

FY2012 Tochigi Prefecture Survey Results

[Survey Results]

Radioactive iodine was not detectable at any of the locations tested.

4.5.1 Water Quality

Rivers

Cs-134: ND

Cs-137: ND-0.77Bq/L

Lakes and headwaters

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

4.5.2 Sediment

Rivers

Cs-134: ND-680Bq/kg (dried mud)

Cs-137: ND-1,100Bq/kg (dried mud)

Lakes and headwaters

Cs-134: ND-1,600Bq/kg (dried mud)

Cs-137: 11-2,600Bq/kg (dried mud)

4.5.3 Surrounding Environment

(1) Soil

Rivers

Cs-134: ND-13,000Bq/kg (dry)

Cs-137: 13-19,000Bq/kg (dry)

Lakes and headwaters

Cs-134: 26-1,800Bq/kg (dry)

Cs-137: 43-3,200Bq/kg (dry)

(2) Spatial dose

Rivers 0.06-0.86 μ Sv/h

Lakes and headwaters 0.08-0.56 μ Sv/h

Table 4.5.1.1 Tochigi Pref. River (Water Quality)

No.	Sampling point			Sampling date	Weather	Air temperature °C	Full depth m	Water quality										Remarks	
	Water Body	Point	Municipality					General items						Radioactive material concentrations (Bq/L)					
								Water temperature °C	Sampling depth m	Color	Odor	Transparency cm	Electrical conductivity mS/m	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137		
1	Nakagawa River	Ikuyobashishita	Nasuoharashi City	2012/08/29	Sunny	31.0	0.2	19.2	0.0	Yellow greenish white	None	>100	16.3	<1	0.2	-0.60	-0.78	-0.75	
				2012/09/18	Cloudy	24.7	0.6	18.3	0.0	Yellowish white	None	>100	19.2	<1	0.3	-0.62	-0.66	-0.54	
				2012/12/18	Rain	4.1	0.6	6.6	0.0	Greenish white	None	>100	15.0	<1	<0.1	-0.44	-0.58	-0.59	
		2013/02/13		Sunny	-0.1	0.4	6.3	0.0	Light grayish yellowish green	None	>100	17.7	<1	0.2	-0.59	-0.83	-0.70		
		2012/06/19		Rain	16.4	0.2	15.3	0.0	Yellow greenish white	None	>100	11.7	<1	1.3	-0.55	-0.61	-0.51		
		2012/09/10		Sunny	29.6	0.4	20.9	0.0	Light grayish yellow	None	>100	14.8	<1	0.3	-0.55	-0.66	-0.53		
	2	Nakagawa River	Komeibashi Bridge	Nasuoharashi City	2012/12/18	Sunny	7.3	0.3	6.7	0.0	Yellow greenish white	None	>100	15.9	<1	0.1	-0.44	-0.58	-0.62
					2013/02/13	Sunny	1.5	0.4	5.9	0.0	Light grayish yellow	None	>100	18.0	<1	0.2	-0.55	-0.83	-0.62
					2012/06/20	Sunny	20.2	0.7	15.0	0.0	Reddish yellowish gray	None	58	10.4	5.2	1.2	-0.61	-0.70	-0.75
					2012/09/10	Sunny	28.0	0.2	18.8	0.0	Yellow greenish white	None	>100	19.1	<1	0.4	-0.70	-0.98	-0.62
					2012/12/18	Sunny	8.0	0.4	8.2	0.0	Yellow greenish white	None	>100	18.8	<1	0.2	-0.48	-0.56	-0.55
					2013/02/14	Sunny	2.3	0.3	6.1	0.0	Light grayish reddish yellow	None	>100	18.6	1.0	1.0	-0.64	-0.78	-0.64
3	Takaomatagawa River	Takaomatashi Bridge	Nasunouchi Town	2012/06/20	Sunny	24.0	0.3	17.3	0.0	Light grayish yellow	None	68	15.3	8.5	2.5	-0.45	-0.53	-0.59	
				2012/09/10	Sunny	25.6	0.2	22.1	0.0	Yellow greenish white	None	>100	33.1	1.9	1.0	-0.48	-0.72	-0.42	
				2012/12/18	Sunny	8.7	0.3	9.5	0.0	Yellow greenish white	None	>100	31.8	<1	0.4	-0.48	-0.69	-0.49	
				2013/02/14	Sunny	1.9	0.4	6.7	0.0	Light grayish reddish yellow	None	90	35.9	2.1	1.2	-0.48	-0.58	-0.54	
				2012/06/04	Sunny	27.7	0.3	21.0	0.0	Colorless transparent	None	>100	16.9	1.8	1.4	-0.55	-0.64	-0.47	
				2012/06/25	Cloudy	19.2	0.2	16.0	0.0	Greenish yellowish white	None	81	16.3	1.2	1.1	-0.65	-0.70	-0.62	
4	Yakawa River	Yakawabashi Bridge	Nasuoharashi City/ Nasunouchi Town	2012/08/01	Sunny	30.8	0.2	23.0	0.0	Yellowish white	None	>100	20.1	<1	0.5	-0.54	-0.64	-0.55	
				2012/08/21	Sunny	31.0	0.2	24.9	0.0	Colorless transparent	None	>100	19.4	<1	0.3	-0.51	-0.64	-0.57	
				2012/09/24	Cloudy	20.5	0.3	18.9	0.0	Grayish green	None	>100	17.6	1.3	0.6	-0.55	-0.59	-0.69	
				2012/12/18	Cloudy	5.8	0.2	8.2	0.0	Yellow greenish white	None	>100	21.7	<1	0.2	-0.45	-0.53	-0.52	
				2013/02/14	Sunny	8.2	0.4	8.5	0.0	Light grayish greenish yellow	None	98	24.2	<1	0.3	-0.47	-0.53	-0.50	
				2012/06/22	Cloudy	25.0	0.3	16.7	0.0	Yellow greenish white	None	>100	11.6	<1	0.5	-0.52	-0.66	-0.60	
5	Yosotsugawa River	Yosotsubashi Bridge	Nasunouchi Town	2012/09/10	Sunny	28.4	0.1	25.1	0.0	Greenish yellowish white	None	>100	17.2	<1	0.4	-0.50	-0.68	-0.69	
				2012/12/18	Sunny	8.6	0.4	10.3	0.0	Greenish yellowish white	None	>100	18.3	<1	0.3	-0.55	-0.66	-0.59	
				2013/02/13	Sunny	1.1	0.2	2.2	0.0	Greenish yellowish white	None	>100	12.5	<1	0.2	-0.56	-0.61	-0.45	
				2012/06/04	Sunny	27.6	1.1	23.9	0.0	Grayish greenish yellow	None	>100	9.7	<1	0.4	-0.44	-0.63	-0.44	
				2012/09/10	Sunny	28.1	0.4	27.6	0.0	Greenish yellowish white	None	>100	13.8	1.3	0.8	-0.49	-0.56	-0.59	
				2012/12/19	Sunny	0.2	0.3	3.9	0.0	Yellowish white	Faint seaweed	>100	12.1	<1	0.5	-0.50	-0.63	-0.60	
6	Kurokawa River	Shindenbashi Bridge	Nasunouchi Town	2013/02/13	Sunny	5.1	0.5	2.5	0.0	Greenish yellowish white	None	>100	7.3	<1	0.5	-0.43	-0.67	-0.37	
				2012/06/04	Sunny	25.0	0.2	24.1	0.0	Colorless transparent	None	>100	33.8	<1	1.2	-0.57	-0.83	-0.60	
				2012/06/26	Sunny	22.7	0.5	16.9	0.0	Yellowish white	None	>100	11.1	<1	0.4	-0.58	-0.61	-0.57	
				2012/08/01	Sunny	27.3	0.4	28.7	0.0	Greenish yellowish white	None	>100	25.4	1.2	0.4	-0.50	-0.53	-0.54	
				2012/08/21	Sunny	28.5	0.5	28.7	0.0	Greenish yellowish white	None	>100	12.5	<1	0.5	-0.51	-0.74	-0.53	
				2012/09/25	Cloudy	19.7	0.6	18.4	0.0	Light grayish greenish yellow	None	95	34.3	1.8	0.5	-0.48	-0.53	-0.59	
7	Yosotsugawa River	Kawabashi Bridge	Otawarashi City	2012/12/19	Sunny	2.1	0.5	4.4	0.0	Reddish yellowish pale gray	None	94	39.9	4.0	2.6	-0.44	-0.50	-0.63	
				2013/02/13	Sunny	3.3	0.5	2.6	0.0	Greenish yellowish white	None	>100	9.9	4.3	1.4	-0.65	-0.87	-0.68	
				2012/06/04	Sunny	24.1	0.2	20.0	0.0	Colorless transparent	None	>100	13.9	<1	0.3	-0.54	-0.59	-0.60	
				2012/06/26	Sunny	24.3	0.2	17.9	0.0	Greenish yellowish white	None	>100	13.1	<1	0.5	-0.48	-0.71	-0.52	
				2012/08/01	Sunny	33.0	0.2	27.7	0.0	Greenish yellowish white	None	>100	16.0	<1	0.5	-0.58	-0.85	-0.71	
				2012/08/22	Cloudy	30.0	0.1	25.8	0.0	Colorless transparent	None	>100	14.8	<1	0.6	-0.58	-0.77	0.77	
8	Nakagawa River	Kurobane	Nasunouchi Town	2012/09/25	Cloudy	17.8	0.2	19.4	0.0	Grayish greenish yellow	None	97	15.8	1.6	0.5	-0.51	-0.56	-0.60	
				2012/12/19	Sunny	2.5	0.2	6.2	0.0	Grayish yellow green	None	90	19.4	5.4	2.0	-0.55	-0.66	-0.60	
				2013/02/13	Sunny	5.5	0.4	4.8	0.0	Greenish yellowish white	None	>100	12.0	1.2	0.9	-0.45	-0.60	-0.57	

Table 4.5.1.1 Tochigi Pref. River (Water Quality)

No.	Sampling point			Sampling date	Weather	Air temperature °C	Full depth m	Water quality											Remarks
	Water Body	Point	Municipality					General items						Radioactive material concentrations (Bq/L)					
								Water temperature °C	Sampling depth m	Color	Odor	Transparency cm	Electrical conductivity µS/cm	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137		
10	Matsubagawa River	Tributary	Oyawashi City	2012/06/04	Sunny	23.8	0.6	20.5	0.0	Colorless transparent	None	>100	8.6	2.0	1.8	-0.48	-0.63	-0.66	
				2012/06/26	Sunny	25.9	0.7	19.7	0.0	Yellow greenish white	None	>100	9.3	1.0	1.1	-0.63	-0.83	-0.70	
				2012/08/01	Sunny	33.5	0.4	26.1	0.0	Greenish yellowish white	None	>100	10.9	1.1	0.6	-0.48	-0.53	-0.57	
				2012/08/22	Cloudy	30.2	0.3	24.1	0.0	Colorless transparent	None	>100	9.9	<1	0.7	-0.44	-0.63	-0.56	
				2012/09/25	Cloudy	24.6	0.7	19.3	0.0	Light grayish yellow	None	>100	9.9	3.0	0.8	-0.43	-0.48	-0.50	
				2012/12/19	Sunny	8.9	0.5	6.5	0.0	Yellow greenish white	None	>100	11.0	<1	0.3	-0.46	-0.61	-0.56	
	11	Sabigawa River	Udagawahashi Bridge	Oyawashi City	2013/02/13	Sunny	8.3	0.3	4.5	0.0	Greenish yellowish white	None	>100	6.5	<1	0.5	-0.44	-0.64	-0.47
					2012/06/05	Cloudy	22.0	0.4	17.5	0.0	Colorless transparent	None	>100	12.1	<1	0.4	-0.65	-0.78	-0.62
					2012/09/04	Cloudy	25.0	0.4	21.1	0.0	Yellow greenish white	None	>100	13.3	<1	0.4	-0.65	-0.78	-0.68
					2012/12/20	Sunny	7.4	0.3	11.1	0.0	Greenish yellowish white	None	>100	15.1	<1	0.3	-0.48	-0.61	-0.52
					2013/02/13	Sunny	8.3	0.2	10.3	0.0	Greenish yellowish white	None	>100	11.4	<1	0.5	-0.52	-0.64	-0.65
					2012/06/05	Cloudy	21.2	0.2	17.6	0.0	Colorless transparent	None	>100	16.8	1.3	0.6	-0.47	-0.58	-0.54
12	Momuragawa River	Momurankabashi Bridge	Oyawashi City	2012/09/04	Cloudy	26.6	0.5	19.2	0.0	Yellow greenish white	None	>100	17.7	<1	0.3	-0.56	-0.64	-0.62	
				2012/12/20	Sunny	9.2	0.5	13.5	0.0	Yellowish white	None	>100	20.1	<1	0.3	-0.54	-0.68	-0.57	
				2013/02/13	Sunny	8.4	0.4	12.6	0.0	Greenish yellowish white	None	>100	15.7	<1	0.4	-0.48	-0.48	-0.54	
				2012/08/29	Sunny	27.1	0.2	22.7	0.0	Yellow greenish white	None	>100	23.3	<1	0.5	-0.51	-0.70	-0.55	
				2012/09/18	Rain	22.2	0.3	20.5	0.0	Greenish yellowish white	None	97	25.5	2.5	1.1	-0.46	-0.63	-0.47	
				2012/12/17	Rain	5.4	0.2	7.8	0.0	Light grayish yellow green	None	>100	27.5	1.0	0.5	-0.50	-0.74	-0.53	
13	Yunohara	Nasuhibarashi City	Nasuhibarashi City	2013/02/12	Sunny	1.9	0.5	5.8	0.0	Colorless transparent	None	>100	18.9	<1	0.5	-0.54	-0.59	-0.60	
				2012/06/22	Cloudy	23.0	0.8	15.2	0.0	Light grayish yellow	None	40	10.3	1.3	1.5	-0.48	-0.53	-0.66	
				2012/09/04	Cloudy	24.0	0.6	20.6	0.0	Yellow greenish white	None	>100	20.2	2.1	0.5	-0.57	-0.56	-0.65	
				2012/12/17	Rain	5.5	0.6	6.8	0.0	Yellowish white	None	>100	25.7	<1	0.5	-0.50	-0.61	-0.62	
				2013/02/12	Cloudy, then sunny	3.3	0.7	3.7	0.0	Colorless transparent	None	>100	17.6	<1	0.3	-0.45	-0.56	-0.56	
				2012/06/06	Cloudy	19.6	0.3	17.5	0.0	Colorless transparent	None	>100	17.7	<1	0.3	-0.68	-0.73	-0.66	
14	Hokigawa River	Iwabashi Bridge	Oyawashi City	2012/09/04	Cloudy	29.7	0.4	24.6	0.0	Greenish yellowish white	None	>100	17.8	1.9	1.0	-0.42	-0.65	-0.52	
				2012/12/20	Sunny	1.5	0.9	8.0	0.0	Light grayish greenish yellow	None	>100	22.5	<1	0.3	-0.44	-0.71	-0.57	
				2013/02/14	Cloudy	-1.6	0.6	2.9	0.0	Greenish yellowish white	None	>100	14.9	<1	0.7	-0.55	-0.53	-0.66	
				2012/06/05	Cloudy	23.4	0.2	20.2	0.0	Colorless transparent	None	>100	15.3	2.4	1.3	-0.61	-0.61	-0.62	
				2012/06/26	Sunny	25.0	0.2	21.2	0.0	Yellow greenish white	None	63	14.7	<1	0.8	-0.44	-0.56	-0.52	
				2012/08/01	Sunny	32.2	0.3	25.4	0.0	Greenish yellowish white	None	59	16.5	1.3	0.6	-0.48	-0.66	-0.57	
	15	Hokigawabashi Bridge	Oyawashi City	Oyawashi City	2012/08/22	Sunny	32.0	0.6	25.0	0.0	Yellow greenish white	None	>100	16.0	<1	0.6	-0.53	-0.74	-0.63
					2012/09/25	Cloudy	21.4	0.2	20.6	0.0	Yellowish white	None	>100	16.7	1.1	0.8	-0.60	-0.75	-0.68
					2012/12/20	Sunny	3.4	0.6	9.3	0.0	Light grayish green	None	>100	20.5	<1	0.4	-0.55	-0.68	-0.62
					2013/02/14	Sunny	0.6	0.4	6.4	0.0	Greenish yellowish white	None	>100	13.1	<1	0.5	-0.62	-0.63	-0.66
					2012/06/05	Cloudy	23.4	0.4	20.7	0.0	Colorless transparent	None	>100	17.4	1.5	0.6	-0.53	-0.48	-0.62
					2012/06/26	Sunny	28.2	0.3	21.6	0.0	Yellow greenish pale gray	None	>100	29.4	<1	0.3	-0.58	-0.56	-0.63
16	Nakagawa River	Shimukabashi Bridge	Nakagawamachi Town	2012/08/01	Sunny	31.5	0.2	25.1	0.0	Greenish yellowish white	None	>100	16.2	<1	0.5	-0.64	-0.80	-0.70	
				2012/08/22	Sunny	31.0	0.3	27.2	0.0	Yellow greenish white	None	>100	10.0	1.0	0.8	-0.67	-0.87	-0.58	
				2012/09/25	Cloudy	24.8	0.3	20.8	0.0	Yellow reddish pale gray	None	>100	17.8	1.2	0.6	-0.48	-0.64	-0.49	
				2012/12/20	Sunny	2.9	0.3	6.9	0.0	Light grayish yellow green	None	>100	21.0	<1	0.4	-0.41	-0.56	-0.52	
				2013/02/14	Cloudy	4.8	0.2	6.2	0.0	Greenish yellowish white	None	>100	13.5	1.1	0.8	-0.55	-0.66	-0.57	
				2012/06/05	Sunny	23.7	0.7	20.0	0.0	Colorless transparent	None	>100	10.0	<1	0.7	-0.62	-0.60	-0.62	
	17	Mumogawa River	Koseibashi Bridge	Nakagawamachi Town	2012/06/27	Sunny	20.8	0.3	17.5	0.0	Yellow greenish white	None	>100	9.5	<1	0.5	-0.52	-0.44	-0.57
					2012/07/31	Sunny	30.8	0.5	27.5	0.0	Greenish yellowish white	None	>100	11.3	<1	0.5	-0.48	-0.67	-0.54
					2012/08/22	Sunny	32.0	0.1	25.0	0.0	Colorless transparent	None	>100	11.0	<1	0.4	-0.40	-0.69	-0.52
					2012/09/25	Cloudy	22.0	0.5	20.2	0.0	Light grayish yellow	None	90	10.6	2.0	0.9	-0.50	-0.51	-0.56
					2012/12/20	Sunny	-1.9	0.7	3.2	0.0	Grayish yellow green	Fish and shellfish	>100	14.1	1.6	0.7	-0.60	-0.66	-0.53
					2013/02/14	Sunny	5.9	0.4	3.7	0.0	Greenish yellowish white	None	>100	8.1	<1	0.6	-0.47	-0.48	-0.47

Table 4.5.1.1 Tochigi Pref. River (Water Quality)

No.	Sampling point			Sampling date	Weather	Air temperature °C	Full depth m	Water quality										Remarks		
	Water Body	Point	Municipality					General items						Radioactive material concentrations (Bq/L)						
								Water temperature °C	Sampling depth m	Color	Odor	Transparency cm	Electrical conductivity μS/m	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137			
R i v e r S y s t e m	N a k a g a w a R i v e r	Arakawa River	Saikachibashi Bridge	Shioyamachi Town	2012/06/13	Cloudy	20.1	0.7	17.1	0.0	Dark grayish yellow green	None	>100	6.1	<1	0.7	<-0.52	<-0.70	<-0.57	
					2012/09/04	Rain	27.0	0.5	23.4	0.0	Yellow greenish white	None	>100	7.2	<1	0.4	<-0.60	<-0.63	<-0.66	
					2012/12/19	Sunny	4.4	0.7	8.3	0.0	Light grayish yellow	None	>100	7.6	1.2	1.1	<-0.48	<-0.58	<-0.56	
					2013/02/12	Sunny	6.2	0.2	5.1	0.0	Greenish yellowish white	None	>100	5.0	1.0	1.1	<-0.54	<-0.72	<-0.59	
		20	Renjohashi Bridge	Sakarashi City	2012/06/06	Cloudy	19.3	0.2	18.6	0.0	Colorless transparent	None	>100	11.4	2.5	1.3	<-0.56	<-0.53	<-0.59	
					2012/09/04	Sunny	32.0	0.4	25.9	0.0	Yellow greenish white	None	>100	12.5	<1	0.6	<-0.65	<-0.80	<-0.64	
					2012/12/21	Sunny	0.8	0.3	8.5	0.0	Yellow greenish white	Seaweed	>100	15.5	<1	0.5	<-0.52	<-0.70	<-0.59	
		21	Tanakabashi Bridge	Yaitashi City	2013/02/14	Cloudy	7.7	0.3	9.5	0.0	Greenish yellowish white	None	>100	11.6	<1	0.9	<-0.39	<-0.53	<-0.56	
					2012/06/06	Cloudy	20.0	0.2	18.0	0.0	Colorless transparent	None	98	11.9	2.3	1.3	<-0.51	<-0.67	<-0.56	
					2012/09/04	Sunny	32.0	0.3	25.7	0.0	Greenish yellowish white	None	82	11.3	2.1	0.7	<-0.51	<-0.59	<-0.57	
	2012/12/19				Sunny	2.9	0.4	7.9	0.0	Reddish yellowish pale gray	Seaweed	>100	11.0	1.9	1.1	<-0.51	<-0.68	<-0.65		
	22	Asahibashi Bridge	Sakarashi City	2013/02/12	Cloudy	3.8	0.3	5.2	0.0	Greenish yellowish white	None	65	7.4	2.7	3.7	<-0.46	<-0.58	<-0.60		
				2012/06/06	Cloudy	20.2	0.4	19.4	0.0	Colorless transparent	None	>100	14.3	1.7	0.9	<-0.70	<-0.78	<-0.68		
				2012/09/04	Sunny	34.0	0.5	26.2	0.0	Yellow greenish white	None	>100	13.3	<1	0.6	<-0.46	<-0.76	<-0.61		
				2012/12/21	Sunny	-0.1	0.5	6.5	0.0	Yellowish white	None	>100	21.6	<1	0.5	<-0.49	<-0.53	<-0.54		
	23	Arakawa River	Mukadabashi Bridge	Nasukarasuyamashi City	2013/02/14	Cloudy	8.4	0.4	9.5	0.0	Greenish yellowish white	None	>100	20.0	1.3	1.0	<-0.45	<-0.59	<-0.53	
					2012/06/05	Cloudy	23.6	0.9	20.8	0.0	Colorless transparent	None	>100	14.1	1.4	0.7	<-0.67	<-0.72	<-0.73	
					2012/06/27	Sunny	24.5	0.2	22.1	0.0	Yellow greenish white	None	87	13.7	1.0	1.1	<-0.56	<-0.66	<-0.60	
					2012/07/31	Sunny	33.5	0.5	28.5	0.0	Greenish yellowish white	None	72	14.1	2.4	0.9	<-0.49	<-0.66	<-0.49	
					2012/08/22	Sunny	33.0	0.2	25.0	0.0	Yellow greenish white	None	>100	17.3	<1	1.0	<-0.52	<-0.67	<-0.63	
2012/09/25					Cloudy	19.3	0.6	20.7	0.0	Light grayish greenish yellow	None	93	12.6	1.8	0.6	<-0.58	<-0.66	<-0.62		
24	Egawa River	Tributary	Nasukarasuyamashi City	2012/12/21	Sunny	8.3	0.5	6.8	0.0	Light grayish yellow	Faint seaweed	50	20.9	8.1	5.8	<-0.46	<-0.65	<-0.56		
				2013/02/15	Rain	4.4	1.1	6.5	0.0	Greenish yellowish white	None	>100	14.9	2.4	1.3	<-0.65	<-0.70	<-0.62		
				2012/06/05	Cloudy	23.6	0.6	22.4	0.0	Colorless transparent	None	>100	14.5	<1	0.7	<-0.46	<-0.63	<-0.54		
				2012/06/27	Sunny	26.2	0.4	21.4	0.0	Grayish yellow green	None	23	14.0	20	5.5	<-0.48	<-0.66	<-0.63		
				2012/07/31	Sunny	35.4	0.2	31.3	0.0	Greenish yellowish white	None	90	15.6	1.4	0.9	<-0.57	<-0.70	<-0.55		
				2012/08/22	Sunny	31.0	0.2	27.0	0.0	Yellow greenish white	None	>100	15.7	1.7	1.1	<-0.62	<-0.90	<-0.60		
				2012/09/25	Cloudy	21.0	0.3	21.5	0.0	Grayish yellow	None	50	15.3	8.6	1.8	<-0.53	<-0.68	<-0.55		
				2012/12/21	Sunny	8.5	0.2	4.6	0.0	Yellow greenish white	Seaweed	>100	21.3	<1	0.7	<-0.48	<-0.56	<-0.62		
25	T o n e g a w a R i v e r	Kinugawa River	Kawaji Daiichi Power Station, front	Nikkoshi City	2013/02/15	Cloudy	6.2	0.3	5.5	0.0	Greenish yellowish white	None	>100	12.7	1.6	1.3	<-0.52	<-0.68	<-0.60	
					2012/08/30	Cloudy	29.3	0.4	20.0	0.0	Yellowish white	None	>100	7.3	<1	1.1	<-0.49	<-0.53	<-0.60	
					2012/09/19	Rain	21.7	0.4	18.6	0.0	Light grayish yellow green	None	>100	10.0	<1	1.2	<-0.57	<-0.59	<-0.68	
					2012/12/11	Sunny	0.7	0.4	7.4	0.0	Greenish yellowish white	None	>100	11.2	<1	1.9	<-0.56	<-0.70	<-0.49	
					2013/02/20	Sunny	5.1	0.6	5.0	0.0	Blue greenish white	None	>100	7.9	<1	1.0	<-0.44	<-0.53	<-0.50	
	26	R i v e r	Yanishigawa River	Maesawabashi Bridge	Nikkoshi City	2012/08/29	Sunny	26.5	0.5	21.9	0.0	Yellowish white	None	100	9.3	<1	0.2	<-0.54	<-0.68	<-0.53
						2012/09/19	Rain	21.3	1.0	19.9	0.0	Greenish yellowish white	None	>100	15.7	<1	0.4	<-0.65	<-0.72	<-0.62
						2012/12/11	Sunny	1.0	1.0	2.8	0.0	Greenish yellowish white	None	>100	10.3	<1	0.4	<-0.46	<-0.58	<-0.64
						2013/02/20	Sunny	-4.1	0.5	1.6	0.0	Blue greenish white	None	>100	9.7	<1	0.5	<-0.56	<-0.63	<-0.64
						2012/08/28	Sunny	26.9	0.3	19.4	0.0	Yellow greenish white	None	>100	8.6	<1	0.8	<-0.47	<-0.53	<-0.53
27	S y s t e m	Ojikagawa River	Tributary	Nikkoshi City	2012/09/19	Rain	20.9	0.4	19.4	0.0	Yellowish white	None	>100	9.0	1.6	0.6	<-0.47	<-0.51	<-0.66	
					2012/12/11	Sunny	0.3	0.5	7.2	0.0	Greenish yellowish white	None	>100	9.9	<1	0.3	<-0.60	<-0.87	<-0.66	
					2013/02/20	Sunny	1.0	0.5	3.7	0.0	Greenish light gray	None	>100	7.8	<1	0.8	<-0.54	<-0.76	<-0.55	
28	S y s t e m	Kinugawa River	Kosagoe	Nikkoshi City	2012/08/31	Sunny	31.9	0.5	22.8	0.0	Greenish yellowish white	None	>100	8.4	1.6	0.6	<-0.60	<-0.66	<-0.60	
					2012/09/19	Cloudy	22.1	0.3	21.2	0.0	Yellow greenish white	None	>100	12.6	2.0	0.8	<-0.52	<-0.68	<-0.57	
					2012/12/11	Sunny	1.3	2.3	5.2	0.0	Greenish yellowish white	None	>100	12.9	<1	0.3	<-0.58	<-0.68	<-0.53	
					2013/02/20	Sunny	4.7	0.6	3.9	0.0	Dark grayish blue green	None	>100	9.9	<1	0.6	<-0.52	<-0.56	<-0.56	

Table 4.5.1.1 Tochigi Pref. River (Water Quality)

Sampling point				Sampling date	Weather	Air temperature °C	Full depth m	Water quality										Remarks			
No.	Water Body	Point	Municipality					General items						Radioactive material concentrations (Bq/L)							
								Water temperature °C	Sampling depth m	Color	Odor	Transparency cm	Electrical conductivity µS/m	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137				
R i v e r S y s t e m	T o c h i g i R i v e r S y s t e m	Itanagawa River Tributary	Nikkoshi City	2012/06/12	Cloudy	18.5	0.8	16.1	0.0	Dark grayish yellow green	None	>100	6.3	<1	0.4	<-0.50	<-0.58	<-0.62			
				2012/08/17	Sunny	32.0	0.6	25.4	0.0	Colorless transparent	None	>100	9.4	<1	0.2	<-0.53	<-0.61	<-0.57			
				2012/09/11	Sunny	27.0	0.5	21.0	0.0	Yellow greenish pale gray	None	>100	9.1	<1	<0.1	<-0.53	<-0.61	<-0.59			
				2012/10/15	Cloudy	21.0	1.5	17.3	0.0	Colorless transparent	None	>100	7.8	<1	0.3	<-0.70	<-0.72	<-0.71			
				2012/11/18	Sunny	14.7	1.2	12.1	0.0	Light grayish yellowish green	None	>100	7.0	<1	0.2	<-0.61	<-0.76	<-0.68			
				2012/12/12	Sunny	4.4	0.4	4.5	0.0	Greenish yellowish white	None	>100	7.5	<1	0.2	<-0.64	<-0.70	<-0.62			
				2013/02/19	Sunny	3.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to construction
				2012/08/27	Sunny	25.5	0.45	15.9	0.0	Yellow greenish white	None	>100	17.0	<1	0.0	<-0.67	<-0.72	<-0.73			
				2012/09/19	Cloudy	18.1	0.40	14.4	0.0	Light grayish yellow green	None	>100	17.0	1.5	0.9	<-0.62	<-0.56	<-0.70			
				2012/12/04	Cloudy	5.7	0.30	7.7	0.0	Yellow greenish white	None	>100	18.7	3.5	1.8	<-0.60	<-0.66	<-0.48			
				2013/02/20	Snow	-3.9	0.70	5.8	0.0	Greenish white	None	>100	16.4	1.3	0.8	<-0.53	<-0.60	<-0.71			
				2012/06/13	Cloudy	15.8	0.30	11.6	0.0	Yellow greenish pale gray	None	>100	10.7	<1	0.3	<-0.64	<-0.72	<-0.60			
		31	Dayagawa River Shinkyō Bridge	Nikkoshi City	2012/09/03	Cloudy	25.0	0.20	14.0	0.0	Grayish green	None	>100	10.9	<1	0.2	<-0.51	<-0.47	<-0.57		
					2012/12/12	Sunny	-3.0	0.25	5.7	0.0	Greenish yellowish white	None	>100	12.8	<1	<0.1	<-0.51	<-0.68	<-0.55		
					2013/02/20	Sunny	2.5	0.20	5.9	0.0	Light grayish yellow green	None	>100	10.6	<1	0.3	<-0.51	<-0.59	<-0.55		
					2012/06/13	Cloudy	16.2	0.20	13.7	0.0	Light grayish yellow green	None	>100	9.2	<1	0.5	<-0.44	<-0.56	<-0.44		
		32	Shidobuchigawa River Sujiichigabashi Bridge	Nikkoshi City	2012/09/03	Cloudy	25.0	0.25	19.5	0.0	Yellow greenish white	None	>100	7.6	1.5	0.6	<-0.49	<-0.56	<-0.48		
					2012/12/12	Sunny	-1.1	0.25	4.3	0.0	Greenish yellowish white	None	>100	12.3	<1	0.5	<-0.52	<-0.65	<-0.64		
					2013/02/21	Sunny	-2.1	0.10	1.2	0.0	Light grayish yellow green	None	>100	12.9	<1	0.4	<-0.57	<-0.61	<-0.49		
					2012/06/12	Rain	18.0	0.30	14.0	0.0	Light grayish yellow green	None	>100	10.5	<1	0.3	<-0.50	<-0.64	<-0.69		
		33	Dayagawa River Kaishinbashi Bridge (Hariga)	Nikkoshi City	2012/08/16	Rain	26.8	0.50	21.4	0.0	Colorless transparent	None	>100	11.3	<1	0.1	<-0.45	<-0.71	<-0.59		
					2012/09/11	Sunny	27.8	0.15	19.2	0.0	Yellow greenish white	None	>100	14.4	<1	0.9	<-0.41	<-0.48	<-0.56		
					2012/10/15	Sunny	18.7	0.10	15.8	0.0	Greenish yellowish white	None	>100	42	8.8	2.7	<-0.48	<-0.58	<-0.47		
					2012/11/18	Sunny	13.5	0.20	11.2	0.0	Colorless transparent	None	>100	12.7	<1	0.4	<-0.49	<-0.58	<-0.62		
					2012/12/12	Cloudy	6.2	0.35	7.4	0.0	Dark grayish yellow red	None	>100	12.7	<1	0.3	<-0.41	<-0.51	<-0.59		
					2013/02/19	Cloudy	3.3	0.60	6.1	0.0	Greenish pale gray	None	>100	11.3	1.7	0.9	<-0.44	<-0.56	<-0.59		
		34	Kinugawa River Sanaki	Shioyamachi Town	2012/06/12	Cloudy	17.5	0.70	13.7	0.0	Grayish yellow green	None	>100	9.8	3.2	1.0	<-0.64	<-0.75	<-0.71		
					2012/08/16	Sunny	30.0	0.20	25.0	0.0	Light grayish yellowish green	None	>100	10.7	<1	0.3	<-0.60	<-0.72	<-0.82		
2012/09/11	Sunny				29.4	0.50	22.5	0.0	Greenish yellowish white	None	>100	12.0	<1	0.5	<-0.65	<-0.72	<-0.58				
2012/10/15	Sunny				18.4	0.40	17.1	0.0	Light grayish yellow green	None	>100	11.8	<1	0.5	<-0.52	<-0.59	<-0.45				
2012/11/18	Sunny				12.9	0.20	11.0	0.0	Colorless transparent	None	>100	82	10.5	2.4	1.0	<-0.54	<-0.66	<-0.53			
2012/12/12	Sunny				1.1	0.20	7.4	0.0	Greenish yellowish white	None	>100	12.7	4.8	1.6	<-0.52	<-0.77	<-0.57				
2013/02/19	Cloudy				3.7	0.30	4.6	0.0	Yellow greenish white	None	>100	12.0	2.2	1.4	<-0.65	<-0.70	<-0.66				
2012/06/06	Cloudy				18.5	0.30	15.7	0.0	Light grayish yellow green	None	>100	9.6	1.3	2.1	<-0.63	<-0.83	<-0.62				
35	Nishikimugawa River Nishikimugawabashi Bridge	Utsunomiya City	2012/09/05	Sunny	28.0	0.40	20.2	0.0	Light grayish yellow green	None	>100	31	10	2.3	<-0.57	<-0.63	<-0.62				
			2012/12/13	Sunny	6.1	0.40	6.7	0.0	Greenish yellowish white	None	>100	14.2	1.2	0.9	<-0.59	<-0.56	<-0.62				
			2013/02/21	Sunny	3.5	0.60	4.7	0.0	Grayish bluish green	None	>100	15.0	<1	0.9	<-0.48	<-0.56	<-0.61				
			2012/06/06	Cloudy	20.1	0.40	16.4	0.0	Colorless transparent	None	>100	9.6	1.1	0.4	<-0.50	<-0.60	<-0.54				
36	Kinugawabashi Bridge (Hoshakuji Temple)	Utsunomiya City	2012/09/05	Sunny	28.0	0.25	24.0	0.0	Greenish yellowish white	None	>100	37	11.5	8.5	1.9	<-0.55	<-0.56	<-0.63			
			2012/12/13	Sunny	7.7	0.40	10.5	0.0	Greenish yellowish white	None	>100	15.3	1.6	0.6	<-0.46	<-0.56	<-0.59				
			2013/02/21	Sunny	3.2	0.20	8.7	0.0	Grayish bluish green	None	>100	16.6	<1	0.7	<-0.38	<-0.60	<-0.57				
			2012/06/07	Sunny	26.7	0.20	21.0	0.0	Colorless transparent	None	>100	15.0	1.6	0.6	<-0.50	<-0.59	<-0.55				
37	Kinugawa River Dainozumibashi Bridge	Mookashi City	2012/09/06	Cloudy	31.0	0.80	25.2	0.0	Greenish yellowish white	None	>100	15.4	1.9	0.7	<-0.47	<-0.56	<-0.60				
			2012/12/10	Sunny	0.8	0.90	8.2	0.0	Greenish yellowish white	None	>100	27.3	<1	0.6	<-0.47	<-0.70	<-0.62				
			2013/02/05	Sunny	10.2	1.00	9.8	0.0	Yellowish white	None	>100	23.2	<1	1.0	<-0.47	<-0.60	<-0.63				

Table 4.5.1.1 Tochigi Pref. River (Water Quality)

No.	Sampling point			Sampling date	Weather	Air temperature °C	Full depth m	Water quality										Remarks
	Water Body	Point	Municipality					General items						Radioactive material concentrations (Bq/L)				
								Water temperature °C	Sampling depth m	Color	Odor	Transparency cm	Electrical conductivity μS/m	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137	
38	Egawa River	Tributary	Shimotsukeshi City	2012/06/07	Sunny	27.0	0.80	20.4	0.0	Light grayish yellow green	None	>100	21.6	2.3	0.8	<-0.60	<-0.72	<-0.62
				2012/06/28	Cloudy	22.1	0.40	19.9	0.0	Yellowish white	None	55	19.6	3.0	1.5	<-0.50	<-0.48	<-0.64
				2012/07/31	Sunny	36.0	0.20	25.1	0.0	Greenish yellowish white	None	>100	16.9	2.5	1.0	<-0.60	<-0.70	<-0.66
				2012/08/23	Sunny	32.0	0.20	26.1	0.0	Light grayish greenish yellow	None	>100	20.0	<1	0.6	<-0.43	<-0.71	<-0.40
				2012/09/26	Sunny	24.3	0.30	20.6	0.0	Light grayish yellow	None	53	24.3	7.5	1.3	<-0.44	<-0.76	<-0.44
				2012/12/10	Sunny	0.8	0.40	6.6	0.0	Greenish yellowish white	None	>100	26.9	1.0	0.8	<-0.50	<-0.69	<-0.49
39	Akaborigawa River	Nikko City Hall, front	Nikkoshi City	2012/06/13	Cloudy	18.5	0.20	12.4	0.0	Yellow greenish light gray	None	>100	10.5	<1	0.2	<-0.47	<-0.78	<-0.79
				2012/09/03	Rain	24.0	0.60	16.5	0.0	Yellow greenish light gray	None	40	9.8	9.7	1.1	<-0.63	<-0.80	<-0.70
				2012/12/13	Sunny	0.7	0.35	4.6	0.0	Greenish yellowish white	None	>100	12.9	1.0	0.5	<-0.52	<-0.59	<-0.45
				2013/02/21	Sunny	0.3	0.10	4.6	0.0	Yellow reddish pale gray	None	>100	13.3	<1	0.4	<-0.54	<-0.68	<-0.55
				2012/06/13	Cloudy	19.0	0.60	15.5	0.0	Yellow greenish white	None	>100	14.4	<1	0.4	<-0.51	<-0.56	<-0.58
				2012/09/05	Sunny	33.0	0.20	18.6	0.0	Yellow greenish white	None	>100	15.7	1.3	0.5	<-0.45	<-0.48	<-0.58
40	Kiwadajima		Nikkoshi City	2012/12/12	Sunny	3.3	0.50	7.1	0.0	Greenish yellowish white	None	>100	17.3	<1	0.5	<-0.44	<-0.76	<-0.56
				2013/02/21	Sunny	1.5	0.50	6.9	0.0	Yellow reddish light gray	None	>100	19.1	3.9	1.2	<-0.70	<-0.72	<-0.60
				2012/06/08	Sunny	25.6	0.60	20.0	0.0	Colorless transparent	None	>100	14.0	1.1	0.4	<-0.49	<-0.61	<-0.52
				2012/06/27	Sunny	28.3	0.40	21.6	0.0	Greenish yellowish white	None	97	13.6	<1	0.3	<-0.56	<-0.60	<-0.68
				2012/07/31	Sunny	34.0	0.30	26.6	0.0	Greenish yellowish white	None	93	15.0	5.8	1.6	<-0.53	<-0.67	<-0.47
				2012/08/22	Sunny	33.0	0.25	25.3	0.0	Greenish yellowish white	None	>100	14.8	<1	0.3	<-0.53	<-0.74	<-0.69
41	Tagawa River	Ozobashi Bridge	Utsunomiya City	2012/09/26	Sunny	25.1	0.15	18.3	0.0	Light grayish yellow	None	>100	16.3	1.2	0.3	<-0.56	<-0.60	<-0.71
				2012/12/13	Sunny	4.4	0.25	8.3	0.0	Greenish yellowish white	None	>100	16.9	1.7	1.1	<-0.53	<-0.72	<-0.62
				2013/02/22	Sunny	4.4	0.20	4.6	0.0	Greenish white	None	>100	15.3	2.9	1.3	<-0.55	<-0.60	<-0.52
				2012/06/08	Sunny	24.8	0.20	21.7	0.0	Colorless transparent	None	>100	23.3	2.5	0.7	<-0.54	<-0.61	<-0.65
				2012/09/07	Sunny	32.0	0.20	21.9	0.0	Yellow greenish white	None	>100	24.8	<1	0.4	<-0.54	<-0.75	<-0.64
				2012/12/13	Sunny	3.7	0.20	11.9	0.0	Greenish yellowish white	None	>100	26.3	2.9	1.3	<-0.59	<-0.87	<-0.62
42	Kamagawa River	Tsukushibashi Bridge	Utsunomiya City	2013/02/21	Sunny	5.7	0.10	12.2	0.0	Light grayish reddish yellow	None	82	25.6	4.8	1.8	<-0.57	<-0.75	<-0.76
				2012/06/07	Sunny	27.1	0.20	23.0	0.0	Colorless transparent	None	>100	22.3	3.3	1.2	<-0.60	<-0.73	<-0.66
				2012/09/06	Cloudy	35.0	0.40	24.2	0.0	Yellow greenish white	None	>100	20.7	1.4	0.6	<-0.54	<-0.64	<-0.55
				2012/12/14	Sunny	2.1	0.20	7.3	0.0	Greenish yellowish white	None	>100	29.5	1.0	0.8	<-0.57	<-0.75	<-0.64
				2013/02/05	Sunny	10.2	0.20	9.0	0.0	Yellowish white	None	>100	32.2	6.2	3.3	<-0.51	<-0.53	<-0.60
				2012/06/07	Sunny	23.2	0.70	20.3	0.0	Colorless transparent	None	>100	23.4	1.8	0.8	<-0.59	<-0.68	<-0.53
43	Tagawa River	Meijibashi Bridge	Kaminokawamachi Town	2012/09/06	Cloudy	33.0	0.50	23.9	0.0	Light grayish yellow green	None	>100	21.2	5.7	0.9	<-0.50	<-0.60	<-0.58
				2012/12/10	Sunny	1.4	0.60	9.1	0.0	Greenish yellowish white	None	>100	31.2	1.0	0.9	<-0.50	<-0.53	<-0.60
				2013/02/05	Sunny	10.0	0.60	9.8	0.0	Greenish yellowish white	None	>100	33.8	2.6	1.9	<-0.61	<-0.72	<-0.60
				2012/06/07	Sunny	24.0	0.30	20.9	0.0	Colorless transparent	None	>100	9.2	<1	0.4	<-0.69	<-0.78	<-0.75
				2012/09/05	Sunny	34.0	0.30	25.9	0.0	Yellow greenish pale gray	None	94	7.6	8.8	0.9	<-0.69	<-0.70	<-0.75
				2012/12/04	Rain	9.0	0.60	9.4	0.0	Greenish yellowish white	None	>100	9.8	3.5	1.2	<-0.55	<-0.75	<-0.71
44	Kurokawa River	Kajimabashi Bridge	Kanamashi City	2013/02/04	Sunny	10.4	0.20	11.2	0.0	Greenish yellowish white	None	>100	11.0	1.8	1.0	<-0.58	<-0.66	<-0.62
				2012/06/07	Sunny	26.6	0.50	24.2	0.0	Colorless transparent	None	>100	15.7	<1	0.6	<-0.59	<-0.81	<-0.45
				2012/09/06	Cloudy	29.0	0.55	25.4	0.0	Dark grayish reddish yellow	None	>100	15.1	3.6	0.6	<-0.56	<-0.61	<-0.53
				2012/12/04	Sunny	11.0	0.25	12.0	0.0	Greenish yellowish white	None	70	20.9	3.4	2.8	<-0.51	<-0.50	<-0.59
				2012/02/05	Sunny	6.5	0.30	12.5	0.0	Dark grayish yellow	None	>100	23.5	5.6	1.9	<-0.48	<-0.56	<-0.66
				2012/06/11	Cloudy	21.8	0.50	17.5	0.0	Light grayish yellow green	None	>100	6.0	1.2	0.4	<-0.45	<-0.67	<-0.64
45	Oashigawa River	Akashibashi Bridge	Kanamashi City	2012/09/05	Sunny	35.0	0.25	24.1	0.0	Yellow greenish white	None	>100	9.5	<1	<-0.11	<-0.55	<-0.50	<-0.57
				2012/12/04	Cloudy	9.0	0.40	10.7	0.0	Greenish yellowish white	None	>100	7.1	<1	0.6	<-0.52	<-0.60	<-0.67
				2013/02/04	Cloudy	11.0	0.30	10.8	0.0	Greenish yellowish white	None	>100	7.9	<1	0.8	<-0.56	<-0.64	<-0.60
				2012/06/11	Cloudy	21.4	0.20	20.9	0.0	Grayish yellow green	None	>100	14.6	<1	0.2	<-0.65	<-0.72	<-0.68
				2012/09/05	Sunny	35.0	0.45	28.3	0.0	Light grayish greenish yellow	None	>100	15.7	3.0	0.9	<-0.63	<-0.66	<-0.68
				2012/12/04	Rain	9.0	0.55	8.7	0.0	Greenish yellowish white	None	>100	13.0	2.6	1.7	<-0.57	<-0.66	<-0.69
46	Koyabugawa River	Koyabushashi Bridge	Kanamashi City	2013/02/04	Rain	11.0	0.20	12.0	0.0	Reddish yellowish white	None	>100	14.7	4.3	3.6	<-0.46	<-0.48	<-0.52

Table 4.5.1.1 Tochigi Pref. River (Water Quality)

River	Sampling point				Sampling date	Weather	Air temperature °C	Full depth m	Water quality											Remarks				
	No.	Water Body							Municipality	General items							Radioactive material concentrations (Bq/L)							
		Water Body	Point	Municipality						Water temperature °C	Sampling depth m	Color	Odor	Transparency cm	Electrical conductivity mS/m	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137					
R i v e r s	49	O m o i g a w a R i v e r	Tamotsubashi Bridge	Tochigishi City	2012/06/07	Sunny	24.9	0.60	22.1	0.0	Colorless transparent	None	>100	10.9	<1	0.3	<-0.53	<-0.48	<-0.55					
					2012/09/06	Rain	28.0	0.25	25.0	0.0	Yellow greenish white	None	>100	15.3	1.4	0.3	<-0.48	<-0.48	<-0.63					
					2012/12/04	Sunny	11.9	0.50	12.4	0.0	Greenish yellowish white	None	89	11.4	1.3	1.6	<-0.61	<-0.85	<-0.51					
					2013/02/06	Snow	1.1	0.20	6.5	0.0	Light grayish reddish yellow	None	>100	14.9	1.0	0.7	<-0.47	<-0.56	<-0.63					
			50	R i v e r	Otomehashi Bridge	Oyamashi City	2012/06/01	Sunny	26.3	0.50	23.5	0.0	Greenish yellowish white	None	96	18.5	4.5	1.9	<-0.57	<-0.83	<-0.62			
							2012/06/28	Cloudy	24.3	0.50	20.4	0.0	Greenish yellowish white	None	>100	13.9	2.4	1.3	<-0.51	<-0.64	<-0.73			
							2012/07/31	Cloudy	27.8	0.10	24.9	0.0	Greenish yellowish white	None	83	14.1	2.3	0.6	<-0.49	<-0.56	<-0.47			
							2012/08/23	Sunny	31.2	0.30	29.4	0.0	Grayish greenish yellow	None	>100	20.9	1.4	1.1	<-0.51	<-0.59	<-0.62			
							2012/09/20	Sunny	26.0	0.30	26.8	0.0	Yellow reddish white	None	>100	15.3	2.3	1.0	<-0.48	<-0.64	<-0.62			
							2012/12/03	Cloudy	10.0	0.40	10.1	0.0	Greenish yellowish white	None	>100	18.7	2.0	1.6	<-0.59	<-0.66	<-0.49			
							2013/02/05	Sunny	6.0	0.20	8.3	0.0	Greenish yellowish white	None	>100	23.8	2.8	2.0	<-0.53	<-0.72	<-0.59			
							2012/06/01	Sunny	24.2	1.00	22.4	0.0	Dark grayish yellow green	None	50	23.1	5.8	1.9	<-0.45	<-0.63	<-0.52			
	51	U z u m a g a w a R i v e r	Uzumagawa River	Uzumabashi Bridge	Tochigishi City	2012/06/28	Cloudy	26.2	0.90	21.5	0.0	Yellowish white	None	93	23.4	4.9	1.1	<-0.41	<-0.56	<-0.60				
						2012/07/30	Sunny	33.0	0.90	25.0	0.0	Greenish yellowish white	None	35	20.3	2.0	0.6	<-0.48	<-0.58	<-0.47				
						2012/08/23	Sunny	31.0	1.00	27.1	0.0	Dark grayish greenish yellow	None	>100	27.1	2.0	1.0	<-0.66	<-0.75	<-0.76				
						2012/09/20	Sunny	29.0	0.70	27.8	0.0	Light grayish yellow green	None	87	28.1	3.3	1.0	<-0.49	<-0.74	<-0.59				
						2012/12/03	Cloudy	9.0	0.35	11.7	0.0	Greenish yellowish white	None	93	27.4	5.1	2.2	<-0.46	<-0.53	<-0.59				
						2013/02/06	Snow	1.7	0.50	7.1	0.0	Light grayish yellow red	None	76	30.5	4.6	2.1	<-0.49	<-0.53	<-0.54				
						2012/06/12	Cloudy	20.0	0.20	13.1	0.0	Light grayish yellow green	None	>100	9.7	<1	0.2	<-0.50	<-0.60	<-0.64				
						2012/07/31	Sunny	31.0	0.30	21.0	0.0	Colorless transparent	None	>100	13.9	<1	0.4	<-0.57	<-0.56	<-0.59				
	52	R i v e r S e g a w a R i v e r	Watarasegawa River	Watarasegawa River intake weir at Sen Power Station	Nikkoshi City	2012/08/24	Sunny	28.0	0.20	21.5	0.0	Colorless transparent	None	>100	9.8	<1	0.5	<-0.55	<-0.64	<-0.51				
						2012/09/20	Sunny	26.0	0.40	17.0	0.0	Yellow greenish white	None	>100	8.6	<1	0.4	<-0.60	<-0.75	<-0.64				
						2012/10/12	Sunny	17.0	0.30	14.9	0.0	Greenish white	None	>100	12.3	<1	0.3	<-0.68	<-0.83	<-0.70				
						2012/12/06	Sunny	7.1	0.20	6.7	0.0	Light grayish green	None	>100	9.1	<1	0.1	<-0.63	<-0.90	<-0.72				
						2013/02/05	Sunny	0.6	0.20	3.3	0.0	Colorless transparent	None	>100	25.3	<1	0.4	<-0.46	<-0.71	<-0.56				
						53	W a t a r a s e g a w a R i v e r	Hajikabashi Bridge	Ashikagashi City	2012/06/14	Cloudy	21.2	0.75	18.9	0.0	Yellow greenish light gray	None	>100	11.7	<1	0.4	<-0.45	<-0.59	<-0.59
										2012/09/20	Cloudy	27.5	0.20	25.1	0.0	Yellowish white	None	>100	13.3	2.0	0.8	<-0.65	<-0.66	<-0.54
										2012/12/25	Sunny	8.4	0.30	11.6	0.0	Light grayish yellow	None	>100	14.5	1.4	1.3	<-0.65	<-0.67	<-0.73
	2013/02/07	Sunny	10.0	0.40	9.2					0.0	Light grayish yellow green	None	94	14.3	<1	1.2	<-0.57	<-0.66	<-0.51					
	54	E g a w a R i v e r	Nakabashi Bridge	Ashikagashi City	2012/06/14	Cloudy	21.2	0.50	18.8	0.0	Yellow greenish white	None	>100	12.0	<1	0.4	<-0.51	<-0.48	<-0.56					
					2012/09/20	Cloudy	28.0	0.30	24.3	0.0	Yellow greenish white	None	>100	14.3	<1	0.6	<-0.47	<-0.61	<-0.47					
					2012/12/25	Sunny	8.7	0.50	10.5	0.0	Dark grayish greenish yellow	None	>100	17.8	<1	0.6	<-0.47	<-0.56	<-0.53					
					2013/02/07	Sunny	8.5	1.30	9.4	0.0	Grayish yellow	None	83	15.5	1.8	1.6	<-0.61	<-0.68	<-0.51					
	55	R i v e r	Watarasegawa River	Watarasegashi Bridge	Tatebayashi City	2012/06/14	Cloudy	18.3	1.20	19.1	0.0	Dark grayish yellow green	None	62	17.9	2.0	0.9	<-0.68	<-0.83	<-0.61				
						2012/09/20	Sunny	29.9	0.30	28.3	0.0	Greenish yellowish white	None	42	19.5	3.8	1.7	<-0.51	<-0.53	<-0.55				
						2012/12/25	Sunny	7.1	0.50	8.0	0.0	Grayish yellow green	None	>100	22.3	<1	0.8	<-0.51	<-0.53	<-0.60				
						2013/02/06	Rain	2.8	0.50	7.7	0.0	Grayish greenish yellow	None	71	21.9	1.4	1.4	<-0.67	<-0.75	<-0.71				
	56	R i v e r	Shikaibashi Bridge	Tochigishi City	2012/06/01	Sunny	22.2	0.50	21.9	0.0	Dark grayish reddish yellow	None	32	19.3	4.7	1.4	<-0.51	<-0.56	<-0.51					
					2012/06/28	Cloudy	24.6	0.50	21.4	0.0	Yellowish white	None	41	16.1	9.0	2.6	<-0.65	<-0.75	<-0.60					
					2012/07/30	Sunny	34.0	0.15	25.0	0.0	Yellowish white	None	32	19.9	8.0	2.0	<-0.62	<-0.80	<-0.73					
					2012/08/23	Sunny	30.0	0.20	28.8	0.0	Grayish yellow green	None	47	23.9	5.1	1.8	<-0.51	<-0.63	<-0.56					
					2012/09/20	Sunny	27.9	0.10	26.8	0.0	Yellow greenish white	None	75	28.6	7.6	3.0	<-0.50	<-0.58	<-0.59					
					2012/12/25	Sunny	7.7	0.20	8.7	0.0	Dark grayish yellow	None	>100	27.4	1.5	3.8	<-0.54	<-0.80	<-0.62					
					2013/02/06	Rain	2.1	0.30	7.2	0.0	Light grayish yellow	None	63	26.1	6.1	3.1	<-0.57	<-0.61	<-0.62					

Table 4.5.1.2 Tochigi Pref. River (Sediment)

Sampling point					Sampling date	Weather	Air temperature C	Full depth m	Sediment														Remarks		
No.	Water Body	Point	Municipality	General items										Concentration of radioactive material (Bq/kg dried mud)											
				Mud temperature					Mud sampling depth	Color	Odor	Medium gravel	Fine gravel	Coarse sand	Medium sand	Fine sand	Silt	Clay	Mud content %	Density g/cm ³	Property	Radioactive iodine I-131		Radioactive cesium Cs-134	Radioactive cesium Cs-137
R i v e r s	U z u m a g a w a	Uzumagawa River	Uzumabashi Bridge	Tochigishi City	2012/06/01	Sunny	24.2	1.0	21.4	5	Dark grayish reddish yellow	Sand	13.4	15.3	1.6	37.5	21.9	10.3	0.0	82.0	2.667	Sand	<5.2	31	49
					2012/06/28	Cloudy	26.2	0.9	22.1	2	Dark grayish reddish yellow	None	1.2	0.2	0.0	34.5	41.7	22.4	0.1	75.8	2.706	Sand	<5.6	58	77
					2012/07/30	Sunny	33.0	0.9	27.4	2	Dark grayish yellow	Mud	10.6	9.5	0.7	12.3	22.9	39.8	4.2	67.0	2.646	Silt	<5.9	29	60
					2012/08/23	Sunny	31.0	1.0	26.1	5	Dark grayish yellow	Sludge	6.3	22.5	1.4	23.6	26.5	19.6	0.1	79.1	2.699	Silt	<4.9	40	49
					2012/09/20	Sunny	29.0	0.7	25.5	5	Dark grayish yellow	None	16.9	29.3	13.0	24.4	8.0	8.4	0.0	90.1	2.688	Sand	<3.9	12	22
					2012/12/03	Cloudy	9.0	0.4	10.2	5	Dark grayish reddish yellow	None	20.2	23.5	0.0	27.8	19.3	9.2	0.0	90.0	2.693	Gravel/sand	<3.7	20	32
	2013/02/06	Snow	1.7	0.5	6.3	3	Dark grayish reddish yellow	None	13.3	15.3	1.1	43.2	16.3	10.7	0.0	81.0	2.688	Gravel/sand	<4.5	20	36				
	2012/06/12	Cloudy	20.0	0.2	13.2	15	Yellow greenish dark gray	None	5.1	7.2	42.3	45.3	0.1	0.0	0.0	94.1	2.683	Sand	<4.5	13	23				
	2012/07/31	Sunny	31.0	0.3	21.8	2	Reddish yellowish dark gray	None	21.4	39.8	24.3	13.1	0.7	0.7	0.0	94.0	2.623	Sand	<4.2	99	20				
	2012/08/24	Sunny	28.0	0.2	21.9	5	Greenish yellowish black	None	0.0	6.4	78.4	15.1	0.0	0.0	0.0	91.0	2.692	Sand	<4.9	13	25				
	2012/09/20	Sunny	26.0	0.4	18.3	5	Dark grayish greenish yellow	None	2.6	7.3	45.2	39.4	3.4	2.1	0.0	92.1	2.698	Sand	<5.4	16	39				
	2012/10/12	Sunny	17.0	0.3	15.4	5	Dark grayish reddish yellow	None	3.1	15.1	5.8	47.4	25.2	3.3	0.0	91.1	2.68	Sand	<4.2	21	32				
	2012/12/06	Sunny	7.1	0.2	6.0	2	Yellowish dark gray	None	0.0	14.3	10.4	46.0	27.3	2.0	0.0	93.9	2.689	Sand	<4.5	13	21				
	2013/02/05	Sunny	0.6	0.2	2.9	8	Reddish yellowish dark gray	None	4.8	16.9	39.5	35.1	2.1	1.6	0.0	92.7	2.702	Sand	<5.0	<9.4	27				
	2012/06/14	Cloudy	21.2	0.8	19.1	3	Dark grayish yellow	None	0.0	11.9	4.0	64.1	18.3	1.7	0.0	91.6	3.005	Sand	<4.0	14	20				
	2012/09/20	Cloudy	27.5	0.2	22.6	3	Dark grayish reddish yellow	None	10.1	14.0	0.7	55.8	11.5	7.9	0.0	83.9	2.644	Sand	<4.4	30	50				
	2012/12/25	Sunny	8.4	0.3	8.0	2	Dark grayish greenish yellow	None	10.2	40.6	13.9	30.1	2.9	2.3	0.0	91.9	2.913	Gravel/sand	<3.9	15	21				
	2013/02/07	Sunny	10.0	0.4	9.6	4	Dark grayish reddish yellow	None	5.1	19.2	25.6	38.9	5.3	5.9	0.0	85.3	2.712	Sand	<3.8	17	29				
	2012/06/14	Cloudy	21.2	0.5	18.9	3	Yellowish gray	None	0.0	0.0	31.6	66.0	1.7	0.7	0.0	90.0	2.723	Sand	<4.4	16	21				
	2012/09/20	Cloudy	28.0	0.3	21.1	6	Dark grayish yellow	None	0.0	2.1	12.8	81.8	3.3	0.0	0.0	91.8	2.786	Sand	<4.6	<7.4	22				
	2012/12/25	Sunny	8.7	0.5	7.7	2	Greenish yellowish dark gray	None	12.3	29.5	29.5	27.6	1.1	0.0	0.0	95.1	2.728	Gravel/sand	<3.5	7.7	12				
	2013/02/07	Sunny	8.5	1.3	9.4	3	Dark grayish yellow	None	0.0	6.3	31.8	19.8	32.9	9.3	0.0	86.1	2.685	Sand	<4.7	18	35				
	2012/06/14	Cloudy	18.3	1.2	19.0	5	Greenish yellowish black	Sludge	9.2	2.4	0.0	39.0	31.1	18.2	0.1	71.3	2.706	Silt	<6.1	100	160				
	2012/09/20	Sunny	29.9	0.3	25.3	4	Dark grayish yellow	Sludge	7.7	22.0	0.7	25.7	31.9	11.9	0.0	85.8	2.733	Sand	<4.2	24	43				
	2012/12/25	Sunny	7.1	0.5	6.4	4	Reddish yellowish black	None	5.0	17.1	30.6	14.6	23.3	9.5	0.0	81.1	2.748	Gravel/sand	<5.8	110	200				
	2013/02/06	Rain	2.8	0.3	6.7	2	Yellowish dark gray	None	0.0	0.4	4.5	10.2	40.9	44.0	0.0	51.5	2.555	Clay	<8.2	78	150				
	2012/06/01	Sunny	22.2	0.5	20.3	5	Dark grayish reddish yellow	None	4.8	16.4	2.0	68.0	8.8	0.0	0.0	93.7	2.777	Sand	<3.9	17	26				
	2012/06/28	Cloudy	24.6	0.5	22.2	2	Dull reddish yellow	Faint seaweed	0.0	0.0	0.0	29.4	54.7	15.9	0.0	77.0	2.731	Sand	<5.9	66	98				
2012/07/30	Sunny	34.0	0.2	28.5	3	Reddish yellowish dark gray	None	0.0	0.4	1.0	46.4	44.4	7.9	0.0	81.9	2.764	Sand	<4.5	51	76					
2012/08/23	Sunny	30.0	0.2	28.9	5	Dark grayish greenish yellow	None	0.0	3.2	4.0	75.1	16.5	1.2	0.0	92.1	2.819	Sand	<3.9	17	29					
2012/09/20	Sunny	27.9	0.1	26.0	4	Dark grayish reddish yellow	None	15.6	39.0	0.2	25.1	15.1	5.0	0.0	93.1	2.919	Sand/gravel	<3.3	17	28					
2012/12/25	Sunny	7.7	0.2	7.5	2	Reddish yellowish dark gray	None	16.9	18.8	4.8	47.0	9.8	2.8	0.0	90.3	2.799	Gravel/sand	<3.7	15	25					
2013/02/06	Rain	2.1	0.3	6.9	4	Dark grayish yellow	None	0.6	5.8	17.5	64.1	7.8	4.2	0.0	87.4	2.785	Sand/clay	<3.6	13	23					

Table 4.5.1.3 Tochigi Pref. River (Surrounding Environment)

Sampling point				Sampling date	Weather	Air temperature C	Surrounding Environment (Soil and Air Dose)										Remarks						
							Left bank					Right bank											
No.	Water Body	Point	Municipality	Soil			Radioactive material concentrations (Bq/kg (dry))			Air dose μSv/h	Soil			Radioactive material concentrations (Bq/kg (dry))			Air dose μSv/h						
				Color	Odor	Property	Radioactive iodine I-131	Radioactive cesium Cs-134	Radioactive cesium Cs-137		Color	Odor	Property	Radioactive iodine I-131	Radioactive cesium Cs-134	Radioactive cesium Cs-137							
R i v e r S y s t e m	Nakagawa River	Irayobashishita	Nasushiobarashi City	2012/08/29	Sunny	31.0	-	-	-	-	-	-	Dull reddish yellow	None	Sandy/skeletal	<12	680	1,100	0.15	(Left bank) Unable to collect samples due to private property (Right bank) Unable to collect samples due to snow on the ground			
				2012/09/18	Cloudy	24.7	-	-	-	-	-	-	-	-	-	Very dark yellow red	Earth	Sandy/skeletal	<9.8		490	830	0.17
				2012/12/18	Rain	4.1	-	-	-	-	-	-	-	-	-	Very dark reddish yellow	None	Loamy	<7.7		260	460	0.16
		2013/02/13	Sunny	-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-		
		2012/06/19	Rain	16.4	Very dark yellow red	Grass	Loamy	<21	2,100	3,300	0.34	Very dark reddish yellow	Earth	Loamy	<16	830	1,200	0.39					
		2012/09/10	Sunny	29.6	Dull yellow red	Faint earth	Loamy	<28	3,500	5,700	0.32	Dull yellow red	Earth	Loamy	<14	960	1,600	0.27					
	2	Komeibashi Bridge	Nasushiobarashi City	2012/12/18	Sunny	7.3	Very dark yellow red	Earth	Loamy	<27	3,400	6,200	0.28	Dark reddish yellow	Earth	Sandy	<14	730	1,300	0.25			
				2013/02/13	Sunny	1.5	Very dark reddish yellow	Earth	Loamy	<20	1,600	3,100	0.24	Dark yellow	Earth	Sandy	<13	600	1,100	0.28			
				2012/06/20	Sunny	20.2	Very dark yellow red	Grass	Loamy/skeletal	<11	660	980	0.39	Very dark yellow red	Grass	Loamy/skeletal	<21	1,700	2,700	0.36			
	3	Takaomatagawa River	Takaomatagawa Bridge	Nasumachi Town	2012/09/10	Sunny	28.0	Dark reddish yellow	Earth	Loamy	<24	2,100	3,500	0.29	Dark reddish yellow	Earth	Loamy	<18	1,100	1,800	0.33		
					2012/12/18	Sunny	8.0	Very dark yellow red	Faint earth	Loamy	<23	1,700	3,000	0.29	Very dark yellow red	Earth	Loamy	<22	1,100	2,000	0.28		
					2013/02/14	Sunny	2.3	Very dark reddish yellow	Earth	Loamy	<17	1,200	2,200	0.29	Very dark yellow red	Earth	Loamy	<35	2,500	4,600	0.25		
	4	Yukawa River	Yukawabashi Bridge	Nasumachi Town	2012/06/20	Sunny	24.0	Very dark yellow red	Grass	Loamy/skeletal	<16	1,600	1,600	0.33	Very dark reddish yellow	Grass	Loamy/skeletal	<13	600	970	0.31		
					2012/09/10	Sunny	25.6	Very dark yellow red	Earth	Loamy	<23	2,300	3,600	0.34	Very dark yellow red	Faint earth	Loamy	<25	2,400	3,800	0.34		
					2012/12/18	Sunny	8.7	Very dark reddish yellow	Earth	Loamy	<12	590	1,100	0.33	Very dark yellow red	Earth	Loamy	<19	1,200	2,300	0.33		
					2013/02/14	Sunny	1.9	Very dark reddish yellow	Earth	Loamy	<18	1,200	2,300	0.34	Very dark reddish yellow	Earth	Loamy	<24	2,200	4,000	0.35		
	5	Nakagawa River	Kamikuroiso	Nasushiobarashi City/ Nasumachi Town	2012/06/04	Sunny	27.7	Very dark reddish yellow	Earth	Loamy	<24	780	1,300	0.36	Very dark reddish yellow	Earth	Loamy	<15	790	1,100	0.30		
					2012/06/25	Cloudy	19.2	Deep yellow red	Faint earth	Loamy	<33	2,600	4,000	0.49	Deep yellow red	Faint earth	Loamy	<20	1,500	2,300	0.32		
					2012/08/01	Sunny	30.8	Dark yellow red	Green grass	Loamy	<120	13,000	19,000	0.41	Very dark yellow red	Earth	Loamy	<19	1,400	2,100	0.28		
					2012/08/21	Sunny	31.0	Very dark reddish yellow	Earth	Loamy	<26	1,600	2,600	0.37	Very dark reddish yellow	Earth	Loamy	<13	650	1,000	0.28		
					2012/09/24	Cloudy	20.5	Dark yellow red	Faint earth	Loamy	<26	1,400	2,300	0.38	Very dark reddish yellow	None	Loamy	<14	750	1,300	0.26		
					2012/12/18	Cloudy	5.9	Very dark reddish yellow	Earth	Loamy	<30	1,600	2,800	0.31	Very dark yellow red	Earth	Loamy	<9.5	310	520	0.24		
					2013/02/14	Sunny	8.2	Very dark reddish yellow	Earth	Loamy	<28	1,600	2,800	0.32	Very dark reddish yellow	Earth	Loamy	<11	580	1,100	0.30		
					2012/06/22	Cloudy	25.0	Very dark yellow red	Grass	Sandy/skeletal	<20	1,900	2,900	0.51	Very dark yellow red	Grass	Loamy/skeletal	<15	1,200	1,900	0.32		
	6	Yosasagawa River	Yosabashi Bridge	Nasumachi Town	2012/09/10	Sunny	28.4	Very dark reddish yellow	Earth	Loamy	<26	3,500	5,700	0.52	Dark reddish yellow	Faint earth	Loamy	<22	2,800	4,700	0.32		
					2012/12/18	Sunny	8.6	Very dark reddish yellow	Earth	Loamy	<12	810	1,500	0.46	Very dark yellow red	Grass	Loamy	<14	610	1,100	0.32		
2013/02/13					Sunny	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground		
7	Kurokawa River	Shindenbashi Bridge	Nasumachi Town	2012/06/04	Sunny	27.6	Very dark yellow red	Earth	Loamy	<14	800	1,200	0.59	Very dark reddish yellow	Earth	Loamy	<18	1,300	2,000	0.41			
				2012/09/10	Sunny	28.1	Very dark reddish yellow	Faint earth	Loamy	<31	5,000	8,100	0.55	Very dark reddish yellow	Earth	Loamy	<21	2,000	3,200	0.40			
				2012/12/19	Sunny	0.2	Very dark yellow red	Earth	Loamy	<24	2,700	4,800	0.52	Very dark yellow red	Earth	Loamy	<19	1,800	3,300	0.39			
				2013/02/13	Sunny	5.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(Left bank) Unable to collect samples due to snow on the ground		
				2012/06/04	Sunny	25.0	Dark grayish yellow	None	Sandy	<5.7	79	100	0.15	Very dark reddish yellow	Earth	Loamy	<15	1,400	2,000	0.45			
8	Yosasagawa River	Kawabashi Bridge	Oiwake City	2012/06/26	Sunny	22.2	Reddish yellowish black	Faint earth	Loamy	<23	1,800	3,000	0.40	Dark yellow red	Faint earth	Loamy	<26	2,300	3,500	0.48			
				2012/08/01	Sunny	27.3	Dark reddish yellow	Faint earth	Loamy	<19	1,600	2,700	0.28	Very dark reddish yellow	Faint earth	Loamy	<15	800	1,300	0.55			
				2012/08/21	Sunny	28.5	Very dark reddish yellow	Earth	Loamy	<16	1,400	2,200	0.29	Very dark reddish yellow	Earth	Loamy	<25	3,000	4,800	0.52			
				2012/09/25	Cloudy	19.7	Dark yellow red	Faint earth	Sandy	<6.5	88	130	0.18	Deep reddish yellow	Earth	Loamy	<23	2,200	3,700	0.60			
				2012/12/19	Sunny	2.1	Very dark yellow red	Earth	Loamy	<18	1,400	2,500	0.38	Very dark yellow red	Earth	Loamy	<13	850	1,400	0.47			
				2013/02/13	Sunny	3.3	Very dark yellow red	Earth	Loamy	<15	1,000	1,800	0.28	Dark yellow red	Earth	Loamy	<25	1,700	3,300	0.51			
				2012/06/04	Sunny	24.1	Very dark yellow red	None	Loamy	<9.1	160	240	0.19	Very dark yellow	None	Loamy	<8.5	230	350	0.13			
				2012/06/26	Sunny	24.3	Dark yellow red	Faint earth	Loamy	<16	610	920	0.18	Very dark reddish yellow	Faint earth	Loamy	<12	660	1,000	0.18			
9	Nakagawa River	Kurohane	Oiwake City	2012/08/01	Sunny	33.0	Dark reddish yellow	Faint earth	Loamy	<14	500	780	0.18	Dull reddish yellow	Faint earth	Loamy	<9.4	330	530	0.14			
				2012/08/22	Cloudy	30.0	Dark reddish yellow	Earth	Loamy	<15	850	1,000	0.24	Very dark reddish yellow	Earth	Loamy	<12	650	1,000	0.14			
				2012/09/25	Cloudy	17.8	Dark reddish yellow	Earth	Loamy	<14	510	880	0.19	Dark reddish yellow	Earth	Loamy	<11	460	750	0.13			
				2012/12/19	Sunny	2.5	Very dark yellow red	Earth	Loamy	<15	570	1,000	0.19	Very dark yellow red	Earth	Loamy	<8.9	230	430	0.15			
				2013/02/13	Sunny	5.5	Very dark yellow red	Earth	Loamy	<16	750	1,400	0.17	Very dark yellow red	Faint earth	Loamy	<8.5	200	400	0.12			

Table 4.5.1.3 Tochigi Pref. River (Surrounding Environment)

Sampling point				Sampling date	Weather	Air temperature °C	Surrounding Environment (Soil and Air Dose)											Remarks			
No.	Water Body	Point	Municipality				Left bank						Right bank								
							Soil			Radioactive material concentrations (Bq/kg (dry))			Soil			Radioactive material concentrations (Bq/kg (dry))			Air dose μSv/h		
							Color	Odor	Property	Radioactive iodine I-131	Radioactive cesium Cs-134	Cs-137	Color	Odor	Property	Radioactive iodine I-131	Radioactive cesium Cs-134			Cs-137	
10	Matsugawa River	Tributary	Ouwamashi City	2012/06/04	Sunny	23.9	Very dark reddish yellow	None	Loamy/sandy	-8.1	190	300	0.18	Very dark greenish yellow	None	Loamy	-13	390	620	0.17	
				2012/06/26	Sunny	25.0	Dark greenish reddish yellow	Faint earth	Sandy	-6.3	160	230	0.18	Very dark yellow	Faint earth	Loamy	-16	580	920	0.15	
				2012/08/01	Sunny	33.5	Soft reddish yellow	Faint earth	Sandy	-7.5	290	440	0.16	Very dark yellow	Earth	Loamy	-7.4	210	350	0.16	
				2012/08/22	Cloudy	30.2	Very dark reddish yellow	Earth	Loamy	-12	320	520	0.16	Very dark reddish yellow	Earth	Loamy	-14	660	1,100	0.19	
				2012/09/25	Cloudy	24.6	Dull reddish yellow	Earth	Loamy	-11	980	920	0.15	Dark yellow red	Faint earth	Loamy	-14	520	880	0.21	
				2012/12/19	Sunny	8.9	Very dark yellow red	Earth	Loamy	-12	350	590	0.17	Very dark yellow red	Earth	Loamy	-11	300	520	0.17	
				2013/02/13	Sunny	8.3	Very dark reddish yellow	Faint earth	Loamy	-14	690	1,200	0.21	Very dark reddish yellow	Faint earth	Loamy	-12	330	590	0.16	
				2012/06/05	Cloudy	22.0	Very dark greenish yellow	None	Loamy	-9.5	270	420	0.14	Very dark yellow	None	Loamy	-8.7	280	430	0.11	
				2012/09/04	Cloudy	25.0	Very dark reddish yellow	Earth	Loamy	-16	1,000	1,700	0.13	Dark reddish yellow	Grass	Sandy	-5.3	72	120	0.12	
				2012/12/20	Sunny	7.4	Very dark reddish yellow	Earth	Loamy	-9.9	310	590	0.13	Very dark reddish yellow	Earth	Loamy	-8.9	240	450	0.15	
11	Sahigawa River	Udagawahashi Bridge	Ouwamashi City	2013/02/13	Sunny	8.3	Very dark yellow red	Faint earth	Loamy	-10	310	600	0.14	Dark reddish yellow	Faint earth	Sandy	-7.8	250	460	0.11	
				2012/06/05	Cloudy	21.2	Very dark yellow	None	Loamy	-8.1	280	430	0.25	Very dark reddish yellow	None	Loamy	-11	360	560	0.17	
				2012/09/04	Cloudy	26.6	Very dark yellow	Earth	Loamy	-12	580	990	0.20	Very dark reddish yellow	Earth	Loamy	-9.0	390	630	0.15	
12	Momuragawa River	Momurakabashi Bridge	Ouwamashi City	2012/12/20	Sunny	9.2	Very dark yellow red	Earth	Loamy	-12	470	850	0.17	Very dark reddish yellow	Grass and earth	Loamy	-9.3	260	440	0.17	
				2013/02/13	Sunny	8.4	Very dark yellow red	Faint earth	Loamy	-13	640	1,100	0.20	Very dark yellow red	Earth	Loamy	-11	410	730	0.15	
				2012/08/29	Sunny	27.1	Very dark yellow red	Earth	Loamy	-13	570	970	0.23	Dark yellow red	None	Loamy/sandy	-15	650	1,100	0.19	
13	Yunohara		Nasushiobara City	2012/09/18	Rain	22.2	Very dark yellow red	Faint grass	Loamy	-21	870	1,500	0.19	Very dark yellow red	Earth	Loamy	-22	940	1,600	0.21	
				2012/12/17	Rain	5.4	Dark yellow red	Earth	Loamy	-18	1,100	2,000	0.20	-	-	-	-	-	-	-	-
14	Sekibashu Bridge		Nasushiobara City	2013/02/12	Sunny	19.9	Very dark yellow red	None	Loamy	-19	990	1,900	0.23	Very dark yellow red	Faint earth	Loamy	-13	400	810	0.14	
				2012/06/22	Cloudy	23.0	Very dark yellow red	Grass	Loamy	-32	2,400	3,800	0.82	Very dark yellow red	Grass	Loamy	-42	5,200	8,100	0.86	
				2012/09/04	Cloudy	24.0	Very dark yellow red	Earth	Loamy	-38	4,000	6,700	0.86	Very dark yellow red	Earth	Loamy	-27	2,100	3,300	0.86	
15	Hokigawa River	Iwabashi Bridge	Ouwamashi City	2012/12/17	Rain	5.5	Very dark reddish yellow	Earth	Loamy	-16	140	280	0.79	Very dark yellow red	Earth	Loamy	-27	1,900	3,300	0.82	
				2013/02/12	Cloudy, thin snow	3.3	Very dark reddish yellow	Earth	Loamy	-29	2,300	4,300	0.77	Very dark yellow red	Faint earth	Loamy	-25	2,600	3,500	0.76	
				2012/06/06	Cloudy	19.6	Very dark yellow red	None	Loamy	-7.5	86	130	0.13	Very dark yellow red	None	Loamy	-11	430	630	0.16	
				2012/09/04	Cloudy	29.7	Very dark reddish yellow	Earth	Loamy	-12	470	760	0.15	Dark reddish yellow	Earth	Loamy	-25	1,100	1,800	0.17	
				2012/12/20	Sunny	1.5	Dark yellow red	Faint earth	Loamy	-8.6	200	370	0.13	Very dark yellow red	Earth	Loamy	-12	530	900	0.14	
				2013/02/14	Cloudy	-1.6	Dark yellow red	Faint earth	Loamy	-11	400	750	0.18	Very dark yellow red	Earth	Loamy	-13	560	1,000	0.13	
16	Hokigawahashi Bridge		Ouwamashi City	2012/06/05	Cloudy	23.4	Very dark reddish yellow	None	Sandy/earthy	-9.6	470	710	0.15	Very dark greenish yellow	None	Loamy	-6.3	65	94	0.14	
				2012/06/26	Sunny	25.0	Dark reddish yellow	Faint earth	Loamy	-8.8	370	550	0.15	Dark reddish yellow	Faint earth	Loamy	-11	380	560	0.12	
				2012/08/01	Sunny	32.2	Dull reddish yellow	Faint earth	Sandy	-9.7	460	710	0.12	Dark yellow red	Earth	Loamy	-8.7	190	290	0.13	
				2012/08/22	Sunny	32.0	Very dark reddish yellow	Earth	Loamy	-11	370	550	0.12	Very dark reddish yellow	Earth	Loamy	-11	270	420	0.13	
				2012/09/25	Cloudy	21.4	Dark reddish yellow	Earth	Loamy	-9.2	310	490	0.13	Dull reddish yellow	Faint earth	Loamy	-8.5	260	430	0.13	
				2012/12/20	Sunny	3.4	Very dark reddish yellow	Grass and earth	Loamy	-7.2	140	280	0.11	Dark reddish yellow	Grass and earth	Loamy	-8.0	140	260	0.12	
				2013/02/14	Sunny	0.6	Dark reddish yellow	Earth	Sandy	-10	470	860	0.15	Very dark yellow red	Faint earth	Loamy	-8.5	79	130	0.12	
				2012/06/05	Cloudy	23.4	Very dark yellow	None	Loamy	-6.3	38	56	0.10	Very dark reddish yellow	None	Loamy	-6.8	230	340	0.11	
				2012/06/26	Sunny	28.2	Dark yellow red	Faint earth	Loamy	-13	470	730	0.10	Very dark yellow red	Faint earth	Loamy	-5.4	93	150	0.11	
				2012/08/01	Sunny	31.5	Dark reddish yellow	Earth	Loamy	-9.1	330	520	0.09	Dark yellow red	Earth	Loamy	-7.3	120	190	0.11	
17	Nakagawa River	Shinnakabashi Bridge	Nakagawamachi Town	2012/08/22	Sunny	31.0	Dark reddish yellow	Earth	Loamy	-8.7	280	440	0.09	Dark yellow	Earth	Loamy	-7.7	260	410	0.11	
				2012/09/25	Cloudy	24.8	Dull yellow red	Earth	Loamy	-7.7	97	160	0.10	Dark yellow red	Earth	Loamy	-7.5	150	240	0.11	
				2012/12/20	Sunny	2.9	Dark yellow red	Faint earth	Loamy	-7.6	150	270	0.11	Dark reddish yellow	Earth	Loamy	-5.3	87	160	0.10	
				2013/02/14	Cloudy	4.8	Dark yellow red	Earth	Loamy	-5.7	97	170	0.10	Very dark yellow red	Earth	Loamy	-9.1	290	390	0.10	
				2012/06/05	Sunny	23.7	Very dark greenish yellow	None	Loamy	-7.8	180	270	0.11	Very dark reddish yellow	None	Loamy	-8.7	320	470	0.10	
				2012/06/27	Sunny	20.8	Reddish yellowish black	Faint earth	Loamy	-7.1	200	340	0.12	Very dark yellow red	Faint earth	Loamy	-11	170	280	0.12	
18	Mumogawa River	Koseibashi Bridge	Nakagawamachi Town	2012/07/31	Sunny	30.8	Very dark yellow red	Faint earth	Loamy	-7.5	220	330	0.12	Very dark reddish yellow	Faint earth	Loamy	-5.8	83	140	0.11	
				2012/08/22	Sunny	32.0	Very dark reddish yellow	Earth	Loamy	-6.4	120	200	0.12	Very dark reddish yellow	Earth	Loamy	-5.5	92	150	0.11	
				2012/09/25	Cloudy	22.0	Dull reddish yellow	Earth	Loamy	-7.3	210	330	0.12	Soft reddish yellow	Faint earth	Loamy	-7.7	160	290	0.10	
				2012/12/20	Sunny	-1.9	Very dark reddish yellow	Faint earth	Loamy	-6.2	120	210	0.10	Very dark yellow red	Earth	Loamy	-9.0	190	340	0.11	
				2013/02/14	Sunny	5.0	Yellowish reddish black	Faint earth	Loamy	-7.9	250	460	0.12	Dark reddish yellow	Earth	Loamy	-6.1	110	210	0.12	

Table 4.5.1.3 Tochigi Pref. River (Surrounding Environment)

Sampling point				Sampling date	Weather	Air temperature °C	Surrounding Environment (Soil and Air Dose)										Remarks				
No.	Water Body	Point	Municipality				Left bank					Right bank									
							Soil			Radioactive material concentrations (Bq/kg (dry))		Air dose µSv/h	Soil			Radioactive material concentrations (Bq/kg (dry))		Air dose µSv/h			
							Color	Odor	Property	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137		Color	Odor	Property	Radioactive iodine I-131			Radioactive cesium Cs-134 Cs-137		
R i v e r S y s t e m	A r a k a w a R i v e r	Saikachibashi Bridge	Shiyoumachi Town	2012/06/13	Cloudy	20.1	Very dark yellow red	Earth	Loamy	<-13	600	870	0.18	Very dark yellow	Earth	Loamy	<-14	420	680	0.18	
				2012/09/04	Rain	27.0	Very dark reddish yellow	Earth	Loamy	<-15	660	1,100	0.18	Very dark reddish yellow	Earth	Loamy	<-13	290	460	0.17	
				2012/12/19	Sunny	4.4	Very dark yellow red	Earth	Loamy	<-9.0	230	440	0.17	Very dark yellow red	Earth	Loamy	<-18	630	1,100	0.17	
				2013/02/12	Sunny	6.2	Very dark yellow red	Faint earth	Loamy	<-11	350	660	0.16	Dark yellow red	Earth	Loamy	<-13	440	800	0.18	
				2012/06/06	Cloudy	19.3	Very dark greenish yellow	None	Loamy	<-8.2	130	200	0.10	Very dark reddish yellow	None	Loamy	<-7.8	190	300	0.10	
		Renjobashi Bridge	Sakurashi City	2012/09/04	Sunny	32.0	Very dark reddish yellow	Earth	Loamy/skeletal	<-8.3	200	340	0.10	Dark reddish yellow	Earth	Loamy/skeletal	<-8.6	320	490	0.09	
				2012/12/21	Sunny	0.8	Very dark reddish yellow	Earth	Loamy/skeletal	<-7.1	150	270	0.11	Very dark reddish yellow	Grass	Loamy	<-8.8	230	440	0.11	
				2013/02/14	Cloudy	7.7	Very dark reddish yellow	Earth	Loamy	<-7.0	130	240	0.10	Very dark reddish yellow	Faint earth	Loamy	<-6.7	100	190	0.11	
				2012/06/06	Cloudy	20.0	Very dark reddish yellow	None	Loamy	<-8.5	250	390	0.15	Very dark reddish yellow	None	Loamy	<-9.9	590	850	0.16	
				2012/09/04	Sunny	32.0	Very dark reddish yellow	Faint earth	Skeletal/loamy	<-13	620	990	0.18	Very dark reddish yellow	Earth	Skeletal/loamy	<-17	1,300	2,100	0.17	
	Uchikawa River	Yaitashi City	2012/12/19	Sunny	2.9	Very dark yellow red	Faint earth	Loamy	<-9.7	410	710	0.15	Dark yellow red	Earth	Loamy	<-9.8	460	820	0.15		
			2013/02/12	Cloudy	3.8	Very dark reddish yellow	Faint earth	Loamy	<-9.1	310	580	0.13	Very dark reddish yellow	Earth	Loamy	<-9.5	340	640	0.14		
			2012/06/06	Cloudy	20.2	Dark grayish reddish yellow	Earth	Sandy	<-8.8	270	410	0.12	Dark grayish reddish yellow	None	Loamy	<-5.2	62	98	0.09		
	Asahibashi Bridge	Sakurashi City	2012/09/04	Sunny	34.0	Very dark reddish yellow	None	Loamy	<-8.5	220	360	0.11	Very dark reddish yellow	Earth	Skeletal/loamy	<-11	390	600	0.10		
			2012/12/21	Sunny	-0.1	Very dark yellow red	Earth	Loamy	<-9.2	170	300	0.11	Dark yellow red	Earth	Loamy	<-9.8	240	430	0.10		
			2013/02/14	Cloudy	8.4	Very dark yellow red	Faint earth	Loamy	<-5.7	55	110	0.10	Very dark yellow red	Earth	Loamy	<-5.9	120	220	0.09		
			2012/06/05	Cloudy	23.6	Very dark reddish yellow	None	Loamy	<-6.6	84	130	0.09	Very dark reddish yellow	None	Loamy	<-9.5	210	320	0.09		
			2012/06/27	Sunny	24.5	Very dark yellow red	Grass/chemical	Loamy	<-8.7	170	270	0.09	Dark reddish yellow	Faint earth	Loamy	<-8.5	140	220	0.10		
	A r a k a w a R i v e r	Mukabashi Bridge	Nasukarasuyamashi City	2012/07/31	Sunny	33.5	Very dark reddish yellow	Faint earth	Loamy	<-5.8	57	85	0.09	Very dark reddish yellow	Faint earth	Loamy	<-7.6	130	220	0.09	
				2013/08/22	Sunny	33.0	Dark reddish yellow	Earth	Loamy	<-8.6	150	250	0.09	Dark yellow	Earth	Loamy	<-6.2	90	140	0.08	
				2012/09/25	Cloudy	19.3	Dark yellow red	Earth	Loamy	<-7.6	130	210	0.10	Dull yellow red	Earth	Loamy	<-8.7	150	270	0.08	
				2012/12/21	Sunny	8.3	Dark reddish yellow	Earth	Loamy/sandy	<-4.9	33	59	0.09	Dark reddish yellow	Grass and earth	Loamy	<-7.8	110	200	0.09	
				2013/02/15	Rain	4.4	Dark yellow red	Faint earth	Loamy	<-6.5	63	120	0.08	Dark yellow red	Faint earth	Loamy	<-5.7	34	67	0.10	
				2012/06/05	Cloudy	23.6	Dark grayish reddish yellow	None	Sandy/earth	<-9.1	170	280	0.09	Very dark reddish yellow	None	Loamy	<-7.4	140	210	0.08	
				2012/06/27	Sunny	26.2	Dark yellow red	Faint earth	Loamy	<-8.5	130	170	0.10	Dark reddish yellow	Faint earth/chemical	Loamy	<-8.9	160	230	0.08	
2012/07/31				Sunny	35.4	Very dark yellow red	Earth	Loamy	<-9.0	210	340	0.09	Very dark reddish yellow	Earth	Loamy	<-7.0	94	150	0.08		
2012/08/22				Sunny	31.0	Dull reddish yellow	Earth	Sandy/loamy	<-10	200	310	0.09	Dark reddish yellow	Earth	Loamy	<-8.3	120	200	0.09		
2012/09/25				Cloudy	21.0	Dull yellow red	Earth	Loamy	<-8.6	130	240	0.09	Dull yellow red	Faint earth	Loamy	<-9.1	130	230	0.08		
E g a w a R i v e r	Tributary	Nasukarasuyamashi City	2012/12/21	Sunny	8.5	Dark reddish yellow	Grass and earth	Loamy/sandy	<-8.6	150	270	0.09	Dark reddish yellow	Grass and earth	Loamy/sandy	<-9.5	100	180	0.08		
			2013/02/15	Cloudy	6.2	Very dark reddish yellow	Faint earth	Loamy	<-8.3	150	300	0.09	Dark yellow red	Faint earth	Loamy	<-7.6	84	160	0.09		
			2012/08/30	Cloudy	29.3	Dark reddish yellow	None	Loamy	<-12	470	780	0.21	Very dark yellow red	Earth	Loamy	<-21	870	1,300	0.19		
			2012/09/19	Rain	21.7	Dark reddish yellow	Earth	Loamy	<-13	780	1,300	0.20	Very dark yellow red	Earth	Loamy	<-24	1,300	2,100	0.20		
			2013/02/20	Sunny	5.1	Very dark yellow red	Earth	Loamy	<-11	500	920	0.19	Very dark yellow red	Earth	Loamy	<-21	1,000	1,900	0.21		
			2012/12/11	Sunny	0.7	Very dark yellow red	Earth	Loamy	<-11	450	850	0.18	Very dark yellow red	Earth	Loamy	<-13	340	570	0.17		
			2012/08/29	Sunny	26.5	Dark yellow red	Earth	Loamy	<-13	190	320	0.10	Dark reddish yellow	None	Loamy	<-12	280	480	0.14		
			2012/09/19	Rain	21.3	Very dark reddish yellow	Faint grass	Loamy	<-21	1,200	2,000	0.13	Very dark reddish yellow	Faint grass	Loamy	<-3.6	74	140	0.10		
			2012/12/11	Sunny	1.0	Very dark reddish yellow	Faint earth	Loamy/sandy	<-4.4	43	77	0.10	Very dark yellow red	Faint earth	Loamy	<-18	710	1,200	0.10		
			2013/02/20	Sunny	-4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K i n u g a w a R i v e r	Kawaji Daiichi Power Station, front	Nikkoshi City	2012/06/28	Sunny	26.9	Dull reddish yellow	None	Sandy	<-1.3	30	52	0.11	Reddish yellowish pale gray	None	Sandy	<-9.9	600	960	0.25		
			2012/09/19	Rain	20.9	Yellowish dark gray	None	Sandy	<-4.0	14	22	0.13	Dark grayish yellow	Earth	Sandy	<-9.7	500	850	0.25		
			2012/12/11	Sunny	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(Left bank) Unable to collect samples due to snow on the ground
O j i k a w a R i v e r	Tributary	Nikkoshi City	2013/02/20	Sunny	1.0	Dark reddish yellow	None	Sandy	<-4.7	25	42	0.13	Dull reddish yellow	Faint earth	Loamy/sandy	<-13	690	1,200	0.21		
			2012/08/31	Sunny	31.9	Dark yellow red	Earth	Loamy	<-22	980	1,600	0.23	Dark reddish yellow	None	Loamy	<-11	440	730	0.27		
			2012/09/19	Cloudy	22.1	Very dark reddish yellow	Earth	Loamy	<-18	600	1,000	0.26	Very dark reddish yellow	Earth	Loamy	<-18	610	1,100	0.25		
K i n u g a w a R i v e r	Kosage	Nikkoshi City	2012/12/11	Sunny	1.3	Very dark yellow red	Faint grass	Loamy	<-47	3,500	6,000	0.25	Very dark reddish yellow	Earth	Loamy	<-16	640	1,100	0.23		
			2013/02/20	Sunny	4.7	Very dark yellow red	Earth	Loamy	<-47	3,100	5,800	0.26	Very dark reddish yellow	Earth	Loamy	<-16	650	1,200	0.23		

Table 4.5.2.1 Tochigi Pref. Lake and Headwater (Water Quality)

Sampling point					Sampling date	Weather	Air temperature °C	Full depth m	Water quality										Remarks							
No.	Point		Municipality	Surface layer/Bottom layer					General items						Radioactive material concentrations (Bq/L)											
									Water temperature	Sampling depth m	Color	Odor	Secchi disk depth	Electrical conductivity mS/m	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium Cs-134		Radioactive cesium Cs-137						
L a k e a n d h e a d w a t e r s	57	Naka-gawa Miyama Dam Reservoir	Center	Nasuhibarashi City	Surface layer	2012/08/29	Sunny	23.0	16.8	20.5	0.5	Yellowish white	None	0.6	11.5	<1	1.1	<0.52	<0.59	<0.51						
					Bottom layer																					
					Surface layer	2012/10/03	Cloudy	18.4	26.0	16.8	0.5	Yellow greenish white	None	0.7	10.1	2.5	1.8	<0.62	<0.72	<0.58						
					Bottom layer																					
					Surface layer	2012/12/06	Cloudy	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to strong wind causing boat to sway
					Bottom layer																					
						2013/02/13	Cloudy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to freezing			
	58	Shiobara Dam Reservoir	Center	Nasuhibarashi City	Surface layer	2012/08/30	Sunny	28.1	17.7	26.6	0.5	Yellowish white	None	0.6	19.6	1.2	1.2	<0.60	<0.78	<0.62						
					Bottom layer																					
					Surface layer	2012/10/03	Cloudy	21.5	19.7	17.7	0.5	Yellow greenish white	None	0.3	10.3	11	10	<0.49	<0.61	<0.55						
					Bottom layer																					
					Surface layer	2012/12/06	Sunny	6.4	30.1	8.5	0.5	Dark grayish greenish yellow	None	3.4	20.2	<1	0.9	<0.42	<0.63	<0.56						
					Bottom layer																					
						2013/02/19	Cloudy	1.0	34.0	2.6	0.5	Greenish black	None	4.0	17.7	<1	0.7	<0.46	<0.61	<0.50						
	59	Kawaji Dam Reservoir	Center	Nasuhibarashi City	Surface layer	2012/08/30	Sunny	31.2	60.2	25.8	0.5	Greenish yellowish white	None	1.0	8.0	<1	0.6	<0.44	<0.65	<0.57						
					Bottom layer																					
					Surface layer	2012/10/04	Cloudy	19.1	77.0	17.6	0.5	Yellow greenish white	None	1.3	7.4	2.2	1.3	<0.53	<0.53	<0.70						
					Bottom layer																					
					Surface layer	2012/12/05	Sunny	3.8	71.4	10.0	0.5	Light grayish yellow green	None	1.5	8.5	<1	3.0	<0.61	<0.56	<0.51						
					Bottom layer																					
					Surface layer	2013/02/13	Snow	0.1	79.0	4.7	0.5	Grayish green	None	1.7	8.7	<1	2.4	<0.59	<0.70	<0.73						
					Bottom layer																					
					60	Ikari Dam Reservoir	Center	Nikkoshi City	Surface layer	2012/08/31	Sunny	28.5	57.3	26.7	0.5	Yellow greenish white	None	3.5	6.1	<1	0.4	<0.53	<0.61	<0.68		
									Bottom layer																	
Surface layer	2012/10/04	Sunny	23.4	58.1					18.5	0.5	Greenish yellowish white	None	3.3	6.9	<1	0.3	<0.57	<0.56	<0.53							
Bottom layer																										
Surface layer	2012/12/05	Sunny	4.3	54.0					7.6	0.5	Dark grayish yellow green	None	2.4	8.9	<1	1.0	<0.51	<0.58	<0.44							
Bottom layer																										
61	Kawamata Dam Reservoir	Center	Nikkoshi City	Surface layer	2013/02/18	Snow	1.1	63.5	2.1	0.5	Greenish yellowish light gray	None	4.8	7.0	<1	0.8	<0.65	<0.63	<0.60							
				Bottom layer																						
				Surface layer	2012/07/13	Sunny, then cloudy	24.0	52.5	22.4	0.5	Yellow greenish white	None	4.2	7.3	<1	0.5	<0.54	<0.53	<0.53							
				Bottom layer																						
				Surface layer	2012/10/05	Sunny	24.2	69.8	19.2	0.5	Yellow greenish white	None	4.5	10.8	<1	0.4	<0.51	<0.58	<0.49							
				Bottom layer																						
62	Yanoko Lake	Center	Nikkoshi City	Surface layer	2012/12/07	Sunny	0.5	78.4	10.0	0.5	Dark grayish yellow green	None	4.6	11.6	<1	0.8	<0.47	<0.72	<0.62							
				Bottom layer																						
				Surface layer	2013/02/15	Snow	-3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to freezing		
				Bottom layer																						
				Surface layer	2012/08/27	Sunny	27.0	12.4	19.0	0.5	Greenish yellowish white	None	2.2	13.8	<1	0.6	<0.66	<0.56	<0.78							
				Bottom layer																						
				Surface layer	2012/10/02	Cloudy, partly with light rain	15.2	12.2	11.3	0.5	Greenish yellowish white	None	2.3	23.5	29	9.9	<0.45	<0.58	<0.59							
				Bottom layer																						
					2012/12/04	Rain	3.5	12.1	13.0	11.2	0.5	Light grayish yellow	None	2.6	18.8	3.0	2.7	<0.59	<0.60	<0.71						
					2013/02/12	Sunny	-4.0	-	4.4	11.1	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to freezing					

Table 4.5.2.1 Tochigi Pref. Lake and Headwater (Water Quality)

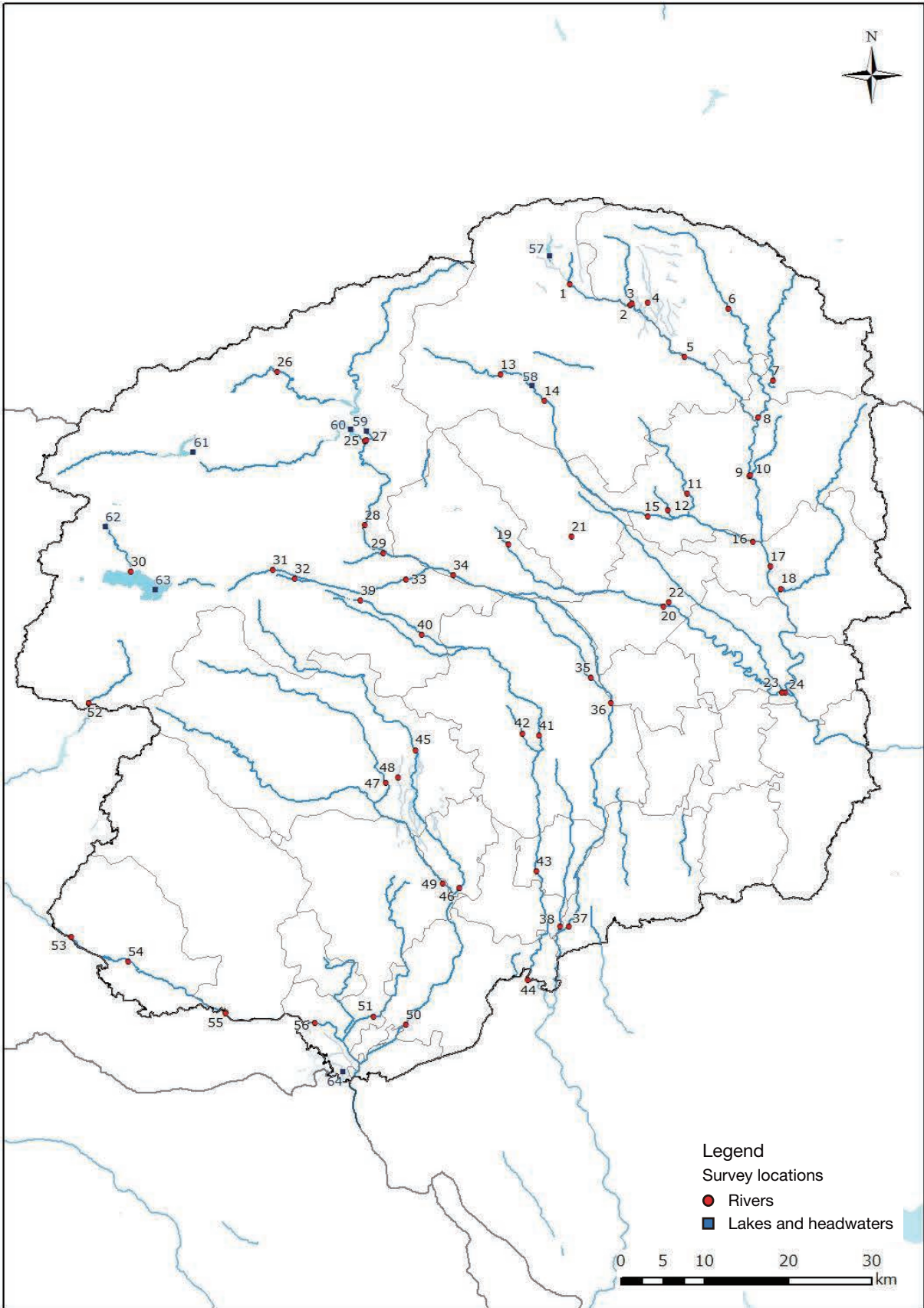
	Sampling point				Sampling date	Weather	Air temperature °C	Full depth m	Water quality										Remarks							
	No.	Point		Municipality					Surface layer/Bottom layer	General items					Radioactive material concentrations (Bq/L)											
		Water temperature	Sampling depth m							Color	Odor	Secchi disk depth	Electrical conductivity mS/m	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium Cs-134	Cs-137								
L a k e s a n d h e a d w a t e r s	63	R i v e r s i t y S y s t e m	Chuzenjiko Lake	Center	Nikkoshi City	Surface layer	2012/08/28	Sunny	26.0	170.0	22.4	0.5	Yellow greenish white	None	9.3	10.0	<1	0.4	<0.81	<0.70	<0.57					
						Bottom layer																				
						Surface layer																				
						Bottom layer	2012/10/18	Cloudy	12.3	169.0	15.5	0.5	Dark grayish yellow green	None	9.2	11.4	<1	0.5	<0.60	<0.63	<0.70					
						Surface layer																				
						Bottom layer																				
							Surface layer	2012/12/04	Sunny	5.0	172.0	6.7	0.5	Grayish yellow green	None	7.3	12.0	<1	0.2	<0.47	<0.70	<0.62				
	Bottom layer																									
	Surface layer																									
	Bottom layer						2013/02/12	Sunny	-2.4	170.0	4.4	171.0	-	None	10.2	12.5	<1	0.9	<0.44	<0.67	<0.52					
	64	W a t e r R e s e r v o i r	Watarase Reservoir	Center	Tochigishi City	Surface layer	2012/08/01	Cloudy	31.0	2.2	31.7	0.5	Light grayish yellow green	None	0.3	18.9	6.6	2.9	<0.41	<0.68	<0.65					
Bottom layer																										
Surface layer																										
Bottom layer						2012/09/21	Rain	21.2	3.3	26.9	0.5	Light grayish yellow green	None	0.3	19.8	18	5.7	<0.62	<0.75	<0.60						
Surface layer																										
Bottom layer																										
Surface layer						2012/11/29	Cloudy	14.8	6.6	11.5	0.5	Yellowish white	None	0.5	19.3	17	10	<0.56	<0.66	<0.68						
Bottom layer																										
Surface layer																										
Bottom layer						2013/02/08	Sunny	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to strong wind and low water level	

Table 4.5.2.2 Tochigi Pref. Lake and Headwater (Sediment)

Lake and headwater	Sampling point				Sampling date	Weather	Air temperature C	Full depth m	Sediment														Remarks					
	No.	Point	Municipality	General items										Concentration of radioactive material (Bq/kg dried soil)														
				Mud temperature C					Mud sampling depth cm	Color	Odor	Mechanical composition %						Mud content %	Density g/cm ³	Property	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137						
L a k e s a n d h e a d w a t e r s	57	Riv. Nera Miyama Dam Reservoir	Center	Nauyasoharashi City	2012/08/29	Sunny	23.0	16.8	10.4	10	Dark grayish reddish yellow	Sludge	0.0	0.0	0.0	1.2	22.1	70.5	6.1	47.9	2.548	Silt	<13	310	540			
					2012/10/03	Cloudy	18.4	26.0	13.6	10	Dark grayish reddish yellow	Faint sludge	0.0	0.0	0.0	0.3	17.7	74.2	7.8	58.7	2.574	Silt	<6.4	<8.8	11			
					2012/12/06	Cloudy	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect mud due to strong wind causing boat to sway
					2013/02/13	Cloudy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect mud due to freezing
	58	S. Syama Shobara Dam Reservoir	Center	Nauyasoharashi City	2012/08/30	Sunny	28.1	17.7	16.3	10	Yellow greenish white	Faint sludge	0.0	0.0	3.4	9.3	30.4	55.7	1.2	53.5	2.53	Silt	<12	340	560			
					2012/10/03	Cloudy	21.5	19.7	16.0	7	Dark grayish yellow	Faint sludge	0.0	0.0	0.0	1.4	31.2	64.0	3.3	48.4	2.491	Silt	<15	380	620			
					2012/12/06	Sunny	6.4	30.1	8.6	5	Reddish yellowish dark gray	Sludge	0.0	0.0	6.5	5.1	29.8	58.0	0.8	44.2	2.482	Silt	<14	360	630			
					2013/02/19	Cloudy	1.0	34.0	4.0	10	Dark grayish yellow	None	0.0	0.0	0.0	0.4	25.1	72.2	2.2	51.2	2.545	Silt	<13	350	650			
	59	Kawaji Dam Reservoir	Center	Nauyasoharashi City	2012/08/30	Sunny	31.2	60.2	10.0	15	Dark grayish reddish yellow	Faint sludge	0.0	0.0	0.0	1.9	24.2	70.0	3.9	54.0	2.550	Silt	<12	260	430			
					2012/10/04	Cloudy	19.1	77.0	8.3	10	Dark grayish yellow	Faint sludge	0.0	0.0	0.0	1.3	23.0	69.5	6.2	52.5	2.554	Silt	<11	280	470			
					2012/12/05	Sunny	3.8	71.4	9.1	15	Dark grayish yellow	Sludge	0.0	0.0	0.0	0.4	23.1	66.9	9.6	57.5	2.650	Silt	<5.5	<8.6	25			
					2013/02/13	Snow	0.1	79.0	5.2	10	Dark grayish yellow	None	0.0	0.0	0.0	0.2	13.5	73.1	13.1	59.1	2.651	Silt	<8.1	110	210			
	60	K. Inuigawa Hara Dam Reservoir	Center	Nauyasoharashi City	2012/08/31	Sunny	28.5	57.3	14.2	10	Yellow greenish gray	Faint sewage	0.0	0.0	0.0	1.1	15.7	76.7	6.5	54.0	2.587	Silt	<22	1,600	2,500			
					2012/10/04	Sunny	23.4	58.1	4.8	10	Dark grayish yellow	Faint sludge	0.0	0.0	0.0	1.1	18.0	68.3	12.6	49.5	2.559	Silt	<21	1,200	2,100			
					2012/12/05	Sunny	4.3	54.0	6.3	15	Dark grayish greenish yellow	Sludge	0.0	0.0	5.2	4.1	14.2	67.1	9.4	50.0	2.579	Silt	<21	900	1,600			
					2013/02/18	Snow	1.1	63.5	3.0	10	Dark grayish yellow	Sludge	0.0	0.0	0.0	0.3	12.5	73.4	13.9	50.2	2.58	Silt	<21	1,400	2,600			
	61	Riv. Utsur Kawamata Dam Reservoir	Center	Nikkoshi City	2012/07/13	Sunny, then cloudy	24.0	52.5	17.1	5	Dark grayish reddish yellow	Sludge	21.4	4.8	1.9	8.2	23.4	37.9	2.3	67.1	2.517	Silt	<6.1	82	130			
					2012/10/05	Sunny	24.2	69.8	3.9	10	Reddish yellowish gray	Sludge	0.0	0.0	0.0	1.0	15.4	54.8	28.7	50.4	2.546	Silt	<8.7	70	120			
					2012/12/07	Sunny	0.5	78.4	7.0	10	Dark grayish greenish yellow	Sludge	0.0	0.0	0.0	2.0	19.4	63.0	15.7	50.5	2.551	Silt	<9.5	45	95			
					2013/02/15	Snow	-3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect mud due to freezing	
62	S. Syama Yumoko Lake	Center	Nauyasoharashi City	2012/08/27	Sunny	27.0	12.4	9.2	5	Yellowish reddish black	Sludge	0.0	0.0	0.0	13.8	34.2	51.6	0.3	29.5	2.358	Silt	<15	100	170				
				2012/10/02	Cloudy, partly with light rain	15.2	12.2	10.1	10	Yellowish black	Sludge	0.0	0.0	0.0	3.6	39.1	57.1	0.2	25.2	2.337	Silt	<6.0	<9.3	28				
				2012/12/04	Rain	3.5	12.1	5.3	15	Yellowish black	Sludge	0.0	0.0	5.1	7.9	33.3	53.4	0.2	25.1	2.343	Silt	<19	150	240				
				2013/02/12	Sunny	-4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect mud due to freezing		
63	Chuzenjiko Lake	Center	Nauyasoharashi City	2012/08/28	Sunny	26.0	170.0	3.9	15	Reddish yellowish black	Faint seaweed	0.0	0.0	0.0	2.1	32.5	65.4	0.0	22.6	2.232	Silt	<26	460	720				
				2012/10/18	Cloudy	12.3	169.0	4.4	10	Greenish yellowish black	Sludge	0.0	0.0	5.0	6.6	32.7	55.7	0.0	25.6	2.196	Mud	<23	300	530				
				2012/12/04	Sunny	5.0	172.0	4.6	15	Greenish yellowish black	Sludge	0.0	0.0	2.9	8.0	32.6	56.4	0.0	23.4	2.228	Silt	<18	30	85				
				2013/02/12	Sunny	-2.4	170.0	2.9	8	Dark grayish green	Sludge	0.0	0.0	0.0	1.5	33.5	65.0	0.0	19.8	2.179	Silt	<28	260	450				
64	Watarase Reservoir	Center	Tochigi City	2012/08/01	Cloudy	31.0	2.2	28.9	15	Dark grayish yellow green	None	0.0	0.1	0.0	2.0	27.0	66.9	4.0	52.6	2.585	Silt	<7.6	65	100				
				2012/09/21	Rain	21.2	3.3	24.7	6	Grayish yellow green	Faint sludge	0.0	1.3	0.0	0.9	21.6	69.1	7.1	59.6	2.626	Silt	<6.8	50	84				
				2012/11/29	Cloudy	14.8	6.6	11.2	5	Grayish greenish yellow	None	0.0	0.0	0.0	1.9	26.6	62.3	9.1	52.1	2.606	Silt	<8.8	77	120				
				2013/02/08	Sunny	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect mud due to strong wind and low water level		

Table 4.5.2.3 Tochigi Pref. Lake and Headwater (Surrounding Environment)

Sampling point				Sampling date	Weather	Air temperature °C	Surrounding Environment (Soil and Air Dose)							Remarks	
							Soil			Radioactive material concentrations (Bq/kg (dry))					Air dose µSv/h
							General items		Property	Radioactive iodine I-131	Radioactive cesium				
Color	Odor	Radioactive iodine I-131	Cs-134	Cs-137											
No.	Point	Municipality													
L a k e s a n d h e a d w a t e r s	R i v e r k a g e s w i t h e m	Miyama Dam Reservoir	Center	Nasushiobara City	2012/08/29	Sunny	23.0	Very dark yellow red	None	Loamy	<17	930	1,400	0.16	
					2012/10/03	Cloudy	18.4	Very dark yellow red	Earth	Loamy	<11	360	560	0.15	
					2012/12/06	Cloudy	2.0	Dark reddish yellow	Earth	Loamy	<12	520	900	0.15	
					2013/02/13	Cloudy	-	-	-	-	-	-	-	-	-
	S y a m e m	Shiobara Dam Reservoir	Center	Nasushiobara City	2012/08/30	Sunny	28.1	Very dark yellow red	Faint mold	Loamy	<19	1,800	2,900	0.54	
					2012/10/03	Cloudy	21.5	Very dark yellow red	Earth/grass	Loamy	<20	1,800	2,900	0.56	
					2012/12/06	Sunny	6.4	Very dark reddish yellow	Earth	Loamy	<16	1,300	2,300	0.52	
					2013/02/19	Cloudy	1.0	Very dark reddish yellow	Earth	Loamy	<19	1,700	3,200	0.48	
	59	Kawaji Dam Reservoir	Center	Nasushiobara City	2012/08/30	Sunny	31.2	Dark reddish yellow	None	Loamy/skeletal	<13	830	1,400	0.36	
					2012/10/04	Cloudy	19.1	Very dark reddish yellow	Faint earth	Skeletal/loamy	<13	830	1,400	0.31	
					2012/12/05	Sunny	3.8	Dark reddish yellow	Earth	Skeletal	<10	570	990	0.22	
					2013/02/13	Snow	0.1	-	-	-	-	-	-	-	-
	60	Ikari Dam Reservoir	Center	Nasushiobara City	2012/08/31	Sunny	28.5	Dark yellow red	None	Loamy	<13	640	1,000	0.27	
					2012/10/04	Sunny	23.4	Very dark reddish yellow	Earth	Loamy/skeletal	<13	730	1,200	0.25	
					2012/12/05	Sunny	4.3	Dark reddish yellow	Earth	Loamy	<11	480	860	0.24	
					2013/02/18	Snow	1.1	Dark reddish yellow	Faint earth	Loamy	<11	370	710	0.23	
	61	Kawamata Dam Reservoir	Center	Nikkoshi City	2012/07/13	Sunny, then cloudy	24.0	Very dark reddish yellow	Faint earth	Loamy	<5.2	34	58	0.08	
					2012/10/05	Sunny	24.2	Very dark yellow red	Earth	Loamy/skeletal	<5.4	31	63	0.08	
					2012/12/07	Sunny	0.5	Very dark yellow red	Earth	Loamy	<5.3	26	43	0.08	
					2013/02/15	Snow	-3.0	-	-	-	-	-	-	-	-
	62	Yunoko Lake	Center	Nikkoshi City	2012/08/27	Sunny	27.0	Very dark yellow red	None	Loamy	<17	330	530	0.12	
					2012/10/02	Cloudy, partly with light rain	15.2	Very dark yellow red	Faint earth	Loamy	<16	360	600	0.11	
					2012/12/04	Rain	3.5	Very dark reddish yellow	Earth	Loamy	<13	260	470	0.11	
					2013/02/12	Sunny	-4.0	-	-	-	-	-	-	-	-
63	Chuzenjiko Lake	Center	Nikkoshi City	2012/08/28	Sunny	26.0	Very dark reddish yellow	None	Loamy	<15	830	1,300	0.15		
				2012/10/18	Cloudy	12.3	Very dark greenish yellow	Faint grass	Loamy	<9.5	280	460	0.14		
				2012/12/04	Sunny	5.0	Very dark reddish yellow	Earth	Loamy/skeletal	<10	410	730	0.16		
				2013/02/12	Sunny	-2.4	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground.
64	Watarase Reservoir	Center	Tochigi City	2012/08/01	Cloudy	31.0	Soft reddish yellow	Earth	Loamy	<7.9	130	180	0.09		
				2012/09/21	Rain	21.2	Dull reddish yellow	Earth	Loamy	<7.9	120	200	0.10		
				2012/11/29	Cloudy	14.8	Very dark reddish yellow	Earth	Skeletal	<8.4	130	220	0.09		
				2013/02/08	Sunny	3.0	Very dark yellow red	Earth	Loamy	<5.5	56	85	0.09		



Survey Locations (Tochigi Prefecture)