12	24		
75		Shiroishigawa River	Shirahatabashi Bridge	Shirahatabashi Town	2012/2/17	Sunny	1.2	0.80	2.8	5	Brownish black	None	—	—	0.1	4.3	89.1	5.0	1.5	75.1	2.711	Sand	<30	24	37		
76		Abukumagawa River	Marumorihashi Bridge	Mitsunomachi Town	2012/2/18	Sunny	-2.0	3.30	2.9	5	Olive brown	None	—	7.0	21.1	22.8	17.0	24.5	7.6	70.6	2.702	Sand	<30	630	840		
77	Abukumagawa River	Abukumabashi Bridge (Iwamura)	Mitsunomachi Town	2012/1/30	Sunny	1.5	0.40	3.0	5	Dark olive brown	None	—	1.1	1.8	8.3	55.6	29.0	4.2	73.1	2.704	Sand with silt	<30	310	450			

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

River: 2nd Surrounding Environment (River Terrace (Left Bank)) Monitoring Results

No.	Sampling point			Sampling date	Weather	Surrounding environment (soil and air dose)							Remarks			
						Left bank						Air dose (µSv/h)				
	Soil					Radioactive material concentrations (Bq/kg (dry))										
	Color	Odor	Property			Cs-134	Cs-137									
1	Shishorigawa River	Kinzanbashi Bridge	Kesennumashi City	2012/2/24	Cloudy	2.8	—	—	—	—	—	0.06	Left bank: Unable to collect soil due to no exposed soil. Right bank: Unable to collect soil and measure air dose due to much snow on the river bank.			
2	Shishorigawa River	Namutabashi Bridge	Kesennumashi City	2012/2/23	Cloudy	2.5	—	—	—	—	—	0.03	Surrounding environment (soil/herb/air dose): Unable to collect soil due to no exposed soil			
3	Okawa River	Tatevamaohashi Bridge	Kesennumashi City	2012/2/23	Cloudy	2.6	Brownish black	Faint earth	Loamy	<30	250	370	0.07			
4	Okawa River	Kamiyamaohashi Bridge	Kesennumashi City	2012/2/23	Cloudy	2.6	Brownish black	None	Sandy	<30	640	930	0.06			
5	Okawa River	Okawa River Estuary	Kesennumashi City	2012/1/27	Cloudy	3.3	—	—	—	—	—	—	0.08	Surrounding environment (soil/herb/air dose): Unable to collect soil due to no exposed soil		
6	Omoegawa River	Ozakibashi Bridge	Kesennumashi City	2012/2/23	Cloudy	2.4	—	—	—	—	—	—	0.03	Surrounding environment (soil/herb/air dose): Unable to collect soil due to no exposed soil		
11	Armagawa River	Unandabashi Bridge	Kuriharashi City	2012/2/24	Sunny	3.0	Brownish black	Faint earth	Sandy	<30	1,300	1,700	0.13			
12	Kiryugawa River	Obatabashi Bridge	Kuriharashi City	2012/2/24	Cloudy	3.3	Olive brown	Faint earth	Sandy	<30	140	240	0.15			
13	Kitakamigawa River	Tomeohashi Bridge (Tome)	Tomesashi City	2012/2/21	Cloudy	3.8	Brownish black	Faint earth	Loamy	<30	460	640	0.11			
14	Kitakamigawa River System	Sanhasamagawa River	Domabashi Bridge (Kariokawa Dam)	Kuriharashi City	2012/2/24	Sunny	3.4	—	—	—	—	—	—	Unable to collect soil and measure air dose due to much snow on the river bank		
15	Kitakamigawa River System	Nihasamagawa River	Kaiyabashi Bridge	Kuriharashi City	2012/2/24	Cloudy	4.0	—	—	—	—	—	—	Unable to collect soil and measure air dose due to much snow on the river bank		
16	Kitakamigawa River System	Hasamagawa River	Hanayama Dam, inflow area	Kuriharashi City	2012/2/24	Snow	3.2	—	—	—	—	—	—	Unable to collect soil and measure air dose due to much snow on the river bank		
17	Kitakamigawa River System	Hasamagawa River	Wakavanagi	Kuriharashi City	2012/2/21	Sunny	4.0	Olive black	None	Loamy	<30	340	450	0.10		
18	Kitakamigawa River System	Hasamagawa River	Yamayoshiabashi Bridge	Tomesashi City	2012/2/21	Cloudy	4.2	Dark olive brown	None	Loamy	<30	110	160	0.07		
20	Kitakamigawa River System	Etagawa River	Etagawa River	Todorokibashi Bridge (Todoroki)	Osakishi City	2012/2/24	Cloudy	4.6	—	—	—	—	—	Surrounding environment (left bank): Unable to collect soil and measure air dose due to much snow on the river bank		
21	Kitakamigawa River System	Etagawa River	Etagawa River	Shimzukumon Weir	Osakishi City	2012/2/24	Sunny	4.7	Brownish black	Faint earth	Loamy	<30	1,000	1,400	0.08	
22	Kitakamigawa River System	Etagawa River	In Furukawa District, Osakishi City	Shinborisaihon, entrance	Osakishi City	2012/2/24	Sunny	4.1	Brownish black	Faint earth	Loamy	<30	340	490	0.09	
23	Kitakamigawa River System	Etagawa River	Dekigawa River	Kogotabashi Bridge	Shimonomechi Town	2012/2/24	Sunny	6.4	Brownish black	Faint earth	Loamy	<30	310	400	0.09	
24	Kitakamigawa River System	Etagawa River	Etagawa River	Okawabashi Bridge (Tandan)	Shimonomechi Town	2012/2/20	Sunny	3.8	Dark olive brown	Faint earth	Loamy	<30	73	93	0.07	
26	Kitakamigawa River System	Etagawa River	Etagawa River	Kyuktakamigawa River	Shimonomechi City	2012/2/20	Sunny	1.9	Yellowish gray	Faint earth	Loamy	<30	67	93	0.07	
33	Narusegawa River System	Narusegawa River	Narusegawa River	Onobashi Bridge (Ono)	Shimonomechi City	2012/2/20	Sunny	6.8	Brownish black	Faint earth	Loamy	<30	190	280	0.09	
40	Sunaoshigawa River	Sunaoshigawa River	Sunaoshigawa River	Tagatozeki Weir	Tagajoshi City	2012/2/16	Sunny	3.8	Yellowish brown	Faint earth	Loamy	<30	45	61	0.07	
41	Sunaoshigawa River	Sunaoshigawa River	Sunaoshigawa River	Nenbutsubashi Bridge	Tagajoshi City	2012/1/23	Sunny	4.4	Brownish black	None	Loamy	<30	230	290	0.07	
42	Sunaoshigawa River	Sunaoshigawa River	Sunaoshigawa River	Teizan-unga Canal (Kyunasunaoshigawa River)	Tagajoshi City	2012/2/16	Sunny	4.0	Brownish black	Faint earth	Loamy	<30	70	100	0.08	
44	Nanakitagawa River	Nanakitagawa River	Nanakitagawa River	Nanakitabashi Bridge	Sendashi City	2012/2/16	Sunny	2.4	Olive brown	Faint earth	Loamy	<30	340	490	0.08	
45	Nanakitagawa River	Nanakitagawa River	Nanakitagawa River	Fukudaohashi Bridge	Sendashi City	2012/2/16	Sunny	5.0	Dark olive brown	Faint earth	Loamy	<30	91	110	0.09	
48	Nanakitagawa River	Nanakitagawa River	Nanakitagawa River	Umedagawa River	Sendashi City	2012/2/16	Sunny	3.8	Dark brown	Faint earth	Loamy	<30	72	130	0.09	
49	Nanakitagawa River	Nanakitagawa River	Nanakitagawa River	Takasagobashi Bridge	Sendashi City	2012/2/17	Snow	2.6	Dark brown	Faint earth	Loamy	<30	270	380	0.09	
63	Natorigawa River	Natorigawa River	Natorigawa River	Yuriageohashi Bridge	Sendashi City/Natorishi City	2012/1/31	Cloudy	-0.7	Dark brown	Faint earth	Loamy	<30	53	77	0.11	
64	Natorigawa River	Natorigawa River	Natorigawa River	Masudagawa River	Natorishi City	2012/2/17	Sunny	2.0	Dark brown	Faint earth	Loamy	<30	450	630	0.13	
65	Natorigawa River	Natorigawa River	Natorigawa River	Masudagawa River	Natorishi City	2012/2/17	Sunny	2.0	Dark brown	Faint earth	Loamy	<30	300	690	0.12	
66	Natorigawa River	Natorigawa River	Natorigawa River	Bishamonbashi Bridge	Natorishi City	2012/2/17	Sunny	2.2	Brownish black	Faint earth	Loamy	<30	240	320	0.10	
71	Shiroshigawa River	Shiroshigawa River	Shiroshigawa River	Shiroshigawa River	Shiroshigashi City	2012/2/17	Cloudy	1.2	—	—	—	—	—	—	Unable to collect soil and measure air dose due to much snow on the river bank	
74	Abukumagawa River	Abukumagawa River	Abukumagawa River	Niragambashi Bridge	Shimonomechi Town	2012/2/17	Cloudy	-0.4	Brownish black	Faint earth	Loamy	<30	460	670	0.18	
75	Abukumagawa River	Abukumagawa River	Abukumagawa River	Shirahatabashi Bridge	Shimonomechi Town	2012/2/17	Sunny	1.2	Dark brown	Faint earth	Loamy	<30	160	180	0.13	
76	Abukumagawa River	Abukumagawa River	Abukumagawa River	Marumoriabashi Bridge	Shimonomechi Town	2012/2/18	Sunny	-2.0	Brownish black	Faint earth	Loamy	<30	610	830	0.29	
77	Abukumagawa River	Abukumagawa River	Abukumagawa River	Abukumagashi Bridge (Iwama)	Shimonomechi Town	2012/1/30	Sunny	1.5	Dark brown	Faint earth	Loamy	<30	1,600	2,200	0.36	

Note: • Air dose was measured with a survey meter, TCS-172 or TCS-161 of Hitachi-Aloka Medical, Ltd.

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

River: 2nd Surrounding Environment (River Terrace (Right Bank)) Monitoring Results

Sampling point				Sampling date	Weather	Air temperature	Surrounding environment (soil and air dose)						Remarks			
							Right bank							Air dose (μSv/h)		
							Soil			Radioactive material concentrations (Bq/kg (dry))						
Color	Odor	Property	Radioactive iodine (I-131)	Cs-134	Cs-137											
1	Shshorigawa River	Kinzanbashi Bridge	Keizenmashi City	2012/2/24	Cloudy	2.8	—	—	—	—	—	—	Left bank: Unable to collect soil due to no exposed soil. Right bank: Unable to collect soil and measure air dose due to much snow on the river bank.			
2	Shshorigawa River	Namitabashi Bridge	Keizenmashi City	2012/2/23	Cloudy	2.5	—	—	—	—	—	0.03	Surrounding environment (soil/herb/air dose): Unable to collect soil due to no exposed soil			
3	Okawa River	Iateyamaohashi Bridge	Keizenmashi City	2012/2/23	Cloudy	2.6	Brownish black	Faint earth	Loamy	<30	220	350	0.07			
4	Okawa River	Kamivabashi Bridge	Keizenmashi City	2012/2/23	Cloudy	2.6	Brownish black	None	Sandy	<30	900	1,200	0.05			
5	Okawa River	Okawa River Estuary	Keizenmashi City	2012/1/27	Cloudy	-3.5	—	—	—	—	—	—	0.07	Surrounding environment (soil/herb/air dose): Unable to collect soil due to no exposed soil		
6	Omosegawa River	Ozakibashi Bridge	Keizenmashi City	2012/2/23	Cloudy	2.4	—	—	—	—	—	—	0.03	Surrounding environment (soil/herb/air dose): Unable to collect soil due to no exposed soil		
11	Kitakamigawa River System	Arimagawa River	Kuriharashi City	2012/2/24	Sunny	3.0	Brownish black	Faint earth	Sandy	<30	970	1,300	0.10			
12		Kimryugawa River	Obatabashi Bridge	Kuriharashi City	2012/2/24	Cloudy	3.5	Brownish black	Faint earth	Sandy	<30	390	570	0.13		
13		Kitakamigawa River	Tomoebashi Bridge (Lome)	Tomeshi City	2012/2/21	Cloudy	3.8	Brownish black	None	Loamy	<30	190	280	0.08		
14		Hasamagawa River	Kanhasamagawa River	Domonbashi Bridge (Kari-koma Dam)	Kuriharashi City	2012/2/24	Sunny	3.4	—	—	—	—	—	—	Unable to collect soil and measure air dose due to much snow on the river bank	
15		Hasamagawa River	Nihasamagawa River	Kamvabashi Bridge	Kuriharashi City	2012/2/24	Cloudy	4.0	—	—	—	—	—	—	Unable to collect soil and measure air dose due to much snow on the river bank	
16		Hasamagawa River	Hasamagawa River	Hanayama Dam, inflow area	Kuriharashi City	2012/2/24	Snow	3.2	—	—	—	—	—	—	Unable to collect soil and measure air dose due to much snow on the river bank	
17		Hasamagawa River	Hasamagawa River	Wakayanagi	Kuriharashi City	2012/2/21	Sunny	4.0	Dark brown	None	Loamy	<30	370	540	0.18	
18		Hasamagawa River	Hasamagawa River	Yamayoshidabashi Bridge	Tomeshi City	2012/2/21	Cloudy	4.2	Dark olive brown	None	Loamy	<30	250	360	0.09	
20		Etagawa River	Etagawa River	Todorokibashi Bridge (Todoroki)	Osakishi City	2012/2/24	Cloudy	4.6	Brownish black	Faint earth	Loamy	<30	380	490	0.05	Surrounding environment (left bank): Unable to collect soil and measure air dose due to much snow on the river bank
21		Etagawa River	Etagawa River	Shimzukurumon Weir	Osakishi City	2012/2/24	Sunny	4.7	Brownish black	Faint earth	Loamy	<30	130	230	0.10	
22	Etagawa River	In Furukawa District, Osakishi City	Shimborisaihon, entrance	Osakishi City	2012/2/24	Sunny	4.1	Brownish black	Faint earth	Loamy	<30	170	250	0.07		
23	Etagawa River	Dekigawa River	Kogotabashi Bridge	Mitsumachi Town	2012/2/24	Sunny	6.4	Brownish black	Faint earth	Loamy	<30	100	160	0.08		
24	Etagawa River	Etagawa River	Oikwabashi Bridge (Tandai)	Mitsumachi Town	2012/2/20	Sunny	5.8	Dark olive brown	Faint earth	Loamy	<30	140	180	0.08		
26	Kyukitakamigawa River	Kadonowaki	Mitsumachi City	2012/2/20	Sunny	1.9	Olive brown	Faint earth	Loamy	<30	91	100	0.08			
33	Narusegawa River System	Narusegawa River	Onobashi Bridge (Ono)	Mitsumachi City	2012/2/20	Sunny	6.8	Olive brown	Faint earth	Loamy	<30	51	75	0.10		
40	Sunaoshigawa River	Itagajozeki Weir	Itagajoshi City	2012/2/16	Sunny	3.8	Olive brown	Faint earth	Loamy	<30	71	99	0.08			
41	Sunaoshigawa River	Nenbutsubashi Bridge	Itagajoshi City	2012/1/23	Sunny	4.4	Olive brown	None	Loamy	<30	170	230	0.08			
42	Teizan-unga Canal (Kvusunaoishigawa River)	Teizanbashi Bridge	—	2012/2/16	Sunny	4.0	Brownish black	Faint earth	Loamy	<30	150	240	0.09			
44	Nanakitagawa River System	Nanakitagawa River	Sendashi City	2012/2/16	Sunny	2.4	Olive brown	Faint earth	Loamy	<30	190	290	0.08			
45		Nanakitagawa River	Fukudabashi Bridge	Sendashi City	2012/2/16	Sunny	5.0	Brownish black	Faint earth	Loamy	<30	210	300	0.09		
48		Nanakitagawa River	Umedagawa River	Sendashi City	2012/2/16	Sunny	3.8	Dark brown	Faint earth	Loamy	<30	110	160	0.10		
49		Nanakitagawa River	Takasagobashi Bridge	Sendashi City	2012/2/17	Snow	-2.6	Dark brown	Faint earth	Loamy	<30	250	350	0.07		
63		Natorigawa River	Natorigawa River	Sendashi City (Sendashi City)	2012/2/17	Cloudy	-0.7	Brownish black	Faint earth	Loamy	<30	290	350	0.11		
64	Natorigawa River	Masudagawa River	Natorishi City	2012/2/17	Sunny	2.0	Dark brown	Faint earth	Loamy	<30	480	720	0.11			
65	System	Masudagawa River	Natorishi City	2012/2/17	Sunny	2.0	Dark brown	Faint earth	Loamy	<30	290	410	0.13			
66	System	Masudagawa River	Bishamonbashi Bridge	Natorishi City	2012/2/17	Sunny	2.2	Brownish black	Faint earth	Loamy	<30	380	540	0.10		
71	Abukumagawa River System	Shiroishigawa River	Shiroishishi City	2012/2/17	Cloudy	1.2	—	—	—	—	—	—	—	Unable to collect soil and measure air dose due to much snow on the river bank		
74		Shiroishigawa River	Arakawa River	Niragambashi Bridge	—	2012/2/17	Cloudy	-0.4	Brownish black	Faint earth	Loamy	<30	760	1,100	0.17	
75		Shiroishigawa River	Shirahatabashi Bridge	Shibatamachi Town	2012/2/17	Sunny	1.2	Brownish black	Faint earth	Loamy	<30	200	280	0.18		
76		Abukumagawa River	Marumoriashi Bridge	Mitsumachi Town	2012/2/18	Sunny	-2.0	Olive brown	None	Loamy	<30	240	320	0.22		
77	Abukumagawa River	Abukumabashi Bridge (Iwanuma)	Mitsumachi Town	2012/1/30	Sunny	1.5	Brownish black	Faint earth	Loamy	<30	580	820	0.25			

Note: • Air dose was measured with a survey meter, TCS-172 or TCS-161 of Hitachi-Aloka Medical, Ltd.

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

Lake and Headwater: 2nd Water Quality Monitoring Results

Sampling point				Sampling date	Weather	Air temperature	Full depth m	Water quality											Remarks
No.	Water body	Point	Municipality					General items							Radioactive material concentrations (Bq/L)				
								Water temperature	Sampling depth	Color	Odor	Secchi disk depth	Transmittance	SS mg/L	Turbidity	Radioactive iodine-131	Radioactive cesium Cs-134	Radioactive cesium Cs-137	
80	Kitakamigawa River System	Izunuma Lake Lake exit	—	2012/2/21	Sunny	2.0	0.8	1.0	0.0	Grayish yellow	None	0.25	23.1	80	100	<1	<1	<1	Water quality survey conducted only for surface layer due to low water level
81	—	Naganuma Lake Lake exit	—	2012/2/21	Sunny	3.8	2.3	3.8	0.0	Dark green	None	2.3 or more	17.9	2	3.8	<1	<1	<1	Water quality and sediment surveys conducted at the pier due to freezing of the lake surface
91	—	Amanuma Lake Lake exit	—	2012/2/17	Sunny	0.8	0.8	2.2	0.0	Colorless transparent	Faint sewage	0.8 or more	53.1	6	4.0	<1	<1	<1	Water quality and sediment surveys conducted at the pier due to freezing of the lake surface
98	—	Bagyunuma Lake Lake exit	—	2012/2/18	Sunny	-3.2	—	—	—	—	—	—	—	—	—	—	—	—	Unable to conduct water quality and sediment surveys due to freezing of the lake surface

Note: Sampling points are listed from north to south.

Lake and Headwater: 2nd Sediment Monitoring Results

Sampling point				Sampling date	Weather	Air temperature	Full depth m	Sediment														Remarks					
No.	Water body	Point	Municipality					General items										Radioactive material concentrations (Bq/kg (dried mud))									
								Moisture	Moisture by oven	Color	Odor	Mechanical composition				Moisture	20-particle diameter	Property	Radioactive iodine-131	Radioactive cesium Cs-134	Radioactive cesium Cs-137						
80	Kitakamigawa River System	Izunuma Lake Lake exit	—	2012/2/21	Sunny	2.0	0.8	2.3	10	Olive brown	None	—	—	—	0.2	0.5	2.0	51.8	45.5	22.4	2.567	Silt	<30	180	240	Water quality survey conducted only for surface layer due to low water level	
81	—	Naganuma Lake Lake exit	—	2012/2/21	Sunny	3.8	2.3	4.6	10	Olive black	—	—	—	—	2.7	21.5	26.8	49.0	17.4	2.623	Silt	<30	130	220	Water quality and sediment surveys conducted at the pier due to freezing of the lake surface		
91	—	Amanuma Lake Lake exit	—	2012/2/17	Sunny	0.8	0.8	3.0	3	Black	Faint sewage	—	—	—	10.9	12.9	26.3	44.7	2.5	2.7	77.8	2.710	Sand with gravel	<30	1,200	1,800	Water quality and sediment surveys conducted at the pier due to freezing of the lake surface
98	—	Bagyunuma Lake Lake exit	—	2012/2/18	Sunny	-3.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Unable to conduct water quality and sediment surveys due to freezing of the lake surface	

Note: Sampling points are listed from north to south.

Lake and Headwater: 2nd Surrounding Environment (Lake Shore) Monitoring Results

Sampling point				Sampling date	Weather	Air temperature	Full depth m	Surrounding environment (soil and air dose)							Remarks	
No.	Water body	Point	Municipality					Soil			Radioactive material concentrations (Bq/kg (dry))					Air dose (μSv/h)
								Color	Odor	Property	Radioactive iodine-131	Radioactive cesium				
80	Kitakamigawa River System	Izunuma Lake Lake exit	—	2012/2/21	Sunny	2.0	0.8	Brownish black	Faint earth	Loamy	<30	290	360	0.07		
81	—	Naganuma Lake Lake exit	—	2012/2/21	Sunny	3.8	2.3	Dark olive brown	Faint earth	Loamy	<30	100	130	0.06		
91	—	Amanuma Lake Lake exit	—	2012/2/17	Sunny	0.8	0.8	Brownish black	None	Loamy	<30	130	170	0.10		
98	—	Bagyunuma Lake Lake exit	—	2012/2/18	Sunny	-3.2	—	Brownish black	Faint earth	Loamy	<30	1,600	2,300	0.29		

Note: • Air dose was measured with a survey meter, TCS-172 or TCS-161 of Hitachi-Aloka Medical, Ltd.

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

Coast and Bathing Area: 2nd Water Quality Monitoring Results

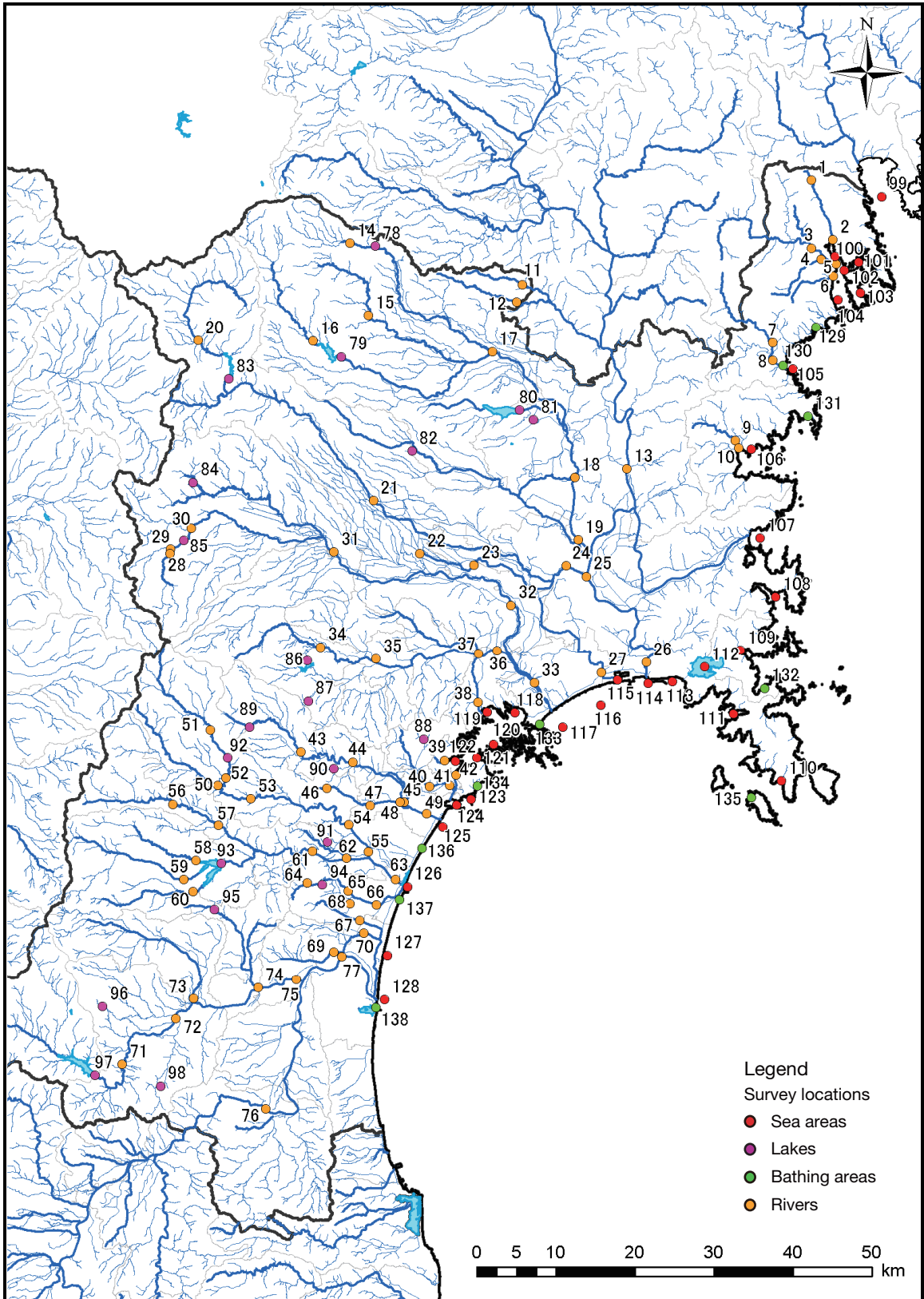
Sampling point				Sampling date	Weather	Air temperature	Full depth m	Water quality										Radioactive material concentrations (Bq/L)		Remarks
								General items						Radioactive material concentrations (Bq/L)						
No.	Water body	Point	Municipality					Water temperature	Sampling depth	Color	Odor	Secchi disk depth(m)	Salinity	SS mg/L	Chlorophyll a	Radioactive iodine-131	Radioactive cesium Cs-134	Radioactive cesium Cs-137		
100	Kesenumawan Bay (B)	Offshore of Hachigasaki	—	2012/1/27	Snow	-1.0	7.0	6.9	0.5	Dark blue green	None	5.0	33.5	1	1.2	<1	<1	<1		
		1 m from the bottom	—	—	—	—	—	—	7.0	6.0	—	None	—	33.6	1	1.2	<1	<1	<1	
102	Kesenumawan Bay (C)	Offshore of Oshimakita	—	2012/1/27	Cloudy	-1.0	38.1	7.0	0.5	Dark blue green	None	6.0	33.2	1	1.5	<1	<1	<1		
		1 m from the bottom	—	—	—	—	—	—	7.7	37.1	—	None	—	33.7	<1	0.8	<1	<1	<1	
104	Kesenumawan Bay (C)	K-2 (Putatsune)	—	2012/1/27	Cloudy	-1.4	9.0	6.4	0.5	Dark blue green	None	5.9	33.5	1	1.4	<1	<1	<1		
		1 m from the bottom	—	—	—	—	—	—	6.2	8.0	—	None	—	33.5	1	1.6	<1	<1	<1	
107	All other neighboring sea areas	Oppawan Bay (Jyusanhama Beach)	—	2012/2/23	Snow	4.8	17.8	5.7	0.5	Dark green	None	4.0	31.6	2	2.4	<1	<1	<1		
		1 m from the bottom	—	—	—	—	—	—	6.5	16.8	—	None	—	33.4	4	5.1	<1	<1	<1	
112	Neighboring sea area of Ishinomaki (C)	Mangokuura Lake, M-6 (center)	—	2012/2/23	Cloudy	4.8	3.9	4.5	0.5	Dark green	None	3.9 or more	32.8	1	1.5	<1	<1	<1		
		1 m from the bottom	—	—	—	—	—	—	4.4	2.9	—	None	—	32.7	1	1.5	<1	<1	<1	
114	Neighboring sea area of Ishinomaki (B-3)	Offshore of Kitakamigawa River Estuary	—	2012/2/23	Cloudy	4.7	8.9	4.7	0.5	Dark green	None	3.8	21.6	3	3.8	<1	<1	<1		
		1 m from the bottom	—	—	—	—	—	—	5.5	7.9	—	None	—	32.8	2	2.0	<1	<1	<1	
117	Neighboring sea area of Ishinomaki (C)	Offshore of Naruse	—	2012/2/23	Cloudy	4.8	15.8	5.2	0.5	Dark green	None	4.4	32.2	2	2.3	<1	<1	<1	Survey location changed due to culture rafts	
		1 m from the bottom	—	—	—	—	—	—	5.3	14.8	—	None	—	33.4	4	4.2	<1	<1	<1	
121	Matsushimawan Bay (B)	Nishihama Beach	—	2012/2/23	Cloudy	4.6	14.1	3.6	0.5	Greenish brown	None	1.7	33.0	11	9.3	<1	<1	<1		
		1 m from the bottom	—	—	—	—	—	—	3.5	13.1	—	None	—	32.9	11	9.5	<1	<1	<1	
124	Neighboring sea area of Sendai Port (A)	Naiko Inner Port, 4-Nai	—	2012/1/24	Sunny	3.2	18.9	6.1	0.5	Yellow green	None	1.6	32.6	5	6.4	<1	<1	<1		
		1 m from the bottom	—	—	—	—	—	—	6.6	17.9	—	None	—	33.0	9	17	<1	<1	<1	
125	Neighboring sea area of Sendai Port (B)	Gamo-3	—	2012/1/24	Sunny	2.5	16.7	6.1	0.5	Yellow green	None	1.2	32.6	6	8.6	<1	<1	<1		
		1 m from the bottom	—	—	—	—	—	—	6.7	15.7	—	None	—	33.2	23	26	<1	<1	<1	
126	All other neighboring sea areas	Ido-5	—	2012/1/24	Sunny	2.5	5.3	5.6	0.5	Yellow green	None	1.7	31.5	7	7.2	<1	<1	<1		
		1 m from the bottom	—	—	—	—	—	—	5.6	4.3	—	None	—	32.7	7	6.5	<1	<1	<1	
128	Offshore of Abukumagawa River Estuary		—	2012/1/24	Sunny	2.2	10.0	6.0	0.5	Grayish yellow green	None	1.2	31.4	10	12.0	<1	<1	<1		
		1 m from the bottom	—	—	—	—	—	—	6.7	9.0	—	None	—	33.3	49	31.0	<1	<1	<1	

Note: Sampling points are listed from north to south.

Coast and Bathing Area: 2nd Sediment Monitoring Results

Sampling point				Sampling date	Weather	Tide	Full depth m	Sediment															Radioactive material concentrations (Bq/kg (dried mud))			Remarks
No.	Water body	Point	Municipality					General items										Property	Radioactive cesium							
								Moisture content	Moisture content	Color	Odor	Coarse gravel	Medium gravel	Fine gravel	Coarse sand	Medium sand	Fine sand		Silt	Clay	Moisture content	Radioactive cesium-134	Radioactive cesium-137			
100	Kesennumawan Bay (B)	Offshore of Hachigasaki	—	2012/1/27	Snow	-1.0	7.0	5.9	3	Grayish olive	Mineral oil	—	22.2	15.1	35.3	25.9	1.1	0.4	79.7	2.710	Sand with gravel	<30	<10	<10		
102	Kesennumawan Bay (C)	1 m from the bottom	—	2012/1/27	Cloudy	-1.0	38.1	7.4	5	Black	Mineral oil	—	—	—	0.1	0.2	1.5	52.8	45.4	36.0	2.568	Silt	<30	61	97	
104	Kesennumawan Bay (C)	K-2 (Futatsune)	—	2012/1/27	Cloudy	-1.4	9.0	6.2	5	Grayish olive	Faint mineral oil	—	—	—	0.3	23.7	47.9	19.2	8.9	64.0	2.677	Sand with silt	<30	14	31	
107	All other neighboring sea areas	Oppawan Bay (Jyusanhama Beach)	—	2012/2/23	Snow	4.8	17.8	5.2	10	Olive black	None	—	—	—	0.1	0.2	8.3	67.5	23.9	46.7	2.582	Silt	<30	170	220	
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
112	Neighboring sea area of Ishinomaki (C)	Mangokuura Lake, M-6 (center)	—	2012/2/23	Cloudy	4.8	3.9	4.6	10	Olive black	Faint seawater	—	1.6	0.9	0.7	1.8	33.9	30.5	30.6	45.7	2.640	Silt with sand	<30	29	46	
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
114	Neighboring sea area of Ishinomaki (B-3)	Offshore of Kitakumagawa River Estuary	—	2012/2/23	Cloudy	4.7	8.9	5.1	5	Olive black	None	—	—	—	0.1	14.0	70.2	10.8	4.9	73.4	2.688	Sand	<30	10	15	
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
117	Neighboring sea area of Ishinomaki (C)	Offshore of Naruse	—	2012/2/23	Cloudy	4.8	15.8	5.4	5	Olive black	None	—	—	—	—	—	46.4	38.5	15.1	59.5	2.636	Sand with silt	<30	95	110	Survey location changed due to culture rafts
121	Matsushimawan Bay (B)	Nishihama Beach	—	2012/2/23	Cloudy	4.6	14.1	3.8	10	Olive black	None	—	0.3	0.5	0.5	0.2	1.7	50.1	46.7	31.1	2.566	Silt	<30	360	470	
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
124	Neighboring sea area of Sendai Port (A)	Naiko Inner Port, 4-Nai	—	2012/1/24	Sunny	3.2	18.2	7.7	10	Olive black	Faint hydrogen sulfide	—	—	—	—	1.9	8.5	42.7	46.9	31.6	2.588	Silt with sand	<30	93	120	
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
125	Neighboring sea area of Sendai Port (B)	Gamo-3	—	2012/1/24	Sunny	2.5	16.7	7.0	5	Dark olive	None	—	—	0.1	0.1	28.2	46.1	10.6	14.9	60.3	2.679	Sand with silt	<30	220	320	
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
126	All other neighboring sea areas	Ido-5	—	2012/1/24	Sunny	2.5	5.3	5.4	3	Olive black	None	—	—	0.1	1.7	41.2	53.9	—	3.1	83.4	2.705	Sand	<30	10	18	
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
128	Offshore of Abukumagawa River Estuary	—	—	2012/1/24	Sunny	2.2	10.0	6.6	3	Olive black	None	—	—	—	0.1	10.8	77.5	8.6	3.0	78.0	2.693	Sand	<30	100	130	
		1 m from the bottom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

Note: Sampling points are listed from north to south.



Survey Locations (Miyagi Prefecture)