

(News Release)

The Results of Radioactive Material Monitoring of the Surface Water Bodies within Miyagi Prefecture (July-October Samples)

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Water Environment Division,
Environment Management Bureau,
Ministry of the Environment
Direct line: 03-5521-8316
Switchboard: 03-3581-3351
Director: Tadashi Kitamura (ext. 6610)
Deputy Director: Tetsuo Furuta (ext. 6614)
Coordinator: Katsuhiko Sato (ext. 6628)

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

Samples taken from the surface water bodies of Miyagi Prefecture during the period of July 3-October 12, 2012 have been measured as part of efforts to monitor radioactive materials; the results have recently been compiled and are released here.

The monitoring results of radioactive materials in surface water bodies carried out to date can be found at the following web page: <http://www.env.go.jp/jishin/rmp.html#monitoring>

1. Survey Overview

(1) Survey Locations

60 environmental reference points, etc. in the surface water bodies within Miyagi Prefecture
(Rivers: 43 locations, Lakes: 17 locations)

(2) Survey Method

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

2. Outline of Results (* denotes the results of the previous survey (April-June))

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

Cs-134 + Cs-137: Not detectable (ND) at any location

(* Rivers: ND-7Bq/L, Lakes and headwaters: ND at any location)

<Reference>

Specification and Standards for Food, Food Additives, etc. in accordance with the Food Sanitation Act (Drinking Water) (Ministry of Health, Labour and Welfare Public Notice No.130, March 15, 2012)
Radioactive cesium (total for Cs-134+Cs-137): 10Bq/kg

Target value for radioactive materials in tap water (management target for water supply facilities) (March 5, 2012; 0305 Notice No.1 from the Director of the Water Supply Division, Health Service Bureau, Ministry of Health, Labour and Welfare)

Radioactive cesium (total for Cs-134+Cs-137): 10Bq/kg

(2) Sediment (Lower detection limit: 10Bq/kg (dried mud))

Overall, the levels of both the rivers and lakes/headwaters measured were around 2,000Bq/kg or below at most of the locations, and have generally remained constant or had a declining tendency.

(Rivers)

Cs-134 + Cs-137: ND-3,700Bq/kg (dried mud) (*ND-3,400Bq/kg (dried mud))

(Lakes and headwaters)

Cs-134 + Cs-137: ND-1,940Bq/kg (dried mud) (*12-3,000Bq/kg (dried mud))

<Reference> Number of locations by radioactive cesium concentration (500Bq/kg)

Numbers in () denote results measured on the previous occasion.

	500 or below	501 -1,000	1,001 -1,500	1,501 -2,000	2,001 -2,500	2,501 -3,000	3,001 or more
Rivers	33 (31)	8 (5)	0 (4)	0 (1)	1 (1)	0 (0)	0 (1)
Lakes and headwaters	6 (6)	4 (2)	3 (4)	4 (1)	0 (1)	0 (1)	0 (0)

(3) Surrounding Environment (Lower detection limit: 10Bq/kg (dry))

(Rivers)

Cs-134 + Cs-137: ND-4,100Bq/kg (dry) (*44-5,700Bq/kg (dry))

Spatial dose: 0.03-0.42μSv/h

(Lakes and headwaters)

Cs-134 + Cs-137: 43-5,000Bq/kg (dry) (*147-4,400Bq/kg (dry))

Spatial dose: 0.06-0.26μSv/h

(Annex for details)
(Map attached)

Future Plans

In coordination with relevant organizations, MOE intends to continue to measure radioactive materials in water, sediment, etc. in rivers, lakes, etc. in Fukushima Prefecture, its neighboring prefectures, etc. (once in 1-3 months).

ORiver: Water Quality Monitoring Results

(Annex)

No.	Sampling point		Sampling date	Weather	Full depth m	General items					Concentration of radioactive material Bq/L			Remarks	
	Water body	Point				Sampling depth m	Transparency cm	Electrical conductivity mS/m	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium Cs-134	Cs-137		
1	Shishigawa River	Kinzanbashi Bridge	Kesennumashi City	2012/9/6	Cloudy	0.2	0.0	>100	18	9	1	<1	<1	<1	
2		Namitaibashi Bridge		2012/9/6	Sunny	1.1	0.0	>100	2,350	1	2	<1	<1	<1	
3		Tateyanabashi Bridge		2012/9/6	Cloudy	0.3	0.0	45	20	5	2	<1	<1	<1	
4		Kaniyamabashi Bridge		2012/9/6	Cloudy	0.4	0.0	76	48	1	1	<1	<1	<1	
5		Okawa River Estuary		2012/9/5	Sunny	1.2	0.0	96	4,110	3	1	<1	<1	<1	
6		Ozakibashi Bridge		2012/9/6	Cloudy, then rain	0.6	0.0	85	108	2	2	<1	<1	<1	
7	Arimaga River	Unandabashi Bridge	Kuriharashi City	2012/9/19	Cloudy	0.2	0.0	>100	2	3	1	<1	<1	<1	
8		Kimiyugawa River		2012/9/20	Cloudy	0.2	0.0	70	2	3	1	<1	<1	<1	
9		Kitakamigawa River		2012/9/20	Cloudy	0.3	0.0	57	2	9	2	<1	<1	<1	
10		Sanhasamagawa River		2012/9/19	Cloudy	0.5	0.0	>100	2	<1	1	<1	<1	<1	
11		Nihasamagawa River		2012/9/19	Cloudy	0.1	0.0	25	2	7	5	<1	<1	<1	
12		Hanayama Dam, inflow area		2012/9/19	Cloudy	1.0	0.0	>100	1	2	1	<1	<1	<1	
13	S y i s s a t w e m a	Wakayangui	Hasamagawa River	2012/9/20	Cloudy	0.3	0.0	73	2	10	2	<1	<1	<1	
14		Yamayoshidabashi Bridge		2012/9/20	Cloudy	0.5	0.0	40	2	8	3	<1	<1	<1	
15		Eaigawa River		2012/9/19	Cloudy	0.4	0.0	>100	1	2	0	<1	<1	<1	
16		Todorokibashi Bridge (Todoroki)		2012/9/18	Sunny	0.3	0.0	86	2	2	1	<1	<1	<1	
17		Shimizukomon Weir		2012/9/18	Sunny	2.8	0.0	51	2	3	1	<1	<1	<1	
18		In Furukawa District, Osakihi City		2012/9/18	Shinborisaihori, entrance	0.6	0.0	37	2	21	4	<1	<1	<1	
19	R i v e r	Dekigawa River	Misatomachi Town	2012/9/20	Cloudy	0.6	0.0	45	2	8	2	<1	<1	<1	
20		Eaigawa River		2012/9/20	Cloudy	0.6	0.0	45	2	2	1	<1	<1	<1	
21		Oikawabashi Bridge (Tandai)		2012/9/20	Wakayacho Town Ishinomakishi City	1.3	0.0	58	68	2	1	<1	<1	<1	
22		Kyukitakamigawa River		2012/9/20	Kadonowaki	Ishinomakishi City	0.3	0.0	42	2	5	2	<1	<1	<1
23		Onobashi Bridge (Ono)		2012/9/20	Higashimatushimashi City	0.3	0.0	42	2	5	2	<1	<1	<1	
24	Teizan-anga Canal (Kyesanashigawa River)	Terazanbashi Bridge	Shioigamishi City/Stichigamiamachi Town Taggobi City	2012/9/21	Light rain	0.2	0.0	95	352	2	2	<1	<1	<1	
25		Nanakitabashi Bridge		2012/9/26	Sunny	0.3	0.0	77	521	5	2	<1	<1	<1	
26	Nanakitagawa River System	Fukudabashi Bridge		2012/9/27	Cloudy	0.6	0.0	45	572	8	3	<1	<1	<1	
27		Umedagawa River		2012/9/27	Sunny	0.5	0.0	47	515	6	3	<1	<1	<1	
28		Nanakitagawa River		2012/9/26	Sunny	0.3	0.0	51	817	5	3	<1	<1	<1	
29		Natorigawa River		2012/9/25	Vuriageohobashi Bridge	2.0	0.0	74	1	6	3	<1	<1	<1	
30	Natorigawa River System	Yakuishibashi Bridge		2012/9/25	Sunny	0.4	0.0	>100	19	<1	1	<1	<1	<1	
31		Koyamabashi Bridge	Natorihi City	2012/9/25	Rain	1.2	0.0	52	16	15	4	<1	<1	<1	
32		Bishamontabashi Bridge		2012/9/25	Rain	1.0	0.0	25	75	18	3	<1	<1	<1	
33	A b u k u m a s a t w e r	Hadeniwabashi Bridge	Marumorimachi Town	2012/7/17	Cloudy	0.3	0.0	95	20	4	2	<1	<1	<1	
34		Abukumagawa River		2012/8/20	Sunny	1.2	0.0	52	18	3	1	<1	<1	<1	
35		Marumoribashi Bridge		2012/9/6	Cloudy	0.2	0.0	19	15	14	5	<1	<1	<1	
36		Ejiribashi Bridge		2012/7/18	Rain	0.7	0.0	>100	17	2	2	<1	<1	<1	
37		Shiroishigawa River		2012/8/20	Sunny	0.2	0.0	75	17	3	1	<1	<1	<1	
38		Saikawa River		2012/9/6	Cloudy	0.2	0.0	26	17	13	5	<1	<1	<1	
39	Shiroishigawa River	Matsuoka River	Kakudashi City	2012/7/18	Cloudy	0.3	0.0	78	17	4	2	<1	<1	<1	
40		Arakawa River		2012/9/6	Rain	0.2	0.0	24	16	13	6	<1	<1	<1	
41		Shiroishigawa River		2012/7/18	Cloudy	1.5	0.0	33	17	2	3	<1	<1	<1	
42		Tsukinokiohashi Bridge		2012/9/6	Rain	0.4	0.0	23	16	7	4	<1	<1	<1	
43		Abukumagawa River		2012/7/18	Cloudy	0.8	0.0	54	16	2	2	<1	<1	<1	
44		Abukumagawa River Estuary (Watariobashi Bridge)		2012/8/20	Sunny	0.5	0.0	52	18	4	2	<1	<1	<1	
45	I v e r	Abukumagawa River	Iwanuma	2012/9/6	Sunny	0.8	0.0	45	17	5	2	<1	<1	<1	
46		Abukumagawa River Estuary (Watariobashi Bridge)		2012/7/18	Cloudy	0.6	0.0	84	213	2	2	<1	<1	<1	
47		Abukumagawa River		2012/9/6	Sunny	0.7	0.0	73	335	4	3	<1	<1	<1	

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

ORiver: Sediment Monitoring Results

No.	Sampling point			Sampling date	Weather	Full depth m	General items			Concentration of radioactive material Bq/kg (dried mud)				Remarks				
	Water body	Point	Municipality				Mud sampling depth cm	Mud content %	Property	Radioactive iodine		Radioactive cesium						
										I-131	Cs-134	Cs-137	Total					
1	Shishiorigawa River	Kinzanbashi Bridge	Kesennumashi City	2012/9/6	Cloudy	0.2	2	86	Sand	<30	44	80	124					
2		Namitabashi Bridge		2012/9/6	Sunny	1.1	1	73	Mud	<30	65	100	165					
3		Tateyamaohashi Bridge		2012/9/6	Cloudy	0.3	3	91	Sand	<30	35	56	91					
4	Okawa River	Kamiyamabashi Bridge		2012/9/6	Cloudy	0.4	2	77	Sand	<30	82	140	222					
5		Okawa River Estuary		2012/9/5	Sunny	1.2	5	93	Sand	<30	<10	<10	-					
6	Omosegawa River	Ozakibashi Bridge		2012/9/6	Cloudy, then rain	0.6	4	69	Sludge	<30	140	260	400					
7	Arimaga River	Unanabashi Bridge	Kuriharashi City	2012/9/19	Cloudy	0.2	1	88	Sand/gravel	<30	220	350	570					
8		Kiryugawa River		2012/9/20	Cloudy	0.2	1	86	Sand	<30	150	230	380					
9	i	Kitakamigawa River		2012/9/20	Cloudy	0.3	3	83	Sand/silt	<30	45	73	118					
10	t	Sanhasamagawa River		2012/9/19	Cloudy	0.5	4	60	Silt	<30	100	160	260					
11	g	Nihasamagawa River		2012/9/19	Cloudy	0.1	1	84	Sand	<30	180	270	450					
12	s	Hamasamagawa River		2012/9/19	Cloudy	1.0	2	84	Sand/gravel/silt	<30	20	36	56					
13	y	Hanayama Dam, inflow area	Tomeshi City	2012/9/20	Cloudy	0.3	3	78	Sand/silt	<30	130	210	340					
14	i	Wakayangai		2012/9/20	Cloudy	0.5	3	93	Sand	<30	28	41	69					
15	s	Yamayoshidabashi Bridge		2012/9/20	Cloudy	0.5	3	91	Sand	<30	24	42	66					
16	g	Eaigawa River		2012/9/19	Cloudy	0.4	2	43	Mud/silt	<30	370	600	970					
17	a	Shimizukomon Weir		2012/9/18	Sunny	0.3	4	86	Sand	<30	40	64	104					
18	e	In Furukawa District, Osakishi City		2012/9/18	Sunny	2.8	3	71	Sludge	<30	310	490	800					
19	r	Shinborisaihōn, entrance	Misatomachi Town	2012/9/20	Cloudy	0.6	4	51	Mud	<30	350	580	930					
20	t	Dekigawa River		2012/9/20	Cloudy	0.6	4	84	Sand	<30	24	42	66					
21	w	Eaigawa River		2012/9/20	Cloudy	0.6	4	84	Sand	<30	24	42	66					
22	m	Okaibashi Bridge (Tanda)		2012/9/20	Cloudy	0.6	4	84	Sand	<30	24	42	66					
23	a	Kyukitakamigawa River		2012/9/20	Cloudy	1.3	3	91	Sand	<30	19	30	49					
24	m	Kadonowaki		2012/9/20	Cloudy	1.3	3	91	Sand	<30	19	30	49					
25	n	Nanakitagawa River	Higashimatsuushima City	2012/9/26	Sunny	0.3	3	91	Sand	<30	130	220	350					
26	s	Fukudaohashi Bridge		2012/9/27	Cloudy	0.6	3	92	Sand	<30	24	36	60					
27	o	Umedagawa River		2012/9/27	Sunny	0.5	10	88	Sand	<30	18	35	53					
28	p	Nanakitagawa River		2012/9/26	Sunny	0.3	2	78	Silt	<30	<10	<10	-					
29	q	Takasagobashi Bridge		2012/9/25	Sunny	2.0	3	80	Sand	<30	10	14	14					
30	r	Natoriogawa River		2012/9/25	Sunny	0.4	2	71	Sand	<30	90	130	220					
31	s	Yakushibashi Bridge	Natori City	2012/9/25	Rain	1.2	3	88	Sand	<30	72	130	202					
32	t	Koyamabashi Bridge		2012/9/25	Rain	1.0	5	55	Silt	<30	1,400	2,300	3,700					
33	u	Bishamonbashi Bridge		2012/7/17	Cloudy	0.3	3	89	Sand	<30	150	230	380					
34	v	Hadeniawabashi Bridge	Marumorimachi Town	2012/8/20	Sunny	1.2	5	86	Sand	<30	160	270	430					
35	w	Marumoribashi Bridge		2012/9/6	Cloudy	0.2	3	90	Sand	<30	210	320	530					
36	x	Ejiribashi Bridge		2012/7/18	Rain	0.7	5	84	Sand	<30	230	380	610					
37	y	Kakudashi City		2012/8/20	Sunny	0.2	2	91	Sand/gravel	<30	110	170	280					
38	z	Shiroshigawa River		2012/9/6	Cloudy	0.2	2	94	Sand	<30	65	97	162					
39	aa	Azakawa River		2012/7/18	Cloudy	0.3	5	94	Sand	<30	76	140	216					
40	bb	Niragamabashi Bridge	Shiroshigawa River	2012/9/6	Rain	0.2	3	94	Sand	<30	110	170	280					
41	cc	Shiroshigawa River		2012/9/10	Sunny	0.8	4	90	Sand	<30	46	77	123					
42	dd	Sakawa River		2012/9/11	Sunny	0.2	3	91	Sand/gravel	<30	130	220	350					
43	ee	Miyachashi Bridge		2012/9/11	Sunny	0.2	1	88	Sand	<30	18	29	47					
44	ff	Shiroshigawa River		2012/9/10	Sunny	0.3	2	95	Sand	<30	17	21	38					
45	gg	Muratauchi Town/Ogawaramachi Town		2012/9/10	Sunny	0.2	5	95	Sand	<30	13	19	32					
46	hh	Shirahatabashi Bridge	Abukumagawa River	2012/9/10	Sunny	0.2	5	90	Sand	<30	34	54	88					
47	ii	Tsukinokiohashi Bridge		2012/7/18	Cloudy	1.5	5	89	Sand	<30	130	210	340					
48	jj	Kakudashi City/Shibatamachi Town		2012/8/20	Rain	0.4	1	82	Sand	<30	130	210	340					
49	kk	Iwanumaishi City/Wataricho Town		2012/7/18	Cloudy	0.8	5	87	Sand	<30	50	86	136					
50	ll	Abukumagawa River Estuary (Wataricho Bridge)		2012/7/18	Cloudy	0.6	5	92	Gravel/sand	<30	37	67	104					
51	mm	Iwanumashi City/Wataricho Town		2012/9/6	Sunny	0.7	1	91	Sand	<30	38	64	102					

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

○River: Surrounding Environment Monitoring Results

No.	Water body	Point	Municipality	Sampling point	Sampling date	Weather	Left bank					Right bank					Remarks	
							Property	Concentration of radioactive material Bq/kg (dry)			Air dose $\mu Sv/h$	Property	Concentration of radioactive material Bq/kg (dry)			Air dose $\mu Sv/h$		
								Radioactive iodine $I-131$	Cs-134	Cs-137	Total		Radioactive iodine $I-131$	Cs-134	Radioactive cesium $Cs-137$	Total		
1	Shishioigawa River	Kizuhatabashi Bridge	Kesennumashi City	2012/9/10	Cloudy	Clayish	<30	110	190	300	0.12	Clayish	<30	300	490	700	0.15	
2		Tomonobabashi Bridge		2012/9/10	Sunny	Clayish	<30	27	45	67	0.08	Clayish	<30	60	120	210	0.07	
3		Utsunobabashi Bridge		2012/9/10	Cloudy	Loamy	<30	370	580	950	0.13	Loamy	<30	230	350	580	0.15	
4	Oka River	Kamimiyabashi Bridge		2012/9/10	Cloudy	Loamy	<30	510	850	1,380	0.08	Loamy	<30	160	260	420	0.11	
5		Oka River Estuary		2012/9/10	Sunny	Loamy	<30	320	550	870	0.07	Loamy	<30	18	21	41	0.05	
6	Onagigawa River	Osakubashi Bridge		2012/9/10	Cloudy, then rain	Sandy	<30	6	11	17	0.08	Loamy	<30	120	200	320	0.09	
7	Arimagawa River	Osakubashi Bridge		2012/9/10	Cloudy	Sandy	<30	280	460	740	0.22	Loamy/skeletal	<30	1,000	1,600	2,600	0.20	
8	Karyogawa River	Osakubashi Bridge		2012/9/10	Cloudy	Loamy/skeletal	<30	760	1,200	1,960	0.24	Sandy/loamy	<30	620	1,000	1,620	0.22	
9	i	Kitakumogawa River		2012/9/10	Cloudy	Loamy	<30	200	350	550	0.11	Sandy	<30	110	200	310	0.10	
10	s t	Sanbasamagawa River	Kuriharashi City	2012/9/10	Cloudy	Sandy	<30	<10	<10	<10	0.18	Sandy	<30	12	26	41	0.12	
11	y p k	Nihasamagawa River		2012/9/10	Cloudy	Loamy	<30	450	730	1,180	0.20	Loamy	<30	480	790	1,270	0.20	
12	s t m	Ranayamabashi Bridge		2012/9/10	Cloudy	Sandy	<30	150	260	410	0.19	Sandy/loamy	<30	370	600	970	0.20	
13	t m	Hasamagawa River		2012/9/10	Cloudy	Loamy	<30	400	650	1,050	0.20	Loamy	<30	240	400	640	0.19	
14	g	Yamayoshidabashi Bridge		2012/9/10	Cloudy	Loamy/skeletal	<30	<10	<10	<10	0.07	Loamy	<30	140	220	360	0.08	
15	e i	Todokubashi Bridge (Todokubi)		2012/9/10	Cloudy	Sandy	<30	140	230	370	0.09	Loamy/skeletal	<30	660	1,100	1,760	0.10	
16	m g	Faigawa River		2012/9/10	Cloudy	Loamy/skeletal	<30	<10	<10	<10	0.08	Loamy/skeletal	<30	270	440	710	0.11	
17	a a	in Furokawa District, Osaohi City		2012/9/10	Cloudy	Loamy/sandy	<30	84	120	204	0.07	Loamy	<30	72	180	278	0.08	
18	w	Eaigawa River		2012/9/10	Cloudy	Loamy/sandy	<30	62	110	172	0.08	Loamy	<30	84	140	234	0.07	
19		Kyotakikamogawa River		2012/9/10	Cloudy	Loamy/skeletal	<30	84	110	194	0.08	Loamy	<30	80	260	340	0.08	
20		Nanaseigawa River	Nanaseigawa City	2012/9/10	Cloudy	Loamy	<30	65	99	164	0.07	Sandy/loamy	<30	160	260	420	0.08	
21		Nanaseigawa River		2012/9/10	Rain	Loamy	<30	65	99	164	0.07	Sandy/loamy	<30	160	260	420	0.08	
22		Nanaseigawa River		2012/9/10	Rain	Loamy	<30	59	95	154	0.08	Loamy	<30	300	480	780	0.08	
23		Nanaseigawa River		2012/9/10	Rain	Loamy/sandy	<30	59	95	154	0.08	Loamy	<30	120	200	320	0.06	
24		Terazan-gawa Canal (Kyusunashigawa River)		2012/9/10	Cloudy	Light rain	Sandy/loamy	<30	280	440	720	0.08	Loamy	<30	83	120	203	0.07
25		Nanakitagawa River		2012/9/10	Cloudy	Loamy	<30	200	300	400	0.10	Loamy/skeletal	<30	210	350	560	0.09	
26		Dokkawaga River		2012/9/10	Cloudy	Loamy/sandy	<30	150	280	430	0.07	Loamy	<30	120	220	340	0.07	
27		Umedagawa River		2012/9/10	Cloudy	Loamy	<30	130	200	330	0.07	Sandy/loamy	<30	10	11	22	0.09	
28		System		2012/9/10	Cloudy	Loamy/sandy	<30	180	310	490	0.07	Loamy/sandy	<30	350	550	900	0.11	
29		Nanoseigawa River		2012/9/10	Cloudy	Loamy/skeletal	<30	200	320	520	0.08	Loamy	<30	100	200	300	0.09	
30		Yakisugi Bridge	Sendarishi City	2012/9/10	Cloudy	Loamy	<30	550	910	1,460	0.08	Loamy	<30	130	210	340	0.08	
31		Mesudagawa River		2012/9/10	Rain	Loamy	<30	270	440	710	0.11	Loamy	<30	180	270	450	0.10	
32		Bishamonbashi Bridge		2012/9/10	Rain	Loamy	<30	270	450	720	0.11	Loamy/skeletal	<30	260	460	720	0.07	
33		Hadonibabashi Bridge		2012/9/10	Cloudy	Loamy	<30	1,600	2,500	4,100	0.36	Loamy	<30	920	1,400	2,330	0.37	
34	A	Abukumagawa River		2012/9/10	Sunny	Sandy	<30	340	380	620	0.28	Loamy	<30	550	920	1,470	0.39	
35	R k	Marumoribashi Bridge		2012/9/10	Cloudy	Skeletal/sandy	<30	1,100	1,700	2,800	0.29	Loamy	<30	690	1,100	1,790	0.28	
36	y i u	Shiroshigawa River		2012/9/10	Sunny	Loamy	<30	57	88	145	0.17	Sandy	<30	90	130	220	0.12	
37	s v m	Sakawa River		2012/9/10	Sunny	Loamy	<30	1,100	1,700	2,800	0.21	Loamy/skeletal	<30	460	730	1,190	0.16	
38	t e a	Matsuoka River		2012/9/10	Sunny	Loamy	<30	270	430	700	0.11	Loamy	<30	340	530	870	0.15	
39	r g	Azakawa River		2012/9/10	Sunny	Loamy	<30	660	920	1,580	0.24	Loamy/skeletal	<30	460	760	1,220	0.14	
40	m a a	Shiroshigawa River	Shiroshigawa City	2012/9/10	Sunny	Loamy	<30	420	740	1,160	0.12	Loamy	<30	750	1,110	660	0.15	
41	w	Yukimokobashi Bridge		2012/9/10	Cloudy	Loamy	<30	1,300	2,100	3,400	0.26	Loamy	<30	150	210	360	0.18	
42	w a	Abukumagawa River		2012/9/10	Sunny	Loamy	<30	910	1,500	2,410	0.17	Loamy	<30	480	770	1,250	0.18	
43		Abukumagawa River Estuary		2012/9/10	Sunny	Loamy	<30	620	1,000	1,620	0.21	Loamy	<30	500	800	1,300	0.20	
		Wataricho Bridge		2012/9/10	Sunny	Sandy	<30	910	1,500	2,410	0.28	Loamy	<30	490	800	1,290	0.19	
		Iwamumashi City/Wataricho Town		2012/9/10	Sunny	Loamy	<30	330	540	870	0.25	Loamy/sandy	<30	460	710	1,170	0.14	
		Iwamumashi City/Wataricho Town		2012/9/10	Sunny	Sandy	<30	220	850	1,370	0.20	Loamy	<30	1,100	1,800	2,900	0.15	

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

* Air dose was measured with a survey meter, TCS-171 or TCS-172 of Hitachi-Aloka Medical, Ltd.

OLake and Headwater: Water Quality Monitoring Results

No.	Sampling point Point			Sampling date	Weather	Full depth m	General items					Concentration of radioactive material Bq/L			Remarks	
							Sampling depth m	Seechi disk depth m	Electrical conductivity mS/m	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium Cs-134	Cs-137		
1	R K I e a k a S m y i g a w m a	Kurikoma Dam	Dam site	2012/9/24	Rain	12.0	0.5	0.7	18	<1	1	<1	<1	<1		
2							11.0	-	19	11	7	<1	<1	<1		
3	N a e a k a S m y i g a w m a	Hanayama Dam	Dam site	2012/9/25	Rain	19.1	0.5	0.9	10	<1	1	<1	<1	<1		
4							18.1	-	6	88	290	<1	<1	<1		
5	Izumuna Lake	Lake exit	2012/9/26	Cloudy	38.4	0.5	1.1	16	2	1	<1	<1	<1	<1		
							37.4	-	16	4	2	<1	<1	<1		
6	Futatsushii Dam	Dam site	2012/7/3	Cloudy	0.5	0.0	0.5	6	<1	1	<1	<1	<1	<1		
							-	-	-	-	-	-	-	-	Collected only from the surface layer due to shallow water	
7	Urushizawa Dam	Dam site	2012/7/3	Cloudy	13.2	0.5	2.2	10	2	3	<1	<1	<1	<1		
							12.2	-	15	3	3	<1	<1	<1		
8	Minamikawa Dam	Dam site	2012/10/11	Rain	19.2	0.5	1.7	5	1	2	<1	<1	<1	<1		
							18.2	-	12	51	23	<1	<1	<1		
9	Nanakagawa River System	Nanakita Dam	Dam site	2012/10/10	Cloudy	0.7	0.0	0.3	6	2	2	<1	<1	<1		
10	Natogawa River System	Okura Dam	Dam site	2012/10/11	Cloudy	37.6	0.5	0.5	7	4	5	<1	<1	<1		
11	Amamuma Lake		Lake exit	2012/10/4	Sunny	0.3	0.0	0.3	20	2	3	<1	<1	<1		
	Amamuma Lake		Lake exit			-	-	-	-	-	-	-	-	-	Collected only from the surface layer due to shallow water	
12	Natogawa River System	Kamafusa Dam	Dam site	2012/7/4	Sunny	26.1	0.5	1.7	8	<1	2	<1	<1	<1		
							25.1	-	7	39	41	<1	<1	<1		
13	Natogawa River System	Taruizu Dam	Dam site	2012/9/11	Sunny	16.7	0.5	1.5	11	1	3	<1	<1	<1		
							15.7	-	11	4	2	<1	<1	<1		
14	Abukumagawa River System	Murata Dam	Dam site	2012/7/4	Sunny	0.4	0.0	0.4	7	<1	2	<1	<1	<1		
							-	-	-	-	-	-	-	-	Collected only from the surface layer due to shallow water	
15	Abukumagawa River System	Kawarago Dam	Dam site	2012/7/5	Cloudy	0.8	0.0	0.8	6	<1	1	<1	<1	<1		
							-	-	-	-	-	-	-	-	Collected only from the surface layer due to shallow water	
16	Shichishuku Dam	Dam site	2012/9/12	Sunny	25.7	0.5	3.0	8	<1	0	<1	<1	<1	<1		
							24.7	-	7	3	2	<1	<1	<1		
17	Bagyumuna Lake	Lake exit		2012/9/12	Sunny	0.3	0.0	0.2	15	18	7	<1	<1	<1		
	Bagyumuna Lake		Lake exit			-	-	-	-	-	-	-	-	-	Collected only from the surface layer due to shallow water	

*Sampling points are listed from north to south.

OLake and Headwater: Sediment and Surrounding Environment (Lake Shore) Monitoring Results

No.	Sampling point Point			Sampling date	Weather	Full depth m	Sediment					Surrounding environment (lake shore)					Remarks	
							General items			Concentration of radioactive material Bq/kg (dried mud)					Soil			
	Mud sampling depth cm	Mud content %	Property	Radioactive iodine I-131	Cs-134	Radioactive cesium Cs-137	Total	Property	Radioactive iodine I-131	Cs-134	Radioactive cesium Cs-137	Total	Air dose $\mu\text{Sv/h}$					
1	Kurikoma Dam	Dam site	2012/9/24	Rain	12.0	5	76	Sand	<30	110	180	290						
2	Kitagami-gawa River System	Hanayama Dam	Dam site	2012/9/25	Rain	19.1	15	49	Silt	<30	680	1,100	1,780					
3		Nanakita Dam	Dam site	2012/9/25	Cloudy	30.0	6	40	Silt	<30	420	750	1,190					
4	Narusegawa River System	Izumuna Lake	Lake exit	2012/9/26	Rain	0.7	15	47	Silt	<30	240	370	610					
5		Futatsushii Dam	Dam site	2012/7/3	Cloudy	0.5	3	94	Sand	<30	150	220	370					
6	Narusegawa River System	Amamuma Lake	Lake exit	2012/9/27	Cloudy	13.0	5	46	Silt	<30	230	350	560					
7		Urushizawa Dam	Dam site	2012/9/11	Cloudy	21.0	5	53	Silt	<30	50	80	130					
8	Nanakagawa River System	Minamikawa Dam	Dam site	2012/10/11	Rain	19.5	5	53	Mud	<30	170	310	430					
9		Nanakita Dam	Dam site	2012/10/10	Cloudy	0.7	5	66	Sand	<30	48	100	148					
10	Natogawa River System	Okura Dam	Dam site	2012/10/11	Cloudy	37.6	12	53	Silt	<30	440	710	1,150					
11	Amamuma Lake		Lake exit	2012/10/4	Sunny	0.3	6	90	Sand	<30	340	1,200	1,940					
12	Natogawa River System	Kamafusa Dam	Dam site	2012/7/4	Sunny	26.1	10	46	Mud	<30	430	660	1,090					
13		Taruizu Dam	Dam site	2012/9/11	Sunny	16.7	5	50	Mud	<30	44	82	126					
14	Abukumagawa River System	Murata Dam	Dam site	2012/7/4	Sunny	0.4	3	87	Mud/sand	<30	10	<10	<10					
15		Kawarago Dam	Dam site	2012/7/5	Cloudy	0.5	1	90	Gravel/sand	<30	250	400	660					
16	Shichishuku Dam	Dam site	2012/9/11	Sunny	0.3	3	75	Mud/sand	<30	110	170	280						
17		Bagyumuna Lake	Lake exit	2012/9/12	Sunny	0.3	2	78	Sand	<30	320	520	840					
	Bagyumuna Lake		Lake exit			-	-	-	-	-	-	-	-	-	-			

*Sampling points are listed from north to south.

*Air dose was measured with a survey meter, TCS-171 or TCS-172 of Hitachi-Aloka Medical, Ltd.

Sampling point moved a little bit due to drift wood.

