



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

(Rivers)

Cs-134+Cs-137: ND-4,000Bq/kg (dry) (\*ND-7,900Bq/kg (dry))

Spatial dose: 0.05-0.15 $\mu$ Sv/h

(Lakes and headwaters)

Cs-134+Cs-137: 21-4,500Bq/kg (dry) (\*24-3,800Bq/kg (dry))

Spatial dose: 0.06-0.18 $\mu$ Sv/h

(Annex for details)

(Map attached)

Future Plans

MOE intends to continue to measure radioactive materials in water, sediment, etc. in rivers, lakes, etc., since concentrations of radioactive materials seem to show fluctuations, depending on locations, due to minor differences in sampling points or properties of samples of each survey.

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ORiver: Water Quality Monitoring Results

(Annex)

No.	Sampling point				Sampling date	Weather	Full depth (m)	General items					Radioactive material concentrations (Bq/L)		Remarks		
	Water body	Point	Municipality	Sampling depth (m)				Transparency (cm)	Electrical conductivity (mS/m)	SS (mg/L)	Turbidity	Radioactive cesium					
												Cs-134	Cs-137				
1	T a s t R e i m v e r	Satonegawa River	Yamagoyabashi Bridge	Kitaibarakishi City	2014/2/12	Cloudy	0.4	0.0	51	15	7	8	<1	<1			
2			Murayamabashi Bridge		2014/2/12	Cloudy	0.6	0.0	>100	22	5	2	<1	<1			
3		Hanazonogawa River	Kurabeishi		2014/2/13	Sunny	0.4	0.0	>100	7	<1	0	<1	<1			
4			Isonarebashi Bridge		2014/2/10	Sunny	0.5	0.0	83	37	4	4	<1	<1			
5		Okitagawa River	Sakaebashi Bridge		Takahagishi City	2014/2/13	Sunny	0.3	0.0	>100	8	<1	0	<1	<1		
6			Sakaibashi Bridge		Kitaibarakishi City	2014/2/10	Cloudy	0.8	0.0	92	15	4	2	<1	<1		
7		Hananukigawa River	Shinhananukibashi Bridge		Takahagishi City	2014/2/10	Sunny	0.4	0.0	77	14	7	2	<1	<1		
8	Kujigawa River System	Kujigawa River	Yamagata	Hitachiomiya City	2014/2/7	Sunny	0.4	0.0	>100	12	1	1	<1	<1			
9			Sakakibashi Bridge	Hitachishi City/Tokaimura Village	2014/2/7	Sunny	0.5	0.0	>100	14	1	1	<1	<1			
10	N a k a g a R i v e r	Nakagawa River	Noguchi	Hitachiomiya City/Shirosatomachi Town	2014/2/18	Sunny	0.5	0.0	>100	25	3	2	<1	<1			
11			Shimokunii	Mitoshi City	2014/2/18	Sunny	1.5	0.0	80	43	6	3	<1	<1			
12			Katsutabashi Bridge	Mitoshi City/Hitachinakashi City	2014/2/14	Cloudy	1.7	0.0	49	951	5	3	<1	<1			
13	S g a s t a R i v e r	Hinumagawa River	Nakamarugawa River	Yanagisawabashi Bridge	Hitachinakashi City	2014/2/14	Cloudy	0.4	0.0	52	358	13	4	<1	<1		
14			Hinumamaekawa River	Nagaokabashi Bridge	Ibarakimachi Town	2014/2/11	Cloudy	0.3	0.0	81	28	6	3	<1	<1		
15			Hinumagawa River	Takahashi		2014/2/11	Cloudy	0.4	0.0	>100	26	3	2	<1	<1		
16			Kanseigawa River	Kanseibashi Bridge		2014/2/11	Cloudy	0.4	0.0	78	29	7	4	<1	<1		
17			Daiyagawa River	Oyabashi Bridge		Hokotashi City	2014/2/11	Cloudy	0.6	0.0	98	75	7	3	<1	<1	
18	Hinumagawa River	Hinumabashi Bridge	Mitoshi City/Oaraimachi Town	2014/2/11		Cloudy	0.3	0.0	53	1,754	12	5	<1	<1			
19	T o n e g a w a R i v e r S y s t e m	K i t a u r a L a k e	Hokotagawa River	Asahibashi Bridge	Namegatashi City	2014/2/11	Cloudy	0.9	0.0	48	33	13	5	<1	<1		
20			Tomoeogawa River	Shintomoegawabashi Bridge		Hokotashi City	2014/2/11	Cloudy	1.5	0.0	68	29	10	5	<1	<1	
21			Taiyogawa River	Tazukabashi Bridge		2014/2/10	Sunny	0.3	0.0	42	23	9	5	<1	<1		
22			Takedagawa River	Uchijukuohashi Bridge		2014/2/11	Cloudy	0.6	0.0	55	26	18	7	<1	<1		
23			Yamadagawa River	Nioroshibashi Bridge		2014/2/11	Light snow	0.4	0.0	52	25	12	7	<1	<1		
24			Kurakawa River	Kurakawabashi Bridge		2014/2/11	Cloudy	1.1	0.0	38	25	12	7	<1	<1		
25			Gantsugawa River	JA Yokohashi		2014/2/11	Light snow	0.4	0.0	31	25	13	12	<1	<1		
26			Nagaregawa River	Suhoibashi Bridge		Kashimashi City	2014/2/10	Sunny	0.4	0.0	50	37	5	4	<1	<1	
27		Sonobegawa River	Sonobeshinbashi Bridge	Omitamashi City	2014/2/5	Sunny	1.7	0.0	39	31	6	5	<1	<1			
28		Sannogawa River	Tokorobashi Bridge	2014/2/5	Sunny	0.5	0.0	41	52	7	5	<1	<1				
29		Koiseigawa River	Heiwabashi Bridge	Ishikashi City	2014/2/5	Sunny	0.9	0.0	82	20	6	4	<1	<1			
30		Kajinashigawa River	Kamishukubashi Bridge	Namegatashi City	2014/2/5	Sunny	0.5	0.0	42	37	4	4	<1	<1			
31		Hishikigawa River	Hishikibashi Bridge	Kasumigaaurashi City	2014/2/5	Sunny	0.6	0.0	89	30	2	2	<1	<1			
32		Ichinosegawa River	Kawanakabashi Bridge		2014/2/5	Sunny	0.9	0.0	37	28	8	6	<1	<1			
33	Sakaigawa River	Sakaibashi Bridge/National Route 354	Tsuchiurashi City	2014/2/6	Sunny	0.4	0.0	42	47	7	3	<1	<1				
34	Shinkawa River	Shintenbashi Bridge		2014/2/6	Sunny	1.0	0.0	36	36	10	4	<1	<1				
35	Sakuragawa River	Eiribashi Bridge	Tsuchiurashi City/Tsukubashi City	2014/2/6	Sunny	0.7	0.0	36	27	6	3	<1	<1				
36	Bizengawa River	Bizengawabashi Bridge	Tsuchiurashi City	2014/2/6	Sunny	1.2	0.0	31	33	14	11	<1	<1				
37	Hanamurogawa River	Shinwabashi Bridge		2014/2/6	Sunny	0.4	0.0	64	33	4	4	<1	<1				
38	Seimeigawa River	Katsuhashi Bridge		Amimachi Town	2014/2/4	Light rain	0.6	0.0	43	38	17	7	<1	<1			
39	Onogawa River	Okuharaohashi Bridge	Ryugasakishi City/Ushikushi City	2014/2/4	Cloudy	0.4	0.0	40	48	12	8	<1	<1				
40	Shintonegawa River	Shintonebashi Bridge	Inashikishi City	2014/2/10	Sunny	0.6	0.0	31	50	18	11	<1	<1				
41	Hitachitonegawa River	Yorokoshigawa River	Horinouchibashi Bridge	Itakoshi City	2014/2/10	Sunny	0.4	0.0	34	26	16	12	<1	<1			
42		Maekawa River	Ayamebashi Bridge	2014/2/10	Sunny	2.0	0.0	32	26	28	25	<1	<1				
43	Kinugawa River	Kinugawa River	Kawashimabashi Bridge	Chikuseishi City	2014/2/3	Sunny	0.5	0.0	96	18	1	1	<1	<1			
44			Takishitabashi Bridge	Moriyashi City	2014/2/4	Cloudy	0.4	0.0	51	24	24	10	<1	<1			
45			Tagawa River	Tagawabashi Bridge	Chikuseishi City	2014/2/3	Sunny	0.5	0.0	61	30	7	8	<1	<1		
46	Kokaigawa River	Kokaigawa River	Kurokobashi Bridge	Chikuseishi City	2014/2/3	Sunny	0.4	0.0	68	28	11	8	<1	<1			
47			Fumimakibashi Bridge	Torideshi City	2014/2/7	Sunny	0.6	0.0	46	28	4	3	<1	<1			
48		Yatagawa River	Maruyamabashi Bridge	Tsukubashi City	2014/2/7	Sunny	1.2	0.0	41	29	5	4	<1	<1			
49		Nishiyatagawa River	Sakaimatsubashi Bridge		2014/2/7	Sunny	0.4	0.0	46	28	6	4	<1	<1			
50		Inarigawa River	Ogukibashi Bridge		2014/2/7	Sunny	0.5	0.0	>100	28	2	1	<1	<1			
51	Tonegawa River	Tonegawa River	Kurihashi Bridge	Kogashi City	2014/2/3	Sunny	0.5	0.0	61	28	4	3	<1	<1			
52			Fukawa	Tonemachi Town	2014/2/4	Cloudy	0.4	0.0	54	29	6	4	<1	<1			
53			Sawara	Inashikishi City	2014/2/10	Sunny	0.5	0.0	36	32	19	17	<1	<1			

\* Sampling points for rivers are listed from north to south, and for different points along the river, from upstream to downstream.  
 • Radioactive materials concentrations contain some measurement errors but are not noted here.

○River: 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 cesium									
										Cs-134	Cs-137	Total							
1	T a s t R e i m v e r	Satonegawa River	Yamagoyabashi Bridge	Kitaibarakishi City	2014/2/12	Cloudy	0.4	6	79	Gravel/sand	13	36	49						
2			Murayamabashi Bridge		2014/2/12	Cloudy	0.6	4	74	Sand	29	99	128						
3		Hanazonogawa River	Kurabeishi		2014/2/13	Sunny	0.4	5	76	Sand	24	70	94						
4			Isonrebashi Bridge		2014/2/10	Sunny	0.5	8	79	Sand	20	69	89						
5		Okitagawa River	Sakaebashi Bridge	Takahagishi City	2014/2/13	Sunny	0.3	5	76	Sand	18	55	73						
6			Sakaibashi Bridge	Kitaibarakishi City	2014/2/10	Cloudy	0.8	8	79	Sand/gravel	22	61	83						
7		Hananukigawa River	Shinhananukibashi Bridge	Takahagishi City	2014/2/10	Sunny	0.4	8	78	Sand	33	68	101						
8	Kujigawa River System	Kujigawa River	Yamagata	Hitachiomiya City	2014/2/7	Sunny	0.4	8	76	Sand	<10	20	20						
9			Sakakibashi Bridge	Hitachishi City/Tokaimura Village	2014/2/7	Sunny	0.5	8	70	Sand	<10	<10	-						
10	N a k a g a w a R i v e r	Nakagawa River	Noguchi	Hitachiomiya City/Shirosatomachi Town	2014/2/18	Sunny	0.5	8	80	Sand/gravel	<10	12	12						
11			Shimokunii	Mitoshi City	2014/2/18	Sunny	1.5	8	43	Sand/silt	69	180	249						
12			Katsutabashi Bridge	Mitoshi City/Hitachinakashi City	2014/2/14	Cloudy	1.7	6	41	Silt	180	490	670						
13	S y a w a R i v e r	Nakamarugawa River	Yanagisawabashi Bridge	Hitachinakashi City	2014/2/14	Cloudy	0.4	3	52	Silt	160	400	560						
14			Hinumamaekawa River	Nagaokabashi Bridge		2014/2/11	Cloudy	0.3	8	76	Sand	53	140	193					
15		Hinumagawa River	Hinumagawa River	Takahashi	Ibarakimachi Town	2014/2/11	Cloudy	0.4	8	80	Sand/gravel	<10	18	18					
16			Kanseigawa River	Kanseibashi Bridge		2014/2/11	Cloudy	0.4	8	86	Sand/gravel	26	60	86					
17			Daiyagawa River	Oyabashi Bridge	Hokotashi City	2014/2/11	Cloudy	0.6	8	84	Sand/gravel	21	47	68					
18			Hinumagawa River	Hinumabashi Bridge	Mitoshi City/Oaraimachi Town	2014/2/11	Cloudy	0.3	8	83	Sand/gravel	120	320	440					
19	K i t a u r a L a k e	Hokotagawa River	Asahibashi Bridge	Hokotashi City	2014/2/11	Cloudy	0.9	5	78	Sand/silt	19	54	73						
20			Tomogawa River		Shintomoegawabashi Bridge	2014/2/11	Cloudy	1.5	4	80	Sand/silt	24	63	87					
21			Taiyogawa River		Tazukabashi Bridge	2014/2/10	Sunny	0.3	3	63	Sand/silt	48	150	198					
22			Takedagawa River		Uchijukuohashi Bridge	Namegatashi City	2014/2/11	Cloudy	0.6	6	70	Sand/silt	64	190	254				
23			Yamadagawa River		Nioroshibashi Bridge		2014/2/11	Light snow	0.4	4	67	Silt	57	160	217				
24			Kurakawa River		Kurakawabashi Bridge		2014/2/11	Cloudy	1.1	5	31	Silt	72	150	222				
25			Gantsugawa River		JA Yokohashi		2014/2/11	Light snow	0.4	5	80	Sand/silt	41	110	151				
26			Nagaregawa River		Suhoibashi Bridge	Kashimashi City	2014/2/10	Sunny	0.4	4	84	Sand	46	110	156				
27	K a s u m i g a u r a L a k e	Sonobegawa River	Sonobeshinbashi Bridge	Omitamashi City	2014/2/5	Sunny	1.7	4	53	Sand/silt	91	190	281						
28			Sannogawa River		Tokorobashi Bridge	2014/2/5	Sunny	0.5	7	17	Silt	500	1,300	1,800					
29			Koisegawa River		Heiwabashi Bridge	Ishikashi City	2014/2/5	Sunny	0.9	4	75	Sand	30	71	101				
30			Kajinashigawa River		Kamishukubashi Bridge	Namegatashi City	2014/2/5	Sunny	0.5	5	80	Sand	32	88	120				
31			Hishikigawa River		Hishikibashi Bridge	Kasumigaurashi City	2014/2/5	Sunny	0.6	4	75	Sand	95	310	405				
32			Ichinosegawa River		Kawanakabashi Bridge		2014/2/5	Sunny	0.9	5	61	Sand	130	400	530				
33			Sakaigawa River		Sakaibashi Bridge/National R	Tsuchiurashi City	2014/2/6	Sunny	0.4	5	76	Sand/gravel	48	130	178				
34			Shinkawa River		Shintenbashi Bridge		2014/2/6	Sunny	1.0	4	20	Silt	570	1,600	2,170				
35			Sakuragawa River		Eiribashi Bridge		Tsuchiurashi City/Tsukubashi City	2014/2/6	Sunny	0.7	3	35	Silt/sand	43	83	126			
36			L a k e		Bizengawa River	Bizengawabashi Bridge	Tsuchiurashi City	2014/2/6	Sunny	1.2	5	65	Gravel/sand	440	1,100	1,540			
37						Hanamurogawa River		Shinwabashi Bridge	2014/2/6	Sunny	0.4	3	74	Sand/silt	350	850	1,200		
38						Seimeigawa River		Katsuhashi Bridge	Amimachi Town	2014/2/4	Light rain	0.6	3	76	Sand/silt	240	630	870	
39						Onogawa River		Okuharaohashi Bridge	Ryugasakishi City/Ushikushi City	2014/2/4	Cloudy	0.4	5	72	Sand/silt	170	450	620	
40	Shintonegawa River	Shintonebashi Bridge		Inashikishi City		2014/2/10		Sunny	0.6	4	52	Silt	98	220	318				
41	Hitachitonegawa River	Yorokoshigawa River	Horinouchibashi Bridge	Itakoshi City	2014/2/10	Sunny	0.4	5	33	Silt	110	320	430						
42			Maekawa River		Ayamebashi Bridge	2014/2/10	Sunny	2.0	7	51	Silt	110	290	400					
43	Kinugawa River	Kinugawa River	Kawashimabashi Bridge	Chikuseishi City	2014/2/3	Sunny	0.5	4	71	Sand/silt	<10	16	16						
44			Takishitabashi Bridge	Moriyashi City	2014/2/4	Cloudy	0.4	5	65	Sand/silt	45	88	133						
45			Tagawa River	Tagawabashi Bridge	Chikuseishi City	2014/2/3	Sunny	0.5	5	84	Sand/gravel	14	38	52					
46	Kokaigawa River	Kokaigawa River	Kurokobashi Bridge	Torideshi City	2014/2/3	Sunny	0.4	7	54	Sand/silt	85	190	275						
47			Fumimakibashi Bridge		2014/2/7	Sunny	0.6	6	66	Silt/sand	35	85	120						
48		Yatagawa River	Maruyamabashi Bridge		Tsukubashi City	2014/2/7	Sunny	1.2	4	46	Silt	130	310	440					
49		Nishiyatagawa River	Sakaimatsuhashi Bridge			2014/2/7	Sunny	0.4	5	53	Silt	74	170	244					
50	Inarigawa River	Ogukibashi Bridge		2014/2/7	Sunny	0.5	4	75	Sand/gravel	190	490	680							
51	Tonogawa River	Tonogawa River	Kurihashi Bridge	Kogashi City	2014/2/3	Sunny	0.5	5	78	Sand	<10	26	26						
52			Fukawa	Tonemachi Town	2014/2/4	Cloudy	0.4	3	76	Sand/silt	15	47	62						
53			Sawara	Inashikishi City	2014/2/10	Sunny	0.5	5	87	Gravel/sand	31	57	88						

• Sampling points for rivers are listed from north to south, and for different points along the river, from upstream to downstream.  
• Radioactive materials concentrations contain some measurement errors but are not noted here.

ORiver: Surrounding Environment Monitoring Results

Sampling point				Sampling date	Weather	Left bank				Right bank				Remarks				
No.	Water body	Point	Municipality			Property	Concentration of radioactive material [Bq/kg (dry)]			Air dose (μSv/h)	Property	Concentration of radioactive material [Bq/kg (dry)]			Air dose (μSv/h)			
							Radioactive cesium					Radioactive cesium						
							Cs-134	Cs-137	Total			Cs-134	Cs-137			Total		
1	T a s y a s t R i e m e r	Satonegawa River	Yamagoyabashi Bridge	Kitaibarakishi City	2014/2/12	Cloudy	Loamy	720	1,700	2,420	0.12	Loamy	660	1,600	2,260	0.11		
2		Murayamabashi Bridge	2014/2/12		Cloudy	Loamy	420	1,100	1,520	0.07	Loamy	1,100	2,900	4,000	0.10			
3		Hanazonogawa River	Kurabeishi		2014/2/13	Sunny	Loamy	410	1,000	1,410	0.06	Loamy	110	280	390	0.06		
4			Isonarebashi Bridge		2014/2/10	Sunny	Loamy	410	940	1,350	0.07	Loamy	480	1,100	1,580	0.15		
5		Okitagawa River	Sakaebashi Bridge		Takahagishi City	2014/2/13	Sunny	Loamy	82	210	292	0.06	Loamy	100	300	400	0.06	
6			Sakaibashi Bridge		Kitaibarakishi City	2014/2/10	Cloudy	Loamy	270	730	1,000	0.09	Loamy	270	720	990	0.11	
7		Hananukigawa River	Shinhananukibashi Bridge		Takahagishi City	2014/2/10	Sunny	Loamy	130	320	450	0.10	Loamy	530	1,400	1,930	0.07	
8	Kujigawa River System	Kujigawa River	Yamagata	Hitachiomiya City	2014/2/7	Sunny	Loamy	84	200	284	0.10	Sandy	45	130	175	0.09		
9			Sakakibashi Bridge	Hitachishi City/Tokaimura Village	2014/2/7	Sunny	Loamy	110	300	410	0.09	Loamy	220	570	790	0.09		
10	S y s t e m	Nakagawa River	Noguchi	Hitachiomiya City/Shirosatomachi Town	2014/2/18	Sunny	Loamy	210	520	730	0.09	Loamy	61	150	211	0.10		
11			Shimokunii	Mitoshi City	2014/2/18	Sunny	Loamy	33	98	131	0.08	Loamy	230	590	820	0.09		
12			Katsutabashi Bridge	Mitoshi City/Hitachinakashi City	2014/2/14	Cloudy	Loamy	65	180	245	0.08	Loamy	110	250	360	0.10		
13			Nakamarugawa River	Yanagisawabashi Bridge	Hitachinakashi City	2014/2/14	Cloudy	Loamy	93	260	353	0.11	Loamy	18	54	72	0.08	
14	Hinumagawa River	Hinumamaekawa River	Nagaokabashi Bridge	2014/2/11	Cloudy	Loamy	51	130	181	0.07	Loamy	270	760	1,030	0.09			
15		Hinumagawa River	Takahashi	Ibarakimachi Town	2014/2/11	Cloudy	Loamy	51	95	146	0.07	Loamy	120	290	410	0.07		
16		Kanseigawa River	Kanseibashi Bridge	2014/2/11	Cloudy	Loamy	130	330	460	0.07	Loamy	280	710	990	0.07			
17		Daiyagawa River	Oyabashi Bridge	Hokotashi City	2014/2/11	Cloudy	---	---	---	0.08	---	---	---	---	---	0.07	Soil not exposed	
18		Hinumagawa River	Hinumabashi Bridge	Mitoshi City/Oaraimachi Town	2014/2/11	Cloudy	Loamy	590	1,400	1,990	0.13	Loamy	510	1,300	1,810	0.12		
19	T o n e g a w a R i v e r	Kitaura Lake	Hokotagawa River	Asahibashi Bridge	2014/2/11	Cloudy	---	---	---	0.09	---	---	---	---	---	0.09	Soil not exposed	
20			Tomogawa River	Shintomogawabashi Bridge	Hokotashi City	2014/2/11	Cloudy	Loamy	12	35	47	0.09	Loamy	62	160	222	0.09	
21			Taiyogawa River	Tazukabashi Bridge	2014/2/10	Sunny	Loamy	150	380	530	0.08	Loamy	97	250	347	0.08		
22			Takedagawa River	Uchijukuohashi Bridge	2014/2/11	Cloudy	Loamy	56	120	176	0.09	Loamy	190	470	660	0.08		
23			Yamadagawa River	Nioroshibashi Bridge	2014/2/11	Light snow	Loamy	61	130	191	0.08	Loamy	120	280	400	0.08		
24			Kurakawa River	Kurakawabashi Bridge	Namegatashi City	2014/2/11	Cloudy	Loamy	120	290	410	0.08	Loamy	130	270	400	0.08	
25			Gantsugawa River	JA Yokohashi	2014/2/11	Light snow	Loamy	110	280	390	0.08	Loamy	99	290	389	0.08		
26			Nagaregawa River	Suhoibashi Bridge	Kashimashi City	2014/2/10	Sunny	---	---	---	0.07	---	---	---	---	---	0.07	Soil not exposed
27			Sonobegawa River	Sonobeshinbashi Bridge	Omitamashi City	2014/2/5	Sunny	Loamy	140	410	550	0.08	Loamy	150	380	530	0.08	
28			Sannogawa River	Tokorobashi Bridge	2014/2/5	Sunny	Loamy	180	500	680	0.09	Loamy	260	610	870	0.09		
29			Koiesegawa River	Heiwabashi Bridge	Ishikashi City	2014/2/5	Sunny	Loamy	220	590	810	0.11	Loamy	260	620	880	0.11	
30			Kajinashigawa River	Kamishukubashi Bridge	Namegatashi City	2014/2/5	Sunny	Loamy	150	360	510	0.07	Loamy	82	200	282	0.07	
31	Hishikigawa River	Hishikibashi Bridge	2014/2/5	Sunny	Loamy	68	210	278	0.10	Loamy	110	270	380	0.10				
32	Ichinosegawa River	Kawanakabashi Bridge	Kasumigaurashi City	2014/2/5	Sunny	Loamy	79	230	309	0.10	Loamy	57	140	197	0.10			
33	Sakaigawa River	Sakaibashi Bridge/National Rd	2014/2/6	Sunny	Loamy	380	920	1,300	0.09	Loamy	150	370	520	0.09				
34	Shinkawa River	Shintenbashi Bridge	Tsuchiurashi City	2014/2/6	Sunny	Loamy	410	970	1,380	0.10	Loamy	310	710	1,020	0.10			
35	Sakuragawa River	Eiribashi Bridge	Tsuchiurashi City/Tsukubashi City	2014/2/6	Sunny	Loamy	28	99	127	0.06	Loamy	42	110	152	0.07			
36	Bizengawa River	Bizengawabashi Bridge	2014/2/6	Sunny	Loamy	200	510	710	0.12	Loamy	180	420	600	0.11				
37	Hanamurogawa River	Shinwabashi Bridge	Tsuchiurashi City	2014/2/6	Sunny	Loamy	200	510	710	0.14	Loamy	190	440	630	0.13			
38	Seimeigawa River	Katsuhashi Bridge	Amimachi Town	2014/2/4	Light rain	Loamy	85	230	315	0.11	Loamy	130	340	470	0.11			
39	Onogawa River	Okuharaohashi Bridge	Ryugasakishi City/Ushikushi City	2014/2/4	Cloudy	Loamy	170	460	630	0.10	Loamy	220	510	730	0.10			
40	Shintonegawa River	Shintonebashi Bridge	Inashikishi City	2014/2/10	Sunny	Loamy	89	220	309	0.08	Loamy	300	760	1,060	0.08			
41	Yorokoshigawa River	Horinouchibashi Bridge	Itakoshi City	2014/2/10	Sunny	Loamy	60	140	200	0.06	Loamy	170	420	590	0.07			
42	Maekawa River	Ayamebashi Bridge	2014/2/10	Sunny	Loamy	54	130	184	0.06	Loamy	33	83	116	0.06				
43	Kinugawa River	Kawashimabashi Bridge	Chikuseishi City	2014/2/3	Sunny	Loamy	84	190	274	0.09	Loamy	160	350	510	0.10			
44		Takishitabashi Bridge	Moriyashi City	2014/2/4	Cloudy	Loamy	300	740	1,040	0.10	Loamy	96	260	356	0.13			
45		Tagawa River	Tagawabashi Bridge	2014/2/3	Sunny	Loamy	20	61	81	0.08	Loamy	11	24	35	0.07			
46	Kokaigawa River	Kurokobashi Bridge	Chikuseishi City	2014/2/3	Sunny	Loamy	73	170	243	0.08	Loamy	57	150	207	0.09			
47		Fumimakibashi Bridge	Torideshi City	2014/2/7	Sunny	Loamy	420	1,100	1,520	0.12	Loamy	120	340	460	0.11			
48		Yatagawa River	Maruyamabashi Bridge	2014/2/7	Sunny	Loamy	310	830	1,140	0.12	Loamy	300	810	1,110	0.10			
49		Nishiyatagawa River	Sakaimatsuhashi Bridge	Tsukubashi City	2014/2/7	Sunny	Loamy	29	64	93	0.07	Loamy	32	81	113	0.07		
50		Inarigawa River	Ogukibashi Bridge	2014/2/7	Sunny	Loamy	360	920	1,280	0.12	Loamy	270	670	940	0.12			
51	Tonegawa River	Kurihashi Bridge	Kogashi City	2014/2/3	Sunny	Loamy	<10	<10	-	0.05	Loamy	44	99	143	0.05			
52		Fukawa	Tonemachi Town	2014/2/4	Cloudy	Loamy	190	490	680	0.10	Loamy	22	73	95	0.06			
53		Sawara	Inashikishi City	2014/2/10	Sunny	Loamy	58	130	188	0.07	Loamy	43	78	121	0.07			

\* Samples for surrounding environment (soil) were generally collected from 5 points in 3m square in the river terrace, etc., and mixed. Depending on the site situation, factors, such as the area of sampling may be much smaller, may cause figures to vary significantly.

\* 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-172B of Hitachi-Aloka Medical, Ltd.

\* Radioactive materials concentrations contain some measurement errors but are not noted here.

OLake and Headwater: Water Quality Monitoring Results

No.	Sampling point		Sampling date	Weather	Full depth (m)	General items					Radioactive material concentrations (Bq/L)		Remarks
						Sampling depth (m)	Secchi disk depth (m)	Electrical conductivity (mS/m)	SS (mg/L)	Turbidity	Radioactive cesium		
											Cs-134	Cs-137	
1	Hinuma Lake	Hiroura	Surface layer	2014/2/13	Sunny	2.5	0.5	2.1	1,795	4	4	<1	<1
			Lower layer				1.5						
2		Miyamae	Surface layer	2014/2/13	Sunny	3.1	0.5	1.9	2,150	5	4	<1	<1
			Lower layer				2.1						
3	Oyazawa	Surface layer	2014/2/13	Sunny	2.1	0.5	1.7	1,592	7	5	<1	<1	
		Lower layer				1.1							2,260
4	Kasumigaura Lake	Offshore of Tamatsukuri	Surface layer	2014/2/19	Sunny	6.6	0.5	0.9	26	9	10	<1	<1
			Lower layer				5.6						
5		Offshore of Kakeuma	Surface layer	2014/2/19	Sunny	1.9	0.5	0.4	25	21	19	<1	<1
			Lower layer				0.9						
6	Center of the lake	Surface layer	2014/2/19	Sunny	6.4	0.5	0.8	29	11	10	<1	<1	
		Lower layer				5.4							29
7	Offshore of Aso	Surface layer	2014/2/19	Sunny	2.5	0.5	1.0	33	11	11	<1	<1	
		Lower layer				1.5							33
8	Kitaura Lake	Surface layer	2014/2/19	Sunny	6.7	0.5	1.4	28	6	6	<1	<1	
		Lower layer				5.7							27
9	Jingubashi Bridge	Surface layer	2014/2/19	Sunny	2.9	0.5	1.0	28	12	10	<1	<1	
		Lower layer			1.9	1.9	13	9	9	9	<1	<1	
10	Hitachinogawa River	Kitaura Lake	Surface layer	2014/2/19	Cloudy	4.0	0.5	0.9	33	11	10	<1	<1
			Lower layer				3.0						
11	Iksu	Surface layer	2014/2/19	Sunny	5.1	0.5	0.8	32	13	12	<1	<1	
		Lower layer				4.1							32
12	Ushikumuma Lake	Center of Ushikumuma Lake	Surface layer	2014/2/13	Sunny	1.6	0.5	>1.6	27	9	6	<1	<1
			Lower layer			0.6	0.6	27	26	8	8	<1	<1
13	Mizunuma Dam	Center of the lake	Surface layer	2014/2/3	Sunny	18.0	0.5	2.5	7	4	4	<1	<1
			Lower layer				17.0						
14	Koyama Dam	Center of the lake	Surface layer	2014/2/3	Sunny	17.3	0.5	3.2	10	2	2	<1	<1
			Lower layer				16.3						
15	Hananuki Dam	Center of the lake	Surface layer	2014/2/4	Light snow	27.6	0.5	3.5	7	1	2	<1	<1
			Lower layer				26.6						
16	Jyuo Dam	Center of the lake	Surface layer	2014/2/4	Light snow	27.0	0.5	3.5	11	2	2	<1	<1
			Lower layer				26.0						
17	Ryujin Dam	Center of the lake	Surface layer	2014/2/7	Cloudy	19.2	0.5	4.0	9	1	1	<1	<1
			Lower layer				18.2						
18	Fujigawa Dam	Center of the lake	Surface layer	2014/2/6	Sunny	13.3	0.5	4.0	16	2	2	<1	<1
			Lower layer				12.3						
19	Iida Dam	Center of the lake	Surface layer	2014/2/6	Sunny	15.2	0.5	2.6	13	2	1	<1	<1
			Lower layer				14.2						

\* Radioactive materials concentrations contain some measurement errors but are not noted here.  
Hitachinogawa River

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

No.	Sampling 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 cesium			Property	Concentration of radioactive material [Bq/kg (dry)]					Air dose (μSv/h)
									Cs-134	Cs-137	Total		Cs-134	Cs-137	Total			
1	Hinuma Lake	Hiroura	2014/2/13	Sunny	2.5	8	42	Silt/sand	45	120	165	Loamy	180	450	630	0.13		
2		Miyamae	2014/2/13	Sunny	3.1	8	22	Silt	54	150	204	Loamy	<10	21	21	0.08		
3		Oyazawa	2014/2/13	Sunny	2.1	8	30	Silt	130	360	490	---	-	-	-	---		
4	Kasumigaura Lake	Offshore of Tamatsukuri	2014/2/19	Sunny	6.6	10	17	Silt	170	470	640	Sandy	18	37	55	0.08		
5		Offshore of Kakeuma	2014/2/19	Sunny	1.9	4	76	Sand/silt	77	180	257	Loamy	12	33	45	0.09		
6		Center of the lake	2014/2/19	Sunny	6.4	10	16	Clay	90	250	340	---	-	-	-	---		
7		Offshore of Aso	2014/2/19	Sunny	2.5	3	77	Sand/silt	38	100	138	Sandy	45	100	145	0.08		
8	Kitaura Lake	Offshore of Kamaya	2014/2/19	Sunny	6.7	8	13	Silt	120	350	470	Loamy	110	290	400	0.08		
9		Jingubashi Bridge	2014/2/19	Sunny	2.9	6	58	Sand/silt	52	120	172	Loamy	18	66	84	0.06		
10	Hitachinogawa River	Sotonasakaura Lake	2014/2/19	Cloudy	4.0	10	66	Silt/sand	41	100	141	Loamy	41	110	151	0.06		
11		Iksu	2014/2/19	Sunny	5.1	4	76	Sand/silt	23	75	98	Loamy	73	200	273	0.08		
12	Ushikumuma Lake	Center of Ushikumuma Lake	2014/2/13	Sunny	1.6	8	23	Silt	220	550	770	Loamy	63	140	203	0.08		
13	Mizunuma Dam	Center of the lake	2014/2/3	Sunny	18.0	8	18	Silt	1,200	3,000	4,200	Loamy	250	610	860	0.14		
14	Koyama Dam		2014/2/3	Sunny	17.3	8	28	Silt	360	890	1,250	Sandy	140	360	500	0.13		
15	Hananuki Dam	Center of the lake	2014/2/4	Light snow	27.6	8	19	Silt	540	1,400	1,940	Loamy	490	1,300	1,790	0.18		
16	Jyuo Dam		2014/2/4	Light snow	27.0	8	17	Silt	240	710	950	Loamy	1,300	3,200	4,500	0.14		
17	Ryujin Dam	Center of the lake	2014/2/7	Cloudy	19.2	8	21	Clay	270	840	1,110	Loamy	160	410	570	0.09		
18	Fujigawa Dam		2014/2/6	Sunny	13.3	8	27	Silt	160	490	650	Loamy	320	800	1,120	0.12		
19	Iida Dam	2014/2/6	Sunny	15.2	8	22	Silt	13	40	53	Loamy	180	530	710	0.12			

\* Samples for surrounding environment (soil) were generally collected from 5 points in 3m square in the river terrace, etc., and mixed. Depending on the site situation, factors, such as the area of sampling may be much smaller, may cause figures to vary significantly.  
\* Air dose was measured with a survey meter, TCS-172B of Hitachi-Aloka Medical, Ltd.  
\* Radioactive materials concentrations contain some measurement errors but are not noted here.

## ○Coast: Water Quality Monitoring Results

Sampling point		Sampling date	Weather	Full depth (m)						Radioactive material concentrations (Bq/L)		Remarks
No.	Water body				Sampling depth (m)	Secchi disk depth (m)	Salinity (‰)	SS (mg/L)	Turbidity	Radioactive cesium		
										Cs-134	Cs-137	
1	Offshore of Satonegawa River Estuary	2014/2/21	Sunny	13.0	0.5	2.5	29	6	4	<1	<1	
	Lower layer				12.0		30	16	10	<1	<1	
2	Offshore of Okitagawa River Estuary	2014/2/21	Sunny	12.5	0.5	1.8	27	4	4	<1	<1	
	Lower layer				11.5		29	11	6	<1	<1	
3	Offshore of Momiyagawa River/Kujigawa River Estuaries	2014/2/21	Sunny	10.6	0.5	3.0	24	4	2	<1	<1	
	Lower layer				9.6		30	5	2	<1	<1	
4	Neighboring water body of Ken-o Offshore of Nakagawa River	2014/2/21	Sunny	6.1	0.5	1.7	16	4	3	<1	<1	
	Lower layer				5.1		30	6	4	<1	<1	
5	Offshore of Tonegawa River Estuary	2014/2/24	Cloudy	7.8	0.5	1.8	18	5	4	<1	<1	
	Lower layer				6.8		24	5	4	<1	<1	

• Sampling points are listed from north to south.

• Radioactive materials concentrations contain some measurement errors but are not noted here.

## ○Coast: Sediment Monitoring Results

Sampling point		Sampling date	Weather	Full depth (m)	General items			Concentration of radioactive material [Bq/kg (dried mud)]			Remarks
No.	Water body				Mud sampling depth (cm)	Mud content %	Property	Radioactive cesium			
								Cs-134	Cs-137	Total	
1	Offshore of Satonegawa River Estuary	2014/2/21	Sunny	13.0	8	74	Sand	23	44	67	
2	Offshore of Okitagawa River Estuary	2014/2/21	Sunny	12.5	8	77	Sand	<10	13	13	
3	Offshore of Momiyagawa River/Kujigawa River Estuaries	2014/2/21	Sunny	10.6	8	71	Sand	<10	11	11	
4	Neighboring water body of Ken-o Offshore of Nakagawa River	2014/2/21	Sunny	6.1	8	77	Sand	<10	<10	-	
5	Offshore of Tonegawa River Estuary	2014/2/24	Cloudy	7.8	8	76	Sand	<10	<10	-	

• Sampling points are listed from north to south.

• Radioactive materials concentrations contain some measurement errors but are not noted here.



Kitaibaraki City  
 Daigomachi Town  
 Takahagishi City  
 Kinugawa River  
 Hitachiomiya City  
 Hitachiotashi City  
 Hitachishi City  
 Nakagawa River  
 Shiroatomachi Town  
 Nakashi City  
 Tokaimura Village  
 Hitachinakashi City  
 Kasamashi City  
 Mitoshi City  
 Sakuragawashi City  
 Chikuseishi City  
 Oaraimachi Town  
 Ibaraki Prefecture  
 Ishiohoshi City  
 Ibarakimachi Town  
 Omitamashi City  
 Hokotashi City  
 Kinugawa River  
 Yukishi City  
 Kogashi City  
 Yachiyomachi Town  
 Shimotsumashi City  
 Tsukubashi City  
 Kasumigaurashi City  
 Namegatashi City  
 Kasumigaura Lake  
 Mihomura Village  
 Itakoshi City  
 Kashimashi City  
 Korai River  
 Jososhi City  
 Bandoshi City  
 Tsukubamiraishi City  
 Ushikushi City  
 Inashikishi City  
 Moriyashi City  
 Torideshi City  
 Ryugasakishi City  
 Tonemachi Town  
 Kawachimachi Town  
 Tonemachi Town  
 Tonogawa River  
 Kamisushi City

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