

FY2014 Gunma Prefecture Survey Results

[Survey Results]

(1) Water

Rivers

Radioactive cesium (Cs-134, Cs-137): Not detectable at any location

Lakes and reservoirs

Radioactive cesium (Cs-134, Cs-137): Not detectable at any location

(2) Sediments

Rivers

Cs-134: ND - 560 Bq/kg (dry)

Cs-137: 3.4 - 1,600 Bq/kg (dry)

Lakes and reservoirs

Cs-134: 12 - 1,200 Bq/kg (dry)

Cs-137: 26 - 3,900 Bq/kg (dry)

(3) Surrounding Environment

(a) Soil

Rivers

Cs-134: ND - 2,700 Bq/kg (dry)

Cs-137: 6.7 - 8,700 Bq/kg (dry)

Lakes and reservoirs

Cs-134: ND - 960 Bq/kg (dry)

Cs-137: 11 - 2,900 Bq/kg (dry)

(b) Ambient dose rate

Rivers

0.03 - 0.35 μ Sv/h

Lakes and reservoirs

0.05 - 0.28 μ Sv/h

Gunma River (Water) 1/5

No.	Location			Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water										Remarks		
	Water area	Location	Municipality					Water temperature (°C)	Sampling depth (m)	General items			Electrical conductivity (nS/m)	SS (mg/L)	Turbidity (FNU)	Activity concentration(Bq/L)				
										Color	Odor	Transparency (cm)				Cs-134	Cs-137			
R i v e r s	Tonegawa River System	Tonegawa River	Hirose Bridge	Minakami Town	2014/6/2	Sunny	20.5	0.2	10.6	0.0	Grayish yellowish green	None	75	2.7	3	1.8	<0.50 ± 0.092	<0.52 ± 0.10		
					2014/8/9	Cloudy	18.1	0.3	11.6	0.0	Light grayish yellow green	None	>100	2.5	1	0.6	<0.50 ± 0.11	<0.63 ± 0.13		
					2014/11/4	Light rain	8.5	1.0	10.5	0.0	Grayish yellow green	None	>100	3.1	2	1.0	<0.59 ± 0.13	<0.72 ± 0.14		
					2015/1/7	Light snow	-2.0	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground
					2014/6/2	Sunny	28.3	0.5	11.6	0.0	Light grayish yellow green	None	69	2.7	4	1.7	<0.59 ± 0.12	<0.52 ± 0.086		
			Tsukiyono Bridge	2014/8/9	Cloudy	21.4	0.3	13.9	0.0	Light grayish yellow green	None	>100	3.3	1	1.0	<0.65 ± 0.16	<0.47 ± 0.13			
				2014/7/16	Sunny	30.1	0.3	17.8	0.0	Light grayish yellow green	None	93	3.7	3	2.0	<0.51 ± 0.13	<0.71 ± 0.15			
				2014/8/11	Sunny	24.0	0.4	15.2	0.0	Grayish green	None	>100	3.4	2	0.7	<0.45 ± 0.12	<0.52 ± 0.095			
				2014/9/8	Cloudy	18.9	0.3	17.0	0.0	Light grayish yellow	None	>100	6.0	<1	0.5	<0.64 ± 0.13	<0.60 ± 0.12			
				2014/11/4	Sunny	9.0	0.5	11.5	0.0	Light grayish yellowish green	None	>100	3.9	4	1.0	<0.68 ± 0.16	<0.72 ± 0.17			
			Kosode Bridge	2015/1/7	Sunny	3.2	0.3	5.4	0.0	Grayish yellowish green	None	>100	6.5	<1	0.9	<0.64 ± 0.12	<0.58 ± 0.11			
				2014/6/2	Sunny	26.2	0.6	13.6	0.0	ごくうすい緑みの青	None	>100	5.7	<1	0.3	<0.58 ± 0.12	<0.58 ± 0.11			
				2014/8/9	Cloudy	22.3	0.5	19.4	0.0	Light grayish yellowish green	None	>100	10.7	2	0.6	<0.50 ± 0.098	<0.60 ± 0.14			
				2014/11/4	Sunny	16.0	0.7	14.0	0.0	Grayish greenish yellow	None	>100	8.1	2	0.9	<0.62 ± 0.14	<0.72 ± 0.18			
				2015/1/7	Sunny	6.3	0.4	5.7	0.0	Light grayish yellow green	None	>100	13.8	<1	0.6	<0.58 ± 0.12	<0.55 ± 0.13			
			In Ooaza Yachi	2014/5/24	Sunny	29.5	0.2	14.6	0.0	Grayish blue green	None	>100	5.2	<1	<0.1	<0.57 ± 0.12	<0.62 ± 0.14			
				2014/6/16	Sunny	18.1	0.4	14.3	0.0	Colorless transparent	None	>100	5.4	3	<0.1	<0.57 ± 0.13	<0.60 ± 0.096			
				2014/7/14	Cloudy	25.3	0.3	15.7	0.0	Colorless transparent	None	>100	5.6	2	<0.1	<0.55 ± 0.12	<0.50 ± 0.15			
				2014/8/12	Light rain	20.9	0.3	17.5	0.0	Light grayish yellow green	None	62	5.3	10	0.5	<0.71 ± 0.15	<0.65 ± 0.13			
				2014/9/8	Cloudy	21.2	0.4	15.3	0.0	Colorless transparent	None	>100	6.2	1	0.2	<0.50 ± 0.10	<0.58 ± 0.13			
			Kirinoki Bridge	2014/11/5	Cloudy	13.0	0.3	10.0	0.0	Grayish blue green	None	>100	6.4	<1	<0.1	<0.65 ± 0.14	<0.80 ± 0.14			
				2015/1/8	Light snow	-0.5	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground		
				2014/5/24	Sunny	26.0	0.3	16.4	0.0	Light grayish green	None	>100	5.1	2	0.5	<0.74 ± 0.16	<0.62 ± 0.12			
				2014/8/20	Sunny	30.5	0.3	19.1	0.0	Light grayish yellowish red	None	>100	5.5	4	0.2	<0.45 ± 0.11	<0.58 ± 0.098			
				2014/11/5	Cloudy	5.7	0.5	6.2	0.0	Grayish reddish yellow	None	>100	5.8	2	0.2	<0.65 ± 0.13	<0.76 ± 0.16			
			Tonemachitakatoya	2015/1/8	Light snow	-1.0	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground		
				2014/5/24	Sunny	28.0	0.7	18.8	0.0	Grayish green	None	>100	8.3	1	0.4	<0.51 ± 0.11	<0.55 ± 0.096			
				2014/6/16	Sunny	21.0	0.5	15.4	0.0	Light grayish yellowish green	None	>100	6.6	2	0.4	<0.65 ± 0.14	<0.55 ± 0.10			
				2014/7/14	Cloudy	30.1	0.7	17.8	0.0	Light grayish yellowish green	None	>100	7.1	<1	0.2	<0.55 ± 0.093	<0.66 ± 0.15			
				2014/8/20	Cloudy	28.5	0.3	21.5	0.0	Grayish green	None	>100	8.4	2	0.2	<0.65 ± 0.14	<0.65 ± 0.13			
			Futae Bridge	2014/9/11	Cloudy	15.7	0.4	15.2	0.0	Grayish yellow	None	93	7.3	5	2.2	<0.48 ± 0.087	<0.71 ± 0.14			
				2014/11/5	Cloudy	11.5	0.6	8.9	0.0	Grayish yellow	None	64	8.9	13	3.1	<0.52 ± 0.14	<0.67 ± 0.14			
				2015/1/8	Light snow	-0.2	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground		
				2014/5/24	Sunny	27.6	0.5	15.1	0.0	Grayish green	None	>100	8.6	1	0.7	<0.70 ± 0.15	<0.62 ± 0.12			
				2014/6/16	Sunny	24.5	0.5	17.1	0.0	Grayish yellow green	None	>100	7.8	2	0.7	<0.58 ± 0.12	<0.52 ± 0.086			
			Shinto Bridge	2014/7/14	Cloudy	25.6	0.5	20.3	0.0	Light grayish greenish yellow	None	>100	7.9	3	0.6	<0.61 ± 0.11	<0.62 ± 0.14			
				2014/8/9	Sunny	23.8	0.5	19.6	0.0	Light grayish yellow green	None	>100	10.6	5	0.4	<0.57 ± 0.13	<0.58 ± 0.11			
				2014/9/8	Cloudy	21.9	0.5	18.1	0.0	Light grayish green	None	>100	9.1	4	1.2	<0.54 ± 0.12	<0.47 ± 0.11			
				2014/11/5	Cloudy	11.5	0.6	11.4	0.0	Light grayish green	None	84	12.3	6	1.9	<0.57 ± 0.12	<0.41 ± 0.10			
				2015/1/7	Sunny	5.8	0.6	6.7	0.0	Light grayish yellow green	None	>100	11.0	<1	0.9	<0.55 ± 0.10	<0.65 ± 0.15			
			Shuttatsu Bridge	2014/6/5	Cloudy	20.5	0.4	15.0	0.0	Light grayish yellow green	None	27	27.3	25	12	<0.52 ± 0.11	<0.58 ± 0.11			
				2014/8/1	Sunny	27.3	0.5	17.8	0.0	Light grayish yellow	None	47	25.5	22	8.0	<0.66 ± 0.14	<0.76 ± 0.15			
				2014/11/6	Sunny	13.0	0.3	9.5	0.0	Grayish yellowish green	None	38	25.5	23	11	<0.62 ± 0.14	<0.58 ± 0.096			
				2015/1/9	Sunny	-0.5	0.3	3.5	0.0	Grayish yellow green	None	52	25.1	22	8.0	<0.61 ± 0.098	<0.62 ± 0.094			
				2014/6/5	Cloudy	19.9	0.5	16.0	0.0	Grayish blue green	None	>100	27.6	1	0.3	<0.48 ± 0.12	<0.63 ± 0.13			
			Shirasuna River	2014/8/1	Sunny	28.6	0.4	20.5	0.0	Light grayish bluish green	None	>100	17.2	<1	0.1	<0.63 ± 0.12	<0.68 ± 0.096			
				2014/11/6	Sunny	13.5	0.5	10.8	0.0	Grayish green	None	>100	37.4	3	1.1	<0.59 ± 0.12	<0.72 ± 0.14			
				2015/1/9	Sunny	-0.5	0.4	2.1	0.0	Light grayish yellow green	None	>100	19.0	<1	<0.1	<0.64 ± 0.12	<0.75 ± 0.14			

Gunma River (Water) 2/5

No.	Location			Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water										Remarks					
	Water area	Location	Municipality					General items					Activity concentration(Bq/L)										
								Water temperature (°C)	Sampling depth (m)	Color	Odor	Transparency (cm)	Electrical conductivity (nS/m)	SS (mg/L)	Turbidity (FNU)	Radioactive cesium							
				Cs-134	Cs-137																		
R i v e r s	10	Agatsuma River	Downstream of Azuma Bridge	Higashi-Agatsuma Town	2014/5/30	Sunny	23.5	0.6	22.2	0.0	Grayish yellow	None	43	22.9	11	3.4	<0.45 ± 0.091	<0.52 ± 0.096					
					2014/6/23	Sunny	22.2	0.4	18.4	0.0	Grayish greenish yellow	None	44	20.0	16	6.1	<0.59 ± 0.13	<0.55 ± 0.10					
					2014/7/15	Sunny	25.7	0.3	21.3	0.0	Light grayish yellow green	None	38	20.7	14	2.2	<0.58 ± 0.13	<0.56 ± 0.14					
					2014/8/21	Sunny	29.0	0.3	23.1	0.0	Grayish yellowish green	None	75	25.2	5	1.1	<0.54 ± 0.13	<0.58 ± 0.13					
					2014/9/16	Sunny	21.5	0.4	19.0	0.0	Light grayish yellow green	None	>100	18.9	2	2.1	<0.55 ± 0.12	<0.71 ± 0.14					
					2014/11/6	Cloudy	15.4	0.3	13.1	0.0	Light grayish yellowish green	None	>100	23.9	5	1.0	<0.54 ± 0.094	<0.76 ± 0.17					
					2015/1/9	Sunny	7.0	0.4	5.2	0.0	Grayish yellowish green	None	>100	27.0	15	9.2	<0.69 ± 0.14	<0.71 ± 0.16					
					2014/6/3	Sunny	26.6	0.4	23.1	0.0	Grayish yellow green	None	66	13.8	5	1.8	<0.54 ± 0.12	<0.59 ± 0.12					
					11	Nakuta River	Tonoda Bridge	Takayama Village	2014/8/1	Sunny	28.2	0.4	24.0	0.0	Grayish yellow green	None	95	11.5	9	0.3	<0.43 ± 0.090	<0.68 ± 0.13	
									2014/11/6	Cloudy	15.0	0.5	14.6	0.0	Light grayish yellow green	None	>100	11.6	2	0.6	<0.61 ± 0.11	<0.56 ± 0.12	
	2015/1/7	Sunny	5.2	0.6					3.8	0.0	Light grayish yellow green	None	>100	12.3	<1	0.7	<0.55 ± 0.10	<0.52 ± 0.12					
	12	Agatsuma River	Agatsuma Bridge	Shibukawa City	2014/5/31	Sunny	25.3	0.8	21.2	0.0	Grayish yellow	None	23	22.7	10	3.4	<0.57 ± 0.12	<0.71 ± 0.15					
					2014/6/23	Sunny	28.9	0.5	19.6	0.0	Grayish greenish yellow	None	45	15.0	12	4.2	<0.59 ± 0.13	<0.51 ± 0.12					
					2014/7/15	Sunny	30.1	0.5	23.8	0.0	Grayish yellow green	None	40	19.4	21	3.6	<0.55 ± 0.11	<0.62 ± 0.14					
					2014/8/21	Sunny	32.0	0.4	25.9	0.0	Grayish yellow green	None	98	17.6	5	0.8	<0.50 ± 0.11	<0.49 ± 0.12					
					2014/9/16	Sunny	26.8	0.5	21.5	0.0	Light grayish yellow green	None	>100	17.7	1	0.7	<0.58 ± 0.11	<0.56 ± 0.082					
					2014/11/12	Cloudy	14.5	0.5	13.0	0.0	Light grayish yellow green	None	>100	21.9	3	1.9	<0.74 ± 0.15	<0.65 ± 0.13					
					2015/1/13	Sunny	5.9	0.4	4.8	0.0	Light grayish yellow green	None	>100	23.7	4	1.2	<0.69 ± 0.16	<0.50 ± 0.094					
					2014/5/31	Sunny	27.6	1.2	13.0	0.0	Grayish yellow green	None	>100	5.0	6	0.8	<0.57 ± 0.12	<0.68 ± 0.14					
					2014/6/23	Sunny	32.6	0.7	18.8	0.0	Light grayish yellowish green	None	95	6.4	8	0.7	<0.36 ± 0.088	<0.62 ± 0.15					
					2014/7/15	Sunny	34.1	0.3	22.8	0.0	Light grayish yellowish green	None	61	10.4	7	1.3	<0.51 ± 0.14	<0.62 ± 0.082					
	13	Tonegawa River	Taisho Bridge	Shibukawa City	2014/8/21	Sunny	33.0	0.5	26.9	0.0	Grayish yellow	None	62	8.7	5	0.7	<0.52 ± 0.12	<0.52 ± 0.11					
					2014/9/16	Sunny	28.7	0.6	23.2	0.0	Grayish yellow green	None	>100	14.1	1	0.6	<0.58 ± 0.13	<0.74 ± 0.16					
					2014/11/12	Cloudy	14.3	0.4	13.0	0.0	Light grayish yellowish green	None	>100	7.8	1	1.1	<0.56 ± 0.14	<0.74 ± 0.19					
					2015/1/13	Sunny	7.2	0.4	6.0	0.0	Light grayish yellow green	None	>100	10.8	<1	0.5	<0.69 ± 0.15	<0.82 ± 0.16					
					2014/5/31	Sunny	32.1	0.3	24.1	0.0	Light grayish yellow green	None	23	16.9	7	0.9	<0.45 ± 0.14	<0.59 ± 0.16					
	14	Takizawa River	Shintakizawa Bridge	Shibukawa City-Yoshioka Town	2014/8/2	Sunny	27.7	0.2	24.1	0.0	Colorless transparent	None	>100	12.1	2	0.1	<0.60 ± 0.12	<0.58 ± 0.11					
					2014/11/12	Cloudy	14.0	0.2	14.1	0.0	Light grayish yellow green	None	>100	22.9	1	0.9	<0.82 ± 0.17	<0.53 ± 0.11					
					2015/1/13	Sunny	8.5	0.2	8.4	0.0	Light grayish yellow green	None	>100	25.8	2	0.8	<0.73 ± 0.16	<0.51 ± 0.14					
					2014/5/17	Sunny	18.0	0.0	11.1	0.0	Light grayish yellow green	None	63	7.5	4	2.0	<0.50 ± 0.11	<0.67 ± 0.13					
					2014/8/2	Sunny	31.4	0.3	22.1	0.0	Light grayish yellow green	None	65	14.8	5	0.6	<0.52 ± 0.15	<0.72 ± 0.16					
	15	Tonegawa River	Gunma-ohashi Bridge	Maebashi City	2014/11/13	Sunny	14.5	0.4	11.6	0.0	Grayish yellow green	None	48	16.9	6	4.7	<0.74 ± 0.17	<0.82 ± 0.16					
					2015/1/14	Sunny	0.0	0.4	3.5	0.0	Light grayish yellowish green	None	>100	16.9	4	2.1	<0.73 ± 0.17	<0.68 ± 0.13					
					2014/5/16	Sunny	21.8	0.5	11.7	0.0	Light grayish yellowish green	None	48	7.4	9	1.4	<0.72 ± 0.14	<0.51 ± 0.10					
					2014/8/22	Sunny	34.0	0.4	23.4	0.0	Grayish yellow green	None	82	14.2	10	0.7	<0.62 ± 0.11	<0.52 ± 0.095					
					2014/11/14	Sunny	13.0	0.4	11.1	0.0	Grayish yellow green	None	48	20.6	29	9.8	<0.61 ± 0.12	<0.63 ± 0.12					
	16	Tonegawa River	Fukushima Bridge	Tamamura Town	2014/5/20	Sunny	2.0	0.2	4.4	0.0	Grayish yellowish green	None	78	18.6	4	1.8	<0.51 ± 0.10	<0.65 ± 0.13					
					2014/5/24	Sunny	20.6	0.1	18.5	0.0	Grayish reddish yellow	None	>100	16.8	3	0.4	<0.41 ± 0.097	<0.68 ± 0.14					
					2014/8/22	Sunny	23.4	0.6	21.2	0.0	Colorless transparent	None	93	13.1	7	0.4	<0.60 ± 0.13	<0.52 ± 0.10					
					2014/11/7	Sunny	15.5	0.5	14.0	0.0	Light grayish yellow green	None	72	12.7	3	2.2	<0.82 ± 0.16	<0.79 ± 0.19					
					2015/1/16	Sunny	0.5	0.2	4.5	0.0	Light grayish yellow	None	>100	14.6	1	0.3	<0.59 ± 0.10	<0.58 ± 0.11					
	17	Nagai River	Kamigonda Bridge	Takasaki City	2014/6/3	Sunny	27.7	0.5	22.1	0.0	Extremely faint bluish green	None	>100	13.2	1	0.3	<0.58 ± 0.11	<0.74 ± 0.14					
					2014/8/22	Sunny	31.3	0.8	23.6	0.0	Light grayish yellow green	None	>100	10.3	2	0.2	<0.60 ± 0.14	<0.52 ± 0.10					
					2014/11/7	Sunny	14.9	0.7	13.0	0.0	Light grayish yellow green	None	>100	11.7	2	0.2	<0.58 ± 0.14	<0.51 ± 0.15					
					2015/1/16	Sunny	1.0	0.5	6.7	0.0	Grayish yellow	None	>100	12.2	<1	0.3	<0.55 ± 0.094	<0.58 ± 0.14					
					2014/6/3	Sunny	25.8	0.5	21.5	0.0	Deep green	None	>100	20.2	4	0.3	<0.61 ± 0.11	<0.62 ± 0.13					
	18	Karasu River	Karasugawa Bridge	Takasaki City	2014/8/22	Sunny	31.8	0.3	27.0	0.0	Grayish yellowish green	None	>100	14.5	4	0.2	<0.52 ± 0.11	<0.55 ± 0.11					
					2014/11/7	Sunny	15.0	0.4	15.0	0.0	Light grayish yellow green	None	>100	16.5	2	0.4	<0.58 ± 0.13	<0.51 ± 0.12					
					2015/1/16	Cloudy	7.4	0.2	6.3	0.0	Grayish yellow	None	>100	31.8	2	0.6	<0.59 ± 0.11	<0.60 ± 0.11					
					2014/6/3	Sunny	25.8	0.5	21.5	0.0	Deep green	None	>100	20.2	4	0.3	<0.61 ± 0.11	<0.62 ± 0.13					
2014/8/22					Sunny	31.8	0.3	27.0	0.0	Grayish yellowish green	None	>100	14.5	4	0.2	<0.52 ± 0.11	<0.55 ± 0.11						
19	Usui River	Nakase Bridge	Annaka City	2014/11/7	Sunny	15.0	0.4	15.0	0.0	Light grayish yellow green	None	>100	16.5	2	0.4	<0.58 ± 0.13	<0.51 ± 0.12						
				2015/1/16	Cloudy	7.4	0.2	6.3	0.0	Grayish yellow	None	>100	31.8	2	0.6	<0.59 ± 0.11	<0.60 ± 0.11						

Gunma River (Water) 3/5

No.	Location				Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water										Remarks
	Water area	Location	Municipality	General items					Activity concentration(Bq/L)										
				Water temperature (°C)					Sampling depth (m)	Color	Odor	Transparency (cm)	Electrical conductivity (nS/m)	SS (mg/L)	Turbidity (FNU)	Radioactive cesium			
													Cs-134	Cs-137					
R i v e r s	Tonegawa River System	Usui River	Hanataka Bridge	Takasaki City	2014/5/17	Sunny	23.2	0.2	22.2	0.0	Grayish yellow	None	73	65.4	3	0.7	<0.39 ± 0.099	<0.55 ± 0.11	
					2014/8/22	Sunny	33.7	0.6	31.5	0.0	Grayish yellowish green	None	>100	32.5	2	0.2	<0.64 ± 0.14	<0.52 ± 0.14	
					2014/1/7	Sunny	15.0	0.3	15.3	0.0	Grayish yellowish green	None	>100	33.6	1	0.4	<0.71 ± 0.16	<0.54 ± 0.099	
					2015/1/16	Cloudy	7.0	0.6	8.0	0.0	Light grayish yellow green	None	>100	4.1	3	1.0	<0.63 ± 0.12	<0.63 ± 0.11	
		Kabura River	Tadakawa Bridge	Shimonita Town	2014/5/24	Sunny	21.4	0.1	21.4	0.0	Dark grayish yellowish green	None	>100	28.6	<1	0.2	<0.57 ± 0.12	<0.55 ± 0.11	
					2014/8/23	Sunny	25.1	0.5	23.0	0.0	Light grayish yellowish green	None	>100	21.7	5	0.3	<0.43 ± 0.094	<0.59 ± 0.096	
					2014/11/10	Sunny	15.7	0.7	13.0	0.0	Light grayish yellow green	None	>100	24.5	<1	0.3	<0.58 ± 0.14	<0.60 ± 0.12	
			Kaburagawa Bridge	Takasaki City/Fujioke City	2015/1/19	Sunny	2.0	0.3	2.8	0.0	Light grayish yellow green	None	>100	32.4	2	0.4	<0.59 ± 0.14	<0.58 ± 0.096	
					2014/5/28	Sunny	26.4	0.5	24.0	0.0	Grayish reddish yellow	None	90	38.4	5	0.6	<0.60 ± 0.13	<0.58 ± 0.13	
					2014/8/23	Sunny	30.1	0.6	26.9	0.0	Grayish greenish yellow	None	38	23.3	13	0.9	<0.64 ± 0.14	<0.47 ± 0.12	
		Ogawa River	Kinzan Bridge	Kanra Town	2014/11/10	Sunny	15.5	0.4	16.3	0.0	Light grayish yellow green	None	>100	29.4	1	0.3	<0.63 ± 0.13	<0.62 ± 0.13	
					2015/1/19	Sunny	9.2	0.3	7.4	0.0	Grayish greenish yellow	None	>100	35.7	11	2.8	<0.56 ± 0.10	<0.63 ± 0.13	
					2014/6/3	Sunny	23.7	0.4	18.6	0.0	Deep green	None	>100	20.1	<1	0.3	<0.76 ± 0.15	<0.57 ± 0.14	
					2014/8/23	Sunny	27.7	0.4	21.3	0.0	Light grayish yellow green	None	>100	13.4	10	0.3	<0.66 ± 0.13	<0.62 ± 0.11	
		Nanmoku River	Ozawa Bridge	Nanmoku Village	2014/11/10	Sunny	16.7	0.2	14.7	0.0	Light grayish greenish yellow	None	>100	16.4	2	0.4	<0.54 ± 0.10	<0.54 ± 0.12	
					2015/1/19	Sunny	4.0	0.3	7.4	0.0	Light grayish yellow green	None	>100	20.4	4	0.4	<0.68 ± 0.13	<0.58 ± 0.12	
					2014/5/24	Sunny	19.8	0.1	19.9	0.0	Dark grayish yellowish green	None	>100	21.3	<1	0.1	<0.57 ± 0.14	<0.52 ± 0.095	
					2014/8/23	Cloudy	24.8	0.2	21.1	0.0	Light grayish yellowish green	None	>100	15.4	1	0.1	<0.57 ± 0.11	<0.55 ± 0.13	
					2014/11/10	Sunny	15.6	0.3	11.0	0.0	Light grayish yellow green	None	>100	18.9	7	0.8	<0.59 ± 0.099	<0.73 ± 0.14	
					2015/1/19	Sunny	-3.1	0.4	1.2	0.0	Light grayish yellow green	None	>100	24.6	<1	0.1	<0.59 ± 0.10	<0.63 ± 0.14	
					2014/5/17	Sunny	21.8	0.2	18.4	0.0	Grayish greenish yellow	None	42	28.1	14	1.6	<0.61 ± 0.12	<0.47 ± 0.078	
					2014/8/2	Sunny	30.4	0.3	25.1	0.0	Light grayish greenish yellow	None	89	21.1	3	0.2	<0.66 ± 0.14	<0.76 ± 0.16	
					2014/11/12	Cloudy	12.5	0.1	13.2	0.0	Light grayish greenish yellow	None	>100	25.5	3	1.6	<0.50 ± 0.11	<0.66 ± 0.14	
					2015/1/13	Sunny	5.0	0.2	5.7	0.0	Light grayish greenish yellow	None	>100	29.4	2	2.0	<0.78 ± 0.14	<0.63 ± 0.14	
		Inogawa River	Kamakura Bridge	Takasaki City	2014/5/16	Sunny	28.4	0.6	20.4	0.0	Light grayish yellow green	None	49	29.2	6	0.5	<0.55 ± 0.10	<0.60 ± 0.12	
					2014/8/22	Sunny	32.0	0.4	25.9	0.0	Light grayish yellow green	None	>100	25.4	3	0.3	<0.59 ± 0.14	<0.62 ± 0.11	
					2014/11/14	Sunny	10.0	0.4	10.9	0.0	Grayish yellow green	None	>100	34.3	4	1.1	<0.48 ± 0.11	<0.41 ± 0.065	
					2015/1/20	Sunny	4.2	0.3	7.2	0.0	Grayish greenish yellow	None	87	42.4	4	1.2	<0.59 ± 0.13	<0.63 ± 0.14	
					2014/5/15	Cloudy	23.8	0.3	21.3	0.0	Light grayish yellow green	None	55	36.4	25	4.4	<0.48 ± 0.12	<0.63 ± 0.15	
		Karasu River	Iwakura Bridge	Takasaki City/Tamatsuta Town	2014/9/1	Light rain	22.0	0.6	20.0	0.0	Grayish reddish yellow	None	98	36.1	6	1.1	<0.48 ± 0.10	<0.55 ± 0.092	
					2014/11/14	Sunny	17.5	0.8	16.8	0.0	Light grayish yellow green	None	>100	35.5	2	0.6	<0.55 ± 0.12	<0.52 ± 0.12	
					2015/1/15	Cloudy	5.0	0.5	10.4	0.0	Light grayish greenish yellow	None	>100	36.1	<1	0.3	<0.60 ± 0.11	<0.58 ± 0.096	
2014/5/30	Sunny				26.0	0.4	23.0	0.0	Dark grayish yellowish green	None	92	4.6	7	0.7	<0.61 ± 0.12	<0.62 ± 0.12			
Kanna River	Shinkaname Bridge	Ueno Village	2014/11/11	Sunny	15.0	0.3	10.4	0.0	Light grayish yellow green	None	>100	15.0	<1	0.1	<0.63 ± 0.13	<0.54 ± 0.13			
			2014/5/30	Sunny	26.3	0.6	23.0	0.0	Grayish yellowish green	None	88	4.5	14	4.2	<0.51 ± 0.12	<0.71 ± 0.13			
	Tobukyo Bridge	Fujioke City/Kamisato Town	2014/11/11	Cloudy	11.9	0.3	10.7	0.0	Light grayish yellow green	None	>100	16.6	<1	0.2	<0.64 ± 0.12	<0.71 ± 0.13			
			2014/5/15	Cloudy	23.4	0.4	19.0	0.0	Extremely faint green	None	78	22.1	7	0.8	<0.71 ± 0.14	<0.45 ± 0.13			
Kannagawa Bridge	Kamisato Town	2014/11/11	Cloudy	15.3	0.5	14.4	0.0	Light grayish yellow green	None	>100	21.4	2	0.4	<0.71 ± 0.14	<0.70 ± 0.16				
		2014/5/15	Cloudy	24.1	0.2	18.3	0.0	Extremely faint blue	None	>100	22.4	4	0.9	<0.53 ± 0.10	<0.49 ± 0.099				
		2014/11/14	Sunny	17.9	0.3	15.5	0.0	Light grayish green	None	>100	20.5	4	0.9	<0.59 ± 0.12	<0.52 ± 0.095				
Tonegawa River	Bando-ohashi Bridge	Honjo City	2014/5/15	Cloudy	21.2	0.5	14.5	0.0	Yellow greenish pale gray	None	96	12.9	6	0.8	<0.60 ± 0.13	<0.65 ± 0.11			
			2014/9/1	Cloudy	22.3	0.3	20.9	0.0	Light grayish yellow green	None	94	20.3	5	1.5	<0.57 ± 0.13	<0.55 ± 0.11			
			2014/11/17	Cloudy	12.0	0.6	11.1	0.0	Grayish yellowish green	None	>100	25.0	3	1.8	<0.66 ± 0.14	<0.67 ± 0.12			
			2015/1/15	Cloudy	5.3	0.3	6.6	0.0	Grayish reddish yellow	None	>100	22.8	4	1.1	<0.57 ± 0.099	<0.58 ± 0.14			

Gunma River (Water) 4/5

No.	Location			Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water										Remarks	
	Water area	Location	Municipality					General items					Activity concentration(Bq/L)						
								Water temperature (°C)	Sampling depth (m)	Color	Odor	Transparency (cm)	Electrical conductivity (mS/m)	SS (mg/L)	Turbidity (FNU)	Radioactive cesium			
													Cs-134	Cs-137					
R i v e r s	Tonegawa River System	Tonegawa River	Akagishinaka River	In Shimoshosai Town	Maebashi City	2014/5/17	Sunny	21.3	0.3	16.4	0.0	Dark grayish yellow green	None	>100	19.5	2	0.6	<0.54 ± 0.12	<0.51 ± 0.11
						2014/8/2	Sunny	35.6	0.7	28.2	0.0	Light grayish yellow green	None	80	20.2	6	0.3	<0.59 ± 0.14	<0.63 ± 0.14
						2014/11/13	Sunny	17.9	0.5	13.5	0.0	Light grayish yellow green	None	>100	27.2	2	0.4	<0.60 ± 0.13	<0.60 ± 0.16
						2015/1/14	Sunny	4.8	0.2	4.2	0.0	Grayish reddish yellow	None	>100	28.0	<1	0.5	<0.62 ± 0.16	<0.58 ± 0.096
						2014/5/16	Sunny	24.8	0.4	18.0	0.0	Light grayish yellow green	None	52	16.9	7	1.9	<0.42 ± 0.066	<0.66 ± 0.13
			Momonoki River	Utsuboi Bridge	2014/8/22	Sunny	33.0	0.3	25.9	0.0	Grayish yellow green	None	65	19.5	6	0.7	<0.66 ± 0.14	<0.55 ± 0.12	
					2014/11/13	Sunny	18.0	0.2	12.6	0.0	Light grayish yellow	None	87	23.5	5	2.1	<0.79 ± 0.15	<0.70 ± 0.14	
					2015/1/14	Sunny	7.2	0.1	7.6	0.0	Grayish reddish yellow	None	>100	23.1	2	1.5	<0.70 ± 0.13	<0.80 ± 0.14	
					2014/5/16	Sunny	25.6	0.6	21.7	0.0	Light grayish greenish yellow	None	49	27.0	11	1.7	<0.57 ± 0.12	<0.49 ± 0.15	
					2014/8/22	Sunny	32.5	0.2	29.1	0.0	Grayish yellow green	None	81	30.5	4	0.4	<0.66 ± 0.14	<0.65 ± 0.13	
		Arato River	Okuhara Bridge	2014/11/13	Sunny	14.2	0.3	12.3	0.0	Grayish yellow	None	90	26.4	7	1.8	<0.76 ± 0.18	<0.78 ± 0.15		
				2015/1/14	Cloudy	5.8	0.3	7.4	0.0	Grayish yellow	None	55	28.4	6	2.6	<0.65 ± 0.14	<0.63 ± 0.096		
				2014/5/30	Sunny	26.0	0.5	24.0	0.0	Grayish reddish yellow	None	49	4.3	11	2.7	<0.62 ± 0.12	<0.63 ± 0.16		
		Kasukawa River	Hozumi Bridge	2014/8/23	Sunny	28.5	0.4	24.4	0.0	Grayish reddish yellow	None	32	25.7	7	0.7	<0.60 ± 0.11	<0.58 ± 0.11		
				2014/11/17	Cloudy	14.0	0.2	13.1	0.0	Grayish yellow	None	88	40.3	9	3.0	<0.59 ± 0.11	<0.45 ± 0.073		
				2015/1/20	Sunny	7.6	0.4	8.0	0.0	Light grayish yellow green	None	84	42.7	10	3.6	<0.75 ± 0.15	<0.68 ± 0.13		
		Hirose River	Nakajima Bridge	Iesaki City	2014/5/28	Sunny	26.0	0.5	25.1	0.0	Dark grayish reddish yellow	None	32	20.5	33	5.2	<0.60 ± 0.13	<0.55 ± 0.11	
					2014/8/23	Sunny	30.0	0.5	25.8	0.0	Dark grayish reddish yellow	None	32	25.7	14	0.6	<0.69 ± 0.12	<0.60 ± 0.11	
					2014/11/17	Sunny	8.6	0.4	11.0	0.0	Grayish greenish yellow	None	>100	28.8	4	1.4	<0.59 ± 0.15	<0.55 ± 0.14	
					2015/1/23	Sunny	12.0	0.2	10.5	0.0	Grayish reddish yellow	None	65	29.8	9	2.8	<0.82 ± 0.17	<0.53 ± 0.13	
					2014/5/16	Sunny	19.5	0.8	15.6	0.0	Light grayish yellow green	None	47	12.7	22	3.0	<0.64 ± 0.16	<0.55 ± 0.088	
		Hayakawa River	Hayakawa Bridge	Ona City	2014/9/1	Light rain	24.5	0.5	19.8	0.0	Grayish yellow	None	59	16.6	16	2.5	<0.52 ± 0.096	<0.49 ± 0.097	
					2014/11/17	Sunny	14.3	0.7	14.1	0.0	Grayish yellow green	None	98	23.4	4	1.3	<0.57 ± 0.15	<0.65 ± 0.13	
					2015/1/20	Sunny	9.0	0.3	9.8	0.0	Dark grayish yellow green	None	47	33.8	18	6.3	<0.62 ± 0.11	<0.72 ± 0.15	
					2014/5/28	Sunny	26.0	0.4	25.0	0.0	Dark grayish yellow green	None	75	32.1	4	1.1	<0.58 ± 0.12	<0.60 ± 0.14	
					2014/8/23	Sunny	28.0	0.5	26.5	0.0	Grayish yellow	None	60	27.1	14	0.3	<0.57 ± 0.12	<0.41 ± 0.13	
		Tonegawa River	Tone-ozeki Weir	Chiyoda Town /Gyoda City	2014/11/17	Sunny	7.4	0.5	11.0	0.0	Light grayish yellow green	None	>100	38.1	2	1.0	<0.64 ± 0.15	<0.42 ± 0.068	
					2015/1/23	Sunny	8.5	0.4	9.0	0.0	Grayish yellow	None	48	39.6	10	3.4	<0.77 ± 0.16	<0.78 ± 0.16	
					2014/5/31	Sunny	33.4	0.2	27.4	0.0	Grayish greenish yellow	Dark olive	35	14.1	8	2.7	<0.50 ± 0.10	<0.58 ± 0.14	
					2014/6/26	Sunny	31.7	0.8	25.7	0.0	Grayish yellow	None	33	16.0	22	11	<0.61 ± 0.15	<0.62 ± 0.10	
					2014/7/18	Cloudy	22.1	1.0	23.9	0.0	Grayish yellow	None	40	20.6	13	2.8	<0.64 ± 0.15	<0.55 ± 0.12	
					2014/9/1	Cloudy	23.3	1.0	23.3	0.0	Grayish yellow	None	71	22.9	11	3.8	<0.48 ± 0.087	<0.49 ± 0.089	
					2014/9/24	Cloudy	28.4	0.8	22.8	0.0	Grayish yellow	None	67	27.2	4	2.9	<0.70 ± 0.15	<0.66 ± 0.12	
					2014/11/18	Sunny	9.2	0.6	11.2	0.0	Dark grayish yellow	None	30	26.1	44	13	<0.66 ± 0.16	<0.51 ± 0.11	
					2015/1/26	Sunny	14.8	0.5	12.1	0.0	Grayish yellow green	None	85	26.1	7	2.7	<0.70 ± 0.13	<0.65 ± 0.14	
					2014/6/4	Cloudy	16.4	0.6	14.0	0.0	Extremely faint bluish green	None	>100	7.8	1	0.2	<0.55 ± 0.12	<0.49 ± 0.080	
		Koguro River	Kayano Bridge	Kiryu City	2014/6/26	Sunny	15.3	0.6	13.0	0.0	Light grayish yellowish green	None	>100	6.3	2	0.3	<0.60 ± 0.10	<0.55 ± 0.14	
					2014/7/18	Cloudy	17.6	0.5	15.6	0.0	Light grayish yellow green	None	6.0	6.0	6	0.2	<0.59 ± 0.12	<0.51 ± 0.14	
					2014/8/9	Cloudy	18.8	0.8	16.8	0.0	Dark grayish green	None	>100	7.8	2	0.1	<0.64 ± 0.13	<0.59 ± 0.11	
					2014/9/24	Cloudy	15.8	0.7	13.0	0.0	Light grayish yellow green	None	>100	7.4	<1	0.3	<0.61 ± 0.12	<0.56 ± 0.12	
					2014/11/19	Sunny	3.8	0.6	6.7	0.0	Light grayish yellow green	None	>100	8.0	<1	0.2	<0.68 ± 0.16	<0.68 ± 0.16	
					2015/1/24	Sunny	2.6	0.4	3.5	0.0	Light grayish yellow	None	>100	7.8	<1	0.3	<0.63 ± 0.14	<0.54 ± 0.14	
					2014/6/4	Cloudy	27.8	0.5	18.2	0.0	Light grayish bluish green	None	94	10.2	6	0.8	<0.63 ± 0.14	<0.51 ± 0.11	
					2014/8/9	Cloudy	25.3	0.8	21.6	0.0	Dark grayish yellowish green	None	94	10.4	4	0.5	<0.59 ± 0.14	<0.55 ± 0.10	
					2014/11/19	Sunny	8.5	0.8	10.5	0.0	Light grayish yellow green	None	>100	11.2	1	1.6	<0.51 ± 0.11	<0.62 ± 0.12	
					2015/1/21	Cloudy	6.7	0.5	4.6	0.0	Light grayish yellow green	None	>100	12.3	<1	0.7	<0.56 ± 0.13	<0.76 ± 0.16	
		Watarase River	Intake for Akaiwayosui water channel	Kiryu City	2014/6/4	Cloudy	25.2	0.4	18.0	0.0	Dark grayish greenish yellow	None	>100	10.1	2	0.6	<0.39 ± 0.10	<0.60 ± 0.16	
					2014/6/26	Cloudy	27.0	0.3	17.9	0.0	Light grayish yellow green	None	>100	8.2	3	0.8	<0.56 ± 0.12	<0.58 ± 0.11	
					2014/7/24	Cloudy	31.9	0.3	21.2	0.0	Light grayish greenish yellow	None	>100	8.5	4	0.8	<0.61 ± 0.15	<0.65 ± 0.16	
					2014/8/20	Sunny	33.0	0.3	24.3	0.0	Grayish yellow green	None	85	9.5	2	1.1	<0.62 ± 0.15	<0.58 ± 0.098	
2014/9/11	Cloudy				23.9	0.3	19.6	0.0	Grayish yellowish green	None	>100	9.8	2	0.9	<0.63 ± 0.14	<0.59 ± 0.12			
2014/11/19	Sunny				13.8	1.0	13.0	0.0	Dark grayish yellowish green	None	>100	11.2	<1	1.0	<0.72 ± 0.17	<0.66 ± 0.14			
2015/1/21	Cloudy				7.0	0.2	4.7	0.0	Grayish reddish yellow	None	>100	13.3	<1	0.4	<0.73 ± 0.14	<0.72 ± 0.17			

Gunma River (Water) 5/5

R i v e r s	Location					Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water										Remarks	
	No.	Water area		Location	Municipality					General items					Activity concentration(Bq/L)						
										Water temperature (°C)	Sampling depth (m)	Color	Odor	Transparency (cm)	Electrical conductivity (µS/cm)	SS (mg/L)	Turbidity (FNU)	Radioactive cesium			
																		Cs-134	Cs-137		Cs-137
44	Tatara River	Ejiri Bridge	Oura Town	2014/6/2	Sunny	28.3	0.6	25.0	0.0	Grayish yellow	None	68	16.4	9	1.2	<0.68 ± 0.14	<0.59 ± 0.12	<0.59 ± 0.12			
				2014/8/11	Sunny	29.4	0.6	25.0	0.0	Grayish yellow	None	98	20.5	13	0.8	<0.59 ± 0.12	<0.55 ± 0.12	<0.55 ± 0.12			
				2014/11/18	Sunny	13.9	0.7	13.9	0.0	Light grayish yellow green	None	98	29.4	4	2.1	<0.61 ± 0.11	<0.74 ± 0.13	<0.74 ± 0.13			
				2015/1/26	Sunny	13.6	0.4	11.4	0.0	Light grayish yellow green	None	77	12.7	22	5.5	<0.55 ± 0.12	<0.45 ± 0.060	<0.45 ± 0.060			
	45	Kiryu River	Kannon Bridge	Kiryu City	2014/6/4	Cloudy	27.8	0.4	20.9	0.0	Light grayish green	None	64	8.0	5	0.6	<0.52 ± 0.10	<0.58 ± 0.13	<0.58 ± 0.13		
					2014/8/9	Cloudy	22.1	0.5	21.9	0.0	Grayish greenish yellow	None	>100	8.2	5	0.3	<0.59 ± 0.12	<0.59 ± 0.10	<0.59 ± 0.10		
					2014/11/19	Sunny	16.0	0.6	10.5	0.0	Light grayish yellow green	None	>100	8.8	<1	0.4	<0.61 ± 0.15	<0.78 ± 0.15	<0.78 ± 0.15		
					2015/1/27	Sunny	13.8	0.5	9.6	0.0	Light grayish yellow green	None	>100	8.7	<1	0.6	<0.64 ± 0.15	<0.64 ± 0.13	<0.64 ± 0.13		
	46	Sakai Bridge	Kiryu City/Ashikaga City	2014/6/3	Sunny	22.6	0.4	24.1	0.0	Dark grayish yellow green	None	>100	9.0	5	0.5	<0.62 ± 0.15	<0.72 ± 0.14	<0.72 ± 0.14			
				2014/8/9	Cloudy	25.5	0.6	23.0	0.0	Dark grayish yellow green	None	>100	10.3	8	0.4	<0.54 ± 0.10	<0.68 ± 0.12	<0.68 ± 0.12			
				2014/11/19	Sunny	13.8	0.2	11.0	0.0	Light grayish yellow green	None	>100	10.3	<1	0.4	<0.58 ± 0.12	<0.74 ± 0.16	<0.74 ± 0.16			
				2015/1/27	Sunny	12.8	0.2	12.6	0.0	Light grayish yellow green	None	>100	9.5	1	0.8	<0.47 ± 0.095	<0.60 ± 0.11	<0.60 ± 0.11			
	47	Tsuruuda River	Lake Jonuma	Tatebayashi City	2014/6/2	Sunny	31.8	1.0	30.8	0.0	Dark grayish yellow	Faint swamp	22	26.3	18	10	<0.68 ± 0.13	<0.58 ± 0.11	<0.58 ± 0.11		
					2014/8/11	Sunny	28.0	1.0	28.6	0.0	Grayish yellow	Faint drain	32	11.5	11	1.3	<0.49 ± 0.11	<0.65 ± 0.16	<0.65 ± 0.16		
					2014/11/18	Sunny	13.2	0.6	13.0	0.0	Grayish yellow	None	58	45.6	15	8.3	<0.67 ± 0.13	<0.75 ± 0.14	<0.75 ± 0.14		
					2015/1/28	Sunny	8.0	1.0	9.9	0.0	Strong yellow	None	38	41.7	17	6.4	<0.38 ± 0.10	<0.57 ± 0.11	<0.57 ± 0.11		
48	Yatagawa River	Togoda Bridge	Meiwa Town /Itakura Town	2014/6/16	Sunny	32.0	0.3	25.0	0.0	Grayish yellow	None	52	35.4	12	3.9	<0.56 ± 0.12	<0.58 ± 0.13	<0.58 ± 0.13			
				2014/8/11	Sunny	34.1	1.8	28.4	0.0	Grayish yellow	None	58	27.7	14	1.2	<0.61 ± 0.14	<0.51 ± 0.12	<0.51 ± 0.12			
				2014/11/18	Sunny	11.5	0.8	14.7	0.0	Dark grayish yellow	None	78	7.8	4	3.2	<0.69 ± 0.14	<0.62 ± 0.12	<0.62 ± 0.12			
				2015/1/28	Sunny	2.5	0.8	10.9	0.0	Grayish yellow	None	44	63.1	10	5.4	<0.58 ± 0.11	<0.63 ± 0.13	<0.63 ± 0.13			

Gunma River (Sediment) 1/5

Location				Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Sediment										Activity concentration [Bq/kg(dry)]			Remarks								
No.	Water area	Location	Municipality					Sediment temperature (°C)	Sample length (cm)	Color	Odor	General items					Grain size distribution (%)					Activity concentration [Bq/kg(dry)]							
												Coarse gravel	Medium gravel	Fine gravel	Coarse sand	Medium sand	Fine sand	Silt	Clay	sliment cone (%)		Density (g/cm ³)	Property	Cs-134	Radioactive cesium	Total			
R i v e r s	Tonegawa River System	Tonegawa River	Hoseo Bridge	Minakami Town	2014/6/2	Sunny	20.5	0.2	9.8	2	Grassh green	None	0.0	21.2	39.1	23.7	13.3	0.9	0.0	1.2	82.0	2.652	Sand	11 ± 2.6	31 ± 3.9	42			
					2014/8/9	Cloudy	18.1	0.3	12.0	2	Olive black	None	0.0	3.0	1.9	4.1	45.0	25.7	10.1	10.2	67.8	2.611	Sand/silt	<6.7 ± 2.9	34 ± 4.6	34			
					2014/11/4	Light rain	8.5	1.0	9.4	3	Grassh green	None	0.0	13.6	0.7	0.7	52.9	22.4	4.0	5.7	74.4	2.611	Sand/gravel	20 ± 3.2	63 ± 5.3	83			
					2015/1/7	Light snow	-2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground
					2014/6/2	Sunny	28.3	0.5	10.8	5	Olive brown	None	0.0	2.8	3.8	16.9	65.0	8.1	0.7	2.7	75.2	2.683	Sand	<7.4 ± 2.4	33 ± 4.0	33			
			2014/6/24	Cloudy	21.4	0.3	12.2	2	Grassh green	None	0.0	16.2	16.1	19.9	36.0	7.7	0.9	3.2	78.0	2.683	Sand/gravel	15 ± 2.6	40 ± 4.1	55					
			2014/7/16	Sunny	30.1	0.3	16.2	2	Dim yellowish orange	None	0.0	41.3	27.9	18.2	10.5	0.9	0.1	1.1	88.4	2.720	Gravel/sand	9.9 ± 2.3	25 ± 3.2	34.9					
			2014/8/11	Sunny	24.0	0.4	16.0	5	Olive brown	None	0.0	31.0	22.3	20.7	21.8	2.8	0.1	1.4	80.9	2.707	Sand/gravel	11 ± 2.4	39 ± 3.8	50					
			2014/8/8	Cloudy	18.9	0.3	16.7	3	Blackish brown	None	0.0	42.0	25.6	18.4	11.0	1.2	0.4	1.3	83.0	2.684	Gravel/sand	8.5 ± 2.1	23 ± 3.2	31.5					
			2014/11/4	Sunny	9.0	0.5	13.0	3	Olive brown	None	0.0	16.1	10.0	23.1	37.0	9.1	1.1	3.6	81.1	2.702	Sand/gravel	11 ± 2.6	27 ± 3.3	38					
			2015/1/7	Sunny	3.2	0.3	15.0	3	Olive brown	None	0.5	31.2	17.4	23.0	22.9	4.0	0.5	0.6	81.0	2.717	Sand/gravel	12 ± 2.6	39 ± 4.8	51					
			2014/6/2	Sunny	26.2	0.6	12.9	4	Dim yellowish brown	None	0.0	42.2	18.8	19.9	15.8	0.7	0.3	2.2	81.6	2.672	Sand/gravel	<6.7 ± 1.9	16 ± 2.8	16					
			2014/8/9	Cloudy	22.3	0.5	18.4	5	Olive black	None	1.5	25.0	24.6	26.6	17.4	2.2	0.9	1.9	78.9	2.648	Sand/gravel	<6.4 ± 2.0	17 ± 3.0	17					
			2014/11/4	Sunny	16.0	0.7	14.0	3	Dark grayish yellow	None	0.0	29.2	32.1	20.5	14.4	2.2	0.7	1.0	81.4	2.644	Sand/gravel	<6.7 ± 2.1	19 ± 3.2	19					
			2015/1/7	Sunny	6.3	0.4	15.3	3	Dim yellowish brown	None	0.0	23.6	46.5	19.5	6.6	1.9	1.1	0.8	81.8	2.638	Gravel/sand	<8.5 ± 2.6	24 ± 3.8	24					
		2014/5/24	Sunny	29.5	0.2	14.6	10	Dark brown	Faint earth	9.6	22.3	38.1	13.7	14.6	0.3	0.5	1.0	72.0	2.704	Gravel/sand	35 ± 4.7	100 ± 7.8	135						
		2014/6/16	Sunny	18.1	0.4	13.8	3	Brown	None	0.0	35.6	24.2	14.7	20.6	2.9	0.8	1.2	71.8	2.716	Sand/gravel	39 ± 4.4	130 ± 7.4	169						
		2014/7/14	Cloudy	25.3	0.3	15.5	4	Dim yellowish brown	None	2.1	31.2	32.6	21.1	17.1	2.6	0.9	1.4	71.7	2.731	Gravel/sand	39 ± 4.2	140 ± 7.3	179						
		2014/8/12	Light rain	20.9	0.3	17.5	6	Dark olive brown	None	1.2	51.7	23.7	12.7	7.9	1.6	0.3	0.9	79.8	2.717	Gravel/sand	32 ± 3.8	100 ± 6.3	132						
		2014/8/8	Cloudy	21.2	0.4	14.5	8	Dim yellowish brown	None	0.0	9.8	28.5	31.2	23.6	3.7	0.2	3.1	71.2	2.673	Sand/gravel	45 ± 4.4	140 ± 7.7	185						
		2014/11/5	Cloudy	13.0	0.3	10.0	5	Olive black	None	0.0	34.2	32.6	13.2	15.0	2.2	0.8	1.9	79.6	2.766	Gravel/sand	31 ± 3.5	110 ± 6.3	141						
		2015/1/8	Light snow	-0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground			
		2014/5/24	Sunny	26.0	0.3	16.4	7	Brown	None	0.8	43.0	18.6	11.0	24.1	1.2	0.2	1.2	76.6	2.661	Gravel/sand	8.6 ± 2.5	15 ± 3.2	23.6						
		2014/8/20	Sunny	30.5	0.3	18.5	5	Olive black	None	0.0	25.3	20.0	24.7	26.2	1.4	0.3	2.2	81.9	2.731	Gravel/sand	5.9 ± 1.6	13 ± 2.3	18.9						
		2014/11/5	Cloudy	5.7	0.5	5.0	6	Olive black	None	0.0	6.1	9.1	35.0	45.0	1.5	0.9	2.4	78.7	2.634	Sand	<6.7 ± 2.2	17 ± 3.1	17						
		2015/1/8	Light snow	-1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground			
		2014/5/24	Sunny	28.0	0.7	18.8	10	Blackish brown	None	0.0	0.3	1.4	8.2	52.2	30.4	2.7	4.8	67.7	2.716	Sand/gravel	12 ± 4.0	30 ± 5.0	42						
		2014/6/16	Sunny	21.0	0.5	14.8	3	Dim yellowish brown	None	0.0	34.4	34.8	16.8	11.8	1.1	0.2	1.0	83.7	2.659	Gravel/sand	2.3 ± 0.37	6.5 ± 0.47	8.8						
		2014/7/14	Cloudy	30.1	0.7	16.9	4	Reddish brown	None	0.0	34.7	29.9	13.5	17.0	3.7	0.2	1.0	82.5	2.685	Gravel/sand	1.5 ± 0.48	5.6 ± 0.59	7.1						
		2014/8/20	Cloudy	28.5	0.3	21.0	6	Grassh green	None	0.0	43.0	34.6	9.5	8.8	2.7	0.4	1.0	87.5	2.694	Gravel/sand	1.4 ± 0.37	5.8 ± 0.43	7.2						
		2014/9/11	Cloudy	15.7	0.4	14.8	6	Yellowish brown	Faint cam	0.0	38.7	34.3	11.8	11.1	3.0	0.0	1.1	83.2	2.668	Gravel/sand	2.8 ± 0.39	6.9 ± 0.47	9.7						
		2014/11/5	Cloudy	11.5	0.6	8.0	5	Grassh green	None	1.2	47.0	28.0	4.9	13.7	4.4	0.3	0.6	83.5	2.688	Gravel/sand	1.6 ± 0.37	5.0 ± 0.47	6.6						
		2015/1/8	Light snow	-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground			
		2014/5/24	Sunny	27.6	0.5	15.1	10	Dark brown	None	0.0	0.2	2.4	14.8	62.0	13.1	4.3	3.4	66.0	2.747	Sand/gravel	17 ± 4.0	37 ± 5.5	54						
		2014/6/16	Sunny	24.5	0.5	16.8	5	Dim reddish brown	None	0.0	5.0	9.8	19.6	45.5	13.5	2.8	3.8	67.4	2.799	Gravel/sand	26 ± 3.9	84 ± 6.4	110						
		2014/7/14	Cloudy	25.6	0.5	19.4	5	Blackish brown	None	0.5	7.4	12.6	29.8	44.3	2.3	0.7	2.6	68.8	2.739	Gravel/sand	14 ± 3.1	39 ± 4.4	53						
		2014/8/9	Sunny	23.8	0.5	19.4	4	Faint hydrogen sulfide	None	0.0	12.1	13.1	24.7	38.5	8.2	0.3	3.1	72.3	2.728	Sand/gravel	18 ± 3.3	71 ± 5.6	89						
		2014/8/8	Cloudy	21.9	0.5	17.0	4	Olive black	None	0.0	26.8	29.5	26.0	11.3	1.6	2.0	2.8	67.2	2.593	Gravel/sand	21 ± 3.8	64 ± 5.6	85						
		2014/11/5	Cloudy	11.5	0.4	11.0	4	Yellowish brown	None	1.0	43.3	13.4	15.1	24.9	1.2	0.1	1.0	83.0	2.807	Gravel/sand	9.1 ± 1.9	30 ± 3.8	39.1						
		2015/1/7	Sunny	5.8	0.6	6.1	6	Blackish brown	None	0.0	21.0	10.3	17.8	46.4	3.5	0.5	0.5	76.2	3.013	Gravel/sand	<9.3 ± 3.0	36 ± 4.5	36						
		2014/6/5	Cloudy	20.5	0.4	15.0	8	Dark brown	None	0.0	0.0	0.0	0.3	24.9	56.4	9.8	8.6	60.3	2.638	Sand	12 ± 3.0	26 ± 4.4	38						
		2014/8/1	Sunny	27.3	0.5	18.2	6	Blackish brown	None	0.0	0.0	0.0	0.3	22.5	53.5	15.9	7.8	67.7	2.614	Sand	<7.4 ± 2.4	27 ± 4.2	27						
		2014/11/6	Sunny	13.0	0.3	14.0	4	Olive brown	None	0.0	0.0	0.3	1.7	57.5	34.3	2.1	4.2	75.0	2.750	Sand	1.3 ± 0.27	6.3 ± 0.34	8.0						
		2015/1/9	Sunny	-0.5	0.3	1.8	4	Dim yellowish brown	None	0.0	0.5	0.5	2.2	43.8	45.8	2.9	4.9	75.3	2.680	Sand	2.5 ± 0.42	10 ± 0.54	12.5						
		2014/6/5	Cloudy	19.9	0.5	16.0	6	Dark grayish yellow	None	0.0	37.8	28.6	14.9	14.1	1.2	1.4	2.1	79.7	2.570	Sand	2.7 ± 0.59	10 ± 0.53	12.7						
2014/8/1	Sunny	28.6	0.4	21.0	6	Blackish brown	None	0.5	28.7	20.6	12.1	29.8	5.8	0.3	2.3	86.3	2.795	Sand/gravel	1.6 ± 0.32	4.9 ± 0.38	6.5								
2014/11/6	Sunny	13.5	0.5	10.8	6	Dim yellowish brown	None	0.0	13.5	19.5	18.8	39.8	4.8	1.1	2.5	83.8	2.746	Sand	2.0 ± 0.22	6.2 ± 0.28	8.2								
2015/1/9	Sunny	-0.5	0.4	3.0	5	Dark grayish yellow	None	0.0	11.5	20.5	22.9	37.6	4.9	0.4	2.1	78.0	2.804	Sand	1.7 ± 0.31	4.8 ± 0.45	6.5								

Gunma River (Sediment) 2/5

No.	Location			Sampling Date	Weather	Air temperature (C)	Water depth (m)	Sediment										Activity concentration [Bq/kg(dry)]			Remarks							
	Water area	Location	Municipality					Sediment temperature (C)	Sample length (cm)	Color	Odor	General items										Radioactive cesium						
												Coarse gravel	Medium gravel	Fine gravel	Grain size distribution (%)			Fine sand	Silt	Clay		sliment cone (%)	Density (g/cm ³)	Property	Cs-134	Cs-137	Total	
															Coarse sand	Medium sand	Fine sand											
R i v e r s	10	Agatsuma River	Downstream of Anuma Bridge	Higashi-Agatsuma Town	2014/5/30	Sunny	23.5	0.6	22.0	5	Dim yellowish orange	None	0.0	11.5	6.0	17.0	50.0	5.2	1.1	2.6	93.9	2.800	Sand	1.6	± 0.31	4.2	± 0.37	5.8
					2014/6/23	Sunny	22.2	0.4	17.6	2	Grayish red	None	0.0	19.7	9.0	16.0	44.8	5.6	0.7	4.7	81.8	2.769	Sand/gravel	2.2	± 0.30	5.3	± 0.39	7.5
					2014/7/15	Sunny	25.7	0.3	20.2	2	Grayish olive	None	0.0	19.7	17.7	24.8	32.4	3.6	0.2	1.7	83.7	2.869	Sand/gravel	1.7	± 0.32	5.2	± 0.37	6.9
					2014/8/21	Sunny	29.0	0.3	22.0	5	Dark brown	None	0.0	25.1	30.2	25.5	16.3	0.7	0.2	1.8	89.9	2.772	Gravel/sand	2.3	± 0.31	5.1	± 0.40	7.4
					2014/9/16	Sunny	21.5	0.4	17.9	2	Blackish brown	None	0.0	13.4	21.5	44.7	18.0	0.5	0.2	1.6	80.0	2.694	Sand/gravel	<0.0	± 1.6	11	± 2.3	11
		2014/11/6	Cloudy	15.4	0.3	13.2	2	Blackish brown	None	0.0	35.0	36.7	18.4	8.7	0.2	0.1	0.9	90.4	2.819	Sand/gravel	1.2	± 0.30	4.6	± 0.35	5.8			
		2015/4/9	Sunny	7.0	0.4	5.0	5	Dark grayish yellow	None	0.0	11.9	14.9	23.9	40.9	5.0	0.5	2.9	82.3	2.829	Sand/gravel	0.80	± 0.26	5.6	± 0.28	6.40			
		2014/6/3	Sunny	26.6	0.4	23.1	2	Blackish brown	None	0.0	55.6	20.9	14.4	7.7	0.5	0.2	0.8	82.2	2.702	Gravel/sand	<7.4	± 2.3	19	± 3.1	19			
		2014/9/1	Sunny	28.2	0.4	25.0	5	Blackish brown	None	0.0	51.6	22.4	17.7	4.1	1.4	0.7	1.4	87.6	2.680	Gravel/sand	7.6	± 2.0	15	± 3.0	22.6			
		2014/11/6	Cloudy	15.0	0.5	13.4	4	Dark brown	None	0.0	49.6	30.5	13.0	4.7	1.3	0.3	0.7	86.3	2.689	Gravel	5.0	± 1.3	17	± 2.0	22.0			
	2015/4/7	Sunny	5.2	0.6	13.0	4	Dim yellowish brown	None	0.0	20.0	47.3	28.2	2.6	0.3	0.2	1.4	77.2	2.619	Gravel/sand	<9.3	± 2.4	21	± 4.1	21				
	2014/5/31	Sunny	25.3	0.8	21.2	1	Dark brown	None	0.0	0.0	1.3	25.8	57.3	10.6	1.8	3.3	73.1	2.725	Sand	3.5	± 0.78	7.4	± 0.88	10.9				
	2014/6/23	Sunny	26.9	0.5	19.2	2	Dim yellowish orange	None	0.0	0.0	0.0	0.7	29.2	54.2	9.2	3.3	6.0	69.0	2.670	Sand	8.2	± 2.7	26	± 3.6	34.2			
	2014/7/15	Sunny	30.1	0.5	23.5	2	Dark brown	None	0.0	40.5	6.6	6.0	27.1	13.8	3.3	2.1	85.1	2.792	Sand/gravel	<7.3	± 2.1	11	± 2.1	11				
	2014/8/21	Sunny	32.0	0.4	27.5	6	Dark brown	None	0.0	49.6	16.8	9.3	16.9	6.3	0.1	1.1	85.2	2.831	Gravel/sand	<6.9	± 2.0	11	± 3.0	11				
	2014/9/16	Sunny	26.8	0.5	19.7	2	Olive brown	Faint clam	0.6	36.1	10.9	8.5	29.8	11.5	1.0	1.6	80.2	2.753	Sand/gravel	3.6	± 0.47	9.0	± 0.56	12.6				
	2014/11/12	Cloudy	14.5	0.5	14.2	4	Blackish brown	None	0.0	1.2	5.0	34.6	51.6	4.5	0.3	2.8	79.3	2.719	Sand	<7.3	± 1.9	13	± 2.4	13				
	2015/1/13	Sunny	5.9	0.4	6.1	2	Dim yellowish brown	None	5.1	16.1	5.1	4.8	39.2	26.6	1.7	1.4	77.6	2.725	Sand/gravel	<8.1	± 2.1	17	± 3.4	17				
	2014/5/31	Sunny	27.6	1.2	12.7	3	Dim yellowish orange	None	0.6	23.4	16.1	20.0	30.8	5.4	1.1	2.4	80.8	2.777	Sand/gravel	7.6	± 2.1	25	± 3.4	32.6				
	2014/6/23	Sunny	32.6	0.7	17.6	2	Dim reddish brown	None	0.0	26.5	18.2	16.2	29.8	7.3	0.0	2.1	81.9	2.843	Sand/gravel	5.5	± 1.7	20	± 2.8	25.5				
	2014/7/15	Sunny	34.1	0.3	22.4	2	Blackish brown	None	1.1	24.7	20.2	24.0	21.1	4.0	0.6	2.3	83.0	2.749	Sand/gravel	<5.5	± 1.7	14	± 2.5	14				
	2014/8/21	Sunny	33.0	0.5	28.5	10	Blackish brown	None	3.4	34.1	18.8	15.3	21.9	4.2	0.2	2.0	82.6	2.855	Gravel/sand	<4.1	± 1.4	12	± 2.2	12				
	2014/9/16	Sunny	28.7	0.6	22.9	2	Blackish brown	None	3.1	23.8	14.3	12.5	31.8	13.1	0.1	1.4	79.2	2.753	Sand/gravel	<7.3	± 2.3	15	± 2.6	15				
	2014/11/12	Cloudy	14.3	0.4	12.0	5	Dark brown	None	0.0	10.8	31.9	9.6	31.4	14.3	0.2	1.8	82.9	2.781	Sand/gravel	11	± 2.1	24	± 3.3	35				
	2015/1/13	Sunny	7.2	0.4	6.0	5	Brownish gray	None	0.0	2.0	9.5	9.7	48.5	24.4	2.7	3.2	76.4	2.694	Sand/gravel	11	± 3.6	42	± 5.4	53				
	2014/5/31	Sunny	32.1	0.3	24.3	3	Dark brown	None	0.0	0.0	4.3	40.1	51.8	1.9	0.0	1.9	78.7	2.775	Sand	9.6	± 2.5	23	± 3.2	32.6				
	2014/6/23	Sunny	27.2	0.2	24.0	3	Faint hydrogen sulfide	None	0.0	5.0	12.6	31.5	44.5	1.7	0.3	4.5	82.2	2.813	Sand	<5.0	± 1.6	15	± 2.6	15				
	2014/11/12	Cloudy	14.0	0.2	13.1	4	Yellowish gray	None	0.0	1.9	18.7	51.8	24.5	0.3	0.1	2.7	80.3	2.764	Sand/gravel	<5.6	± 1.7	24	± 3.1	24				
	2015/1/13	Sunny	8.5	0.2	9.0	1	Blackish brown	None	2.4	23.5	14.3	22.4	33.6	2.3	0.0	1.4	80.7	2.874	Gravel/sand	<8.8	± 2.7	22	± 3.6	22				
	2014/5/17	Sunny	18.0	0.0	12.3	1	Yellowish brown	None	0.0	1.2	0.6	2.0	44.5	39.4	6.7	3.7	76.7	2.785	Sand/gravel	23	± 3.2	30	± 3.5	33				
	2014/6/23	Sunny	31.4	0.3	21.2	3	Olive black	None	0.0	0.3	1.4	2.3	21.5	58.5	10.2	5.8	75.1	2.726	Silt/sand	14	± 2.5	38	± 4.3	52				
	2014/11/13	Sunny	14.5	0.4	10.1	4	Olive brown	None	0.0	0.0	0.3	0.6	43.1	40.3	7.5	8.2	73.8	2.742	Sand/silt	11	± 2.6	39	± 4.8	50				
	2015/1/14	Sunny	0.0	0.4	3.0	5	Dark olive brown	None	0.0	0.0	2.2	2.9	22.2	58.1	9.8	4.7	67.5	2.687	Sand	16	± 4.3	64	± 7.1	80				
	2014/5/16	Sunny	21.8	0.5	10.6	4	Blackish brown	None	0.0	0.0	0.0	0.1	22.9	61.0	10.8	5.2	61.2	2.719	Sand/gravel	17	± 3.0	40	± 4.2	57				
	2014/8/22	Sunny	34.0	0.4	25.0	10	Blackish brown	None	0.8	23.7	5.3	14.7	31.9	16.8	2.0	2.6	81.5	2.864	Gravel/sand	2.0	± 0.33	6.5	± 0.42	8.5				
	2014/11/14	Sunny	13.0	0.4	11.3	4	Dim yellowish orange	None	0.0	0.0	0.0	0.0	12.5	68.1	14.0	5.3	58.1	2.649	Sand/silt	23	± 4.2	62	± 6.5	85				
	2015/1/20	Sunny	2.0	0.2	5.1	2	Dark grayish yellow	None	0.0	0.0	0.0	0.2	37.7	53.7	3.6	4.8	74.7	2.750	Sand	<8.1	± 2.4	16	± 3.8	16				
	2014/5/24	Sunny	20.6	0.1	18.5	5	Blackish brown	None	5.0	36.7	25.6	6.0	19.0	6.1	0.3	1.2	73.3	2.863	Gravel/sand	21	± 4.2	63	± 6.0	84				
	2014/8/22	Sunny	23.4	0.4	20.1	5	Dim yellowish brown	None	0.5	7.5	11.4	17.6	45.4	14.0	0.8	3.0	68.3	2.750	Sand/gravel	9.7	± 3.1	42	± 4.6	51.7				
	2014/11/7	Sunny	15.5	0.5	12.9	6	Olive brown	None	0.0	5.3	29.3	40.6	18.9	1.9	0.1	3.8	66.0	2.689	Sand	9.8	± 2.9	31	± 4.4	40.8				
	2015/1/16	Sunny	0.5	0.2	4.0	3	Dark brown	None	9.2	14.9	12.6	19.1	27.9	12.9	2.3	1.1	72.7	2.762	Sand/gravel	11	± 3.3	40	± 5.4	51				
	2014/6/3	Sunny	27.7	0.5	22.0	4	Dark brown	None	4.0	8.6	6.3	21.3	47.8	6.3	1.2	4.5	79.2	2.900	Sand	7.0	± 2.1	26	± 3.2	33.0				
	2014/8/22	Sunny	31.3	0.8	23.0	7	Dark grayish yellow	None	1.2	9.2	14.4	38.0	28.8	5.6	0.4	2.4	76.1	2.716	Sand/gravel	6.4	± 1.9	13	± 2.6	19.4				
	2014/11/7	Sunny	14.9	0.7	11.8	2	Olive brown	None	0.0	32.9	14.8	11.3	32.0	7.2	0.3	1.6	80.0	2.820	Sand/gravel	<6.2	± 1.6	11	± 2.8	11				
	2015/1/16	Sunny	1.0	0.5	1.2	3	Dark brown	None	0.0	2.1	1.3	2.6	43.0	43.6	3.0	4.5	74.0	2.828	Sand/gravel	8.8	± 2.8	35	± 4.8	43.8				
	2014/6/3	Sunny	25.8	0.5	21.5	4	Grayish olive	None	0.0	2.4	7.2	54.0	25.4	4.0	2.5	4.4	72.4	2.629	Sand	<7.5	± 2.5	17	± 3.4	17				
	2014/8/22	Sunny	31.8	0.3	25.2	5	Olive black	None	1.0	26.6	29.0	18.1	16.6	5.2	2.1	1.6	75.8	2.649	Sand/gravel	<6.7	± 2.2	27	± 3.5	27				
	2014/11/7	Sunny	15.0	0.4	14.0	8	Brown	None	0.0	4.6	22.1	54.2	15.7	0.2	0.2	3.0	75.4	2.630	Sand	7.4	± 2.3	26	± 3.9	33.4				
	2015/1/16	Cloudy	7.4	0.2	5.5	3	Dark grayish yellow	None	0.0	7.8	35.1	41.7	10.8	0.9	0.9	2.8	78.2	2.651	Gravel/sand	9.6	± 2.8	22	± 4.2	31.6				

Gunma River (Sediment) 3/5

No.	Location			Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Sediment											Activity concentration [Bq/kg(dry)]			Remarks				
	Water area	Location	Municipality					Sediment temperature (°C)	Sample length (cm)	Color	Odor	General items											Radioactive cesium			
												Grain size distribution(%)			Fine sand	Silt	Clay	slimant (g/cm ³)	Density (g/cm ³)	Property	Cs-134		Cs-137	Total		
												Coarse gravel	Medium gravel	Fine gravel											Coarse sand	Medium sand
R i v e r s	Tonegawa River System	Unai River	Hanataka Bridge	Takasaki City	2014/5/17	Sunny	23.2	0.2	23.2	1	Brownish gray	None	0.0	6.4	13.1	13.0	43.7	18.0	1.7	3.5	72.4	2.799	Sand	3.1 ± 0.59	9.7 ± 0.73	12.8
					2014/8/22	Sunny	33.7	0.6	29.5	6	Blackish brown	None	0.0	1.6	6.1	17.7	60.4	9.4	0.9	4.0	71.3	2.713	Sand/gravel	2.8 ± 0.41	7.3 ± 0.48	10.1
					2014/11/7	Sunny	15.0	0.3	18.0	5	Faint hydrogen sulfide	None	0.0	3.0	5.8	14.6	51.3	19.1	1.9	4.6	78.7	2.692	Sand	7.5 ± 2.3	13 ± 2.9	20.5
			2015/1/16	Cloudy	-7.0	0.6	-7.3	3	Blackish brown	None	0.3	13.5	16.1	14.4	43.9	9.3	0.3	2.1	79.0	2.799	Sand/gravel	2.6 ± 0.37	7.2 ± 0.47	9.8		
			2014/5/24	Sunny	21.4	0.1	21.2	5	Blackish brown	None	0.0	3.7	18.3	33.7	37.6	2.2	0.9	3.7	77.6	2.688	Sand/gravel	7.2 ± 2.4	17 ± 3.8	24.2		
			2014/8/23	Sunny	25.1	0.5	21.2	7	Olive black	None	0.0	3.9	15.2	41.2	30.8	3.2	1.8	4.1	75.2	2.642	Sand/gravel	<5.3 ± 1.9	12 ± 2.5	12		
			2014/11/10	Sunny	15.7	0.7	12.0	6	Gray	None	0.0	2.5	44.6	42.8	7.1	0.2	0.3	2.6	84.2	2.673	Sand	2.0 ± 0.35	6.9 ± 0.43	8.9		
			2015/1/19	Sunny	2.0	0.3	-1.2	6	Olive brown	None	2.4	28.8	35.3	18.9	13.0	0.9	0.2	0.5	83.5	2.700	Sand	1.5 ± 0.24	5.9 ± 0.32	7.4		
			2014/5/28	Sunny	26.4	0.5	23.0	6	Faint hydrogen sulfide	None	0.0	0.0	0.1	0.2	35.4	58.3	1.4	4.7	72.8	2.720	Sand	<8.1 ± 2.7	24 ± 4.3	24		
			2014/8/23	Sunny	30.1	0.6	28.3	3	Grayish olive	Faint臭	0.0	0.0	3.3	15.5	54.6	16.6	3.3	6.5	74.3	2.659	Sand/silt	8.1 ± 2.5	23 ± 3.6	31.1		
			2014/11/10	Sunny	15.5	0.4	15.0	4	Gray	None	0.0	6.6	15.8	19.3	33.0	18.7	2.2	4.4	84.4	2.677	Sand/silt	8.9 ± 2.4	27 ± 3.6	35.9		
			2015/1/19	Sunny	9.2	0.3	6.0	4	Dim yellowish orange	None	1.1	13.9	25.2	11.9	20.6	19.2	2.3	5.8	81.2	2.691	Sand/silt	14 ± 3.0	29 ± 4.3	43		
		2014/6/3	Sunny	23.7	0.4	18.6	3	Gray	None	0.7	47.6	34.3	13.7	2.8	0.4	0.1	0.6	87.9	2.773	Gravel/sand	<7.5 ± 2.1	13 ± 2.4	13			
		2014/8/23	Sunny	27.7	0.4	20.8	6	Gray	None	2.6	9.4	4.6	26.3	49.7	4.3	0.2	2.8	78.8	2.673	Sand	12 ± 2.4	25 ± 3.5	37			
		2014/11/10	Sunny	16.7	0.2	13.2	5	Faint hydrogen sulfide	None	0.0	32.4	31.9	19.8	14.1	0.7	0.2	1.0	88.8	2.735	Sand/gravel	<5.7 ± 1.7	18 ± 2.9	18			
		2015/1/19	Sunny	4.0	0.3	6.0	6	Gray	None	1.6	6.1	9.7	37.0	36.8	3.5	0.3	5.3	84.0	2.722	Sand/gravel	8.8 ± 2.1	18 ± 3.3	26.8			
		2014/5/24	Sunny	19.8	0.1	20.5	5	Blackish brown	None	4.2	39.9	25.0	14.0	14.4	1.3	0.3	1.0	77.0	2.670	Sand/gravel	3.2 ± 0.39	8.3 ± 0.48	11.5			
		2014/8/23	Cloudy	24.8	0.2	21.3	5	Olive black	None	0.0	12.7	17.0	19.7	36.3	11.1	0.9	2.3	75.0	2.637	Sand/gravel	<6.7 ± 1.7	13 ± 2.6	13			
		2014/11/10	Sunny	15.6	0.3	10.1	8	Grayish olive	None	0.9	20.2	48.2	24.3	5.0	0.4	0.1	1.0	84.1	2.731	Sand/gravel	1.2 ± 0.22	5.3 ± 0.29	6.5			
		2015/1/19	Sunny	-3.1	0.4	0.5	5	Brownish gray	None	0.0	20.9	44.5	27.1	5.7	0.7	0.1	1.1	86.1	2.694	Gravel/sand	<0.83 ± 0.34	4.4 ± 0.34	4.4			
		2014/5/17	Sunny	21.8	0.2	17.5	2	Faint hydrogen sulfide	None	2.6	42.3	13.5	11.5	25.2	3.6	0.3	1.0	82.4	3.013	Sand/gravel	6.8 ± 2.0	23 ± 2.9	29.8			
		2014/8/2	Sunny	30.4	0.3	23.8	1	Grayish olive	None	0.7	12.8	12.7	28.8	39.5	3.0	0.1	2.4	87.2	2.798	Sand/gravel	7.4 ± 1.9	20 ± 2.9	27.4			
		2014/11/12	Cloudy	12.5	0.1	12.0	1	Grayish olive	None	0.0	69.5	18.0	4.2	7.2	0.8	0.1	0.4	82.7	3.167	Gravel/sand	6.4 ± 1.7	20 ± 2.9	26.4			
		2015/1/13	Sunny	5.0	0.2	5.0	2	Blackish brown	None	0.0	28.5	19.5	21.5	26.9	2.6	0.1	0.8	81.7	2.914	Gravel/sand	<8.2 ± 2.2	17 ± 3.3	17			
		2014/5/16	Sunny	28.4	0.6	20.8	6	Blackish brown	Faint臭	0.0	8.9	2.9	5.8	57.7	20.9	0.6	3.3	75.7	2.867	Sand	10 ± 2.2	36 ± 3.3	46			
		2014/8/22	Sunny	32.0	0.4	25.0	6	Blackish brown	None	3.1	26.7	3.3	4.7	44.9	18.4	0.4	1.6	77.1	2.809	Sand/gravel	3.3 ± 0.36	10 ± 0.69	13.3			
		2014/11/14	Sunny	10.0	0.4	10.0	3	Grayish olive	None	0.0	14.2	3.6	5.2	49.8	23.9	1.0	2.3	74.8	2.770	Sand/gravel	<7.3 ± 2.0	12 ± 2.7	12			
		2015/1/20	Sunny	4.2	0.3	8.5	3	Dark grayish yellow	Faint臭	0.0	3.9	1.4	5.3	66.0	21.4	0.6	1.5	76.8	2.799	Sand/gravel	<4.2 ± 1.2	14 ± 1.9	14			
		2014/5/15	Cloudy	23.8	0.3	19.3	5	Dark olive gray	Faint臭	2.2	19.8	12.4	8.0	26.2	28.0	1.3	2.2	73.6	2.688	Silt/gravel	<8.1 ± 2.5	29 ± 4.3	29			
		2014/9/1	Light rain	22.0	0.6	19.1	5	Blackish brown	Faint臭	0.0	0.0	0.0	0.1	2.3	26.4	49.4	21.7	49.2	2.503	Silt	8.3 ± 7.1	280 ± 18	362			
		2014/11/14	Sunny	17.5	0.8	15.6	7	Faint hydrogen sulfide	None	0.0	3.9	1.8	1.0	1.9	13.8	56.2	30.8	44.6	2.544	Silt	66 ± 7.9	230 ± 14	296			
		2015/1/15	Cloudy	5.0	0.5	9.6	5	Blackish brown	None	0.0	7.2	3.0	3.8	5.7	15.6	50.5	14.1	40.4	2.513	Silt	42 ± 8.8	150 ± 15	192			
		2014/5/30	Sunny	26.0	0.4	19.0	8	Blackish brown	None	16.2	14.6	12.5	17.5	33.0	3.6	0.8	1.7	80.1	2.673	Sand/gravel	<6.6 ± 1.9	17 ± 2.9	17			
		2014/11/11	Sunny	15.0	0.3	9.5	8	Faint hydrogen sulfide	None	0.0	14.9	74.8	8.2	1.4	0.1	0.1	0.6	87.5	2.671	Gravel/sand	1.6 ± 0.26	5.2 ± 0.30	6.8			
		2014/5/30	Sunny	26.3	0.6	19.5	10	Blackish brown	Faint臭	28.7	45.0	16.8	0.2	6.8	1.4	0.2	0.8	90.2	2.708	Gravel/sand	5.4 ± 1.6	13 ± 3.3	18.4			
		2014/11/11	Cloudy	11.9	0.3	10.0	6	Faint hydrogen sulfide	None	0.0	3.2	41.6	49.6	3.4	0.2	0.1	1.9	82.8	2.668	Gravel/sand	1.4 ± 0.25	3.9 ± 0.28	5.3			
		2014/5/15	Cloudy	23.4	0.4	19.2	4	Olive brown	None	3.3	49.1	36.6	8.6	1.5	0.2	0.2	0.5	87.1	2.662	Sand/gravel	1.4 ± 0.29	3.4 ± 0.34	4.8			
		2014/11/11	Cloudy	15.3	0.5	13.7	5	Faint hydrogen sulfide	None	0.0	40.0	42.8	10.3	5.6	0.9	0.1	0.4	84.4	2.705	Gravel/sand	1.6 ± 0.22	4.8 ± 0.27	6.4			
		2014/5/15	Cloudy	24.1	0.2	20.5	5	Grayish olive	Faint臭	3.4	22.5	14.4	9.3	37.6	8.9	2.1	2.0	71.9	2.706	Silt/gravel	8.6 ± 1.9	16 ± 2.7	24.6			
		2014/11/14	Sunny	17.9	0.3	15.4	3	Olive brown	None	0.0	39.7	31.0	20.4	7.5	0.6	0.1	0.7	85.3	2.689	Gravel/sand	1.3 ± 0.28	3.8 ± 0.36	5.1			
		2014/5/15	Cloudy	21.2	0.5	15.5	6	Faint hydrogen sulfide	Dark臭	0.0	0.2	3.4	2.9	36.4	39.6	8.3	9.3	70.0	2.674	Sand/silt	9.8 ± 2.6	33 ± 4.2	42.8			
		2014/9/1	Cloudy	22.3	0.3	19.8	2	Blackish brown	None	2.2	27.7	18.8	6.3	12.1	19.0	6.8	7.1	76.8	2.688	Gravel/sand	20 ± 3.6	59 ± 5.8	79			
		2014/11/17	Cloudy	12.0	0.6	11.8	4	Dim yellowish orange	None	0.0	2.7	1.4	4.9	50.8	37.5	0.3	2.0	74.2	2.720	Sand	<8.3 ± 2.3	11 ± 2.4	11			
		2015/1/15	Cloudy	5.3	0.2	7.0	3	Olive brown	None	0.0	1.0	1.6	1.8	27.5	27.4	3.9	6.9	74.9	2.751	Sand	11 ± 3.0	28 ± 4.7	39			

Gunma River (Sediment) 4/5

Location				Sampling Date	Weather	Air temperature (C)	Water depth (m)	Sediment										Activity concentration [Bq/kg(dry)]			Remarks						
No.	Water area	Location	Municipality					Sediment temperature (C)	Sample length (cm)	Color	Odor	General items					Grain size distribution (%)			Density (g/cm ³)			Property				
												Coarse gravel	Medium gravel	Fine gravel	Coarse sand	Medium sand	Fine sand	Silt	Clay	sliment cone (%)		Density	Property	Radioactive cesium			
													Cs-134	Cs-137	Total												
R i v e r s	Tonegawa River System	Akagishikawa River	In Shinshoosai Town	2014/5/17	Sunny	21.3	0.3	17.3	5	Black	None	0.0	0.2	1.3	17.3	58.8	14.7	3.1	3.6	73.6	2.807	Sand/silt	7.0 ± 0.94	25 ± 1.5	32.0		
				2014/8/2	Sunny	35.6	0.7	26.3	3	Faint hydrogen sulfide	Faint odor	0.0	0.0	0.1	0.8	46.0	37.7	7.2	8.2	73.0	2.721	Sand/silt	13 ± 2.6	34 ± 4.0	47		
				2014/11/13	Sunny	17.9	0.5	13.1	2	Olive brown	None	2.6	37.5	19.9	6.4	23.6	9.1	0.3	0.9	88.4	2.992	Sand/gravel	<5.5 ± 1.5	15 ± 2.6	15		
				2015/1/14	Sunny	4.8	0.2	5.0	5	Blackish brown	None	0.0	1.7	1.9	16.3	72.6	5.3	0.2	2.1	80.3	2.868	Sand	2.7 ± 0.25	10 ± 0.36	12.7		
		Momomoki River	Utsubo Bridge	Maebashi City	2014/5/16	Sunny	24.8	0.4	18.5	5	Blackish brown	Faint odor	0.0	0.0	7.9	54.9	31.0	2.7	0.4	3.1	77.1	2.653	Sand	7.3 ± 1.8	19 ± 3.2	26.3	
					2014/8/22	Sunny	33.0	0.3	25.0	6	Blackish brown	None	2.3	8.7	2.9	10.4	56.5	15.8	0.7	2.7	71.8	2.835	Sand/gravel	<5.5 ± 2.0	16 ± 3.0	16	
					2014/11/13	Sunny	18.0	0.2	12.4	3	Brownish gray	None	1.9	16.3	24.7	30.6	24.5	0.7	0.1	1.3	81.5	2.699	Sand	<7.0 ± 1.9	17 ± 2.9	17	
					2015/1/14	Sunny	7.2	0.1	7.0	3	Dark grayish yellow	None	0.0	27.8	31.1	19.1	18.8	1.5	0.1	1.7	83.2	2.747	Gravel/sand	<9.3 ± 2.5	15 ± 3.0	15	
		Arato River	Okuhara Bridge	Maebashi City	2014/5/16	Sunny	25.6	0.6	23.2	5	Blackish brown	None	0.0	8.0	19.3	27.1	34.1	6.7	2.1	2.8	79.7	2.806	Sand	<5.2 ± 1.4	10 ± 2.2	10	
					2014/8/22	Sunny	32.5	0.2	23.0	8	Blackish brown	None	0.0	5.3	2.5	5.0	67.2	15.9	0.1	4.0	73.7	2.831	Sand	1.6 ± 0.33	4.9 ± 0.39	6.5	
					2014/11/13	Sunny	14.2	0.3	11.8	4	Dim yellowish brown	None	0.0	0.3	0.9	9.6	67.7	17.2	0.5	3.9	74.9	2.722	Sand	<9.8 ± 2.7	10 ± 2.8	10	
					2015/1/14	Cloudy	5.8	0.3	8.0	5	Blackish brown	None	0.0	0.0	0.1	4.2	74.3	16.6	2.0	2.8	72.4	2.758	Sand	2.3 ± 0.25	6.7 ± 0.33	9.0	
		Kaukawa River	Hozumi Bridge	Hozumi City	2014/5/30	Sunny	26.0	0.5	24.0	6	Olive brown	Faint odor	13.1	28.2	4.3	7.6	41.0	3.8	0.3	4.7	77.2	2.877	Sand/gravel	<6.8 ± 2.3	28 ± 3.4	28	
					2014/8/23	Sunny	28.5	0.4	24.0	5	Blackish brown	Faint odor	0.0	0.0	0.1	0.6	9.9	27.6	44.0	0.1	3.8	74.9	2.459	Silt	9.9 ± 8.6	320 ± 15	413
					2014/11/17	Cloudy	14.0	0.2	13.5	8	Faint hydrogen sulfide	None	0.6	2.7	4.6	35.1	54.5	0.6	0.2	2.1	74.7	2.674	Sand	<6.3 ± 2.0	11 ± 2.7	11	
					2015/1/20	Sunny	7.6	0.4	8.0	4	Olive brown	None	4.0	11.2	3.5	20.4	56.6	2.2	0.6	4.6	75.3	2.753	Sand/gravel	<5.2 ± 1.7	13 ± 2.4	13	
		Hirose River	Nakajima Bridge	Hirose City	2014/5/28	Sunny	26.0	0.5	23.0	5	Grayish olive	None	0.0	0.0	0.1	0.9	61.9	32.7	1.3	3.2	68.7	2.774	Silt	9.3 ± 2.9	19 ± 3.8	28.3	
					2014/8/23	Sunny	30.0	0.6	25.0	6	Faint hydrogen sulfide	None	0.0	0.3	2.4	21.3	60.1	9.3	0.1	6.6	73.8	2.715	Sand	<7.8 ± 2.2	32 ± 3.7	32	
					2014/11/17	Sunny	8.6	0.4	10.9	5	Grayish olive	None	0.0	0.0	0.8	7.8	63.8	24.1	0.3	3.2	75.5	2.807	Sand	<7.0 ± 1.9	17 ± 3.0	17	
					2015/1/23	Sunny	12.0	0.2	10.2	3	Yellowish gray	None	2.4	4.5	3.3	11.1	59.4	17.1	0.1	2.1	80.9	2.819	Sand	<5.9 ± 1.9	18 ± 3.1	18	
		Hayakawa River	Hayakawa Bridge	Hayakawa City	2014/5/16	Sunny	19.5	0.8	16.2	1	Dark brown	None	0.0	9.7	18.0	13.5	25.4	17.0	9.1	6.4	69.5	2.644	Sand/gravel	7.0 ± 5.8	200 ± 9.7	270	
					2014/8/1	Light rain	24.5	0.5	19.5	6	Blackish brown	None	2.3	28.7	21.5	25.4	19.1	1.5	0.1	1.3	83.3	2.796	Gravel/sand	8.8 ± 2.5	45 ± 4.9	53.8	
					2014/11/17	Sunny	14.3	0.7	13.0	2	Faint hydrogen sulfide	None	2.8	33.5	22.1	18.3	20.5	1.7	0.2	1.0	81.9	2.833	Gravel/sand	12 ± 2.2	39 ± 5.1	51	
					2015/1/20	Sunny	9.0	0.3	8.2	3	Brown	None	1.4	30.5	25.2	14.8	20.8	3.6	1.8	1.8	77.1	2.731	Sand/gravel	13 ± 3.7	60 ± 5.9	73	
		Majumi Bridge	Ota City	2014/5/28	Sunny	26.0	0.4	22.0	6	Blackish brown	None	2.6	0.4	0.3	2.0	44.2	38.6	5.8	6.1	57.4	2.665	Silt	30 ± 6.2	120 ± 9.9	150		
				2014/8/23	Sunny	28.0	0.5	28.5	4	Faint hydrogen sulfide	None	0.0	0.2	1.3	6.8	71.9	15.8	0.7	3.3	73.0	2.792	Sand	10 ± 2.6	48 ± 4.7	48		
				2014/11/17	Sunny	7.4	0.5	10.3	8	Faint hydrogen sulfide	None	0.0	0.1	0.1	0.2	56.8	40.1	0.4	2.3	73.6	2.777	Sand	20 ± 3.2	71 ± 5.5	91		
				2015/1/23	Sunny	8.5	0.4	9.0	3	Dark brown	None	0.0	4.0	2.0	3.7	60.1	24.1	1.3	4.8	78.4	2.957	Sand	9.4 ± 2.3	44 ± 4.4	53.4		
		Tonegawa River	Tone-ozeki Weir	Oyada City	2014/5/31	Sunny	33.4	0.2	25.3	2	Dim yellowish orange	Faint odor	0.0	19.8	20.0	10.3	39.2	8.6	0.3	1.9	79.7	2.777	Sand/gravel	<6.6 ± 1.8	23 ± 3.0	23	
					2014/6/26	Sunny	31.7	0.8	24.7	6	Blackish brown	None	0.0	14.3	11.8	15.6	35.1	16.2	3.2	4.0	77.9	2.716	Sand/silt	11 ± 2.4	34 ± 4.0	43	
					2014/7/18	Cloudy	22.1	1.0	23.7	5	Faint hydrogen sulfide	Faint odor	0.0	0.0	0.0	0.1	5.0	51.3	22.0	21.6	44.2	2.564	Silt	51 ± 7.1	130 ± 11	181	
					2014/9/1	Sunny	23.3	1.0	21.8	6	Faint hydrogen sulfide	Faint odor	0.0	0.0	0.1	0.2	5.0	55.3	22.1	17.3	55.8	2.588	Silt/sand	48 ± 7.2	130 ± 11	178	
		Kiryu River	Kiryu Bridge	Kiryu City	2014/9/24	Cloudy	28.4	0.8	21.7	10	Faint hydrogen sulfide	Faint odor	0.0	0.0	0.0	0.3	6.9	56.6	14.6	21.6	55.5	2.608	Silt/sand	27 ± 6.4	78 ± 8.9	105	
					2014/11/18	Sunny	9.2	0.6	11.0	8	Faint hydrogen sulfide	Faint odor	0.0	0.0	0.0	0.1	4.0	41.5	35.2	19.3	50.4	2.596	Silt	27 ± 5.0	89 ± 8.2	116	
					2015/1/26	Sunny	14.8	0.5	11.8	8	Blackish brown	None	0.0	0.0	0.0	0.1	3.6	38.4	37.7	20.2	51.3	2.584	Silt	38 ± 6.0	120 ± 10	158	
					2014/6/4	Cloudy	16.4	0.6	12.8	5	Dim reddish brown	None	0.0	0.5	0.8	8.7	49.1	28.1	7.0	5.8	64.3	2.678	Sand	26 ± 3.6	76 ± 5.4	102	
		Takasudo	Midori City	2014/6/26	Sunny	15.3	0.6	12.5	4	Grayish olive	None	0.0	14.3	24.3	29.7	19.5	5.3	3.4	3.8	52.4	2.656	Gravel/sand	21 ± 5.0	51 ± 6.2	72		
				2014/7/18	Cloudy	17.6	0.5	15.5	8	Reddish brown	None	0.0	39.9	36.9	10.1	6.3	2.8	2.0	2.0	63.5	2.686	Gravel	11 ± 2.1	30 ± 3.3	41		
				2014/8/9	Cloudy	18.8	0.4	16.2	10	Yellowish brown	None	0.0	47.7	34.7	8.7	4.5	1.5	1.3	0.7	74.4	2.689	Gravel/sand	9.6 ± 2.9	26 ± 3.8	35.6		
				2014/9/24	Cloudy	15.8	0.7	12.5	8	Dim yellowish orange	None	0.0	6.2	38.7	32.2	15.9	3.3	2.4	1.4	65.5	2.662	Sand/gravel	15 ± 4.3	46 ± 6.3	61		
Intake for Akaiwayosai water channel	Kiryu City	2014/11/19	Sunny	3.8	0.6	5.8	5	Grayish olive	None	0.0	9.8	27.0	34.1	22.4	4.0	1.2	1.6	69.9	2.725	Sand	16 ± 2.6	40 ± 3.9	56				
		2015/1/24	Sunny	2.6	0.4	3.8	3	Blackish brown	None	0.0	7.0	19.7	31.4	32.2	5.0	2.7	2.0	69.3	2.744	Sand/gravel	11 ± 3.3	46 ± 5.9	57				
		2014/6/4	Cloudy	27.8	0.5	17.9	2	Faint hydrogen sulfide	None	0.0	0.0	0.4	17.1	72.4	7.2	0.4	2.5	92.3	2.789	Sand	13 ± 3.9	47 ± 5.4	60				
		2014/9/9	Cloudy	25.3	0.8	21.6	10	Olive brown	None	0.0	0.0	0.1	3.4	76.2	16.8	0.3	3.1	74.0	2.784	Sand	7.5 ± 2.2	23 ± 3.4	30.2				
Tatura River	Ejiri Bridge	Oura Town	2014/11/19	Sunny	8.5	0.8	10.2	2	Olive brown	None	3.4	13.1	3.6	12.5	56.5	8.5	0.4	1.9	77.4	2.755	Sand/gravel	13 ± 2.8	32 ± 4.6	45			
			2015/1/21	Cloudy	6.7	0.5	4.4	3	Blackish brown	None	0.0	4.7	0.9	3.8	68.2	17.9	0.8	3.8	75.9	2.773	Sand/gravel	9.4 ± 1.7	27 ± 2.6	36.4			
			2014/6/4	Cloudy	25.2	0.4	17.9	2	Grayish olive	None	5.3	40.6	15.4	10.1	19.7	5.6	1.6	1.8	84.9	2.754	Sand/gravel	9.8 ± 2.3	35 ± 3.4	44.8			
			2014/6/26	Cloudy	27.0	0.5	17.5	5	Dark reddish brown	None	0.0	22.3	18.1	18.5	34.3	4.2	0.2	2.3	77.9	2.718	Sand/gravel	7.9 ± 2.1	35 ± 4.1	42.9			
Tatura River	Ejiri Bridge	Oura Town	2014/7/24	Cloudy	31.9	0.3	21.2	1	Grayish olive	None	0.0	40.2	29.0	10.0	15.7	3.2	0.4	1.5	84.1	2.723	Gravel/sand	<5.8 ± 1.9	20 ± 2.8	20			
			2014/8/20	Sunny	33.0	0.3	25.0	8	Blackish brown	Faint odor	0.0	60.0	15.9	6.1	12.5	3.4	0.9	1.3	88.0	2.736	Gravel/sand	12 ± 2.7	34 ± 4.3	46			
			2014/9/11	Cloudy	23.9	0.2	18.5	7	Dim brown	Faint odor	0.8	26.1	15.3	19.7	30.1	4.7	0.6	2.8	81.2	2.705	Sand/gravel	10 ± 2.4	36 ± 3.9	46			
			2014/11/19	Sunny	13.8	1.0	12.0	4	Black																		

Gunma River (Sediment) 5/5

R i v e r s	Location				Sampling Date	Weather	Air temperature (C)	Water depth (m)	Sediment														Remarks					
	No.	Water area		Municipality					Sediment temperature (C)	Sample length (cm)	Color	Odor	General items								Activity concentration [Bq/kg(dry)]							
		Coarse gravel	Medium gravel										Fine gravel	Grain size distribution (%)		Fine sand	Silt	Clay	sliment come (%)	Density (g/cm ³)	Property	Radioactive cesium						
														Coarse sand	Medium sand							Cs-134		Cs-137	Total			
45	Tongogawa River System	Watarase River Area	Kiryu River	Kannon Bridge	Kiryu City	2014/6/4	Cloudy	27.8	0.4	19.5	10	Dim reddish brown	Faint earth	0.0	1.3	6.1	19.4	49.3	15.0	2.3	5.9	83.8	2.651	Gravel/sand	34 ± 4.8	130 ± 9.6	164	
						2014/8/9	Cloudy	22.1	0.5	21.5	10	Brown	None	0.0	50.3	29.3	9.8	7.7	1.2	0.7	1.0	89.6	2.721	Sand/gravel	13 ± 2.2	30 ± 3.5	43	
						2014/11/19	Sunny	16.0	0.6	9.5	4	Dark grayish yellow	None	1.3	39.4	32.4	13.9	11.7	1.5	0.3	0.7	91.2	2.863	Gravel/sand	<8.3 ± 2.4	25 ± 3.8	23	
						2015/1/27	Sunny	13.8	0.5	9.5	4	Dark brown	None	0.0	69.5	37.1	0.3	0.2	0.3	0.6	1.0	93.7	2.430	Gravel	<9.2 ± 2.4	27 ± 4.2	27	
						2014/6/3	Sunny	22.6	0.4	23.2	2	Blackish brown	None	0.0	28.6	28.3	29.4	17.8	1.7	1.6	1.7	81.8	2.731	Gravel/sand	<8.3 ± 2.4	14 ± 3.0	14	
						2014/8/9	Cloudy	25.5	0.6	22.8	2	Dark brown	None	0.0	23.6	34.9	27.6	11.6	0.8	0.2	1.4	91.6	2.675	Sand/gravel	<5.1 ± 1.6	12 ± 2.1	12	
	46	Tongogawa River System	Watarase River Area	Kiryu River	Sakai Bridge	Kiryu City/Ashikaga City	2014/11/19	Sunny	13.8	0.2	11.5	6	Blackish brown	None	1.0	37.9	32.2	15.6	11.2	1.0	0.2	0.9	83.4	2.683	Gravel/sand	<7.6 ± 2.3	22 ± 3.5	22
							2015/1/27	Sunny	12.8	0.2	13.0	5	Blackish brown	None	0.0	23.4	47.0	16.1	11.1	1.1	0.2	1.1	83.1	2.710	Sand/gravel	7.2 ± 2.1	26 ± 3.1	33.2
							2014/6/2	Sunny	31.8	1.0	30.8	5	Faint hydrogen sulfide	None	8.1	11.4	0.8	0.9	5.6	22.5	35.3	15.2	25.6	2.311	Silt	220 ± 23	540 ± 37	760
							2014/8/11	Sunny	28.0	1.0	28.6	7	Black	Medium odor	0.0	0.4	0.1	0.1	0.2	1.0	69.8	28.3	20.4	2.235	Silt	560 ± 35	1,600 ± 38	2,160
							2014/1/18	Sunny	13.2	0.6	13.4	7	Faint hydrogen sulfide	Faint odor	0.0	0.0	0.3	0.2	0.5	2.5	68.0	28.5	19.0	2.247	Silt	260 ± 33	1,100 ± 63	1,360
							2015/1/28	Sunny	8.0	1.0	9.0	5	Black	Faint odor	0.0	0.0	0.2	0.1	0.5	3.2	62.9	33.2	17.7	2.233	Silt	340 ± 29	1,100 ± 53	1,440
47	Tongogawa River System	Watarase River Area	Tsurunoh River	Lake Jonnum	Tatebayashi City	2014/6/16	Sunny	32.0	0.3	24.3	1	Faint hydrogen sulfide	None	0.0	5.4	2.3	2.9	17.2	18.5	40.3	13.6	36.6	2.475	Silt	80 ± 13	230 ± 20	320	
						2014/8/11	Sunny	34.1	1.3	28.4	3	Faint hydrogen sulfide	None	0.0	0.1	2.1	80.7	8.7	0.5	3.9	73.8	2.745	Sand	<7.7 ± 2.5	22 ± 3.4	22		
						2014/1/18	Sunny	11.5	0.8	13.0	1	Black	Medium odor	4.8	7.2	1.3	1.3	29.8	16.0	16.6	33.2	56.4	3.682	Silt	11 ± 2.4	29 ± 3.4	40	
						2015/1/28	Sunny	2.5	0.8	9.1	2	Black	Faint odor	0.0	1.7	1.2	2.1	19.2	11.3	24.2	40.3	42.9	2.572	Silt	11 ± 2.7	37 ± 3.7	48	
						2014/6/16	Sunny	32.0	0.3	24.3	1	Faint hydrogen sulfide	None	0.0	5.4	2.3	2.9	17.2	18.5	40.3	13.6	36.6	2.475	Silt	80 ± 13	230 ± 20	320	
						2014/8/11	Sunny	34.1	1.3	28.4	3	Faint hydrogen sulfide	None	0.0	0.1	2.1	80.7	8.7	0.5	3.9	73.8	2.745	Sand	<7.7 ± 2.5	22 ± 3.4	22		
48	Yatagawa River		Togoda Bridge	Moto Town/Ikaha Town	2014/1/18	Sunny	11.5	0.8	13.0	1	Black	Medium odor	4.8	7.2	1.3	1.3	29.8	16.0	16.6	33.2	56.4	3.682	Silt	11 ± 2.4	29 ± 3.4	40		
					2015/1/28	Sunny	2.5	0.8	9.1	2	Black	Faint odor	0.0	1.7	1.2	2.1	19.2	11.3	24.2	40.3	42.9	2.572	Silt	11 ± 2.7	37 ± 3.7	48		

Gunma River (Surrounding Environment) 1/5

R i v e r s	Location				Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air dose)										Remarks						
	No.	Water area		Municipality				Left bank					Air Dose (μSv/h)	Right bank										
		Location	Municipality					Color	Odor	Property	Activity concentration [Bq/kg(dry)]			Color	Odor	Property	Activity concentration [Bq/kg(dry)]							
											Radioactive cesium						Radioactive cesium							
			Cs-134	Cs-137	Total	Cs-134	Cs-137	Total																
1	Tonegawa River System	Tonegawa River	Hirose Bridge	Minakami Town	2014/6/2	Sunny	20.5	Dark grayish yellow	faint earth	Loamy	390 ± 17	1,100 ± 28	1,490	0.24	Brown	faint earth	Loamy	230 ± 16	670 ± 27	900	0.20			
					2014/8/9	Cloudy	18.1	Brown	faint earth	Loamy	380 ± 19	1,200 ± 34	1,580	0.23	Dim yellowish brown	faint earth	Loamy	150 ± 11	430 ± 18	580	0.21			
					2014/1/14	Light rain	8.5	Blackish brown	faint earth	Loamy	270 ± 20	1,100 ± 39	1,370	0.21	Dark brown	faint earth	Loamy	58 ± 7.0	190 ± 13	248	0.23			
					2015/1/7	Light snow	-2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground
					2014/6/2	Sunny	28.3	Faint hydrogen sulfide	faint earth	Loamy	83 ± 11	220 ± 17	303	0.10	Olive black	faint earth	Loamy	230 ± 17	610 ± 28	840	0.09			
					2014/6/24	Cloudy	21.4	Blackish brown	None	Loamy	110 ± 9.8	310 ± 16	420	0.11	Dark brown	faint earth	Loamy	220 ± 14	680 ± 24	900	0.09			
					2014/7/16	Sunny	30.1	Blackish brown	None	Loamy	100 ± 12	220 ± 18	320	0.11	Brown	None	Loamy	420 ± 24	1,200 ± 41	1,620	0.11			
					2014/8/11	Sunny	24.0	Black	faint earth	Loamy	85 ± 9.0	280 ± 16	365	0.10	Blackish brown	faint earth	Loamy	900 ± 30	2,700 ± 53	3,600	0.09			
					2014/9/8	Cloudy	18.9	Black	faint earth	Loamy	62 ± 8.0	220 ± 15	282	0.10	Blackish brown	faint earth	Loamy	200 ± 16	700 ± 28	900	0.10			
2	Tonegawa River System	Tonegawa River	Tsukiyono Bridge	Minakami Town	2014/1/14	Sunny	9.0	Black	faint earth	Loamy	81 ± 9.2	230 ± 15	311	0.10	Blackish brown	faint earth	Loamy	300 ± 17	1,000 ± 31	1,300	0.10			
					2015/1/7	Sunny	3.2	Blackish brown	faint earth	Loamy	92 ± 11	300 ± 20	392	0.09	Dark grayish yellow	faint earth	Loamy	310 ± 20	1,200 ± 40	1,510	0.10			
					2014/6/2	Sunny	26.2	Grayish olive	faint earth	Loamy	25 ± 6.2	70 ± 9.1	95	0.08	Yellowish brown	faint earth	Loamy	43 ± 7.7	120 ± 12	163	0.08			
					2014/8/9	Cloudy	22.3	Brown	faint earth	Loamy	13 ± 2.4	43 ± 3.6	56	0.10	Dark brown	faint earth	Loamy	70 ± 7.5	160 ± 12	230	0.09			
					2014/1/14	Sunny	16.0	Dim yellowish brown	faint earth	Sandy	21 ± 5.2	73 ± 8.4	94	0.09	Olive brown	faint earth	Loamy	77 ± 8.7	200 ± 14	277	0.08			
					2015/1/7	Sunny	6.3	Dim yellowish brown	None	Sandy	17 ± 2.6	53 ± 3.9	70	0.08	Olive black	faint earth	Loamy	35 ± 8.4	180 ± 15	215	0.09			
					2014/5/24	Sunny	29.5	Extremely dark brown	faint earth	Loamy	560 ± 21	1,600 ± 36	2,160	0.24	Dark brown	faint earth	Loamy	1,000 ± 35	2,700 ± 57	3,700	0.21			
					2014/6/16	Sunny	18.1	Dark brown	faint earth	Loamy	540 ± 21	1,600 ± 36	2,140	0.27	Dark brown	faint earth	Loamy	700 ± 26	1,900 ± 44	2,600	0.24			
					2014/7/14	Cloudy	25.3	Blackish brown	faint earth	Loamy	370 ± 22	1,100 ± 39	1,470	0.26	Dark brown	faint earth	Loamy	330 ± 24	1,100 ± 44	1,430	0.22			
3	Tonegawa River System	Tonegawa River	Kosode Bridge	Kawaba Village	2014/8/12	Light rain	20.9	Dark brown	faint earth	Loamy	450 ± 19	1,300 ± 34	1,750	0.28	Extremely dark brown	faint earth	Loamy	550 ± 25	1,600 ± 43	2,150	0.27			
					2014/9/8	Cloudy	21.2	Blackish brown	faint earth	Loamy	450 ± 21	1,300 ± 36	1,750	0.23	Blackish brown	faint earth	Loamy	1,100 ± 40	3,300 ± 71	4,400	0.20			
					2014/1/15	Cloudy	13.0	Dim yellowish brown	faint earth	Loamy	1,200 ± 37	3,900 ± 68	5,100	0.27	Brown	faint earth	Loamy	2,700 ± 72	8,700 ± 130	11,400	0.21			
					2015/1/8	Light snow	-0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
					2014/5/24	Sunny	26.0	Dark brown	faint earth	Loamy	97 ± 8.8	270 ± 14	367	0.10	Dark brown	faint earth	Loamy	230 ± 16	710 ± 27	940	0.10			
					2014/8/20	Sunny	30.5	Dim yellowish brown	faint earth	Loamy	44 ± 6.4	120 ± 10	164	0.08	Dim yellowish brown	faint earth	Loamy	64 ± 9.7	210 ± 16	274	0.08			
					2014/1/15	Cloudy	5.7	Dim yellowish brown	faint earth	Loamy	70 ± 8.5	290 ± 16	360	0.11	Blackish brown	faint earth	Loamy	450 ± 25	1,500 ± 45	1,950	0.11			
					2015/1/8	Light snow	-1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
					4	Tonegawa River System	Tonegawa River	Kirinoki Bridge	Katashina Village	2014/5/24	Sunny	28.0	Olive black	faint earth	Sandy	12 ± 2.4	26 ± 3.3	38	0.09	Olive black	faint earth	Sandy	12 ± 3.5	43 ± 6.4
2014/6/16	Sunny	21.0	Grayish olive	None						Sandy	6.0 ± 1.8	27 ± 2.8	33.0	0.09	Olive black	None	Sandy	21 ± 4.6	47 ± 7.2	68	0.09			
2014/7/14	Cloudy	30.1	Yellowish brown	faint earth						Sandy	12 ± 2.2	35 ± 3.3	47	0.07	Grayish olive	faint earth	Sandy	24 ± 7.8	64 ± 10	88	0.09			
2014/8/20	Cloudy	28.5	Olive yellow	faint earth						Sandy	<7.6 ± 2.5	39 ± 4.1	39	0.07	Dim yellowish brown	faint earth	Sandy	21 ± 2.9	72 ± 5.0	93	0.08			
2014/9/11	Cloudy	15.7	Olive brown	faint earth						Sandy	16 ± 4.3	40 ± 6.6	56	0.10	Olive brown	None	Sandy	21 ± 5.6	52 ± 8.4	73	0.09			
2014/1/15	Cloudy	11.5	Grayish olive	None						Sandy	12 ± 2.4	36 ± 3.9	48	0.10	Olive yellow	None	Sandy	11 ± 2.8	38 ± 4.2	49	0.09			
2014/1/18	Light snow	4.2	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
2014/5/24	Sunny	27.6	Dark brown	faint earth						Loamy	220 ± 15	660 ± 25	880	0.09	Dark brown	faint earth	Loamy	200 ± 13	560 ± 21	760	0.10			
2014/6/16	Sunny	24.5	Dark olive brown	faint earth						Loamy	210 ± 15	590 ± 25	800	0.08	Blackish brown	faint earth	Loamy	120 ± 11	320 ± 18	440	0.09			
5	Tonegawa River System	Tonegawa River	Futae Bridge	Numata City	2014/7/14	Cloudy	25.6	Dark brown	faint earth	Loamy	130 ± 14	410 ± 25	540	0.09	Brown	faint earth	Loamy	89 ± 10	230 ± 17	319	0.09			
					2014/8/9	Sunny	23.8	Dark brown	faint earth	Loamy	130 ± 11	440 ± 20	570	0.10	Dark brown	faint earth	Loamy	96 ± 8.1	310 ± 15	406	0.10			
					2014/9/8	Cloudy	21.9	Blackish brown	faint earth	Loamy	180 ± 14	560 ± 25	740	0.08	Blackish brown	faint earth	Loamy	63 ± 7.6	140 ± 11	203	0.09			
					2014/1/15	Cloudy	11.5	Dark brown	faint earth	Loamy	360 ± 21	1,100 ± 37	1,460	0.09	Dark brown	faint earth	Loamy	84 ± 7.9	270 ± 14	354	0.09			
					2015/1/7	Sunny	5.8	Blackish brown	faint earth	Loamy	220 ± 19	960 ± 38	1,180	0.10	Blackish brown	faint earth	Loamy	53 ± 8.2	200 ± 14	253	0.10			
					2014/6/5	Cloudy	20.5	Blackish brown	faint earth	Loamy	190 ± 16	480 ± 26	670	0.08	Brown	None	Loamy	31 ± 5.7	83 ± 9.3	114	0.08			
					2014/8/1	Sunny	27.3	Dark grayish yellow	faint earth	Loamy	160 ± 15	380 ± 23	540	0.04	Olive brown	faint earth	Loamy	70 ± 8.8	240 ± 16	310	0.04			
					2014/1/16	Sunny	13.0	Dim yellowish brown	faint earth	Loamy	88 ± 11	310 ± 19	398	0.07	Blackish brown	faint earth	Loamy	110 ± 9.3	340 ± 17	450	0.07			
					2015/1/9	Sunny	-0.5	Dim yellowish brown	faint earth	Loamy	130 ± 13	500 ± 24	630	0.08	Blackish brown	faint earth	Loamy	19 ± 4.8	67 ± 7.6	86	0.07			
6	Tonegawa River System	Tonegawa River	Shinto Bridge	Naganohara Town	2014/6/5	Cloudy	19.9	Blackish brown	faint earth	Loamy	33 ± 7.8	91 ± 12	124	0.07	Dark brown	faint earth	Loamy	370 ± 26	1,100 ± 45	1,470	0.07			
					2014/8/1	Sunny	28.6	Dark brown	faint earth	Loamy	84 ± 12	330 ± 22	414	0.05	Dark brown	faint earth	Loamy	390 ± 25	1,200 ± 44	1,590	0.05			
					2014/1/16	Sunny	13.5	Blackish brown	faint earth	Loamy	490 ± 26	1,500 ± 46	1,990	0.07	Blackish brown	faint earth	Loamy	300 ± 21	1,200 ± 41	1,500	0.07			
					2015/1/9	Sunny	-0.5	Blackish brown	faint earth	Loamy	53 ± 7.7	250 ± 16	303	0.07	Black	faint earth	Loamy	66 ± 9.6	230 ± 17	296	0.05			
7	Tonegawa River System	Tonegawa River	Shuttsutsu Bridge	Nakanoyo Town	2014/6/2	Sunny	28.3	Faint hydrogen sulfide	faint earth	Loamy	83 ± 11	220 ± 17	303	0.10	Olive black	faint earth	Loamy	230 ± 17	610 ± 28	840	0.09			
					2014/6/24	Cloudy	21.4	Blackish brown	None	Loamy	110 ± 9.8	310 ± 16	420	0.11	Dark brown	faint earth	Loamy	220 ± 14	680 ± 24	900	0.09			
					2014/7/16	Sunny	30.1	Blackish brown	None	Loamy	100 ± 12	220 ± 18	320	0.11	Brown	None	Loamy	420 ± 24	1,200 ± 41	1,620	0.11			
					2014/8/11	Sunny	24.0	Black	faint earth	Loamy	85 ± 9.0	280 ± 16	365	0.10	Blackish brown	faint earth	Loamy	900 ± 30	2,700 ± 53	3,600	0.09			
8	Tonegawa River System	Tonegawa River	In Ooaza Yachi	Kawaba Village	2014/9/8	Cloudy	18.9	Black	faint earth	Loamy	62 ± 8.0	220 ± 15	282	0.10	Blackish brown	faint earth	Loamy	200 ± 16	700 ± 28	900	0.10			
					2014/1/14	Sunny	9.0	Black	faint earth	Loamy	81 ± 9.2	230 ± 15	311	0.10	Blackish brown	faint earth	Loamy	300 ± 17	1,000 ± 31	1,300	0.10			
					2015/1/7	Sunny	3.2	Blackish brown	faint earth	Loamy	92 ± 11	300 ± 20	392	0.09	Dark grayish yellow	faint earth	Loamy	310 ± 20	1,200 ± 40	1,510	0.10			
					2014/6/2	Sunny	26.2	Grayish olive	faint earth	Loamy	25 ± 6.2	70 ± 9.1	95	0.08	Yellowish brown	faint earth	Loamy	43 ± 7.7	120 ± 12	163	0.08			
9	Tonegawa River System	Tonegawa River	Tonemachitakatoya	Numata City	2014/8/9	Cloudy	22.3	Brown	faint earth	Loamy	13 ± 2.4	43 ± 3.6	56	0.10	Dark brown	faint earth	Loamy	70 ± 7.5	160 ± 12	230	0.09			
					2014/1/14	Sunny	16.0	Dim yellowish brown	faint earth	Sandy	21 ± 5.2	73 ± 8.4	94	0.09	Olive brown	faint earth	Loamy	77 ± 8.7	200 ± 14	277	0.08			
					2015/1/7	Sunny	6.3	Dim yellowish brown	None	Sandy	17 ± 2.6	53 ± 3.9	70	0.08	Olive black	faint earth	Loamy	35 ± 8.4	180 ± 15	215	0.09			
					2014/5/24	Sunny	29.5	Extremely dark brown	faint earth	Loamy	560 ± 21	1,600 ± 36	2,160	0.24	Dark brown	faint earth	Loamy	1,000 ± 35	2,700 ± 57	3,700	0.21			

Gunma River (Surrounding Environment) 2/5

Location				Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air dose)										Remarks					
No.	Water area	Location	Municipality				Left bank					Right bank										
							Color	Odor	Property	Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)	Color	Odor	Property		Activity concentration [Bq/kg(dry)]				
										Radioactive cesium								Radioactive cesium				
			Cs-134	Cs-137	Total				Cs-134	Cs-137	Total											
R i v e r s	Tonegawa River System	Agatsuma River	Downstream of Anma Bridge	Higashi-Agatsuma Town	2014/5/30	Sunny	23.5	Yellowish brown	faint earth	Loamy	7.8 ± 1.7	19 ± 2.2	26.8	0.09	Blackish brown	faint earth	Loamy	44 ± 8.8	150 ± 14	194	0.07	
					2014/6/23	Sunny	22.2	Dim yellowish brown	faint earth	Loamy	99 ± 9.7	300 ± 16	399	0.08	Blackish brown	None	Loamy	200 ± 15	510 ± 23	710	0.08	
					2014/7/15	Sunny	25.7	Olive black	faint earth	Loamy	<7.0 ± 2.1	13 ± 2.7	13	0.05	Blackish brown	faint earth	Loamy	120 ± 15	410 ± 27	530	0.07	
					2014/8/21	Sunny	29.0	Olive brown	None	Sandy	<3.5 ± 1.2	10 ± 1.7	10	0.04	Blackish brown	faint earth	Loamy	240 ± 18	690 ± 31	930	0.08	
		2014/9/16	Sunny	21.5	Reddish brown	None	Sandy	<8.0 ± 2.3	17 ± 2.7	17	0.05	Dim yellowish brown	faint earth	Loamy	210 ± 15	640 ± 26	850	0.07				
		2014/11/6	Cloudy	15.4	Dim yellowish brown	None	Sandy	<5.1 ± 1.5	7.4 ± 1.9	7.4	0.05	Dark brown	faint earth	Loamy	240 ± 20	830 ± 37	1,070	0.06				
		2015/1/9	Sunny	7.0	Brown	None	Sandy	6.1 ± 1.5	16 ± 2.4	22.1	0.05	Blackish brown	faint earth	Loamy	160 ± 15	600 ± 27	760	0.05				
		2014/6/3	Sunny	26.6	Dark brown	faint earth	Loamy	120 ± 14	300 ± 20	420	0.08	Dark brown	faint earth	Loamy	45 ± 4.3	130 ± 7.4	175	0.04				
		2014/8/1	Sunny	28.2	Blackish brown	faint earth	Loamy	150 ± 13	380 ± 22	530	0.06	Dark grayish yellow	faint earth	Loamy	50 ± 9.6	140 ± 14	190	0.05				
		2014/11/6	Cloudy	15.0	Grayish brown	None	Loamy	280 ± 21	820 ± 35	1,100	0.07	Grayish brown	faint earth	Loamy	23 ± 6.4	110 ± 12	133	0.08				
		2015/1/7	Sunny	5.2	Dark brown	faint earth	Loamy	160 ± 16	570 ± 27	730	0.06	Brown	faint earth	Loamy	41 ± 8.4	150 ± 16	191	0.05				
		2014/5/31	Sunny	25.3	Dark brown	faint earth	Loamy	92 ± 13	200 ± 19	292	0.06	Blackish brown	faint earth	Loamy	430 ± 24	1,200 ± 40	1,630	0.07				
		2014/6/23	Sunny	28.9	Blackish brown	faint earth	Loamy	99 ± 11	330 ± 19	429	0.07	Blackish brown	faint earth	Loamy	510 ± 21	1,500 ± 37	2,010	0.08				
		2014/7/15	Sunny	30.1	Dim yellowish brown	faint earth	Loamy	92 ± 12	330 ± 23	422	0.07	Blackish brown	faint earth	Loamy	360 ± 22	1,000 ± 38	1,360	0.07				
		2014/8/21	Sunny	32.0	Blackish brown	faint earth	Loamy	92 ± 11	280 ± 19	372	0.07	Blackish brown	faint earth	Loamy	220 ± 14	610 ± 24	830	0.08				
		2014/9/16	Sunny	26.8	Dark brown	faint earth	Loamy	100 ± 12	340 ± 20	440	0.08	Dim yellowish brown	faint earth	Loamy	280 ± 17	870 ± 30	1,150	0.07				
		2014/11/12	Cloudy	14.5	Blackish brown	faint earth	Loamy	120 ± 15	440 ± 26	560	0.08	Dark brown	faint earth	Loamy	520 ± 27	1,600 ± 47	2,120	0.08				
		2015/1/13	Sunny	5.9	Blackish brown	faint earth	Loamy	200 ± 16	700 ± 31	900	0.08	Blackish brown	faint earth	Loamy	220 ± 16	790 ± 29	1,010	0.09				
		2014/5/31	Sunny	27.6	Dim reddish brown	faint earth	Loamy	200 ± 18	490 ± 28	690	0.08	Dark olive brown	faint earth	Loamy	190 ± 18	600 ± 30	790	0.07				
		2014/6/23	Sunny	32.6	Dim yellowish brown	faint earth	Loamy	200 ± 13	600 ± 23	800	0.07	Dark brown	faint earth	Loamy	760 ± 27	2,100 ± 46	2,860	0.07				
		2014/7/15	Sunny	34.1	Brown	faint earth	Loamy	180 ± 15	510 ± 26	690	0.07	Dark brown	faint earth	Loamy	1,500 ± 48	4,100 ± 82	5,600	0.06				
		2014/8/21	Sunny	33.0	Blackish brown	faint earth	Loamy	190 ± 15	620 ± 26	810	0.06	Blackish brown	faint earth	Loamy	2,500 ± 62	7,400 ± 110	9,900	0.07				
		2014/9/16	Sunny	28.7	Brown	faint earth	Loamy	170 ± 13	510 ± 22	680	0.07	Dark brown	faint earth	Loamy	1,300 ± 38	4,000 ± 68	5,300	0.07				
		2014/11/12	Cloudy	14.3	Dark brown	faint earth	Loamy	190 ± 16	600 ± 29	790	0.08	Dark grayish yellow	faint earth	Loamy	1,200 ± 40	3,700 ± 73	4,900	0.09				
		2015/1/13	Sunny	7.2	Blackish brown	faint earth	Loamy	170 ± 13	600 ± 24	770	0.08	Dark grayish yellow	faint earth	Loamy	980 ± 34	3,300 ± 63	4,280	0.09				
		2014/5/31	Sunny	32.1	Dim yellowish brown	faint earth	Loamy	75 ± 8.4	240 ± 14	315	0.05	Dim yellowish brown	faint earth	Loamy	28 ± 5.3	92 ± 9.3	120	0.05				
		2014/8/2	Sunny	27.7	Yellowish brown	faint earth	Loamy	120 ± 11	360 ± 20	480	0.05	Brown	faint earth	Loamy	53 ± 9.4	210 ± 16	263	0.04				
		2014/11/12	Cloudy	14.0	Dim yellowish brown	faint earth	Loamy	190 ± 16	580 ± 27	770	0.05	Dim yellowish orange	faint earth	Loamy	57 ± 9.3	200 ± 16	257	0.06				
		2015/1/13	Sunny	8.5	Dark brown	faint earth	Loamy	110 ± 10	380 ± 18	490	0.07	Brown	faint earth	Loamy	31 ± 5.8	110 ± 9.8	141	0.06				
		2014/5/17	Sunny	18.0	Dim yellowish orange	None	Loamy	15 ± 2.8	46 ± 4.2	61	0.04	Dim yellowish orange	None	Loamy	58 ± 9.3	140 ± 13	198	0.06				
		2014/8/2	Sunny	31.4	Dim yellowish orange	faint earth	Loamy	17 ± 3.6	55 ± 5.4	72	0.05	Dim yellowish orange	faint earth	Loamy	22 ± 6.6	76 ± 9.8	98	0.07				
		2014/11/13	Sunny	14.5	Dim yellowish orange	faint earth	Loamy	25 ± 4.2	80 ± 6.5	105	0.05	Brown	faint earth	Loamy	52 ± 8.6	180 ± 15	232	0.06				
		2015/1/14	Sunny	0.0	Brown	faint earth	Loamy	<9.6 ± 2.9	40 ± 4.0	29	0.05	Dim yellowish brown	faint earth	Loamy	30 ± 6.2	100 ± 10	130	0.06				
		2014/5/16	Sunny	21.8	Olive brown	None	Loamy	14 ± 3.8	40 ± 7.1	54	0.06	Olive brown	None	Loamy	18 ± 2.9	50 ± 4.3	68	0.06				
		2014/8/22	Sunny	34.0	Dark grayish yellow	None	Loamy	29 ± 5.4	60 ± 7.9	89	0.04	Blackish brown	faint earth	Loamy	25 ± 6.6	93 ± 11	118	0.06				
		2014/11/14	Sunny	13.0	Yellowish brown	faint earth	Loamy	14 ± 3.6	50 ± 7.0	64	0.06	Blackish brown	faint earth	Loamy	13 ± 3.3	62 ± 5.1	75	0.05				
		2015/1/20	Sunny	2.0	Dark brown	faint earth	Loamy	16 ± 2.9	64 ± 4.8	80	0.07	Blackish brown	faint earth	Loamy	19 ± 5.5	49 ± 7.8	68	0.06				
		2014/5/24	Sunny	20.6	Blackish brown	faint earth	Loamy	210 ± 13	560 ± 21	770	0.09	Blackish brown	faint earth	Loamy	220 ± 14	660 ± 24	880	0.11				
		2014/8/22	Sunny	23.4	Blackish brown	faint earth	Loamy	100 ± 10	340 ± 18	440	0.09	Blackish brown	faint earth	Loamy	260 ± 14	770 ± 24	1,030	0.12				
		2014/11/7	Sunny	15.5	Blackish brown	faint earth	Loamy	400 ± 23	1,500 ± 43	1,900	0.09	Blackish brown	faint earth	Loamy	320 ± 19	1,100 ± 34	1,420	0.14				
		2015/1/16	Sunny	0.5	Blackish brown	faint earth	Loamy	320 ± 24	1,100 ± 45	1,420	0.08	Blackish brown	faint earth	Loamy	230 ± 16	840 ± 30	1,070	0.11				
		2014/6/3	Sunny	27.7	Dim yellowish brown	faint earth	Loamy	170 ± 13	440 ± 20	610	0.10	Reddish brown	faint earth	Loamy	150 ± 10	420 ± 17	570	0.09				
		2014/8/22	Sunny	31.3	Blackish brown	faint earth	Loamy	120 ± 12	380 ± 20	500	0.07	Brown	faint earth	Loamy	130 ± 10	410 ± 18	540	0.08				
		2014/11/7	Sunny	14.9	Blackish brown	faint earth	Loamy	150 ± 14	520 ± 26	670	0.09	Blackish brown	faint earth	Loamy	150 ± 13	510 ± 24	660	0.09				
		2015/1/16	Sunny	1.0	Blackish brown	faint earth	Loamy	54 ± 9.0	160 ± 15	214	0.08	Blackish brown	faint earth	Loamy	380 ± 24	1,200 ± 44	1,580	0.06				
2014/6/3	Sunny	25.8	Dim yellowish brown	faint earth	Loamy	260 ± 16	690 ± 25	950	0.15	Dim yellowish orange	faint earth	Loamy	16 ± 2.3	37 ± 3.4	53	0.06						
2014/8/22	Sunny	31.8	Reddish brown	faint earth	Loamy	120 ± 10	340 ± 17	460	0.12	Yellowish brown	faint earth	Sandy	11 ± 1.4	34 ± 2.4	45	0.07						
2014/11/7	Sunny	15.0	Brown	None	Loamy	160 ± 14	530 ± 23	690	0.09	Dim yellowish brown	None	Sandy	8.0 ± 2.3	33 ± 3.3	41.0	0.06						
2015/1/16	Cloudy	7.4	Dark grayish yellow	faint earth	Loamy	120 ± 12	400 ± 21	520	0.07	Dark brown	faint earth	Loamy	10 ± 2.1	24 ± 3.2	34	0.06						

Gunma River (Surrounding Environment) 3/5

No.	Location				Sampling Date	Weather	Air temperature (°C)	Left bank									Surrounding Environment(Soil,Air dose)									Remarks
	Water area	Location	Municipality	Color				Odor	Property	Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)	Color	Odor	Property	Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)						
										Radioactive cesium							Radioactive cesium									
										Cs-134	Cs-137	Total					Cs-134	Cs-137	Total							
R i v e r s	Tonegawa River System	Usui River	Hanataka Bridge	Takasaki City	2014/5/17	Sunny	23.2	Brown	None	Loamy	95 ± 10	300 ± 18	395	0.06	Brown	None	Loamy	150 ± 14	360 ± 22	510	0.09					
					2014/8/22	Sunny	33.7	Dim yellowish brown	faint earth	Loamy	100 ± 10	300 ± 18	400	0.05	Brown	faint earth	Loamy	160 ± 15	530 ± 25	690	0.06					
					2014/11/7	Sunny	15.0	Brown	faint earth	Loamy	92 ± 11	310 ± 19	402	0.07	Blackish brown	faint earth	Loamy	120 ± 12	390 ± 21	510	0.07					
		20	Usui River	Hanataka Bridge	Takasaki City	2015/1/16	Cloudy	7.0	Dark brown	faint earth	Loamy	<5.4 ± 1.8	20 ± 2.9	20	0.05	Dark brown	faint earth	Loamy	21 ± 3.3	68 ± 5.3	89	0.05				
						2014/5/24	Sunny	21.4	Blackish brown	faint earth	Loamy	86 ± 8.7	320 ± 15	406	0.09	Dark olive brown	faint earth	Loamy	170 ± 10	490 ± 18	660	0.10				
						2014/8/23	Sunny	25.1	Dim yellowish brown	faint earth	Loamy	83 ± 8.2	280 ± 14	363	0.09	Dim yellowish orange	faint earth	Loamy	49 ± 5.9	190 ± 11	239	0.10				
		21	Kabara River	Tadakawa Bridge	Shimonita Town	2014/11/10	Sunny	15.7	Brown	faint earth	Loamy	63 ± 7.6	250 ± 14	313	0.09	Dark olive brown	faint earth	Loamy	93 ± 8.8	320 ± 15	413	0.11				
						2015/1/19	Sunny	2.0	Dark grayish yellow	faint earth	Loamy	28 ± 2.6	100 ± 4.6	128	0.09	Brown	faint earth	Loamy	32 ± 5.8	84 ± 8.9	116	0.11				
						2014/5/28	Sunny	26.4	Grayish olive	faint earth	Loamy	49 ± 7.7	120 ± 11	169	0.05	Dim yellowish brown	faint earth	Loamy	30 ± 6.9	88 ± 9.9	118	0.05				
		22	Kaburagawa Bridge	Takasaki City/Fujioka City	2014/8/23	Sunny	30.1	Dim yellowish brown	faint earth	Loamy	10 ± 3.5	41 ± 6.2	51	0.05	Brown	faint earth	Loamy	13 ± 2.4	38 ± 4.0	51	0.05					
					2014/11/10	Sunny	15.5	Brown	faint earth	Loamy	16 ± 4.9	44 ± 7.1	60	0.06	Brown	faint earth	Loamy	10 ± 2.5	45 ± 4.5	55	0.06					
					2015/1/19	Sunny	9.2	Brown	faint earth	Loamy	7.1 ± 2.0	26 ± 3.3	33.1	0.07	Brown	faint earth	Loamy	7.9 ± 1.9	47 ± 3.9	54.9	0.05					
		23	Ogawa River	Kinzan Bridge	Kanra Town	2014/6/3	Sunny	23.7	Grayish brown	faint earth	Loamy	13 ± 3.9	69 ± 7.7	82	0.07	Dim yellowish brown	faint earth	Loamy	100 ± 9.2	310 ± 15	410	0.07				
						2014/8/23	Sunny	27.7	Blackish brown	faint earth	Loamy	18 ± 3.0	59 ± 4.7	77	0.10	Blackish brown	faint earth	Loamy	65 ± 8.3	180 ± 13	245	0.09				
						2014/11/10	Sunny	16.7	Dark brown	faint earth	Loamy	20 ± 3.2	87 ± 5.5	107	0.07	Dark brown	faint earth	Loamy	99 ± 11	360 ± 21	459	0.07				
		24	Nanmoku River	Ozawa Bridge	Nanmoku Village	2015/1/19	Sunny	4.0	Blackish brown	faint earth	Loamy	29 ± 6.3	100 ± 11	129	0.06	Blackish brown	faint earth	Loamy	66 ± 8.8	280 ± 16	346	0.09				
						2014/5/24	Sunny	19.8	Dark brown	faint earth	Loamy	200 ± 12	580 ± 20	780	0.07	Dark brown	faint earth	Loamy	190 ± 14	550 ± 23	740	0.08				
						2014/8/23	Cloudy	24.8	Dark brown	faint earth	Loamy	290 ± 15	910 ± 27	1,200	0.08	Blackish brown	faint earth	Loamy	200 ± 15	700 ± 27	900	0.10				
		25	Someya River	Yakushi Bridge	Shinto Village	2014/11/10	Sunny	15.6	Dim yellowish brown	faint earth	Loamy	200 ± 13	690 ± 24	890	0.08	Dim yellowish brown	faint earth	Loamy	230 ± 17	680 ± 29	910	0.09				
						2015/1/19	Sunny	-3.1	Brown	faint earth	Loamy	23 ± 4.7	65 ± 7.1	88	0.08	Black	faint earth	Loamy	47 ± 7.0	170 ± 11	217	0.10				
						2014/5/17	Sunny	21.8	Dim yellowish brown	None	Loamy	87 ± 5.2	220 ± 8.3	307	0.05	Dim yellowish brown	None	Loamy	44 ± 7.7	140 ± 12	184	0.05				
		26	Inogawa River	Kamakura Bridge	Takasaki City	2014/8/2	Sunny	30.4	Olive black	faint earth	Loamy	98 ± 11	310 ± 19	408	0.05	Olive black	faint earth	Loamy	23 ± 5.5	75 ± 9.3	98	0.05				
						2014/11/12	Cloudy	12.5	Dim yellowish brown	faint earth	Loamy	130 ± 12	420 ± 21	550	0.05	Dim yellowish brown	faint earth	Loamy	83 ± 9.5	290 ± 18	373	0.05				
						2015/1/13	Sunny	5.0	Brown	faint earth	Loamy	60 ± 7.2	230 ± 14	290	0.06	Dark brown	faint earth	Loamy	20 ± 5.3	100 ± 9.7	120	0.06				
		27	Karasu River	Iwakura Bridge	Takasaki City/Tamamura Town	2014/5/16	Sunny	28.4	Dark grayish yellow	None	Loamy	37 ± 6.9	120 ± 11	157	0.06	Blackish brown	None	Loamy	43 ± 6.2	98 ± 9.2	141	0.07				
						2014/8/22	Sunny	32.0	Blackish brown	faint earth	Loamy	25 ± 3.1	58 ± 4.7	83	0.05	Blackish brown	faint earth	Loamy	59 ± 7.8	150 ± 13	209	0.07				
						2014/11/14	Sunny	10.0	Dark brown	faint earth	Loamy	16 ± 4.5	46 ± 7.1	62	0.05	Blackish brown	faint earth	Loamy	63 ± 7.8	170 ± 12	233	0.06				
		28	Shinkaname Bridge	Ueno Village	2015/1/20	Sunny	4.2	Dark brown	faint earth	Loamy	16 ± 2.5	45 ± 4.0	61	0.05	Blackish brown	faint earth	Loamy	17 ± 4.3	80 ± 8.2	97	0.06					
					2014/5/15	Cloudy	23.8	Yellowish brown	None	Sandy	60 ± 7.2	140 ± 11	200	0.06	Grayish olive	faint earth	Sandy	61 ± 7.6	160 ± 12	221	0.07					
					2014/9/1	Light rain	22.0	Brown	faint earth	Loamy	14 ± 2.7	47 ± 4.3	61	0.04	Blackish brown	faint earth	Loamy	34 ± 5.7	87 ± 9.0	121	0.06					
		29	Morito Bridge	Kanna Town	2014/11/14	Sunny	17.5	Brown	faint earth	Loamy	29 ± 6.6	81 ± 8.8	110	0.06	Dim yellowish brown	faint earth	Loamy	<6.3 ± 2.1	27 ± 3.0	37	0.05					
					2015/1/15	Cloudy	5.0	Dim yellowish brown	faint earth	Loamy	18 ± 5.6	85 ± 10	103	0.06	Dim yellowish brown	faint earth	Loamy	26 ± 5.9	120 ± 10	146	0.07					
2014/5/30	Sunny				26.0	Dark reddish brown	Faint grass	Loamy	240 ± 18	610 ± 28	850	0.09	Dark brown	faint earth	Loamy	220 ± 14	650 ± 24	870	0.08							
30	Tobukyo Bridge	Fujioka City/Kamisato Town	2014/11/11	Sunny	15.0	Dim yellowish brown	faint earth	Loamy	70 ± 8.7	250 ± 17	320	0.09	Olive brown	faint earth	Loamy	140 ± 12	450 ± 21	590	0.09							
			2014/5/30	Sunny	26.3	Blackish brown	faint earth	Loamy	110 ± 10	330 ± 17	440	0.05	Blackish brown	faint earth	Loamy	7.7 ± 1.8	24 ± 2.9	31.7	0.04							
			2014/11/11	Cloudy	11.9	Brown	faint earth	Loamy	180 ± 14	530 ± 24	710	0.08	Blackish brown	faint earth	Loamy	40 ± 7.4	120 ± 13	160	0.09							
31	Kannagawa Bridge	Kamisato Town	2014/5/15	Cloudy	23.4	Grayish olive	None	Loamy	35 ± 3.8	110 ± 6.2	145	0.07	Grayish olive	None	Loamy	53 ± 7.3	150 ± 12	203	0.08							
			2014/11/11	Cloudy	15.3	Dark brown	faint earth	Loamy	76 ± 8.9	190 ± 14	266	0.08	Dark brown	faint earth	Loamy	59 ± 8.3	150 ± 12	209	0.09							
			2014/5/15	Cloudy	24.1	Dark grayish yellow	None	Loamy	40 ± 5.7	100 ± 9.2	140	0.08	Dim yellowish orange	None	Loamy	35 ± 5.7	110 ± 9.3	145	0.06							
32	Tonegawa River	Bando-shahi Bridge	Honjo City	2014/11/14	Sunny	17.9	Faint hydrogen sulfide	faint earth	Loamy	20 ± 4.7	73 ± 7.6	93	0.06	Brown	faint earth	Loamy	<9.6 ± 3.2	44 ± 5.9	44	0.07						
				2014/5/15	Cloudy	21.2	Faint hydrogen sulfide	faint earth	Loamy	<7.5 ± 2.3	16 ± 3.2	16	0.06	Faint hydrogen sulfide	Faint grass	Loamy	29 ± 5.9	86 ± 9.3	115	0.07						
				2014/9/1	Cloudy	22.3	Dark grayish yellow	faint earth	Loamy	35 ± 7.2	74 ± 9.7	109	0.07	Blackish brown	faint earth	Loamy	27 ± 5.7	57 ± 7.4	84	0.06						
2014/11/17	Cloudy	12.0	Dim yellowish brown	faint earth	Loamy	32 ± 6.5	140 ± 12	172	0.06	Blackish brown	faint earth	Loamy	32 ± 6.8	85 ± 9.4	117	0.07										
2015/1/15	Cloudy	5.3	Dark brown	faint earth	Loamy	<8.6 ± 2.7	35 ± 4.0	35	0.07	Dark brown	faint earth	Loamy	9.3 ± 2.4	29 ± 3.5	38.3	0.07										

Gunma River (Surrounding Environment) 4/5

Location					Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air dose)										Remarks				
No.	Water area	Location	Municipality	Left bank					Right bank													
				Color				Odor	Property	Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)	Color	Odor	Property	Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)		
										Radioactive cesium							Radioactive cesium					
			Cs-134	Cs-137	Total	Cs-134	Cs-137	Total				Cs-134	Cs-137	Total								
R i v e r s	Tonegawa River System	Aogahara River	In Shimohosoi Town	Maebashi City	2014/5/17	Sunny	21.3	Dim yellowish orange	None	Loamy	21 ± 5.3	52 ± 7.9	73	0.06	Dim yellowish orange	None	Loamy	33 ± 6.2	95 ± 10	128	0.06	
					2014/8/2	Sunny	35.6	Dim yellowish brown	faint earth	Loamy	37 ± 8.0	110 ± 12	147	0.07	Dim yellowish orange	faint earth	Loamy	12 ± 2.8	46 ± 4.4	58	0.05	
					2014/11/13	Sunny	17.9	Dark brown	faint earth	Loamy	46 ± 7.7	160 ± 13	206	0.06	Brown	faint earth	Loamy	15 ± 4.6	74 ± 9.0	89	0.05	
					2015/1/14	Sunny	4.8	Dark brown	faint earth	Loamy	15 ± 5.0	70 ± 8.2	85	0.07	Dark brown	faint earth	Loamy	8.8 ± 2.7	40 ± 4.2	48.8	0.07	
		Mononoki River	Utsunoi Bridge	Maebashi City	2014/5/16	Sunny	24.8	Olive brown	None	Loamy	19 ± 3.0	57 ± 4.9	76	0.06	Blackish brown	None	Loamy	34 ± 4.5	110 ± 7.0	144	0.07	
					2014/8/22	Sunny	33.0	Dark brown	faint earth	Loamy	40 ± 6.5	110 ± 10	150	0.04	Dim yellowish brown	None	Loamy	26 ± 6.4	85 ± 10	111	0.06	
					2014/11/13	Sunny	18.0	Brown	faint earth	Loamy	47 ± 7.0	120 ± 12	167	0.05	Dark brown	faint earth	Loamy	84 ± 10	210 ± 16	294	0.04	
					2015/1/14	Sunny	7.2	Dim yellowish brown	faint earth	Loamy	17 ± 4.9	44 ± 6.6	61	0.06	Dark brown	faint earth	Loamy	35 ± 6.3	150 ± 12	185	0.06	
		Arato River	Okuhara Bridge	Maebashi City	2014/5/16	Sunny	25.6	Dim yellowish brown	None	Loamy	5.1 ± 1.4	21 ± 1.8	26.1	0.04	Dim yellowish brown	None	Loamy	27 ± 7.4	120 ± 12	147	0.04	
					2014/8/22	Sunny	32.5	Dark grayish yellow	faint earth	Loamy	<6.8 ± 2.2	27 ± 3.3	27	0.03	Dark grayish yellow	faint earth	Loamy	<8.3 ± 2.6	25 ± 3.5	25	0.03	
					2014/11/13	Sunny	14.2	Dark brown	faint earth	Loamy	<7.8 ± 2.4	9.9 ± 2.8	9.9	0.04	Dim yellowish brown	faint earth	Loamy	35 ± 7.8	120 ± 12	155	0.04	
					2015/1/14	Cloudy	5.8	Dim yellowish brown	faint earth	Loamy	<9.0 ± 2.8	24 ± 3.7	24	0.05	Dark brown	faint earth	Loamy	14 ± 3.0	42 ± 4.6	56	0.05	
		Kasukawa River	Hozumi Bridge	Isesaki City	2014/5/30	Sunny	26.0	Olive black	Faint grass	Loamy	42 ± 6.6	130 ± 11	162	0.04	Olive black	faint earth	Loamy	71 ± 9.5	180 ± 15	251	0.03	
					2014/8/23	Sunny	28.5	Brown	None	Loamy	26 ± 5.4	56 ± 7.6	82	0.05	Blackish brown	None	Loamy	42 ± 7.6	130 ± 13	172	0.06	
					2014/11/17	Cloudy	14.9	Dark brown	faint earth	Loamy	41 ± 6.0	100 ± 9.1	141	0.05	Brown	faint earth	Loamy	25 ± 5.4	95 ± 10	120	0.05	
					2015/1/20	Sunny	7.6	Dim yellowish brown	faint earth	Loamy	24 ± 5.1	83 ± 8.3	107	0.04	Brown	faint earth	Loamy	19 ± 5.2	76 ± 8.5	95	0.04	
		Hirose River	Nakajima Bridge	Isesaki City	2014/5/28	Sunny	26.0	Olive black	faint earth	Loamy	43 ± 6.4	130 ± 11	173	0.05	Blackish brown	faint earth	Loamy	170 ± 17	510 ± 29	680	0.07	
					2014/8/23	Sunny	30.0	Brown	None	Loamy	37 ± 6.0	120 ± 11	157	0.04	Dim yellowish brown	faint earth	Loamy	59 ± 9.8	160 ± 15	219	0.06	
					2014/11/17	Sunny	8.6	Dim yellowish brown	faint earth	Loamy	29 ± 5.8	86 ± 8.9	115	0.06	Dark brown	faint earth	Loamy	120 ± 13	340 ± 22	460	0.07	
					2015/1/23	Sunny	12.0	Blackish brown	faint earth	Loamy	21 ± 5.7	65 ± 9.1	86	0.06	Blackish brown	faint earth	Loamy	23 ± 3.2	65 ± 5.4	88	0.05	
		Hayakawa River	Hayakawa Bridge	Isesaki City	2014/5/16	Sunny	19.5	Dark olive brown	None	Loamy	140 ± 13	310 ± 20	450	0.07	Dark olive brown	None	Loamy	58 ± 9.1	210 ± 16	268	0.06	
					2014/9/1	Light rain	24.5	Dark brown	faint earth	Loamy	40 ± 6.3	130 ± 12	170	0.08	Blackish brown	faint earth	Loamy	140 ± 12	390 ± 21	530	0.07	
					2014/11/17	Sunny	14.3	Dim yellowish brown	faint earth	Loamy	140 ± 12	340 ± 18	480	0.08	Dark brown	faint earth	Loamy	130 ± 11	350 ± 19	480	0.09	
					2015/1/20	Sunny	9.0	Dark brown	faint earth	Loamy	15 ± 3.8	41 ± 6.5	56	0.06	Blackish brown	faint earth	Loamy	110 ± 9.4	360 ± 18	470	0.06	
		Maejima Bridge	Ota City	2014/5/28	Sunny	26.0	Olive black	faint earth	Loamy	50 ± 6.8	130 ± 11	180	0.06	Olive black	faint earth	Loamy	35 ± 5.2	77 ± 7.1	112	0.07		
				2014/8/23	Sunny	28.0	Blackish brown	None	Loamy	38 ± 5.9	120 ± 11	158	0.05	Blackish brown	None	Loamy	54 ± 7.5	170 ± 13	224	0.07		
				2014/11/17	Sunny	7.4	Dark olive brown	faint earth	Loamy	19 ± 4.5	66 ± 7.5	85	0.06	Dark brown	faint earth	Loamy	40 ± 6.1	140 ± 11	180	0.09		
				2015/1/23	Sunny	8.5	Dark brown	faint earth	Loamy	17 ± 4.6	58 ± 8.1	75	0.08	Blackish brown	faint earth	Loamy	30 ± 7.3	100 ± 11	130	0.08		
		Tonegawa River	Tone-ozeki Weir	Chiyoda Town, Gyoda City	2014/5/31	Sunny	33.4	Dim yellowish orange	Faint grass	Loamy	47 ± 8.4	190 ± 15	237	0.06	Dark olive brown	Faint grass	Loamy	41 ± 7.2	100 ± 10	141	0.06	
					2014/6/26	Sunny	31.7	Brown	faint earth	Loamy	53 ± 7.8	180 ± 14	233	0.08	Dim yellowish brown	faint earth	Loamy	28 ± 5.9	91 ± 9.2	119	0.07	
					2014/7/18	Cloudy	22.1	Dark brown	faint earth	Loamy	73 ± 13	270 ± 22	343	0.07	Blackish brown	faint earth	Loamy	31 ± 7.3	96 ± 11	127	0.07	
					2014/9/1	Cloudy	23.3	Dim yellowish brown	faint earth	Loamy	55 ± 9.2	210 ± 17	265	0.06	Dim yellowish brown	faint earth	Loamy	40 ± 7.5	130 ± 12	170	0.07	
		Koguro River	Kayano Bridge	Kiryu City	2014/9/24	Cloudy	28.4	Blackish brown	faint earth	Loamy	120 ± 15	370 ± 25	490	0.07	Dark brown	faint earth	Loamy	16 ± 3.0	48 ± 4.5	64	0.07	
					2014/11/18	Sunny	9.2	Blackish brown	faint earth	Loamy	78 ± 10	280 ± 18	358	0.06	Dark brown	faint earth	Loamy	27 ± 3.5	96 ± 6.3	123	0.07	
					2015/1/26	Sunny	14.8	Blackish brown	faint earth	Loamy	26 ± 6.9	70 ± 11	96	0.06	Dim yellowish brown	faint earth	Loamy	10 ± 2.8	34 ± 4.0	44	0.08	
					2014/6/4	Cloudy	16.4	Dark redish brown	faint earth	Sandy	220 ± 14	660 ± 25	880	0.18	Extremely dark brown	faint earth	Sandy	140 ± 11	390 ± 19	530	0.12	
		Watarase River Area	Takatsudo	Midori City	2014/6/26	Sunny	15.3	Dark brown	faint earth	Loamy	340 ± 21	990 ± 36	1,330	0.12	Dark brown	faint earth	Loamy	280 ± 18	810 ± 29	1,090	0.12	
					2014/7/18	Cloudy	17.6	Blackish brown	faint earth	Loamy	140 ± 15	440 ± 24	580	0.17	Blackish brown	faint earth	Loamy	250 ± 21	790 ± 37	1,040	0.13	
					2014/8/9	Cloudy	18.8	Blackish brown	faint earth	Loamy	370 ± 20	1,200 ± 37	1,570	0.15	Blackish brown	faint earth	Loamy	340 ± 21	1,000 ± 36	1,340	0.12	
					2014/9/24	Cloudy	15.8	Brown	faint earth	Loamy	370 ± 20	1,100 ± 37	1,470	0.20	Dim yellowish brown	faint earth	Loamy	150 ± 17	550 ± 33	700	0.14	
		Watarase River	Intake for Akaiwayosui water channel	Kiryu City	2014/11/19	Sunny	3.8	Faint hydrogen sulfide	faint earth	Loamy	1,300 ± 33	4,300 ± 61	5,600	0.35	Blackish brown	faint earth	Loamy	290 ± 20	800 ± 34	1,090	0.13	
					2015/1/24	Sunny	2.6	Blackish brown	faint earth	Loamy	1,400 ± 69	4,700 ± 130	6,100	0.14	Dark grayish yellow	faint earth	Loamy	96 ± 12	300 ± 21	396	0.10	
					2014/6/4	Cloudy	27.8	Dim orange	faint earth	Loamy	64 ± 7.8	180 ± 13	244	0.07	Dim orange	faint earth	Loamy	57 ± 8.1	190 ± 15	247	0.07	
					2014/8/9	Cloudy	25.3	Blackish brown	faint earth	Loamy	37 ± 5.7	92 ± 9.1	129	0.08	Brown	faint earth	Loamy	68 ± 8.0	180 ± 14	248	0.08	
Tatara River	Ejiri Bridge	Oru Town	2014/11/19	Sunny	8.5	Dark olive brown	faint earth	Loamy	46 ± 6.7	170 ± 12	216	0.07	Yellowish brown	faint earth	Loamy	49 ± 8.2	190 ± 15	239	0.08			
			2015/1/21	Cloudy	6.7	Blackish brown	faint earth	Loamy	28 ± 5.6	130 ± 11	158	0.07	Brown	faint earth	Loamy	23 ± 6.3	86 ± 9.5	109	0.06			
			2014/6/4	Cloudy	25.2	Dim yellowish orange	faint earth	Loamy	8.5 ± 2.2	11 ± 2.8	19.5	0.09	Grayish olive	faint earth	Loamy	57 ± 7.2	170 ± 12	227	0.08			
			2014/6/26	Cloudy	27.0	Yellowish brown	faint earth	Loamy	<6.9 ± 2.0	8.4 ± 2.0	8.4	0.05	Blackish brown	faint earth	Loamy	180 ± 15	490 ± 24	670	0.05			
			2014/7/24	Cloudy	31.9	Dim yellowish orange	None	Loamy	4.2 ± 1.3	6.7 ± 1.8	10.9	0.06	Blackish brown	None	Loamy	20 ± 2.7	61 ± 4.0	81	0.08			
			2014/8/20	Sunny	33.0	Blackish brown	faint earth	Loamy	6.6 ± 2.0	18 ± 3.1	24.6	0.07	Dim brown	faint earth	Loamy	41 ± 7.0	88 ± 9.6	129	0.07			
			2014/9/11	Cloudy	23.9	Brown	faint earth	Loamy	<7.3 ± 2.3	16 ± 3.1	16	0.06	Blackish brown	faint earth	Loamy	44 ± 7.2	130 ± 12	174	0.07			
			2014/11/19	Sunny	13.8	Light brown	faint earth	Loamy	<6.8 ± 1.8	10 ± 2.6	10	0.06	Dark brown	faint earth	Loamy	160 ± 15	530 ± 27	690	0.09			
			2015/1/21	Cloudy	7.0	Dim yellowish brown	faint earth	Loamy	<7.8 ± 2.4	17 ± 3.2	17	0.08	Blackish brown	faint earth	Loamy	120 ± 12	440 ± 22	560	0.08			
			2014/6/2	Sunny	28.3	Blackish brown	faint earth	Loamy	65 ± 10	190 ± 17	255	0.06	Brown	faint earth	Loamy	40 ± 4.4	85 ± 6.3	125	0.04			
			2014/8/11	Sunny	29.4	Black	faint earth	Loamy	60 ± 9.1	220 ± 16	280	0.05	Blackish brown	faint earth	Loamy	43 ± 7.0	120 ± 11	163	0.05			
			2014/11/18	Sunny	13.9	Blackish brown	faint earth	Loamy	120 ± 12	360 ± 20	480	0.05	Brown	faint earth	Loamy	30 ± 6.8	94 ± 10	124	0.06			
			2015/1/26	Sunny	13.6	Black	faint earth	Loamy	9.7 ± 1.5	24 ± 2.3	33.7	0.06	Blackish brown	faint earth	Loamy	11 ± 3.5	36 ± 4.5	47	0.06			

Gunma River (Surrounding Environment) 5/5

Location					Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air dose)										Remarks						
No.	Water area		Location	Municipality				Left bank					Air Dose (μSv/h)	Right bank										
								Color	Odor	Property	Activity concentration [Bq/kg(dry)]			Color	Odor	Property	Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)				
											Radioactive cesium						Radioactive cesium							
Cs-134			Cs-137			Total	Cs-134			Cs-137			Total											
R i v e r s	45	Tonegawa River System	Watarase River Area	Kannon Bridge	Kiryu City	2014/6/4	Cloudy	27.8	Dark olive brown	faint earth	Loamy	21 ± 3.2	62 ± 5.0	83	0.08	Brown	faint earth	Loamy	15 ± 3.4	52 ± 5.1	67	0.07		
						2014/8/9	Cloudy	22.1	Blackish brown	None	Loamy	29 ± 5.2	73 ± 8.8	102	0.07	Blackish brown	faint earth	Loamy	130 ± 11	360 ± 18	490	0.08		
						2014/11/19	Sunny	16.0	Dark grayish yellow	faint earth	Loamy	27 ± 6.6	130 ± 12	157	0.08	Blackish brown	faint earth	Loamy	14 ± 3.5	50 ± 5.3	64	0.06		
						2015/1/27	Sunny	13.8	Blackish brown	faint earth	Loamy	11 ± 2.4	42 ± 3.9	53	0.06	Blackish brown	faint earth	Loamy	77 ± 9.5	280 ± 18	357	0.11		
						2014/6/3	Sunny	22.6	Dim yellowish brown	faint earth	Loamy	42 ± 6.4	140 ± 13	182	0.07	Dim yellowish brown	faint earth	Loamy	26 ± 5.7	100 ± 9.4	126	0.07		
				2014/8/9	Cloudy	25.5	Brown	faint earth	Loamy	26 ± 6.9	110 ± 11	136	0.07	Grayish brown	faint earth	Loamy	44 ± 6.6	120 ± 10	164	0.07				
				2014/11/19	Sunny	13.8	Dim yellowish brown	faint earth	Loamy	22 ± 4.8	100 ± 9.2	122	0.08	Brown	faint earth	Loamy	40 ± 6.9	97 ± 11	137	0.08				
				2015/1/27	Sunny	12.8	Brown	faint earth	Loamy	14 ± 2.6	51 ± 4.4	65	0.09	Brown	faint earth	Loamy	<5.9 ± 1.8	10 ± 2.3	10	0.07				
				2014/6/2	Sunny	31.8	Olive black	faint earth	Loamy	25 ± 6.1	85 ± 10	110	0.06	Dim yellowish orange	faint earth	Loamy	94 ± 9.6	260 ± 15	354	0.06				
				2014/8/11	Sunny	28.0	Brown	faint earth	Loamy	53 ± 9.2	170 ± 14	223	0.06	Dim yellowish brown	faint earth	Loamy	55 ± 7.0	170 ± 12	225	0.05				
	2014/11/18	Sunny	13.2	Brown	faint earth	Loamy	76 ± 12	230 ± 18	306	0.07	Brown	faint earth	Loamy	110 ± 11	400 ± 20	510	0.07							
	2015/1/28	Sunny	8.0	Brown	faint earth	Loamy	67 ± 5.9	250 ± 11	317	0.07	Blackish brown	faint earth	Loamy	92 ± 10	280 ± 17	372	0.07							
	2014/6/16	Sunny	32.0	Dim yellowish brown	None	Sandy	26 ± 5.0	89 ± 9.2	115	0.07	Dim yellowish brown	None	Sandy	46 ± 7.7	120 ± 12	166	0.06							
	2014/8/11	Sunny	34.1	Dark brown	faint earth	Loamy	57 ± 7.0	180 ± 11	237	0.08	Dark olive brown	faint earth	Loamy	42 ± 5.9	120 ± 9.6	162	0.05							
	2014/11/18	Sunny	11.5	Yellowish brown	faint earth	Loamy	45 ± 6.4	160 ± 11	205	0.08	Dim yellowish brown	faint earth	Loamy	49 ± 6.5	130 ± 10	179	0.05							
	2015/1/28	Sunny	2.5	Blackish brown	faint earth	Loamy	21 ± 4.8	96 ± 9.2	117	0.09	Dark brown	faint earth	Loamy	37 ± 3.6	100 ± 5.8	137	0.07							
	46	Tonegawa River System	Watarase River Area	Kiryu River	Sakai Bridge	Kiryu City/Asakaga City	2014/6/3	Sunny	22.6	Dim yellowish brown	faint earth	Loamy	42 ± 6.4	140 ± 13	182	0.07	Dim yellowish brown	faint earth	Loamy	26 ± 5.7	100 ± 9.4	126	0.07	
							2014/8/9	Cloudy	25.5	Brown	faint earth	Loamy	26 ± 6.9	110 ± 11	136	0.07	Grayish brown	faint earth	Loamy	44 ± 6.6	120 ± 10	164	0.07	
							2014/11/19	Sunny	13.8	Dim yellowish brown	faint earth	Loamy	22 ± 4.8	100 ± 9.2	122	0.08	Brown	faint earth	Loamy	40 ± 6.9	97 ± 11	137	0.08	
							2015/1/27	Sunny	12.8	Brown	faint earth	Loamy	14 ± 2.6	51 ± 4.4	65	0.09	Brown	faint earth	Loamy	<5.9 ± 1.8	10 ± 2.3	10	0.07	
2014/6/2							Sunny	31.8	Olive black	faint earth	Loamy	25 ± 6.1	85 ± 10	110	0.06	Dim yellowish orange	faint earth	Loamy	94 ± 9.6	260 ± 15	354	0.06		
47	Tonegawa River System	Watarase River Area	Tsurushi River	Lake Jonuma	Tatebayashi City	2014/8/11	Sunny	28.0	Brown	faint earth	Loamy	53 ± 9.2	170 ± 14	223	0.06	Dim yellowish brown	faint earth	Loamy	55 ± 7.0	170 ± 12	225	0.05		
						2014/11/18	Sunny	13.2	Brown	faint earth	Loamy	76 ± 12	230 ± 18	306	0.07	Brown	faint earth	Loamy	110 ± 11	400 ± 20	510	0.07		
						2015/1/28	Sunny	8.0	Brown	faint earth	Loamy	67 ± 5.9	250 ± 11	317	0.07	Blackish brown	faint earth	Loamy	92 ± 10	280 ± 17	372	0.07		
48	Tonegawa River System	Watarase River Area	Yatagawa River	Togoda Bridge	Mitsui Town /Akutsu Town	2014/6/16	Sunny	32.0	Dim yellowish brown	None	Sandy	26 ± 5.0	89 ± 9.2	115	0.07	Dim yellowish brown	None	Sandy	46 ± 7.7	120 ± 12	166	0.06		
						2014/8/11	Sunny	34.1	Dark brown	faint earth	Loamy	57 ± 7.0	180 ± 11	237	0.08	Dark olive brown	faint earth	Loamy	42 ± 5.9	120 ± 9.6	162	0.05		
						2014/11/18	Sunny	11.5	Yellowish brown	faint earth	Loamy	45 ± 6.4	160 ± 11	205	0.08	Dim yellowish brown	faint earth	Loamy	49 ± 6.5	130 ± 10	179	0.05		
						2015/1/28	Sunny	2.5	Blackish brown	faint earth	Loamy	21 ± 4.8	96 ± 9.2	117	0.09	Dark brown	faint earth	Loamy	37 ± 3.6	100 ± 5.8	137	0.07		

Gunma Lakes and Reservoirs (Water)1/4

No.	Location				Sampling Date	Weather	Air temperature (C)	Water depth (m)	Water										Remarks		
	Water area	Location	Municipality	General items							Activity concentration(Bq/L)										
				Water temperature (C)					Sampling depth (m)	Color	Odor	Secchi disk depth (m)	Electrical conductivity (mS/m)	SS (mg/L)	Turbidity (FNU)	Radioactive cesium					
																Cs-134	Cs-137				
49	Lake Okutone (Yagisawa Dam)	Center	Minakami Town	Surface layer	2014/5/27	Sunny	18.7	85.5	15.7	0.5	Grayish yellowish green	None	3.5	2.4	2	0.5	-0.48 ± 0.13	-0.66 ± 0.12			
				Deep layer																	
				Surface layer	2014/8/1	Sunny	32.7	84.6	24.1	0.5	Grayish yellow green	None	6.2	1.7	<1	0.6	-0.71 ± 0.13	-0.83 ± 0.15			
				Deep layer																	
				Surface layer	2014/10/29	Sunny	8.0	94.0	14.5	0.5	Grayish yellow green	None	5.4	2.4	<1	0.6	-0.54 ± 0.11	-0.75 ± 0.16			
				Deep layer																	
	50	Lake Naramata (Naramata Dam)	Center	Minakami Town	Surface layer	2014/11/28	Cloudy	9.0	84.2	10.9	0.5	Grayish yellowish green	None	4.9	2.8	1	0.8	-0.55 ± 0.11	-0.78 ± 0.18		
					Deep layer																
					Surface layer	2014/5/27	Sunny	19.7	95.5	14.5	0.5	Light grayish yellow green	None	5.0	2.5	<1	0.4	-0.55 ± 0.083	-0.78 ± 0.16		
					Deep layer																
					Surface layer	2014/8/1	Sunny	31.7	86.2	27.6	0.5	Grayish yellow green	None	4.5	3.0	<1	0.3	-0.63 ± 0.14	-0.68 ± 0.14		
					Deep layer																
51	Lake Dogen (Sudagai Dam)	Center	Minakami Town	Surface layer	2014/10/29	Sunny	8.5	94.4	10.1	0.5	Dark grayish yellow green	None	6.0	3.6	1	0.6	-0.52 ± 0.11	-0.60 ± 0.14			
				Deep layer																	
				Surface layer	2014/11/28	Sunny	11.5	91.0	7.2	0.5	Dark grayish yellow green	None	6.8	5.2	1	1.3	-0.58 ± 0.13	-0.60 ± 0.12			
				Deep layer																	
				Surface layer	2014/5/28	Sunny	26.3	45.5	9.4	0.5	Dark grayish yellow green	None	3.2	3.5	<1	0.4	-0.58 ± 0.13	-0.62 ± 0.12			
				Deep layer																	
				Surface layer	2014/8/5	Sunny	34.5	42.9	12.8	0.5	Grayish yellow green	None	4.3	4.2	5	2.6	-0.74 ± 0.14	-0.66 ± 0.15			
				Deep layer																	
				Surface layer	2014/10/2	Cloudy	20.7	43.3	11.2	0.5	Light grayish yellowish green	None	5.3	2.8	4	1.9	-0.69 ± 0.13	-0.66 ± 0.14			
				Deep layer																	
				Surface layer	2014/12/1	Light rain	11.0	43.5	23.4	0.5	Light grayish yellowish green	None	4.3	3.6	<1	0.5	-0.59 ± 0.12	-0.58 ± 0.13			
				Deep layer																	
52	Lake Marunuma (Marunuma Dam)	Center	Katahina Village	Surface layer	2014/5/26	Cloudy	13.3	12.1	10.1	0.5	Dark grayish blue green	None	5.0	5.2	<1	0.4	-0.57 ± 0.14	-0.65 ± 0.15			
				Deep layer																	
				Surface layer	2014/8/4	Cloudy	26.8	35.5	10.3	0.5	Grayish green	None	6.5	4.7	<1	0.2	-0.62 ± 0.13	-0.63 ± 0.11			
				Deep layer																	
				Surface layer	2014/10/3	Sunny	24.7	39.3	9.3	0.5	Dark grayish yellow green	None	7.8	7.3	<1	0.5	-0.67 ± 0.15	-0.63 ± 0.15			
				Deep layer																	
				Surface layer	2014/11/27	Cloudy	7.2	42.0	17.9	0.5	Dark grayish yellow green	None	8.5	5.0	<1	0.5	-0.60 ± 0.12	-0.58 ± 0.12			
				Deep layer																	
				Surface layer	2014/5/28	Cloudy	23.4	53.2	8.9	0.5	Dark grayish yellow green	None	10.0	7.7	<1	0.6	-0.56 ± 0.095	-0.68 ± 0.14			
				Deep layer																	
				Surface layer	2014/8/5	Sunny	30.6	50.2	9.2	0.5	Dark grayish greenish blue	None	2.5	4.1	<1	0.5	-0.62 ± 0.12	-0.55 ± 0.092			
				Deep layer																	
53	Lake Fujiwara (Fujiwara Dam)	Center	Minakami Town	Surface layer	2014/5/28	Cloudy	23.4	53.2	6.0	0.5	Grayish yellow green	None	10.0	2.7	2	0.8	-0.56 ± 0.12	-0.68 ± 0.13			
				Deep layer																	
				Surface layer	2014/8/5	Sunny	30.6	50.2	7.8	0.5	Grayish yellow green	None	2.5	3.5	2	0.9	-0.56 ± 0.14	-0.65 ± 0.14			
				Deep layer																	
				Surface layer	2014/10/24	Sunny	17.5	47.0	22.4	0.5	Grayish yellow green	None	5.5	3.6	<1	0.4	-0.61 ± 0.14	-0.62 ± 0.12			
				Deep layer																	
				Surface layer	2014/12/2	Sunny	5.0	64.7	8.2	0.5	Grayish green	None	6.0	3.5	<1	0.4	-0.54 ± 0.14	-0.62 ± 0.15			
				Deep layer																	
				Surface layer	2014/5/29	Sunny	24.9	38.7	13.8	0.5	Soft greenish blue	None	8.7	3.4	2	0.4	-0.68 ± 0.14	-0.42 ± 0.12			
				Deep layer																	
				Surface layer	2014/8/4	Sunny	27.8	40.2	8.2	0.5	Grayish yellowish green	None	4.7	3.4	<1	0.2	-0.66 ± 0.16	-0.73 ± 0.16			
				Deep layer																	
54	Lake Tanbara (Tanbara Dam)	Center	Numata City	Surface layer	2014/10/3	Sunny	20.8	39.6	14.5	0.5	Grayish yellow green	None	6.1	3.4	<1	0.5	-0.43 ± 0.091	-0.51 ± 0.12			
				Deep layer																	
				Surface layer	2014/12/10	Sunny	-4.2	-	12.9	38.6	-	-	-	-	-	-	-	-	-	-	
				Deep layer																	
				Surface layer																	
				Deep layer																	

Unable to collect samples due to snow on the ground
 Unable to collect samples due to snow on the ground

Gunma Lakes and Reservoirs (Sediment) 1/2

No.	Location				Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Sediment																	Remarks			
	Water area	Location		Municipality					Sediment temperature (°C)	Sample length (cm)	Color	Odor	General items							Grain size distribution (%)			Activity concentration [Bq/kg(dry)]						
													Coarse gravel	Medium gravel	Fine gravel	Coarse sand		Medium sand		Fine sand	Silt	Clay	Sediment content (%)	Density (g/cm ³)	Property		Radioactive cesium		
																Coarse sand	Medium sand	Cs-134	Cs-137								Total		
49	Lake Okunone (Yagisawa Dam)	Center	Minakami Town	2014/5/27	Sunny	18.7	85.5	6.8	5	Grayish olive	None	0.0	0.0	0.0	0.0	0.1	0.2	17.5	82.2	36.3	2.994	Silt	420 ± 25	1,100 ± 41	1,520				
				2014/8/1	Sunny	32.7	84.6	13.5	3	Grayish olive	None	0.0	1.1	0.5	0.3	0.3	0.2	41.0	56.7	39.2	2.990	Silt	190 ± 15	570 ± 25	760				
				2014/10/29	Sunny	8.0	94.0	8.5	3	Grayish olive	None	0.0	0.0	0.0	0.0	0.1	0.3	28.9	70.7	42.2	2.576	Silt	280 ± 19	890 ± 34	1,170				
		2014/11/28	Cloudy	9.0	84.2	10.2	1	Grayish olive	None	0.0	0.0	0.1	0.1	0.1	0.2	37.0	62.5	41.3	2.565	Silt	210 ± 17	640 ± 30	850						
		2014/5/27	Sunny	19.7	95.5	6.2	1	Olive brown	None	0.0	3.0	0.5	0.3	7.7	32.2	41.1	15.3	49.8	2.512	Silt	190 ± 15	560 ± 24	750						
		2014/8/1	Sunny	31.7	86.2	10.2	5	Olive	None	0.0	0.0	0.0	0.0	0.0	0.5	29.1	70.4	26.8	2.476	Silt	580 ± 31	1,700 ± 54	2,280						
	50	Lake Naramata (Naramata Dam)	Center	Minakami Town	2014/10/29	Sunny	8.5	94.4	7.0	2	Grayish olive	None	0.0	0.0	0.0	0.0	1.2	42.2	56.5	31.4	2.462	Silt	460 ± 30	1,600 ± 56	2,060				
					2014/11/28	Sunny	11.5	91.0	6.0	4	Olive	None	0.0	0.3	0.8	0.4	0.4	0.6	36.6	60.9	28.9	2.490	Silt	450 ± 30	1,500 ± 57	1,950			
					2014/5/28	Sunny	26.5	45.5	10.7	4	Olive black	None	0.0	5.2	0.4	0.8	2.8	2.4	26.2	62.3	35.2	2.560	Silt	230 ± 21	630 ± 33	860			
			2014/8/5	Sunny	34.5	42.9	9.7	6	Olive brown	None	0.0	0.0	0.0	0.1	0.0	0.2	36.0	63.7	39.1	2.493	Silt	160 ± 13	520 ± 23	680					
			2014/10/2	Cloudy	20.7	43.3	8.2	1	Grayish olive	None	0.0	0.0	0.0	0.2	0.2	0.4	39.6	59.6	37.2	2.568	Silt	200 ± 16	620 ± 28	820					
			2014/12/1	Light rain	11.0	43.5	9.2	2	Gray	None	0.0	0.0	0.0	0.1	0.1	0.1	39.5	60.2	41.8	2.551	Silt	130 ± 14	470 ± 25	600					
52	Lake Marutama (Marutama Dam)	Center	Katashina Village	2014/5/26	Cloudy	13.3	12.1	9.5	3	Faint hydrogen sulfide	Faint drain	0.0	0.1	1.4	1.7	5.3	15.5	63.7	12.3	46.1	2.457	Silt	61 ± 6.2	150 ± 10	211				
				2014/8/4	Cloudy	28.8	35.5	10.8	5	Black	Faint drain	0.0	0.0	0.0	0.0	0.1	0.1	56.5	43.3	22.5	2.325	Silt	41 ± 11	160 ± 20	201				
				2014/10/3	Sunny	24.7	39.3	7.6	8	Black	None	0.0	0.0	0.0	0.0	0.1	0.1	33.6	66.3	18.5	2.390	Silt	79 ± 12	270 ± 23	349				
		2014/11/27	Cloudy	7.2	42.0	5.2	7	Faint hydrogen sulfide	None	0.0	0.0	0.0	0.0	0.2	0.1	36.3	63.5	20.2	2.379	Silt	27 ± 8.8	100 ± 8.6	127						
		2014/5/28	Cloudy	23.4	53.2	7.4	5	Olive	None	0.0	0.0	0.3	0.6	0.4	0.2	31.0	67.5	38.3	2.569	Silt	330 ± 22	810 ± 35	1,140						
		2014/8/5	Sunny	30.6	50.2	6.7	6	Olive yellow	None	0.0	0.0	0.0	0.0	0.0	0.3	33.8	65.9	40.7	2.566	Silt	300 ± 17	940 ± 30	1,240						
	53	Lake Fujiwara (Fujiwara Dam)	Center	Minakami Town	2014/10/24	Sunny	17.5	47.0	9.8	4	Faint hydrogen sulfide	None	0.0	0.0	0.0	0.0	0.3	36.6	63.0	42.2	2.575	Silt	330 ± 20	1,000 ± 27	1,330				
					2014/12/2	Sunny	5.0	64.7	8.0	4	Grayish olive	None	0.0	0.0	0.1	0.0	0.0	0.1	35.1	64.6	43.6	2.586	Silt	240 ± 18	860 ± 33	1,100			
					2014/5/29	Sunny	24.9	38.7	8.3	6	Dim yellowish orange	Faint drain	0.0	0.0	0.0	0.0	0.2	0.4	31.3	68.2	28.9	2.557	Silt	170 ± 18	420 ± 29	570			
			2014/8/4	Sunny	27.8	40.2	14.4	6	Grayish olive	None	0.0	0.0	0.0	0.0	0.0	0.1	36.6	63.3	28.5	2.529	Silt	110 ± 14	400 ± 25	530					
			2014/10/3	Sunny	20.8	39.6	12.3	7	Grayish olive	None	0.0	0.0	0.0	0.0	0.1	0.5	35.1	64.3	31.1	2.587	Silt	320 ± 25	930 ± 43	1,250					
			2014/12/10	Sunny	4.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
54	Lake Tanbara (Tanbara Dam)	Center	Numata City	2014/5/29	Cloudy	22.3	37.5	11.5	6	Reddish brown	Faint drain	0.0	0.0	0.0	0.0	0.0	0.1	61.1	38.8	30.3	2.443	Silt	530 ± 32	1,300 ± 51	1,830				
				2014/8/5	Sunny	29.6	33.5	9.7	5	Dim yellowish orange	None	0.0	0.0	0.0	0.0	0.0	0.0	50.4	49.6	31.9	2.417	Silt	350 ± 21	890 ± 35	1,240				
				2014/10/20	Cloudy	15.1	46.6	12.0	4	Grayish olive	None	0.0	0.0	0.0	0.0	0.1	2.2	29.3	68.4	37.2	2.587	Silt	650 ± 32	2,000 ± 56	2,650				
		2014/12/2	Sunny	5.8	29.2	8.3	2	Grayish olive	None	0.0	0.0	0.2	0.2	0.6	0.5	40.9	57.7	43.7	2.571	Silt	450 ± 24	1,500 ± 43	1,950						
		2014/5/22	Cloudy	27.4	40.0	10.0	4	Grayish olive	Faint drain	0.0	0.0	0.0	0.0	0.1	7.1	67.6	25.2	43.5	2.551	Silt	66 ± 10	200 ± 17	266						
		2014/8/21	Cloudy	27.1	27.0	20.8	2	Gray	Medium drain	0.0	0.0	0.0	0.1	0.4	6.2	68.7	24.7	43.6	2.508	Silt	57 ± 8.9	180 ± 15	237						
	56	Lake Sonohara (Sonohara Dam)	Center	Numata City	2014/10/14	Sunny	18.2	38.2	15.0	2	Faint hydrogen sulfide	None	0.0	0.0	0.0	0.0	0.1	7.2	69.5	23.2	2.499	Silt	82 ± 10	260 ± 17	342				
					2014/12/10	Cloudy	7.2	39.0	6.5	6	Faint hydrogen sulfide	None	0.0	0.0	0.0	0.0	0.0	1.4	67.9	30.7	43.2	2.529	Silt	66 ± 10	270 ± 19	336			
					2014/5/26	Cloudy	12.7	15.0	8.7	6	Faint hydrogen sulfide	Faint drain	0.0	0.0	0.0	0.0	0.1	0.4	83.8	15.7	13.1	2.199	Silt	240 ± 32	800 ± 54	1,040			
			2014/8/21	Cloudy	27.3	14.3	14.3	2	Faint hydrogen sulfide	Faint drain	0.0	0.0	0.0	0.1	1.3	15.4	67.7	15.6	22.3	2.288	Silt/sand	190 ± 24	600 ± 41	790					
			2014/10/30	Sunny	8.3	7.5	11.9	3	Faint hydrogen sulfide	Faint drain	0.0	0.4	2.4	3.3	7.7	7.8	60.7	17.7	20.2	2.308	Silt	160 ± 24	480 ± 40	640					
			2014/11/27	Cloudy	4.0	13.6	4.6	3	Faint hydrogen sulfide	Faint drain	0.0	0.9	0.3	0.4	2.2	5.3	75.7	15.3	19.5	2.337	Silt	1,200 ± 56	3,900 ± 99	5,100					
58	Lake Okashima Lake (Sonohara Dam)	Center	Nakanogo Town	2014/5/30	Sunny	27.1	30.5	10.4	5	Yellowish brown	Faint drain	0.0	0.0	0.0	0.1	0.2	3.7	58.7	37.4	35.9	2.538	Silt	300 ± 21	810 ± 35	1,110				
				2014/8/6	Sunny	30.3	28.5	9.8	7	Reddish brown	None	0.0	0.0	0.0	0.0	0.1	1.3	57.1	41.6	50.0	2.637	Silt	68 ± 9.6	340 ± 16	438				
				2014/10/7	Sunny	17.8	24.0	7.8	5	Olive brown	Faint drain	0.0	0.0	0.0	0.0	0.0	0.7	63.1	36.1	28.0	2.345	Silt	410 ± 31	1,300 ± 53	1,710				
		2014/11/28	Sunny	11.6	49.6	8.6	5	Olive black	None	0.0	0.0	0.0	0.0	0.1	0.5	54.5	44.9	37.1	2.624	Silt	400 ± 24	1,200 ± 43	1,600						
		2014/5/30	Sunny	28.3	11.3	17.3	1	Gray	Faint drain	0.0	0.0	0.4	0.3	5.3	60.5	16.3	17.2	54.8	2.499	Silt	66 ± 8.1	200 ± 14	266						
		2014/8/5	Sunny	33.0	8.0	21.0	8	Faint hydrogen sulfide	Faint drain	0.0	0.0	0.1	5.9	57.3	17.9	18.8	39.9	2.491	Silt/sand	110 ± 11	400 ± 20	510							
	59	Lake Shimako (Nakanogo Dam)	Center	Nakanogo Town	2014/10/2	Cloudy	17.6	10.3	15.8	1	Faint hydrogen sulfide	None	0.0	0.0	0.0	0.0	4.0	51.5	24.6	50.0	45.8	2.592	Silt	140 ± 12	430 ± 20	570			
					2014/11/27	Sunny	13.0	8.5	11.3	1	Faint hydrogen sulfide	Faint drain	0.0	0.4	3.5	4.2	6.8	37.4	38.3	9.5	55.6	2.504	Silt	100 ± 8.8	310 ± 15	410			
					2014/6/5	Light rain	13.5	5.8	11.4	5	Black	Faint drain	0.0	0.0	0.0	0.1	0.1	0.2	58.4	41.3	17.1	2.180	Silt	420 ± 42	1,000 ± 63	1,420			
			2014/8/7	Sunny	28.8	6.0	24.8	4	Black	Medium drain	0.0	0.0	0.0	0.0	0.1	0.1	49.1	50.7	16.0	2.143	Silt	250 ± 28	570 ± 51	1,120					
			2014/10/8	Sunny	16.1	4.7	16.3	8	Blackish brown	Faint drain	0.0	0.0	0.0	0.0	0.0	0.1	49.3	50.7	16.3	2.200	Silt	280 ± 35	900 ± 61	1,180					
			2014/11/20	Sunny	2.0	4.8	7.0	4	Black	Faint drain	0.0	0.0	0.0	0.0	0.0	0.1	44.3	55.6	15.2	2.213	Silt	320 ± 33	1,000 ± 56	1,320					
60	Lake Tashiro (Kazawa Dam)	Center	Tsumugai Village	2014/5/27	Sunny	18.7	85.5	6.8	5	Grayish olive	None	0.0	0.0	0.0	0.0	0.1	0.2	17.5	82.2	36.3	2.994	Silt	420 ± 25	1,100 ± 41	1,520				
				2014/8/1	Sunny	32.7	84.6	13.5	3	Grayish olive	None	0.0	1.1	0.5	0.3	0.3	0.2	41.0	56.7	39.2	2.990	Silt	190 ± 15	570 ± 25	760				
				2014/10/29	Sunny	8.0	94.0	8.5	3	Grayish olive	None	0.0	0.0	0.0	0.0	0.1	0.3	28.9	70.7	42.2	2.576	Silt	280 ± 19	890 ± 34	1,170				
		2014/11/28	Cloudy	9.0	84.2	10.2	1	Grayish olive	None	0.0	0.0	0.1	0.1	0.1	0.2	37.0	62.5	41.3	2.565	Silt	210 ± 17	640							

Gunma Lakes and Reservoirs (Sediment) 2/2

No.	Location				Sampling Date	Weather	Air temperature (C)	Water depth (m)	Sediment																	Remarks				
	Water area	Location		Municipality					Sediment temperature (C)	Sample length (cm)	Color	Odor	General items						Grain size distribution(%)					Sediment content (%)	Density (g/cm ³)		Property	Activity concentration [Bq/kg(dry)]		
													Coarse gravel	Medium gravel	Fine gravel	Coarse sand	Medium sand	Fine sand	Silt	Clay	Radioactive cesium									
																					Cs-134	Cs-137	Total							
61	Lake Haruna	Center	Hakuba City/Hakuba Sports Town	2014/5/19	Sunny	14.5	14.0	9.8	5	Black	Faint drain	0.0	0.0	0.0	0.1	0.3	0.3	6.3	93.0	7.8	2.092	Silt	66 ± 13	200 ± 17	266					
				2014/8/7	Sunny	23.2	12.6	14.4	5	Black	Medium drain	0.0	0.0	0.0	0.1	0.2	0.2	19.6	80.1	8.5	2.089	Silt	140 ± 20	350 ± 30	490					
				2014/10/8	Sunny	15.8	14.6	9.0	9	Black	None	0.0	0.0	0.0	0.1	0.1	0.1	21.1	78.5	8.4	2.127	Silt	22 ± 3.3	90 ± 4.8	112					
		2014/11/20	Cloudy	6.5	13.5	8.4	8	Black	Faint drain	0.0	0.0	0.0	0.0	0.1	0.1	28.4	71.3	9.8	2.128	Silt	140 ± 33	380 ± 45	520							
		2014/5/27	Cloudy	22.7	9.8	15.3	5	Dark brown	None	0.0	0.0	38.2	32.2	8.9	12.2	4.2	2.5	2.0	56.3	2.629	Silt	12 ± 2.7	26 ± 3.6	34						
		2014/8/28	Cloudy	21.0	11.6	11.9	5	Faint hydrogen sulfide	Faint drain	0.0	0.0	0.0	0.1	0.6	10.5	68.5	20.3	42.1	2.425	Silt	330 ± 19	1,100 ± 34	1,420							
	62	Lake Kirizumi (Kirizumi Dam)	Center	Annaka City	2014/10/15	Sunny	17.9	13.5	13.5	4	Faint hydrogen sulfide	None	0.0	0.0	0.0	0.0	0.1	0.9	75.1	24.0	34.6	2.486	Silt	170 ± 17	630 ± 29	800				
					2014/12/3	Sunny	2.1	9.2	7.0	4	Faint hydrogen sulfide	Faint drain	0.0	0.0	0.0	0.0	0.1	0.1	79.8	20.1	38.2	2.410	Silt	190 ± 18	620 ± 30	810				
					2014/5/27	Sunny	25.2	13.5	17.6	3	Black	Faint drain	0.0	17.1	52.0	18.8	23.6	5.7	0.5	2.4	73.5	2.715	Sand	85 ± 5.8	160 ± 9.3	215				
			2014/9/2	Sunny	21.6	13.6	11.0	5	Faint hydrogen sulfide	Faint drain	0.0	0.2	0.1	0.0	0.2	6.4	75.2	18.0	34.4	2.354	Silt	290 ± 23	980 ± 40	1,290						
			2014/10/15	Cloudy	15.5	12.2	13.0	5	Gray	Faint drain	0.0	0.0	0.0	0.0	0.1	7.3	70.0	22.6	31.0	2.375	Silt	330 ± 23	1,000 ± 40	1,330						
			2014/12/3	Sunny	6.0	12.4	7.8	6	Faint hydrogen sulfide	Faint drain	0.0	0.0	0.0	0.0	0.0	0.5	76.2	23.4	33.7	2.363	Silt	250 ± 21	910 ± 40	1,160						
64	Karasa River	Center	Shimonita Town	2014/5/23	Sunny	20.0	33.5	8.2	6	Faint hydrogen sulfide	None	0.0	0.0	0.0	0.0	0.1	6.3	89.2	34.4	37.5	2.554	Silt	190 ± 18	520 ± 28	710					
				2014/8/20	Sunny	31.4	25.6	10.7	5	Grayish olive	None	0.0	0.0	0.0	0.0	0.1	1.1	55.2	43.6	39.9	2.558	Silt	180 ± 16	590 ± 29	770					
				2014/10/10	Sunny	19.9	32.7	14.0	4	Gray	None	0.0	0.0	0.0	0.0	0.0	2.8	58.7	38.5	37.4	2.520	Silt	160 ± 14	540 ± 26	700					
				2014/12/5	Sunny	5.8	34.5	8.9	3	Dim yellowish orange	None	0.0	0.0	0.0	0.0	0.0	1.2	47.2	51.7	41.2	2.892	Silt/clay	180 ± 16	660 ± 30	840					
				2014/5/23	Sunny	25.8	14.0	16.2	5	Dark grayish yellow	None	0.0	1.1	13.3	2.7	12.1	16.0	23.5	43.3	31.6	2.537	Silt	140 ± 18	510 ± 31	650					
				2014/8/20	Sunny	33.4	15.0	24.3	5	Gray	None	0.0	0.0	0.0	0.0	0.1	0.1	29.8	69.9	30.7	2.500	Silt	180 ± 20	650 ± 35	830					
		65	Lake Ohio (Ohio Dam)	Center	Tomioke City	2014/10/10	Sunny	25.0	8.0	18.9	3	Faint hydrogen sulfide	Faint drain	0.0	0.0	0.0	0.0	0.1	28.3	71.6	24.3	2.523	Silt	240 ± 23	930 ± 43	1,170				
						2014/12/5	Cloudy	7.1	13.5	8.0	8	Gray	Dark olive	0.0	0.4	1.2	1.2	2.8	7.4	27.5	59.5	32.0	2.574	Silt	160 ± 18	540 ± 31	700			
						2014/5/20	Cloudy	23.4	96.0	6.8	5	Grayish olive	None	0.0	0.0	0.0	0.0	0.1	0.1	11.3	88.5	42.2	2.730	Silt	43 ± 10	130 ± 14	173			
				2014/8/18	Sunny	31.1	73.7	10.5	8	Grayish olive	Faint drain	0.0	0.0	0.0	0.0	0.1	0.3	32.7	66.9	50.1	2.698	Silt	31 ± 4.5	69 ± 6.8	100					
				2014/10/9	Cloudy	18.9	80.5	9.5	7	Gray	Faint drain	0.0	0.0	0.0	0.0	0.0	0.0	34.3	65.7	42.3	2.699	Silt	32 ± 7.2	87 ± 12	119					
				2014/12/17	Sunny	5.8	87.1	5.0	6	Gray	Faint drain	0.0	0.0	0.0	0.0	0.0	0.1	38.3	61.6	36.9	2.684	Silt	62 ± 11	160 ± 17	222					
67	Lake Hebikami (Shiozawa Dam)	Center	Kanma Town	2014/8/20	Cloudy	22.3	13.0	9.8	5	Faint hydrogen sulfide	Faint drain	0.0	0.0	0.0	0.0	0.1	1.8	70.8	27.4	30.5	2.459	Silt	190 ± 19	470 ± 31	660					
				2014/8/19	Sunny	25.4	5.8	19.7	2	Faint hydrogen sulfide	None	0.0	0.0	0.0	0.0	3.6	8.1	65.6	22.6	38.6	2.481	Silt	130 ± 15	390 ± 24	520					
				2014/10/9	Cloudy	17.7	13.9	13.2	4	Gray	Faint drain	0.0	0.0	0.0	0.0	0.0	0.7	69.5	29.8	33.6	2.465	Silt	120 ± 17	470 ± 30	590					
		2014/12/8	Sunny	7.3	14.0	7.8	6	Faint hydrogen sulfide	None	0.0	0.0	0.0	0.0	0.1	0.9	70.6	28.3	37.6	2.517	Silt	150 ± 15	400 ± 25	550							
		2014/5/22	Cloudy	22.2	30.0	8.5	5	Blackish brown	None	0.0	1.8	3.9	7.8	14.3	23.8	31.3	17.0	80.7	2.605	Silt	110 ± 11	280 ± 17	390							
		2014/8/29	Cloudy	28.4	28.5	18.4	2	Faint hydrogen sulfide	None	0.0	6.9	2.2	2.5	4.2	2.9	33.4	21.6	51.8	2.547	Silt	91 ± 10	270 ± 16	361							
		68	Watarase River Area	Center	Midori City	2014/10/16	Sunny	15.9	24.4	14.6	1	Faint hydrogen sulfide	None	0.0	0.0	0.0	0.0	0.7	33.2	46.0	20.1	49.2	2.609	Silt	100 ± 9.4	300 ± 16	400			
						2014/12/12	Sunny	6.8	12.0	7.8	2	Faint hydrogen sulfide	None	0.0	0.0	0.0	0.1	0.7	42.1	38.6	18.6	52.2	2.577	Silt	95 ± 8.8	250 ± 14	345			
						2014/6/11	Cloudy	22.4	28.0	6.7	6	Dim yellowish orange	None	0.0	0.0	0.0	0.2	0.4	0.3	58.5	40.7	25.2	2.473	Silt	290 ± 28	840 ± 47	1,130			
						2014/8/29	Cloudy	25.1	27.7	8.1	7	Faint hydrogen sulfide	None	0.0	0.0	0.0	0.0	0.1	0.4	48.6	50.9	24.7	2.478	Silt	220 ± 26	780 ± 45	1,000			
						2014/10/16	Sunny	23.0	27.4	8.5	8	Faint hydrogen sulfide	None	0.0	0.0	0.0	0.0	0.3	52.8	46.9	23.1	2.519	Silt	240 ± 23	740 ± 41	980				
						2014/12/4	Cloudy	11.2	35.4	8.7	5	Olive black	Faint drain	0.0	0.0	0.0	0.0	0.0	0.0	49.4	50.6	25.3	2.508	Silt	320 ± 29	1,100 ± 52	1,420			
70	Nakatsu River			Center	Nakanojo Town	2014/6/18	Cloudy	17.9	8.5	14.1	4	Dim yellowish orange	None	0.0	0.0	0.0	0.0	0.2	1.7	71.9	26.2	30.1	2.412	Silt	500 ± 51	1,400 ± 51	1,900			
						2014/8/6	Sunny	26.3	12.0	10.7	5	Faint hydrogen sulfide	None	0.0	0.5	0.8	1.7	5.3	6.9	69.4	15.5	30.3	2.412	Silt	78 ± 13	280 ± 29	358			
						2014/10/7	Sunny	15.5	21.8	8.5	4	Grayish olive	None	0.0	0.0	0.0	0.0	0.3	5.0	70.8	24.0	27.6	2.405	Silt	330 ± 27	890 ± 44	1,220			
				2014/11/21	Sunny	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground		
				2014/5/29	Sunny	27.6	2.1	22.0	8	Black	Faint earth	0.0	0.0	0.0	0.0	0.2	1.0	73.1	25.7	17.0	2.331	Silt	190 ± 33	530 ± 47	720					
				2014/8/18	Sunny	34.2	3.0	28.8	5	Black	None	0.0	0.0	0.0	0.0	0.1	0.9	64.0	35.0	18.8	2.310	Silt	180 ± 19	520 ± 30	720					
71	Watarase River Area	Center	Tatebayashi City	2014/10/17	Sunny	23.2	1.9	18.9	8	Faint hydrogen sulfide	None	0.0	0.0	0.0	0.0	1.5	29.4	44.4	24.8	29.3	2.475	Silt	50 ± 12	210 ± 23	260					
				2014/12/9	Sunny	7.9	1.5	8.8	8	Faint hydrogen sulfide	Faint drain	0.0	0.0	0.1	2.0	29.2	25.9	20.7	22.1	34.1	2.549	Silt	61 ± 6.7	180 ± 11	241					
				2014/5/29	Sunny	29.0	7.0	21.0	10	Greenish black	Faint earth	0.0	0.0	0.0	0.0	0.0	0.1	49.4	50.5	18.9	2.328	Silt	220 ± 31	630 ± 48	850					
		2014/8/18	Cloudy	30.6	6.8	23.7	5	Black	Medium drain	0.0	0.0	0.0	0.0	0.0	0.0	60.1	39.9	19.1	2.241	Silt	160 ± 29	590 ± 45	750							
		2014/10/7	Sunny	20.9	4.4	18.4	6	Faint hydrogen sulfide	Faint drain	0.0	0.0	0.0	0.0	0.0	0.1	53.3	46.4	18.4	2.366	Silt	290 ± 33	910 ± 59	1,200							
		2014/12/18	Sunny	7.8	3.8	4.5	8	Faint hydrogen sulfide	Faint drain	0.0	0.0	0.0	0.0	0.1	0.2	42.0	57.6	17.9	2.362	Silt	110 ± 22	420 ± 39	530							

Gunma Lakes and Reservoirs (Surrounding Environment) 1/3

Location				Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air dose)								Remarks
							Soil				Air Dose (μSv/h)				
No.	Water area	Location	Municipality	Color	Odor	Property	General items				Activity concentration [Bq/kg(dry)]				
							Radioactive cesium				Air Dose (μSv/h)				
							Cs-134		Cs-137		Total		Total		
L a k e s a n d R e s e r v o i r s	Tonegawa River	Lake Okutone (Yagisawa Dam)	Center	Minakami Town	2014/5/27	Sunny	18.7	Brown	faint earth	Loamy	18 ± 6.3	66 ± 5.9	84	0.19	
					2014/8/1	Sunny	32.7	Olive black	faint earth	Loamy	77 ± 9.7	250 ± 17	327	0.19	
					2014/10/29	Sunny	8.0	Yellowish brown	faint earth	Loamy	160 ± 14	550 ± 26	710	0.20	
					2014/11/28	Cloudy	9.0	Dim yellowish brown	faint earth	Loamy	180 ± 13	610 ± 24	790	0.19	
		Lake Naramata (Naramata Dam)	Center	Minakami Town	2014/5/27	Sunny	19.7	Dim yellowish brown	faint earth	Loamy	340 ± 15	950 ± 24	1,290	0.22	
					2014/8/1	Sunny	31.7	Reddish brown	faint earth	Loamy	960 ± 32	2,900 ± 55	3,860	0.25	
					2014/10/29	Sunny	8.5	Yellowish brown	faint earth	Loamy	170 ± 13	550 ± 24	720	0.22	
					2014/11/28	Sunny	11.5	Reddish brown	faint earth	Sandy	150 ± 10	510 ± 19	660	0.21	
		Lake Dogen (Sudagai Dam)	Center	Minakami Town	2014/5/28	Sunny	26.3	Dark olive brown	faint earth	Loamy	190 ± 12	490 ± 18	680	0.21	
					2014/8/5	Sunny	34.5	Blackish brown	faint earth	Loamy	410 ± 22	1,200 ± 38	1,610	0.16	
					2014/10/2	Cloudy	20.7	Brown	faint earth	Loamy	160 ± 10	410 ± 17	570	0.22	
					2014/12/1	Light rain	11.0	Yellowish gray	faint earth	Loamy	83 ± 7.5	250 ± 13	333	0.21	
		Lake Marunuma (Marunuma Dam)	Center	Katashina Village	2014/5/26	Cloudy	13.3	Dim yellowish brown	faint earth	Loamy	20 ± 3.8	64 ± 6.9	84	0.11	
					2014/8/4	Cloudy	26.8	Blackish brown	faint earth	Loamy	29 ± 5.4	100 ± 9.8	129	0.07	
					2014/10/3	Sunny	24.7	Dark brown	faint earth	Loamy	36 ± 5.3	120 ± 9.7	156	0.10	
					2014/11/27	Cloudy	7.2	Dark grayish yellow	faint earth	Loamy	31 ± 5.8	95 ± 9.9	126	0.10	
		Lake Fujiwara (Fujiwara Dam)	Center	Minakami Town	2014/5/28	Cloudy	23.4	Grayish olive	faint earth	Loamy	170 ± 14	530 ± 23	700	0.09	
					2014/8/5	Sunny	30.6	Brown	faint earth	Loamy	290 ± 18	900 ± 30	1,190	0.08	
					2014/10/24	Sunny	17.5	Dark brown	faint earth	Loamy	300 ± 19	830 ± 32	1,130	0.07	
					2014/12/2	Sunny	5.0	Faint hydrogen sulfide	faint earth	Loamy	83 ± 11	330 ± 19	413	0.08	
Lake Tanbara (Tanbara Dam)	Center	Numata City	2014/5/29	Sunny	24.9	Dim yellowish brown	faint earth	Loamy	540 ± 23	1,500 ± 38	2,040	0.14			
			2014/8/4	Sunny	27.8	Dim yellowish orange	faint earth	Loamy	200 ± 14	670 ± 25	870	0.22			
			2014/10/3	Sunny	20.8	Brown	faint earth	Loamy	210 ± 13	620 ± 22	830	0.20			
			2014/12/10	Sunny	-4.2	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground		
Lake Akaya (Aimata Dam)	Center	Minakami Town	2014/5/29	Cloudy	22.3	Dim yellowish brown	faint earth	Loamy	170 ± 13	480 ± 21	650	0.11			
			2014/8/5	Sunny	29.6	Blackish brown	faint earth	Loamy	230 ± 17	730 ± 30	960	0.13			
			2014/10/20	Cloudy	15.1	Blackish brown	faint earth	Loamy	310 ± 19	950 ± 34	1,260	0.11			
			2014/12/2	Sunny	5.8	Black	faint earth	Loamy	130 ± 13	440 ± 23	570	0.12			
Lake Sonohara (Sonohara Dam)	Center	Numata City	2014/5/22	Cloudy	27.4	Blackish brown	faint earth	Loamy	340 ± 18	990 ± 31	1,330	0.11			
			2014/8/21	Cloudy	27.1	Black	faint earth	Loamy	190 ± 15	560 ± 26	750	0.12			
			2014/10/14	Sunny	18.2	Blackish brown	faint earth	Loamy	240 ± 17	750 ± 29	990	0.12			
			2014/12/10	Cloudy	7.2	Blackish brown	faint earth	Loamy	62 ± 7.7	220 ± 13	282	0.12			
Lake Akagionuma	Center	Maebashi City	2014/5/26	Cloudy	12.7	Blackish brown	faint earth	Loamy	130 ± 12	430 ± 22	560	0.10			
			2014/8/21	Cloudy	27.3	Dark brown	None	Loamy	170 ± 12	530 ± 21	700	0.10			
			2014/10/30	Sunny	8.3	Blackish brown	faint earth	Loamy	170 ± 12	520 ± 22	690	0.12			
			2014/11/27	Cloudy	4.0	Olive brown	faint earth	Loamy	210 ± 17	660 ± 29	870	0.10			

Gunma Lakes and Reservoirs (Surrounding Environment) 2/3

Location				Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air dose)							Remarks	
							Soil			Air Dose (μSv/h)					
No.	Water area	Location	Municipality	Color	Odor	Property	General items			Activity concentration [Bq/kg(dry)]					
							Radioactive cesium			Total	Air Dose (μSv/h)				
							Cs-134	Cs-137	Total						
L a k e s a n d R e s e r v o i r s	58	Lake Okushima Lake (Sonohara Dam)	Center	Nakanoyo Town	2014/5/30	Sunny	27.1	Blackish brown	faint earth	Loamy	350 ± 19	1,100 ± 34	1,450	0.21	
					2014/8/6	Sunny	30.3	Dim yellowish brown	faint earth	Loamy	490 ± 21	1,500 ± 36	1,990	0.22	
					2014/10/7	Sunny	17.8	Brown	faint earth	Loamy	330 ± 17	1,000 ± 30	1,330	0.24	
					2014/11/28	Sunny	11.6	Blackish brown	faint earth	Loamy	560 ± 24	1,800 ± 44	2,360	0.20	
					2014/5/30	Sunny	28.3	Dark brown	faint earth	Loamy	430 ± 24	1,200 ± 41	1,630	0.11	
					2014/8/5	Sunny	33.0	Blackish brown	faint earth	Loamy	150 ± 12	430 ± 20	580	0.07	
	59	Agatsuma River Area	Lake Shimako (Nakanoyo Dam)	Center	Nakanoyo Town	2014/10/2	Cloudy	17.6	Blackish brown	faint earth	Loamy	110 ± 11	380 ± 19	490	0.11
						2014/11/27	Sunny	13.0	Blackish brown	faint earth	Loamy	120 ± 13	440 ± 24	560	0.07
						2014/6/5	Light rain	13.5	Dark reddish brown	faint earth	Loamy	67 ± 11	170 ± 16	237	0.08
						2014/8/7	Sunny	28.8	Dim yellowish orange	None	Loamy	39 ± 4.6	150 ± 8.5	189	0.08
						2014/10/8	Sunny	16.1	Dark brown	faint earth	Loamy	59 ± 11	250 ± 19	309	0.10
						2014/11/20	Sunny	2.0	Blackish brown	faint earth	Loamy	130 ± 14	390 ± 23	520	0.10
	60	Agatsuma River Area	Lake Tashiro (Kazawa Dam)	Center	Tsumagoi Village	2014/5/19	Sunny	14.5	Blackish brown	faint earth	Loamy	460 ± 23	1,200 ± 37	1,660	0.28
						2014/8/7	Sunny	23.2	Dark brown	faint earth	Loamy	140 ± 12	410 ± 20	550	0.27
						2014/10/8	Sunny	15.8	Blackish brown	faint earth	Loamy	510 ± 25	1,500 ± 43	2,010	0.25
						2014/11/20	Cloudy	6.5	Blackish brown	faint earth	Loamy	450 ± 24	1,500 ± 44	1,950	0.23
						2014/5/27	Cloudy	22.7	Brown	faint earth	Loamy	150 ± 15	450 ± 24	600	0.09
						2014/8/28	Cloudy	21.0	Light reddish brown	faint earth	Loamy	470 ± 25	1,300 ± 43	1,770	0.08
	61	Karasu River	Lake Haruna	Center	Takasaki City/Higashi-Aganuma Town	2014/10/15	Sunny	17.9	Dim yellowish brown	faint earth	Loamy	190 ± 16	540 ± 27	730	0.10
						2014/12/3	Sunny	2.1	Dim yellowish brown	faint earth	Loamy	120 ± 13	430 ± 24	550	0.11
2014/5/27						Sunny	25.2	Black	faint earth	Loamy	140 ± 12	430 ± 21	570	0.10	
2014/9/2						Sunny	21.6	Blackish brown	faint earth	Loamy	290 ± 19	880 ± 33	1,170	0.09	
2014/10/15						Cloudy	15.5	Blackish brown	faint earth	Loamy	400 ± 24	1,200 ± 42	1,600	0.10	
2014/12/3						Sunny	6.0	Blackish brown	faint earth	Loamy	140 ± 12	430 ± 21	570	0.10	
62	Karasu River	Lake Kirizumi (Kirizumi Dam)	Center	Annaka City	2014/5/23	Sunny	20.0	Dark brown	faint earth	Loamy	91 ± 10	250 ± 15	341	0.10	
					2014/8/20	Sunny	31.4	Dark brown	None	Loamy	78 ± 9.2	230 ± 16	308	0.09	
					2014/10/10	Sunny	19.9	Dark brown	faint earth	Loamy	51 ± 7.8	160 ± 13	211	0.07	
					2014/12/5	Sunny	5.8	Dim yellowish brown	faint earth	Loamy	34 ± 6.7	140 ± 12	174	0.14	
					2014/5/23	Sunny	25.8	Dark brown	faint earth	Loamy	150 ± 12	520 ± 22	670	0.09	
					2014/8/20	Sunny	33.4	Dim yellowish brown	None	Loamy	120 ± 11	350 ± 20	470	0.08	
63	Karasu River	Lake Utsuiko (Sakamoto Dam)	Center	Shimonita Town	2014/10/10	Sunny	25.0	Dark brown	faint earth	Loamy	100 ± 9.8	290 ± 16	390	0.11	
					2014/12/5	Cloudy	7.1	Blackish brown	faint earth	Loamy	110 ± 11	420 ± 21	530	0.13	
					2014/5/23	Sunny	25.8	Dark brown	faint earth	Loamy	150 ± 12	520 ± 22	670	0.09	
					2014/8/20	Sunny	33.4	Dim yellowish brown	None	Loamy	120 ± 11	350 ± 20	470	0.08	
64	Karasu River	Lake Arafune (Dodairagawa Dam)	Center	Shimonita Town	2014/10/10	Sunny	19.9	Dark brown	faint earth	Loamy	51 ± 7.8	160 ± 13	211	0.07	
					2014/12/5	Sunny	5.8	Dim yellowish brown	faint earth	Loamy	34 ± 6.7	140 ± 12	174	0.14	
65	Karasu River	Lake Oshio (Oshio Dam)	Center	Tomioka City	2014/5/23	Sunny	25.8	Dark brown	faint earth	Loamy	150 ± 12	520 ± 22	670	0.09	
					2014/8/20	Sunny	33.4	Dim yellowish brown	None	Loamy	120 ± 11	350 ± 20	470	0.08	
65	Karasu River	Lake Oshio (Oshio Dam)	Center	Tomioka City	2014/10/10	Sunny	25.0	Dark brown	faint earth	Loamy	100 ± 9.8	290 ± 16	390	0.11	
					2014/12/5	Cloudy	7.1	Blackish brown	faint earth	Loamy	110 ± 11	420 ± 21	530	0.13	

Gunma Lakes and Reservoirs (Surrounding Environment) 3/3

Location				Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air dose)									Remarks
							Soil						Air Dose (μSv/h)			
No.	Water area	Location	Municipality				Color	Odor	Property	General items			Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)
										Radioactive cesium			Total			
										Cs-134	Cs-137	Total	Cs-134	Cs-137	Total	
L a k e s a n d R e s e r v o i r s	66	Karasu River	Lake Kanna (Shimokubo Dam)	Center	Fujioke City/Kamikawa Town	2014/5/20	Cloudy	23.4	Dim yellowish brown	None	Loamy	110 ± 12	330 ± 21	440	0.06	
						2014/8/18	Sunny	31.1	Blackish brown	faint earth	Loamy	21 ± 5.4	86 ± 9.7	107	0.05	
						2014/10/9	Cloudy	18.9	Blackish brown	faint earth	Loamy	26 ± 2.7	88 ± 4.7	114	0.05	
						2014/12/17	Sunny	5.8	Blackish brown	faint earth	Loamy	47 ± 9.2	170 ± 15	217	0.05	
						2014/5/20	Cloudy	22.3	Dim yellowish orange	None	Loamy	83 ± 10	240 ± 16	323	0.09	
	67	Lake Hebikami (Shiozawa Dam)	Center	Kanna Town	2014/8/19	Sunny	25.4	Olive black	faint earth	Loamy	20 ± 4.2	59 ± 6.8	79	0.09		
					2014/10/9	Cloudy	17.7	Olive black	faint earth	Loamy	45 ± 6.1	110 ± 9.3	155	0.07		
					2014/12/8	Sunny	7.3	Blackish brown	faint earth	Loamy	28 ± 4.9	75 ± 7.6	103	0.08		
					2014/5/22	Cloudy	22.2	Dark brown	faint earth	Loamy	260 ± 17	720 ± 28	980	0.13		
	68	Watarase River Area	Lake Kusaki (Kusaki Dam)	Center	Midori City	2014/8/29	Cloudy	28.4	Dark brown	faint earth	Loamy	340 ± 21	1,200 ± 39	1,540	0.13	
2014/10/16						Sunny	15.9	Dark brown	faint earth	Loamy	170 ± 12	490 ± 20	660	0.13		
2014/12/12						Sunny	6.8	Dim yellowish brown	faint earth	Loamy	180 ± 13	660 ± 25	840	0.14		
2014/6/11						Cloudy	22.4	Olive black	faint earth	Loamy	65 ± 10	200 ± 16	265	0.08		
69	Lake Umeda (Kiryugawa Dam)	Center	Kiryu City	2014/8/29	Cloudy	25.1	Dim yellowish brown	faint earth	Loamy	85 ± 10	270 ± 18	355	0.08			
				2014/10/16	Sunny	23.0	Dim yellowish orange	faint earth	Loamy	51 ± 7.9	130 ± 12	181	0.07			
				2014/12/4	Cloudy	11.2	Dim yellowish brown	faint earth	Loamy	59 ± 7.1	180 ± 12	239	0.07			
				2014/6/18	Cloudy	17.9	Dim yellowish brown	faint earth	Loamy	40 ± 9.4	160 ± 15	200	0.06			
70	Nakatsu River	Lake Nozori (Nozori Dam)	Center	Nakanojo Town	2014/8/6	Sunny	26.3	Dim yellowish brown	None	Loamy	41 ± 7.6	140 ± 14	181	0.07		
					2014/10/7	Sunny	15.3	Brown	faint earth	Loamy	170 ± 15	520 ± 25	690	0.06		
					2014/11/21	Sunny	2.0	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
					2014/5/29	Sunny	27.6	Olive black	faint earth	Loamy	43 ± 7.0	140 ± 12	183	0.06		
71	Watarase River Area	Lake Jonuma	Center	Tatebayashi City	2014/8/18	Sunny	34.2	Brown	faint earth	Loamy	31 ± 6.5	100 ± 10	131	0.05		
					2014/10/17	Sunny	23.2	Dark olive brown	faint earth	Loamy	49 ± 6.5	130 ± 11	179	0.05		
					2014/12/9	Sunny	7.9	Brown	faint earth	Loamy	17 ± 2.4	46 ± 3.6	63	0.06		
					2014/5/29	Sunny	29.0	Olive black	faint earth	Loamy	15 ± 3.9	37 ± 6.2	52	0.05		
72	Lake Tataranuma	Center		2014/8/18	Cloudy	30.6	Dim yellowish brown	faint earth	Loamy	<6.6 ± 2.0	13 ± 2.7	13	0.06			
				2014/10/17	Sunny	20.9	Dark brown	faint earth	Loamy	<5.6 ± 1.7	12 ± 2.3	12	0.05			
				2014/12/18	Sunny	7.8	Brown	faint earth	Loamy	5.6 ± 1.7	11 ± 2.1	16.6	0.05			

