

## FY2014 Tochigi 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 - 190 Bq/kg (dry)

Cs-137: 1.1 - 630 Bq/kg (dry)

#### Lakes and reservoirs

Cs-134: 24 - 2,200 Bq/kg (dry)

Cs-137: 100 - 6,500 Bq/kg (dry)

### (3) Surrounding Environment

#### (a) Soil

##### Rivers

Cs-134: ND - 5,900 Bq/kg (dry)

Cs-137: ND - 18,000 Bq/kg (dry)

##### Lakes and reservoirs

Cs-134: ND - 570 Bq/kg (dry)

Cs-137: 17 - 1,700 Bq/kg (dry)

#### (b) Ambient dose rate

##### Rivers

0.04 - 0.57  $\mu$ Sv/h

##### Lakes and reservoirs

0.07 - 0.33  $\mu$ Sv/h

# Tochigi River (Water) 1/6

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	1	Nakagawa River	Huyobashishita	Nasushiobara City	2014/6/2	Sunny	28.8	0.5	18.6	0.0	Light grayish yellow	None	>100	16.6	<1	<0.1	<0.61 ± 0.11	<0.66 ± 0.12	
					2014/8/6	Sunny	25.0	0.2	17.3	0.0	Light grayish yellow green	None	>100	14.5	<1	0.1	<0.45 ± 0.10	<0.49 ± 0.10	
	2	Nakagawa River	Komei Bridge	Nasushiobara City	2014/11/4	Cloudy	6.0	0.1	10.7	0.0	Light grayish yellow green	None	>100	9.3	<1	0.2	<0.59 ± 0.13	<0.47 ± 0.096	
					2015/2/2	Light snow	-2.8	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground
	3	Takaomata River	Takaomata Bridge	Nasu Town	2014/5/22	Sunny	20.5	0.3	14.0	0.0	Grayish yellowish green	None	>100	10.6	<1	0.3	<0.36 ± 0.070	<0.66 ± 0.15	
					2014/8/6	Sunny	30.3	0.3	22.3	0.0	Light grayish yellow green	None	>100	12.0	2	0.2	<0.58 ± 0.11	<0.69 ± 0.15	
	4	Yukawa River	Yukawa Bridge	Nasu Town	2014/11/4	Sunny	10.0	0.2	11.9	0.0	Light grayish yellow	None	>100	7.4	<1	0.5	<0.70 ± 0.15	<0.55 ± 0.11	
					2015/2/2	Cloudy	-2.0	0.2	3.0	0.0	Light grayish yellow	None	>100	14.9	<1	0.4	<0.64 ± 0.13	<0.50 ± 0.12	
	5	Nakagawa River System	Kamikuroiso	Nasushiobara City/Nasu Town	2014/5/22	Sunny	22.0	0.2	13.5	0.0	Grayish yellowish green	None	>100	16.1	3	0.6	<0.47 ± 0.077	<0.71 ± 0.12	
					2014/8/6	Sunny	27.5	0.1	19.8	0.0	Light grayish yellowish green	None	>100	17.8	2	0.1	<0.60 ± 0.13	<0.71 ± 0.13	
	6	Yosasa River	Yosasa Bridge	Nasu Town	2014/11/4	Sunny	9.0	0.2	11.7	0.0	Light grayish reddish yellow	None	>100	9.4	<1	0.2	<0.59 ± 0.12	<0.59 ± 0.12	
					2015/2/2	Sunny	-0.8	0.3	5.1	0.0	Grayish yellow	None	>100	16.8	2	0.4	<0.74 ± 0.15	<0.74 ± 0.17	
	7	Kurohara River	Shinden Bridge	Nasu Town	2014/5/22	Sunny	18.5	0.3	14.6	0.0	Grayish yellowish green	None	>100	28.2	10	1.4	<0.66 ± 0.11	<0.71 ± 0.16	
					2014/8/6	Sunny	25.9	0.1	21.4	0.0	Grayish greenish yellow	None	>100	27.8	3	0.8	<0.50 ± 0.098	<0.55 ± 0.12	
	8	Yosasa River	Kawada Bridge	Otawara City	2014/11/4	Sunny	9.6	0.2	12.8	0.0	Light grayish greenish yellow	None	>100	12.7	2	1.4	<0.56 ± 0.11	<0.51 ± 0.12	
					2015/2/2	Sunny	-1.2	0.3	5.6	0.0	Grayish greenish yellow	None	>100	30.3	2	1.4	<0.47 ± 0.077	<0.66 ± 0.11	
	9	Nakagawa River	Kurohane	Otawara City	2014/5/22	Sunny	24.5	0.5	17.3	0.0	Yellow greenish pale gray	None	>100	15.7	3	0.5	<0.56 ± 0.12	<0.51 ± 0.13	
					2014/6/13	Sunny	25.8	0.4	17.5	0.0	Grayish green	None	88	8.8	7	0.8	<0.54 ± 0.11	<0.55 ± 0.12	
	R i v e r s	Nakagawa River System	Nakagawa River	Kamikuroiso	Nasushiobara City/Nasu Town	2014/7/8	Sunny	26.9	0.3	19.8	0.0	Light grayish yellow green	None	>100	11.8	1	0.2	<0.48 ± 0.089	<0.63 ± 0.19
						2014/8/6	Cloudy	29.6	0.2	24.7	0.0	Light grayish bluish green	None	>100	17.8	1	0.2	<0.58 ± 0.12	<0.58 ± 0.11
2014/9/8						Cloudy	22.0	0.1	18.2	0.0	Light grayish greenish yellow	None	>100	12.2	2	0.4	<0.50 ± 0.11	<0.52 ± 0.12	
2014/11/6						Sunny	19.2	0.3	15.0	0.0	Grayish reddish yellow	None	>100	7.4	<1	0.4	<0.54 ± 0.11	<0.59 ± 0.15	
2015/2/3						Sunny	1.0	0.3	4.5	0.0	Light grayish yellow	None	>100	10.1	2	0.7	<0.64 ± 0.13	<0.62 ± 0.14	
2014/5/31						Sunny	23.9	0.2	24.3	0.0	Grayish yellow green	None	>100	16.4	2	0.4	<0.61 ± 0.13	<0.66 ± 0.16	
2014/8/20						Sunny	28.4	0.4	23.2	0.0	Grayish reddish yellow	None	>100	8.2	<1	0.3	<0.62 ± 0.13	<0.41 ± 0.051	
2014/11/6						Sunny	17.8	0.3	13.1	0.0	Light grayish yellow	None	>100	15.4	<1	0.4	<0.48 ± 0.068	<0.47 ± 0.096	
2015/2/3						Sunny	1.0	0.4	3.7	0.0	Light grayish greenish yellow	None	>100	16.3	3	3.9	<0.67 ± 0.14	<0.56 ± 0.14	
2014/5/31						Sunny	25.5	0.4	25.3	0.0	Dark grayish reddish yellow	None	>100	11.0	6	1.0	<0.58 ± 0.13	<0.56 ± 0.11	
2014/8/20						Sunny	28.8	0.5	24.6	0.0	Grayish yellow green	None	>100	6.4	7	0.7	<0.50 ± 0.12	<0.55 ± 0.11	
2014/11/6						Sunny	23.1	0.4	17.1	0.0	Grayish reddish yellow	None	>100	4.6	<1	0.6	<0.51 ± 0.11	<0.55 ± 0.10	
2015/2/3						Sunny	3.8	0.4	4.8	0.0	Grayish yellow	None	>100	6.0	<1	0.6	<0.64 ± 0.14	<0.50 ± 0.094	
2014/5/22						Cloudy	23.0	0.3	14.7	0.0	Dark grayish yellow green	None	85	12.7	5	1.5	<0.60 ± 0.12	<0.55 ± 0.11	
2014/6/13						Sunny	21.8	0.3	19.7	0.0	Light grayish yellow green	None	78	17.0	11	0.3	<0.64 ± 0.13	<0.51 ± 0.17	
2014/7/8						Sunny	27.4	0.4	22.0	0.0	Light grayish greenish yellow	None	>100	10.1	4	0.4	<0.68 ± 0.16	<0.63 ± 0.12	
2014/8/20						Cloudy	28.0	0.3	26.5	0.0	Grayish yellow green	None	>100	6.3	3	0.6	<0.60 ± 0.14	<0.49 ± 0.10	
2014/9/11						Cloudy	23.3	0.4	20.2	0.0	Dark grayish yellow	None	>100	8.5	3	1.1	<0.56 ± 0.12	<0.49 ± 0.12	
2014/11/6						Sunny	21.2	0.1	15.8	0.0	Dark grayish yellow	None	>100	7.1	<1	0.7	<0.62 ± 0.13	<0.62 ± 0.12	
2015/2/3						Sunny	4.0	0.3	5.7	0.0	Light grayish yellow	None	>100	9.0	<1	0.6	<0.55 ± 0.10	<0.66 ± 0.16	
2014/5/31	Sunny	28.2	0.3	23.8	0.0	Dark grayish reddish yellow	None	>100	15.5	3	0.2	<0.62 ± 0.13	<0.58 ± 0.13						
2014/6/23	Sunny	27.2	0.3	23.6	0.0	Light grayish yellow green	None	>100	12.0	3	0.7	<0.54 ± 0.11	<0.58 ± 0.11						
2014/7/15	Sunny	30.5	0.3	24.4	0.0	Grayish yellow green	None	90	12.7	17	1.2	<0.58 ± 0.13	<0.55 ± 0.11						
2014/8/20	Sunny	31.8	0.2	26.0	0.0	Light grayish yellow green	None	>100	6.7	5	0.4	<0.56 ± 0.13	<0.45 ± 0.13						
2014/9/11	Cloudy	21.1	0.2	18.6	0.0	Dark grayish yellow green	None	>100	12.2	2	1.0	<0.45 ± 0.11	<0.58 ± 0.14						
2014/11/7	Sunny	13.9	0.1	14.1	0.0	Light grayish yellow	None	>100	14.0	<1	0.3	<0.66 ± 0.14	<0.52 ± 0.12						
2015/2/5	Cloudy	4.2	0.2	4.6	0.0	Light grayish yellow	None	>100	9.7	<1	0.5	<0.58 ± 0.14	<0.52 ± 0.11						

# Tochigi River (Water) 2/6

No.	Location				Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water										Remarks
	Water area	Location	Municipality	General items															
				Water temperature (°C)					Sampling depth (m)	Color	Odor	Transparency (cm)	Electrical conductivity (mS/m)	SS (mg/L)	Turbidity (FNU)	Activity concentration (Bq/L)			
																Cs-134	Cs-137		
R i v e r s	Nakagawa River System	Matsuba River Tributary	Otawara City	2014/5/31	Sunny	27.6	0.5	22.6	0.0	Dark grayish yellow red	None	>100	11.8	2	0.4	<0.64 ± 0.13	<0.66 ± 0.13		
				2014/6/23	Sunny	28.1	0.4	22.4	0.0	Dark grayish greenish yellow	None	>100	8.1	7	1.2	<0.65 ± 0.14	<0.58 ± 0.12		
				2014/7/15	Sunny	31.0	0.3	23.5	0.0	Light grayish reddish yellow	None	80	8.3	6	0.5	<0.56 ± 0.13	<0.65 ± 0.15		
				2014/8/20	Sunny	32.2	0.3	24.7	0.0	Dark grayish yellow green	None	>100	4.9	3	0.6	<0.56 ± 0.11	<0.63 ± 0.15		
				2014/9/11	Cloudy	21.3	0.5	18.5	0.0	Grayish reddish yellow	None	91	7.4	10	1.9	<0.71 ± 0.15	<0.51 ± 0.083		
				2014/11/7	Cloudy	13.5	0.2	13.1	0.0	Grayish yellow	None	>100	5.4	<1	0.2	<0.59 ± 0.13	<0.58 ± 0.11		
		2015/2/5	Cloudy	5.0	0.4	3.9	0.0	Grayish yellow	None	>100	6.2	2	3.0	<0.56 ± 0.12	<0.60 ± 0.13				
		2014/6/2	Sunny	27.7	0.2	20.7	0.0	Greenish yellowish light gray	None	>100	13.3	3	0.3	<0.61 ± 0.11	<0.56 ± 0.11				
		2014/8/28	Cloudy	21.0	0.4	18.2	0.0	Light grayish reddish yellow	None	>100	5.9	2	0.2	<0.64 ± 0.13	<0.62 ± 0.16				
		2014/1/17	Sunny	13.8	0.2	15.4	0.0	Light grayish reddish yellow	None	>100	8.2	1	0.2	<0.64 ± 0.14	<0.55 ± 0.0754				
		2015/2/14	Sunny	3.5	0.1	8.4	0.0	Light grayish yellow	None	>100	13.4	2	0.5	<0.61 ± 0.12	<0.66 ± 0.11				
		2014/6/4	Cloudy	24.1	1.8	16.8	0.0	Dark grayish yellow green	None	>100	18.2	6	0.5	<0.70 ± 0.16	<0.72 ± 0.14				
		2014/9/2	Sunny	25.0	0.3	20.3	0.0	Light grayish greenish yellow	None	>100	8.4	2	0.3	<0.50 ± 0.11	<0.75 ± 0.14				
		2014/1/10	Sunny	12.2	0.3	15.4	0.0	Light grayish yellow green	None	>100	6.6	2	0.2	<0.69 ± 0.15	<0.55 ± 0.10				
		2015/2/6	Cloudy	6.0	0.3	12.8	0.0	Light grayish yellow green	None	>100	7.9	<1	0.2	<0.51 ± 0.11	<0.52 ± 0.12				
		2014/6/2	Sunny	30.1	0.4	21.0	0.0	Grayish greenish yellow	None	>100	24.6	4	0.4	<0.56 ± 0.13	<0.63 ± 0.13				
		2014/8/28	Cloudy	19.8	0.4	18.1	0.0	Light grayish yellow green	None	>100	9.2	1	0.3	<0.55 ± 0.10	<0.81 ± 0.17				
		2014/1/10	Sunny	13.0	0.3	14.0	0.0	Light grayish yellow	None	>100	11.9	1	0.4	<0.62 ± 0.11	<0.52 ± 0.11				
		2015/2/6	Cloudy	3.2	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
		2014/6/2	Sunny	29.9	0.2	19.7	0.0	Grayish yellow green	None	>100	21.4	2	0.4	<0.65 ± 0.14	<0.43 ± 0.11				
		2014/8/28	Cloudy	24.0	0.5	17.8	0.0	Light grayish greenish yellow	None	>100	7.0	3	0.5	<0.61 ± 0.11	<0.66 ± 0.13				
		2014/1/10	Sunny	16.8	0.4	13.2	0.0	Light grayish reddish yellow	None	>100	18.7	1	0.4	<0.56 ± 0.14	<0.62 ± 0.15				
		2015/2/6	Sunny	6.2	0.4	6.8	0.0	Light grayish yellow	None	>100	11.1	1	0.5	<0.60 ± 0.14	<0.63 ± 0.12				
		2014/6/4	Sunny	24.6	0.4	22.1	0.0	Dark grayish yellow	Faint drain	>100	20.5	2	0.3	<0.68 ± 0.15	<0.76 ± 0.14				
	2014/9/2	Sunny	23.0	0.3	22.1	0.0	Light grayish green	None	>100	14.5	1	0.5	<0.58 ± 0.10	<0.52 ± 0.10					
	2014/1/10	Sunny	13.3	0.2	15.1	0.0	Grayish yellow green	None	>100	9.7	4	0.4	<0.61 ± 0.14	<0.73 ± 0.12					
	2015/2/6	Sunny	6.8	0.2	7.6	0.0	Light grayish greenish yellow	None	>100	10.7	<1	0.3	<0.54 ± 0.11	<0.52 ± 0.10					
	2014/5/19	Sunny	22.7	0.4	20.5	0.0	Grayish yellow green	None	>100	16.5	3	0.4	<0.57 ± 0.14	<0.47 ± 0.10					
	2014/6/17	Cloudy	26.2	0.3	23.2	0.0	Light grayish yellowish green	None	>100	14.3	4	0.8	<0.59 ± 0.12	<0.51 ± 0.13					
	2014/7/17	Cloudy	26.6	0.3	20.4	0.0	Light grayish yellowish green	None	>100	15.2	4	0.4	<0.64 ± 0.13	<0.58 ± 0.12					
	2014/8/8	Sunny	31.5	0.4	23.2	0.0	Light grayish yellow green	None	>100	16.7	4	0.1	<0.64 ± 0.12	<0.52 ± 0.14					
	2014/9/8	Cloudy	24.3	0.4	20.7	0.0	Light grayish yellow	None	>100	14.7	2	0.3	<0.52 ± 0.10	<0.68 ± 0.13					
	2014/1/17	Sunny	12.2	0.4	15.8	0.0	Light grayish yellow green	None	>100	8.8	6	0.3	<0.48 ± 0.10	<0.62 ± 0.12					
	2015/2/14	Sunny	5.0	0.2	8.9	0.0	Grayish yellow	None	>100	17.1	<1	0.5	<0.61 ± 0.13	<0.66 ± 0.15					
	2014/5/19	Sunny	21.5	0.4	21.9	0.0	Light yellowish green	None	>100	15.7	2	0.8	<0.66 ± 0.11	<0.62 ± 0.12					
	2014/6/16	Sunny	27.8	0.3	23.6	0.0	Light grayish bluish green	None	>100	13.4	3	1.0	<0.49 ± 0.13	<0.62 ± 0.15					
	2014/7/8	Sunny	27.1	0.4	21.9	0.0	Light grayish yellow green	None	>100	15.1	2	0.4	<0.59 ± 0.13	<0.72 ± 0.16					
	2014/8/2	Sunny	29.9	0.2	26.1	0.0	Grayish reddish yellow	None	>100	17.0	6	0.2	<0.68 ± 0.15	<0.51 ± 0.14					
	2014/9/8	Cloudy	23.1	0.5	20.4	0.0	Light grayish yellow green	None	>100	14.7	2	0.5	<0.56 ± 0.10	<0.80 ± 0.16					
	2014/1/11	Sunny	16.3	0.1	15.1	0.0	Grayish reddish yellow	None	>100	7.2	<1	0.3	<0.51 ± 0.12	<0.42 ± 0.096					
	2015/2/16	Sunny	2.5	0.2	5.3	0.0	Grayish yellow	None	>100	16.9	1	0.5	<0.65 ± 0.14	<0.51 ± 0.096					
	2014/5/19	Sunny	24.5	0.8	20.8	0.0	Dark grayish yellow green	None	>100	11.5	1	0.3	<0.50 ± 0.10	<0.67 ± 0.12					
	2014/6/10	Sunny	22.0	0.6	18.9	0.0	Light grayish yellow green	None	96	9.4	4	1.7	<0.54 ± 0.13	<0.55 ± 0.10					
	2014/7/2	Sunny	25.6	0.4	20.1	0.0	Light grayish greenish yellow	None	>100	8.6	6	1.6	<0.50 ± 0.098	<0.52 ± 0.11					
	2014/8/2	Sunny	33.4	0.6	23.5	0.0	Light grayish yellow green	None	>100	10.7	11	0.2	<0.64 ± 0.13	<0.52 ± 0.13					
	2014/9/8	Cloudy	22.8	0.4	19.2	0.0	Grayish greenish yellow	None	>100	8.5	4	1.6	<0.62 ± 0.15	<0.68 ± 0.13					
	2014/1/11	Cloudy	11.0	0.3	11.8	0.0	Light grayish greenish yellow	None	>100	5.3	<1	0.2	<0.63 ± 0.14	<0.76 ± 0.16					
	2015/2/16	Sunny	6.7	0.2	3.5	0.0	Light grayish greenish yellow	None	>100	11.9	<1	0.4	<0.56 ± 0.13	<0.47 ± 0.12					

# Tochigi River (Water) 3/6

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	19	Arakawa River	Saikachi Bridge	Shioya Town	2014/5/17	Sunny	22.5	0.3	15.4	0.0	Light grayish yellowish green	None	>100	6.2	4	1.2	<0.47 ± 0.077	<0.78 ± 0.16		
					2014/8/18	Cloudy	28.2	0.5	22.8	0.0	Light grayish greenish yellow	None	>100	4.1	2	0.3	<0.67 ± 0.17	<0.58 ± 0.11		
					2014/11/12	Cloudy	11.8	0.3	12.2	0.0	Light grayish reddish yellow	None	>100	3.6	<1	0.6	<0.51 ± 0.12	<0.71 ± 0.16		
					2015/2/7	Sunny	1.8	0.3	3.9	0.0	Grayish yellow	None	>100	3.9	5	1.5	<0.60 ± 0.12	<0.49 ± 0.097		
					2014/5/17	Sunny	24.0	0.4	20.1	0.0	Grayish blue	None	>100	12.4	4	1.0	<0.68 ± 0.16	<0.59 ± 0.10		
					2014/8/18	Sunny	30.0	0.2	26.1	0.0	Light grayish yellow	None	>100	4.7	3	0.2	<0.57 ± 0.10	<0.55 ± 0.15		
			2014/11/12	Cloudy	13.0	0.5	14.9	0.0	Light grayish yellow green	None	>100	6.6	1	0.2	<0.64 ± 0.12	<0.42 ± 0.15				
			2015/2/7	Sunny	8.3	0.4	10.2	0.0	Light grayish yellow	None	>100	7.9	2	0.5	<0.62 ± 0.12	<0.60 ± 0.11				
			2014/5/17	Sunny	24.2	0.3	18.9	0.0	Dark grayish yellow red	None	40	14.2	7	7.1	<0.67 ± 0.13	<0.58 ± 0.12				
			2014/8/18	Sunny	28.8	0.3	24.1	0.0	Light grayish yellow green	None	>100	4.8	4	0.3	<0.55 ± 0.10	<0.45 ± 0.083				
			2014/11/12	Cloudy	12.5	0.2	13.1	0.0	Light grayish yellow	None	>100	6.4	<1	0.3	<0.51 ± 0.11	<0.62 ± 0.11				
			2015/2/7	Sunny	5.6	0.2	7.4	0.0	Light grayish yellow	None	>100	7.1	<1	0.5	<0.48 ± 0.12	<0.63 ± 0.13				
		2014/5/17	Sunny	24.5	0.5	20.5	0.0	Grayish greenish blue	None	>100	19.3	8	0.8	<0.66 ± 0.13	<0.71 ± 0.14					
		2014/8/18	Cloudy	30.5	0.4	25.3	0.0	Grayish yellow	None	87	7.0	2	0.3	<0.46 ± 0.11	<0.46 ± 0.11					
		2014/11/12	Cloudy	13.0	0.3	14.3	0.0	Light grayish reddish yellow	None	>100	8.9	<1	0.3	<0.66 ± 0.12	<0.56 ± 0.11					
		2015/2/7	Sunny	8.0	0.3	9.9	0.0	Light grayish yellow	None	>100	9.5	1	0.6	<0.67 ± 0.15	<0.60 ± 0.11					
		2014/5/19	Sunny	19.8	0.5	19.9	0.0	Dark grayish yellow green	None	>100	17.2	2	0.5	<0.63 ± 0.14	<0.51 ± 0.096					
		2014/6/16	Cloudy	26.5	0.5	23.9	0.0	Light grayish yellow green	None	>100	12.2	5	1.1	<0.59 ± 0.12	<0.73 ± 0.16					
		2014/7/8	Sunny	27.7	0.3	25.0	0.0	Grayish yellow green	None	>100	12.1	3	0.6	<0.56 ± 0.11	<0.68 ± 0.14					
		2014/8/2	Sunny	34.1	0.6	26.5	0.0	Light grayish yellow green	None	75	12.4	5	0.4	<0.48 ± 0.10	<0.65 ± 0.12					
		2014/9/9	Sunny	27.0	0.3	23.0	0.0	Light grayish yellow green	None	>100	12.3	2	0.9	<0.52 ± 0.13	<0.72 ± 0.15					
		2014/11/11	Cloudy	15.0	0.1	14.4	0.0	Light grayish yellow	None	>100	7.0	<1	0.2	<0.74 ± 0.16	<0.62 ± 0.13					
		2015/2/16	Sunny	7.5	0.2	6.4	0.0	Light grayish yellow	None	>100	18.4	<1	0.4	<0.56 ± 0.12	<0.51 ± 0.14					
		2014/5/19	Sunny	21.0	0.6	21.0	0.0	Grayish reddish yellow	None	80	17.3	5	1.0	<0.64 ± 0.12	<0.52 ± 0.12					
	2014/6/16	Cloudy	25.1	0.6	24.9	0.0	Grayish yellow	None	72	13.0	16	1.9	<0.61 ± 0.11	<0.65 ± 0.17						
	2014/7/8	Sunny	27.4	0.6	26.1	0.0	Grayish greenish yellow	None	76	13.5	9	0.8	<0.62 ± 0.091	<0.58 ± 0.083						
	2014/8/2	Sunny	33.5	0.6	28.2	0.0	Grayish yellow green	None	65	15.8	4	0.2	<0.54 ± 0.12	<0.55 ± 0.14						
	2014/9/9	Cloudy	27.2	0.4	25.8	0.0	Light grayish greenish yellow	None	>100	15.1	4	1.8	<0.61 ± 0.14	<0.68 ± 0.16						
	2014/11/11	Cloudy	13.7	0.3	13.6	0.0	Light grayish greenish yellow	None	>100	8.2	2	0.6	<0.61 ± 0.13	<0.66 ± 0.12						
	2015/2/16	Sunny	11.0	0.3	5.5	0.0	Grayish yellow	None	55	16.6	13	4.8	<0.65 ± 0.14	<0.47 ± 0.11						
	25	Kinugawa River	Kawaji Daiichi Power Station, front	Nasu Karasuyama City	2014/5/28	Cloudy	20.9	0.4	16.4	0.0	Grayish blue green	None	>100	6.8	1	0.7	<0.51 ± 0.11	<0.71 ± 0.15		
					2014/8/19	Cloudy	30.3	0.3	24.3	0.0	Grayish yellow green	None	86	4.5	2	0.9	<0.50 ± 0.11	<0.65 ± 0.12		
					2014/11/13	Cloudy	9.8	0.3	12.5	0.0	Grayish yellow green	None	>100	4.2	3	1.5	<0.72 ± 0.13	<0.71 ± 0.12		
					2015/2/9	Sunny	1.2	0.3	5.2	0.0	Grayish yellow	None	>100	5.1	1	1.2	<0.48 ± 0.12	<0.52 ± 0.13		
					2014/5/30	Sunny	23.5	0.3	15.9	0.0	Colorless transparent	None	>100	7.3	1	0.2	<0.56 ± 0.12	<0.43 ± 0.068		
					2014/8/19	Sunny	27.0	0.1	19.3	0.0	Light grayish green	None	>100	4.6	1	<0.1	<0.59 ± 0.12	<0.68 ± 0.11		
		26	Kinugawa River System	Yunishi River	Maesawa Bridge	Nikko City	2014/11/13	Cloudy	5.8	0.2	9.1	0.0	Light grayish green	None	>100	5.0	<1	0.1	<0.67 ± 0.12	<0.71 ± 0.14
							2015/2/9	Light snow	-4.0	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground
							2014/5/28	Cloudy	20.6	0.4	17.0	0.0	Grayish green	None	>100	8.7	1	0.4	<0.64 ± 0.096	<0.56 ± 0.13
							2014/8/19	Sunny	31.2	0.4	21.6	0.0	Light grayish yellow	None	>100	4.9	1	0.2	<0.62 ± 0.12	<0.68 ± 0.14
							2014/11/13	Sunny	9.3	0.4	11.9	0.0	Light grayish greenish yellow	None	>100	5.0	<1	0.3	<0.84 ± 0.17	<0.71 ± 0.12
							2015/2/9	Cloudy	-0.5	0.3	4.9	0.0	Grayish yellow	None	>100	5.5	<1	0.3	<0.52 ± 0.12	<0.52 ± 0.10
	27	Kinugawa River	Ojika River	Tributary	Nikko City	2014/5/23	Sunny	20.4	0.2	13.6	0.0	Grayish yellow	None	>100	6.8	<1	0.8	<0.58 ± 0.12	<0.66 ± 0.19	
						2014/8/21	Cloudy	27.7	0.2	20.6	0.0	Light grayish yellow green	None	>100	4.8	2	0.5	<0.59 ± 0.11	<0.76 ± 0.14	
						2014/11/13	Sunny	8.0	0.2	11.3	0.0	Light grayish yellow green	None	>100	4.8	1	0.8	<0.67 ± 0.14	<0.74 ± 0.15	
						2015/2/10	Sunny	4.2	0.3	5.8	0.0	Grayish greenish yellow	None	>100	10.0	<1	0.4	<0.51 ± 0.12	<0.51 ± 0.11	
						2014/8/19	Sunny	27.7	0.2	20.6	0.0	Light grayish yellow green	None	>100	4.8	2	0.5	<0.59 ± 0.11	<0.76 ± 0.14	
						2014/11/13	Sunny	8.0	0.2	11.3	0.0	Light grayish yellow green	None	>100	4.8	1	0.8	<0.67 ± 0.14	<0.74 ± 0.15	
28	Kinugawa River	Kosagoe	Nikko City	2014/5/28	Cloudy	20.6	0.4	17.0	0.0	Grayish green	None	>100	8.7	1	0.4	<0.64 ± 0.096	<0.56 ± 0.13			
				2014/8/19	Sunny	31.2	0.4	21.6	0.0	Light grayish yellow	None	>100	4.9	1	0.2	<0.62 ± 0.12	<0.68 ± 0.14			
				2014/11/13	Sunny	9.3	0.4	11.9	0.0	Light grayish greenish yellow	None	>100	5.0	<1	0.3	<0.84 ± 0.17	<0.71 ± 0.12			
				2015/2/9	Cloudy	-0.5	0.3	4.9	0.0	Grayish yellow	None	>100	5.5	<1	0.3	<0.52 ± 0.12	<0.52 ± 0.10			
				2014/5/23	Sunny	20.4	0.2	13.6	0.0	Grayish yellow	None	>100	6.8	<1	0.8	<0.58 ± 0.12	<0.66 ± 0.19			
				2014/8/21	Cloudy	27.7	0.2	20.6	0.0	Light grayish yellow green	None	>100	4.8	2	0.5	<0.59 ± 0.11	<0.76 ± 0.14			

# Tochigi River (Water) 4/6

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	Ihaana River	Tributary	Nikko City	2014/5/23	Sunny	19.3	0.2	17.1	0.0	Grayish blue green	None	>100	6.9	5	0.2	<0.58 ± 0.12	<0.62 ± 0.11		
					2014/6/16	Sunny	26.2	0.4	16.6	0.0	Light grayish yellow green	None	>100	6.1	<1	0.2	<0.51 ± 0.11	<0.71 ± 0.14		
					2014/7/8	Sunny	25.1	0.4	17.1	0.0	Light grayish yellow green	None	>100	5.9	<1	0.2	<0.48 ± 0.098	<0.63 ± 0.14		
					2014/8/4	Sunny	23.5	0.3	19.1	0.0	Dark grayish reddish yellow	None	>100	7.3	<1	0.1	<0.47 ± 0.099	<0.47 ± 0.088		
					2014/9/9	Sunny	25.2	0.3	18.2	0.0	Light grayish yellowish green	None	>100	6.0	<1	0.8	<0.56 ± 0.10	<0.58 ± 0.12		
					2014/11/17	Cloudy	7.0	0.3	7.9	0.0	Light grayish yellow	None	>100	4.4	<1	0.1	<0.62 ± 0.11	<0.63 ± 0.15		
					2015/2/10	Sunny	2.0	0.3	3.3	0.0	Light grayish greenish yellow	None	>100	4.8	<1	0.2	<0.59 ± 0.14	<0.62 ± 0.15		
					2014/5/30	Sunny	21.0	0.2	15.4	0.0	Grayish greenish yellow	None	>100	18.1	4	0.5	<0.59 ± 0.12	<0.43 ± 0.096		
					2014/8/7	Sunny	24.8	0.4	16.8	0.0	Dark grayish yellow	None	>100	18.1	1	0.3	<0.59 ± 0.12	<0.62 ± 0.14		
					2014/11/14	Sunny	2.8	0.4	6.6	0.0	Light grayish greenish yellow	None	>100	8.6	<1	0.3	<0.47 ± 0.087	<0.60 ± 0.13		
		2015/2/13	Sunny	-5.6	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground		
		2014/5/27	Sunny	22.3	0.3	10.8	0.0	Grayish bluish green	None	>100	11.0	<1	<0.1	<0.61 ± 0.13	<0.56 ± 0.082					
		2014/8/21	Cloudy	24.0	0.2	15.3	0.0	Grayish yellow green	None	>100	6.9	1	0.2	<0.62 ± 0.11	<0.63 ± 0.15					
		2014/11/14	Sunny	7.8	0.2	8.3	0.0	Light grayish yellow green	None	>100	6.6	<1	0.1	<0.43 ± 0.11	<0.58 ± 0.098					
		2015/2/12	Cloudy	4.2	0.3	7.6	0.0	Light grayish greenish yellow	None	>100	11.4	1	0.8	<0.54 ± 0.13	<0.65 ± 0.15					
		2014/6/5	Light rain	18.7	0.1	10.7	0.0	Light grayish red	None	>100	11.2	2	0.4	<0.68 ± 0.13	<0.72 ± 0.14					
		2014/8/21	Cloudy	27.0	0.1	19.8	0.0	Light grayish greenish yellow	None	>100	5.4	5	0.4	<0.56 ± 0.13	<0.43 ± 0.12					
		2014/11/14	Sunny	7.2	0.1	10.4	0.0	Light grayish greenish yellow	None	>100	5.8	<1	0.5	<0.61 ± 0.12	<0.60 ± 0.12					
		2015/2/12	Cloudy	4.6	0.3	6.0	0.0	Grayish reddish yellow	None	>100	11.0	1	0.9	<0.44 ± 0.10	<0.51 ± 0.11					
		2014/6/4	Sunny	27.0	0.3	20.5	0.0	Yellowish light gray	None	>100	12.6	2	0.1	<0.62 ± 0.13	<0.58 ± 0.12					
		2014/6/26	Sunny	26.5	0.3	19.4	0.0	Grayish yellow	None	65	10.8	21	4.9	<0.47 ± 0.10	<0.55 ± 0.13					
		2014/7/23	Cloudy	30.1	0.5	20.3	0.0	Light grayish yellow green	None	74	10.5	7	1.2	<0.67 ± 0.15	<0.52 ± 0.12					
		2014/8/19	Sunny	31.5	0.3	21.8	0.0	Light grayish yellowish green	None	>100	5.6	5	0.3	<0.59 ± 0.13	<0.68 ± 0.17					
		2014/9/10	Sunny	23.3	0.1	18.4	0.0	Dark grayish bluish green	None	>100	10.5	2	0.9	<0.52 ± 0.12	<0.68 ± 0.16					
		2014/11/17	Cloudy	9.2	0.3	8.8	0.0	Light grayish yellow green	None	>100	7.3	2	2.7	<0.45 ± 0.10	<0.52 ± 0.10					
		2015/2/10	Cloudy	8.2	0.2	9.4	0.0	Light grayish yellow green	None	>100	6.7	2	0.6	<0.51 ± 0.11	<0.59 ± 0.13					
		2014/6/4	Sunny	27.0	0.2	18.4	0.0	Greenish yellowish light gray	None	>100	8.9	2	0.4	<0.56 ± 0.074	<0.72 ± 0.14					
		2014/6/26	Sunny	20.0	0.4	17.3	0.0	Grayish yellow green	None	>100	8.9	5	1.1	<0.56 ± 0.12	<0.67 ± 0.14					
		2014/7/23	Cloudy	26.3	0.8	20.2	0.0	Grayish yellow green	None	>100	8.6	3	0.5	<0.58 ± 0.11	<0.52 ± 0.086					
		2014/8/19	Sunny	33.5	0.4	25.1	0.0	Grayish yellow green	None	>100	10.2	4	0.4	<0.62 ± 0.13	<0.80 ± 0.14					
		2014/9/10	Cloudy	23.5	0.4	18.1	0.0	Grayish bluish green	None	>100	9.1	2	0.8	<0.73 ± 0.15	<0.76 ± 0.19					
		2014/11/17	Cloudy	10.2	0.1	10.5	0.0	Light grayish yellow	None	>100	6.2	<1	0.4	<0.44 ± 0.10	<0.55 ± 0.12					
		2015/2/10	Sunny	5.0	0.2	7.8	0.0	Grayish yellow	None	>100	11.8	1	0.6	<0.59 ± 0.13	<0.65 ± 0.12					
		2014/6/4	Sunny	23.8	0.7	15.8	0.0	Yellowish light gray	None	>100	10.9	19	8.1	<0.52 ± 0.10	<0.83 ± 0.19					
		2014/8/22	Cloudy	31.3	0.5	21.5	0.0	Grayish yellow green	None	75	5.2	6	0.5	<0.56 ± 0.12	<0.68 ± 0.14					
		2014/11/18	Sunny	11.8	0.4	10.7	0.0	Light grayish yellow green	None	>100	5.7	<1	0.6	<0.68 ± 0.14	<0.59 ± 0.12					
		2015/2/17	Cloudy	5.5	0.3	6.0	0.0	Grayish yellow green	None	>100	12.1	2	1.0	<0.71 ± 0.15	<0.56 ± 0.12					
		2014/6/19	Sunny	26.1	0.4	17.5	0.0	Light grayish greenish yellow	None	95	9.1	5	1.6	<0.67 ± 0.13	<0.69 ± 0.12					
		2014/8/22	Sunny	30.0	0.2	23.1	0.0	Grayish greenish yellow	None	62	6.0	2	0.6	<0.63 ± 0.12	<0.63 ± 0.13					
		2014/11/18	Sunny	11.0	0.4	12.9	0.0	Grayish greenish yellow	None	>100	6.5	<1	0.6	<0.59 ± 0.14	<0.47 ± 0.10					
2015/2/17	Cloudy	2.3	0.3	5.8	0.0	Grayish greenish yellow	None	>100	13.4	1	0.6	<0.64 ± 0.13	<0.74 ± 0.16							
2014/6/19	Sunny	27.7	0.3	21.0	0.0	Light grayish yellowish green	None	84	11.3	9	1.4	<0.64 ± 0.12	<0.58 ± 0.12							
2014/8/23	Cloudy	29.0	0.5	24.4	0.0	Grayish yellow green	None	56	5.8	5	0.7	<0.62 ± 0.091	<0.51 ± 0.096							
2014/11/20	Cloudy	8.0	0.4	13.7	0.0	Light grayish yellow	None	>100	6.2	<1	0.2	<0.63 ± 0.12	<0.51 ± 0.15							
2015/2/19	Sunny	7.7	0.4	10.0	0.0	Light grayish yellow green	None	>100	6.0	<1	0.1	<0.49 ± 0.087	<0.73 ± 0.17							

# Tochigi River (Water) 5/6

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	Kinagawa River System	Egawa River	Tributary	Shimotsuke City	2014/5/20	Sunny	27.8	0.3	22.1	0.0	Dark grayish reddish yellow	None	85	21.2	5	1.6	<0.67 ± 0.14	<0.62 ± 0.15	
					2014/6/17	Sunny	28.2	0.2	21.0	0.0	Light grayish greenish yellow	None	75	11.3	7	1.7	<0.48 ± 0.096	<0.62 ± 0.16	
					2014/7/9	Cloudy	28.1	0.6	22.8	0.0	Light grayish yellow green	None	55	17.3	13	0.9	<0.68 ± 0.13	<0.93 ± 0.22	
					2014/8/4	Sunny	34.0	0.7	26.0	0.0	Grayish yellow	None	>100	15.8	<1	0.2	<0.54 ± 0.11	<0.59 ± 0.13	
					2014/9/12	Sunny	25.8	0.3	24.0	0.0	Grayish yellow green	None	83	10.3	6	1.2	<0.59 ± 0.14	<0.45 ± 0.11	
					2014/11/20	Cloudy	6.2	0.3	9.0	0.0	Light grayish reddish yellow	None	>100	4.7	<1	0.5	<0.64 ± 0.14	<0.62 ± 0.15	
					2015/2/19	Sunny	7.0	0.5	6.4	0.0	Grayish yellow green	None	<1	15.4	5	3.7	<0.51 ± 0.12	<0.62 ± 0.12	
					2014/5/23	Sunny	18.6	0.3	11.3	0.0	Dark grayish yellow	None	>100	11.0	1	0.2	<0.67 ± 0.13	<0.56 ± 0.11	
					2014/8/21	Sunny	24.0	0.1	18.6	0.0	Light grayish greenish yellow	None	>100	6.5	5	0.3	<0.52 ± 0.11	<0.72 ± 0.14	
					2014/11/14	Sunny	8.7	0.1	8.9	0.0	Light grayish yellow green	None	>100	5.9	1	0.2	<0.48 ± 0.11	<0.62 ± 0.12	
					2015/2/13	Sunny	1.5	0.2	5.9	0.0	Light grayish greenish yellow	None	>100	10.8	2	0.4	<0.67 ± 0.14	<0.42 ± 0.11	
					2014/5/23	Cloudy	16.2	0.1	14.4	0.0	Grayish yellow green	None	>100	7.3	7	0.5	<0.48 ± 0.11	<0.41 ± 0.051	
		2014/8/22	Cloudy	28.0	0.2	19.3	0.0	Grayish greenish yellow	None	>100	7.7	3	0.2	<0.65 ± 0.13	<0.63 ± 0.14				
		2014/11/17	Sunny	11.0	0.3	11.6	0.0	Light grayish yellow	None	>100	6.5	1	0.2	<0.50 ± 0.11	<0.75 ± 0.13				
		2015/2/13	Cloudy	4.2	0.3	8.6	0.0	Light grayish greenish yellow	None	>100	15.1	3	0.4	<0.55 ± 0.092	<0.74 ± 0.12				
		2014/5/13	Sunny	25.2	0.4	19.0	0.0	Dark grayish green	None	50	13.2	5	1.3	<0.67 ± 0.14	<0.81 ± 0.18				
		2014/6/13	Sunny	21.9	0.5	20.7	0.0	Light grayish greenish yellow	None	>100	11.6	7	1.2	<0.61 ± 0.14	<0.68 ± 0.13				
		2014/7/9	Cloudy	21.7	0.6	18.9	0.0	Grayish yellow green	None	53	12.6	7	0.9	<0.43 ± 0.11	<0.72 ± 0.15				
		2014/8/29	Cloudy	23.0	0.1	21.6	0.0	Light grayish yellow	None	>100	14.0	3	0.5	<0.59 ± 0.11	<0.55 ± 0.12				
		2014/9/24	Cloudy	24.5	0.1	20.4	0.0	Grayish reddish yellow	None	>100	14.0	5	1.2	<0.67 ± 0.11	<0.66 ± 0.14				
		2014/11/18	Cloudy	12.0	0.2	13.2	0.0	Grayish yellow	None	>100	8.9	1	0.5	<0.69 ± 0.15	<0.62 ± 0.082				
		2015/2/17	Cloudy	6.0	0.3	7.9	0.0	Grayish yellow	None	>100	15.2	2	0.7	<0.61 ± 0.11	<0.71 ± 0.14				
		2014/5/16	Sunny	21.8	0.3	20.0	0.0	Grayish yellow green	None	70	19.6	12	2.5	<0.57 ± 0.14	<0.42 ± 0.079				
		2014/8/22	Cloudy	30.8	0.2	22.6	0.0	Light grayish reddish yellow	None	>100	10.2	3	0.7	<0.73 ± 0.14	<0.72 ± 0.14				
		2014/11/18	Sunny	12.5	0.1	14.5	0.0	Grayish reddish yellow	None	>100	8.0	4	0.9	<0.51 ± 0.14	<0.74 ± 0.16				
		2015/2/17	Cloudy	5.5	0.1	9.3	0.0	Grayish reddish yellow	None	>100	18.0	4	1.3	<0.69 ± 0.15	<0.62 ± 0.12				
		2014/5/16	Sunny	24.3	0.3	20.0	0.0	Dark grayish yellow green	None	55	24.8	9	1.7	<0.53 ± 0.10	<0.55 ± 0.11				
		2014/8/23	Cloudy	30.0	0.1	25.4	0.0	Light grayish greenish yellow	None	>100	7.7	3	0.3	<0.68 ± 0.11	<0.63 ± 0.14				
		2014/11/20	Cloudy	4.7	0.2	11.0	0.0	Grayish reddish yellow	None	>100	8.6	1	1.0	<0.64 ± 0.13	<0.66 ± 0.15				
		2015/2/13	Sunny	5.0	0.1	11.3	0.0	Light grayish reddish yellow	None	>100	26.3	<1	1.3	<0.67 ± 0.13	<0.62 ± 0.16				
		2014/5/16	Sunny	24.5	0.4	22.7	0.0	Grayish yellow green	None	62	25.0	4	1.2	<0.70 ± 0.16	<0.54 ± 0.11				
		2014/8/23	Sunny	32.2	0.6	26.3	0.0	Grayish yellow	Faint drain	77	8.2	8	0.3	<0.65 ± 0.11	<0.63 ± 0.11				
		2014/11/20	Cloudy	11.0	0.5	12.2	0.0	Light grayish yellow green	None	>100	10.9	2	1.7	<0.64 ± 0.15	<0.52 ± 0.12				
		2015/2/19	Sunny	11.8	0.2	11.8	0.0	Light grayish yellow	None	63	21.8	3	2.2	<0.59 ± 0.14	<0.55 ± 0.12				
		2014/5/15	Light rain	20.5	0.2	18.3	0.0	Colorless transparent	None	>100	6.5	2	0.4	<0.51 ± 0.15	<0.71 ± 0.13				
		2014/8/9	Cloudy	26.5	0.2	22.4	0.0	Light grayish yellow	None	>100	9.0	<1	0.1	<0.48 ± 0.097	<0.52 ± 0.13				
		2014/11/19	Sunny	10.5	0.3	11.6	0.0	Grayish reddish yellow	None	>100	5.5	1	0.2	<0.55 ± 0.12	<0.55 ± 0.10				
		2015/2/20	Cloudy	6.1	0.2	8.4	0.0	Grayish yellow	None	>100	9.9	1	0.8	<0.61 ± 0.12	<0.62 ± 0.11				
		2014/6/3	Sunny	22.9	0.1	20.8	0.0	Yellowish light gray	None	>100	20.1	1	0.5	<0.72 ± 0.14	<0.42 ± 0.11				
		2014/8/25	Cloudy	24.3	0.2	22.2	0.0	Grayish yellow green	None	>100	5.2	3	0.3	<0.68 ± 0.16	<0.63 ± 0.13				
		2014/11/21	Sunny	9.0	0.2	14.1	0.0	Dark grayish reddish yellow	None	>100	8.3	<1	0.3	<0.72 ± 0.15	<0.62 ± 0.12				
		2015/2/19	Sunny	9.0	0.2	11.8	0.0	Grayish yellow	None	>100	20.6	2	1.7	<0.44 ± 0.090	<0.58 ± 0.12				
		2014/5/15	Sunny	25.5	0.3	17.4	0.0	Dark grayish yellowish green	None	>100	7.8	1	0.7	<0.61 ± 0.11	<0.71 ± 0.13				
		2014/8/9	Cloudy	26.2	0.3	23.2	0.0	Light grayish yellow	None	>100	8.0	1	0.1	<0.62 ± 0.12	<0.49 ± 0.12				
		2014/11/19	Sunny	11.0	0.2	15.1	0.0	Light grayish yellow	None	>100	6.7	2	0.4	<0.62 ± 0.12	<0.55 ± 0.083				
		2015/2/20	Cloudy	6.3	0.1	8.1	0.0	Light grayish yellow	None	>100	6.9	<1	0.2	<0.39 ± 0.093	<0.66 ± 0.15				
		2014/5/15	Cloudy	22.0	0.1	19.9	0.0	Dark grayish yellow green	None	71	6.6	8	2.5	<0.74 ± 0.18	<0.85 ± 0.15				
		2014/8/9	Cloudy	26.5	0.1	24.7	0.0	Light grayish reddish yellow	None	>100	16.5	4	0.5	<0.54 ± 0.12	<0.49 ± 0.10				
2014/11/19	Sunny	11.2	0.1	12.7	0.0	Grayish yellow	None	>100	7.6	<1	0.5	<0.57 ± 0.13	<0.47 ± 0.096						
2015/2/20	Cloudy	6.0	0.2	6.6	0.0	Grayish yellow	None	88	16.9	1	1.1	<0.71 ± 0.16	<0.66 ± 0.12						

# Tochigi River (Water) 6/6

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	Omoi River	Omoi River	Tamotsu Bridge	Tochigi City	2014/6/3	Sunny	25.1	0.1	21.5	0.0	Greenish yellowish light gray	None	>100	13.9	2	0.4	<0.54 ± 0.12	<0.55 ± 0.13	
						2014/8/9	Cloudy	25.8	0.2	23.6	0.0	Light grayish yellow green	None	>100	12.5	<1	0.1	<0.66 ± 0.14	<0.55 ± 0.11	
						2014/11/21	Sunny	10.8	0.2	12.9	0.0	Light grayish yellow	None	>100	6.5	<1	0.2	<0.61 ± 0.15	<0.59 ± 0.14	
						2015/2/19	Sunny	9.8	0.2	12.3	0.0	Light grayish greenish yellow	None	>100	14.1	<1	0.4	<0.51 ± 0.12	<0.65 ± 0.13	
						2014/5/20	Sunny	29.5	0.3	25.1	0.0	Grayish reddish yellow	None	>100	22.9	6	1.1	<0.58 ± 0.11	<0.56 ± 0.094	
						2014/6/17	Sunny	24.1	0.3	21.5	0.0	Grayish yellow green	None	52	13.0	14	2.4	<0.47 ± 0.11	<0.62 ± 0.15	
			Omote River	Omote-ohashi Bridge	Oyama City	2014/7/9	Cloudy	27.7	0.8	21.6	0.0	Light grayish greenish yellow	None	55	11.5	10	0.8	<0.65 ± 0.13	<0.63 ± 0.13	
						2014/8/25	Cloudy	26.3	0.3	23.9	0.0	Grayish greenish yellow	None	>100	5.8	6	0.4	<0.52 ± 0.087	<0.58 ± 0.12	
						2014/9/24	Sunny	23.6	0.2	21.6	0.0	Light grayish yellow	None	>100	7.4	3	0.7	<0.61 ± 0.14	<0.56 ± 0.083	
						2014/11/21	Sunny	12.5	0.2	14.6	0.0	Grayish yellow green	None	>100	7.3	2	0.8	<0.66 ± 0.14	<0.59 ± 0.12	
						2015/2/19	Sunny	8.0	0.2	9.5	0.0	Grayish yellow green	None	78	21.6	7	3.0	<0.51 ± 0.10	<0.55 ± 0.11	
						2014/5/26	Cloudy	21.5	0.7	21.2	0.0	Grayish yellow	None	73	26.4	7	0.9	<0.57 ± 0.11	<0.60 ± 0.10	
		Uzuma River	Uzuma River	Uzuma Bridge	Tochigi City	2014/6/17	Sunny	24.8	0.8	22.1	0.0	Light grayish greenish yellow	None	70	21.4	8	1.5	<0.51 ± 0.14	<0.71 ± 0.18	
						2014/7/9	Light rain	25.1	0.8	21.2	0.0	Grayish yellow green	None	65	19.8	7	0.7	<0.52 ± 0.10	<0.51 ± 0.13	
						2014/8/8	Cloudy	29.2	0.5	27.0	0.0	Dark grayish greenish yellow	None	93	28.5	6	0.4	<0.53 ± 0.12	<0.41 ± 0.085	
						2014/9/12	Sunny	23.5	1.0	23.0	0.0	Light grayish yellow green	None	67	10.9	3	0.6	<0.64 ± 0.13	<0.58 ± 0.11	
						2014/11/21	Sunny	11.5	0.5	15.8	0.0	Dark grayish yellow	None	>100	7.0	14	1.7	<0.64 ± 0.13	<0.65 ± 0.15	
						2015/2/19	Sunny	10.8	1.0	8.7	0.0	Grayish yellow	None	47	28.8	11	4.7	<0.44 ± 0.12	<0.49 ± 0.10	
		Watarase River Area	Watarase River	Watarase River intake weir at Sori Power Station	Nikko City	2014/5/30	Sunny	19.7	0.4	18.2	0.0	Grayish green	None	>100	19.6	3	0.2	<0.60 ± 0.14	<0.60 ± 0.12	
						2014/6/25	Cloudy	25.3	0.4	15.2	0.0	Light grayish yellow green	None	>100	10.8	<1	0.2	<0.64 ± 0.14	<0.58 ± 0.11	
						2014/7/23	Sunny	29.4	0.3	18.0	0.0	Light grayish green	None	>100	7.1	1	0.1	<0.58 ± 0.12	<0.58 ± 0.13	
						2014/8/19	Sunny	29.9	0.6	20.9	0.0	Grayish yellowish green	None	>100	7.9	3	0.3	<0.62 ± 0.14	<0.58 ± 0.083	
						2014/9/10	Cloudy	21.5	0.5	16.3	0.0	Dark grayish bluish green	None	>100	7.9	<1	0.1	<0.68 ± 0.14	<0.68 ± 0.16	
						2014/11/19	Sunny	7.5	0.4	7.2	0.0	Grayish green	None	>100	4.9	13	2.2	<0.64 ± 0.13	<0.65 ± 0.13	
			Watarase River	Watarase River	Hajika Bridge	Ashikaga City	2015/2/12	Sunny	3.2	0.5	5.6	0.0	Light grayish greenish yellow	None	>100	2.3	<1	0.2	<0.68 ± 0.16	<0.56 ± 0.14
							2014/5/20	Sunny	28.2	0.3	18.9	0.0	Grayish reddish yellow	None	>100	11.9	1	1.6	<0.66 ± 0.14	<0.62 ± 0.14
							2014/8/29	Cloudy	23.3	0.3	22.0	0.0	Dark grayish yellow green	None	>100	6.2	4	0.9	<0.61 ± 0.13	<0.75 ± 0.15
							2014/11/29	Cloudy	11.0	0.5	10.8	0.0	Grayish greenish yellow	None	>100	14.5	<1	0.4	<0.59 ± 0.12	<0.68 ± 0.19
							2015/2/2	Sunny	7.0	0.3	3.5	0.0	Grayish yellow green	None	>100	17.9	1	0.7	<0.69 ± 0.15	<0.66 ± 0.16
							2014/6/3	Sunny	27.7	0.3	25.1	0.0	Grayish greenish yellow	None	>100	14.2	6	1.5	<0.50 ± 0.12	<0.47 ± 0.12
		Watarase-ohashi Bridge	Tatebayashi City	2014/8/29	Cloudy	23.0	0.3	22.6	0.0	Grayish green	None	>100	6.4	4	0.7	<0.72 ± 0.15	<0.66 ± 0.13			
				2014/11/29	Cloudy	12.2	0.4	12.8	0.0	Dark grayish yellow green	None	83	13.5	<1	0.4	<0.59 ± 0.13	<0.76 ± 0.14			
				2015/2/2	Sunny	6.8	0.3	6.8	0.0	Grayish green	None	>100	16.3	1	0.7	<0.74 ± 0.17	<0.62 ± 0.15			
				2014/6/3	Sunny	27.5	0.6	26.9	0.0	Reddish yellowish gray	None	56	20.4	4	1.3	<0.51 ± 0.11	<0.62 ± 0.14			
		Shinkai Bridge	Tochigi City	2014/8/29	Cloudy	24.2	0.3	23.3	0.0	Dark grayish yellow	None	54	6.8	12	2.4	<0.47 ± 0.087	<0.85 ± 0.16			
				2014/11/29	Sunny	14.0	0.1	13.9	0.0	Grayish reddish yellow	None	>100	8.2	2	0.7	<0.71 ± 0.13	<0.58 ± 0.13			
				2015/2/3	Sunny	9.8	0.3	8.0	0.0	Light grayish yellow green	None	>100	22.0	1	0.8	<0.59 ± 0.13	<0.74 ± 0.19			
				2014/6/4	Cloudy	25.3	0.6	25.1	0.0	Yellowish pale gray	None	19	27.5	37	13	<0.61 ± 0.14	<0.51 ± 0.096			
				2014/6/26	Sunny	23.5	0.6	22.3	0.0	Dark grayish yellow green	None	69	14.9	13	2.6	<0.59 ± 0.12	<0.49 ± 0.11			
				2014/7/25	Sunny	31.2	1.0	24.7	0.0	Grayish yellow	None	56	17.4	14	1.0	<0.58 ± 0.13	<0.55 ± 0.12			
			Tochigi City	2014/8/20	Sunny	30.0	0.3	29.0	0.0	Grayish yellow green	None	70	11.8	6	0.5	<0.52 ± 0.11	<0.51 ± 0.068			
				2014/9/12	Sunny	20.8	0.5	21.5	0.0	Grayish yellow green	None	56	16.8	8	2.2	<0.50 ± 0.13	<0.49 ± 0.10			
				2014/12/3	Sunny	10.2	0.4	10.3	0.0	Grayish yellow	None	56	20.2	8	2.5	<0.75 ± 0.17	<0.62 ± 0.12			
				2015/2/3	Sunny	9.8	0.1	9.4	0.0	Light grayish yellow	None	77	24.2	6	3.8	<0.64 ± 0.11	<0.50 ± 0.082			

# Tochigi River (Sediment) 1/6

Location				Sediment																		Remarks															
No.	Water area	Location	Municipality	Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Sediment temperature (°C)	Sample length (cm)	Color	Odor	Grain size distribution (%)											Activity concentration (Bq/kg/day)														
												Coarse gravel					Medium sand						Fine sand					Silt		Clay		Cs-134		Cs-137		Total	
												Coarse gravel	Medium sand	Fine sand	Silt	Clay	Coarse gravel	Medium sand	Fine sand	Silt	Clay		Coarse gravel	Medium sand	Fine sand	Silt	Clay	Coarse gravel	Medium sand	Fine sand	Silt	Clay	Coarse gravel	Medium sand	Fine sand	Silt	Clay
R i v e r s y s t e m	Nakagawa River	Hayashishita	Nasuhobara City	2014/02	Sunny	28.0	0.5	19.0	5	Olive black	None	0.0	35.2	28.0	17.6	6.8	0.9	0.6	1.0	81.9	2.61	Gravel/sand	<0.8 ± 2.6	18 ± 3.3	18												
				2014/8/6	Sunny	25.0	0.2	18.0	3	Grayish olive	None	0.0	27.5	38.4	21.5	9.8	1.2	0.4	1.2	86.2	2.62	Gravel/sand	9.1 ± 2.3	29 ± 5.5	35.1												
				2014/11/4	Cloudy	6.0	0.1	10.0	5	Olive black	None	0.0	20.1	29.2	35.6	13.5	0.5	0.2	2.0	79.2	2.63	Gravel/sand	<7.1 ± 2.1	12 ± 2.7	12												
				2015/2/2	Light snow	<2.8																															
				2014/5/22	Sunny	20.4	0.3	14.0	4	Dark brown	None	0.0	2.1	18.0	52.1	29.7	0.6	0.0	2.4	82.1	2.67	Sand/gravel	6.1 ± 2.0	24 ± 2.9	30.1												
				2014/8/6	Sunny	30.3	0.3	22.3	5	Dark brown	None	0.0	0.5	40.5	26.2	33.8	15.5	2.0	0.1	1.1	87.3	2.73	Gravel/sand	6.3 ± 1.8	24 ± 3.3	30.3											
		2014/11/4	Sunny	10.0	0.2	11.3	5	Grayish olive	None	0.0	25.7	14.9	26.5	29.9	1.6	0.1	1.4	72.8	2.69	Sand/gravel	11 ± 2.7	34 ± 4.0	45														
		2015/2/2	Cloudy	<2.0	0.2	2.5	3	Olive black	None	2.6	8.5	7.8	13.0	44.9	5.3	0.3	1.0	76.5	2.69	Sand/gravel	7.9 ± 2.0	19 ± 2.9	26.5														
		2014/5/22	Sunny	22.0	0.2	13.5	7	Dark brown	None	2.3	10.5	7.9	11.2	47.9	12.4	3.3	4.6	74.1	2.70	Sand/gravel	12 ± 3.0	40 ± 4.4	52														
		2014/8/6	Sunny	27.5	0.1	20.0	5	Blackish brown	None	0.0	61.2	22.1	5.7	7.7	2.0	0.6	0.7	91.9	2.72	Gravel/sand	<7.8 ± 2.4	20 ± 2.9	20														
		2014/11/4	Sunny	9.0	0.2	11.0	3	Blackish brown	None	0.0	24.7	32.8	23.9	15.4	2.5	0.4	2.3	77.2	2.70	Gravel/sand	6.5 ± 1.9	25 ± 2.6	31.5														
		2015/2/2	Sunny	0.4	0.3	4.3	3	Dark brown	None	9.9	28.4	8.2	4.8	23.8	17.7	3.0	4.2	70.0	2.66	Sand/gravel	41 ± 4.8	150 ± 8.3	191														
	2014/5/22	Sunny	18.5	0.3	14.6	5	Dark brown	None	0.4	14.4	12.4	24.6	41.6	4.2	0.9	3.6	75.3	2.77	Sand/gravel	16 ± 2.8	46 ± 4.6	62															
	2014/8/6	Sunny	25.9	0.1	22.0	5	Extremely dark reddish brown	None	1.1	21.6	11.4	22.3	35.9	4.4	0.4	3.0	74.1	2.66	Sand/gravel	11 ± 2.9	38 ± 4.2	49															
	2014/11/4	Sunny	9.6	0.2	12.0	3	Dark brown	None	1.2	25.0	30.1	16.3	23.4	3.3	0.1	1.0	76.8	2.80	Sand/gravel	6.3 ± 2.2	25 ± 3.5	31.7															
	2015/2/2	Sunny	-1.2	0.3	5.0	3	Dark brown	None	2.4	22.4	17.0	13.1	32.8	9.3	0.5	2.2	78.0	2.88	Sand/gravel	8.9 ± 2.4	43 ± 4.1	51.9															
	2014/5/22	Sunny	24.5	0.5	17.3	5	Dim yellowish brown	None	1.3	12.3	16.0	21.6	40.5	5.6	0.7	2.1	75.9	2.74	Sand/gravel	27 ± 3.5	75 ± 5.6	102															
	2014/9/13	Sunny	25.8	0.4	17.0	3	Olive brown	None	0.8	20.6	17.6	25.6	28.6	4.6	0.8	2.1	78.3	2.69	Sand/gravel	15 ± 3.0	43 ± 4.3	58															
	2014/7/8	Sunny	26.4	0.3	18.1	3	Olive black	None	0.0	31.1	16.6	14.8	29.6	5.9	0.4	3.0	79.6	2.69	Sand/gravel	17 ± 3.0	66 ± 5.2	83															
	2014/8/6	Cloudy	29.6	0.2	25.5	1	Grayish olive	None	0.0	47.1	35.3	10.1	6.1	0.7	0.2	0.5	97.6	2.68	Gravel/sand	12 ± 2.3	33 ± 3.8	45															
	2014/9/8	Cloudy	22.0	0.1	18.0	5	Olive black	None	0.0	20.4	18.5	21.4	28.6	8.6	1.0	1.5	81.1	2.70	Gravel/sand	20 ± 2.4	70 ± 4.3	90															
	2014/11/6	Sunny	19.2	0.3	15.0	5	Dark grayish yellow	None	0.0	36.8	25.9	17.6	18.4	1.5	0.0	0.8	79.4	2.72	Gravel/sand	12 ± 2.3	32 ± 3.6	44															
	2015/2/2	Sunny	1.0	0.3	1.7	1	Olive black	None	0.0	31.7	36.8	22.1	8.1	0.1	0.1	1.0	85.3	2.72	Gravel/sand	<7.0 ± 2.2	24 ± 4.0	24															
	2014/5/31	Sunny	23.9	0.3	24.0	5	Blackish brown	Faint drain	4.3	64.3	14.9	8.5	6.0	1.0	0.3	0.5	83.4	2.72	Gravel/sand	9.9 ± 1.8	24 ± 2.5	33.9															
	2014/8/20	Sunny	28.4	0.4	24.0	8	Blackish brown	None	5.2	51.9	6.9	2.5	4.8	4.5	17.1	7.2	45.5	2.40	Silt/gravel	110 ± 10	320 ± 18	430															
	2014/11/6	Sunny	17.8	0.3	12.5	5	Blackish brown	None	0.0	63.8	24.0	4.5	5.3	1.2	0.0	0.3	84.9	2.69	Sand/gravel	14 ± 2.2	41 ± 3.8	55															
	2015/2/2	Sunny	1.0	0.4	3.0	5	Blackish brown	Faint drain	0.0	64.4	0.2	0.4	2.1	7.8	67.1	22.0	25.0	63.0	2.34	Silt/sand	190 ± 22	630 ± 40	830														
	2014/5/31	Sunny	28.5	0.4	24.5	5	Dark brown	None	3.1	64.1	23.4	7.4	1.5	0.1	0.1	0.3	87.0	2.69	Gravel/sand	20 ± 3.5	48 ± 5.1	68															
	2014/8/20	Sunny	28.4	0.5	24.0	5	Blackish brown	None	9.4	20.7	10.2	20.1	31.0	4.1	0.9	3.4	74.4	2.76	Sand/gravel	20 ± 4.3	70 ± 6.3	90															
	2014/11/6	Sunny	23.1	0.4	16.5	1	Dark brown	Faint drain	0.0	85.7	15.6	12.1	13.7	2.1	0.1	0.7	82.4	2.87	Sand/gravel	13 ± 2.6	49 ± 4.1	62															
	2015/2/2	Cloudy	1.5	0.4	4.2	3	Blackish brown	None	0.0	36.0	22.2	17.2	20.9	2.3	0.3	1.0	81.3	2.81	Gravel/sand	18 ± 2.3	59 ± 4.1	77															
	2014/5/22	Cloudy	23.0	0.3	14.3	3	Dark brown	None	1.2	11.1	3.3	10.1	47.9	11.9	0.3	3.3	83.1	2.98	Sand/gravel	19 ± 2.7	56 ± 4.4	75															
	2014/9/13	Sunny	21.8	0.3	19.5	4	Blackish brown	None	0.0	23.2	9.7	9.3	39.5	15.2	1.2	1.9	78.4	2.85	Sand/gravel	38 ± 4.0	96 ± 6.2	134															
	2014/7/8	Sunny	27.4	0.4	20.7	1	Yellowish brown	None	0.0	3.6	1.4	5.0	68.6	17.4	0.6	3.1	73.8	2.82	Sand/gravel	42 ± 4.5	110 ± 7.1	152															
	2014/8/20	Cloudy	28.0	0.3	26.0	3	Brownish gray	None	0.0	0.2	0.1	1.2	73.5	15.9	2.4	4.3	69.9	2.65	Silt	36 ± 5.2	110 ± 8.5	146															
	2014/9/11	Cloudy	23.3	0.4	18.9	3	Grayish olive	None	0.0	0.7	2.0	5.8	66.8	20.0	1.3	3.5	70.4	2.75	Sand/gravel	46 ± 5.2	160 ± 9.7	209															
	2014/11/6	Sunny	21.2	0.1	16.2	5	Blackish brown	None	0.0	10.6	8.5	17.6	51.3	10.6	0.0	2.0	79.9	2.87	Sand/gravel	17 ± 2.8	44 ± 4.1	61															
	2015/2/2	Sunny	4.0	0.3	5.0	3	Olive brown	None	0.0	5.9	7.4	13.1	69.5	10.7	0.7	1.6	77.5	2.96	Sand/gravel	27 ± 4.2	110 ± 7.7	147															
	2014/5/31	Sunny	28.2	0.3	24.0	4	Grayish olive	None	0.0	27.2	11.4	21.1	44.0	0.8	0.8	1.1	88.1	2.70	Gravel/sand	8.1 ± 1.1	26 ± 1.7	34.1															
	2014/9/23	Sunny	27.2	0.3	23.1	3	Grayish olive	None	0.0	29.6	24.1	29.5	0.7	0.2	1.4	83.5	2.67	Gravel/sand	13 ± 2.3	25 ± 3.2	38																
	2014/7/15	Sunny	30.5	0.3	24.0	5	Dim yellowish orange	None	7.6	15.6	11.4	20.3	29.9	12.4	0.6	2.2	82.7	2.71	Sand/gravel	17 ± 2.9	46 ± 4.6	63															
	2014/8/20	Sunny	31.3	0.2	28.3	5	Grayish olive	None	0.5	24.5	20.4	25.4	16.0	0.5	0.8	1.4	83.3	2.71	Gravel/sand	8.3 ± 1.5	21 ± 2.2	31.7															
	2014/9/11	Cloudy	21.1	0.2	17.3	3	Grayish olive	None	0.0	26.8	24.5	22.4	13.5	0.9	0.3	1.5	83.5	2.70	Gravel/sand	9.6 ± 2.9	31 ± 4.1	40.4															
	2014/11/7	Sunny	13.9	0.1	13.5	5	Grayish olive	None	0.4	26.2	34.2	25.3	12.2	0.6	0.1	0.9	87.1	2.71	Gravel/sand	<9.3 ± 2.7	19 ± 2.9	19															
	2015/2/5	Cloudy	4.2	0.2	4.3	3	Dim yellowish orange	None	0.6	21.7	34.9	28.8	11.8	0.2	0.3	1.7	86.3	2.67	Gravel/sand	<8.4 ± 2.6	25 ± 3.9	25															





# Tochigi River (Sediment) 3/6

Location				Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Sediment														Remarks									
No.	Water area	Location	Municipality					Sediment temperature (°C)	Sample length (cm)	Color	Odor	General items						Activity concentration (Bq/kg/day)													
												Grain size distribution (%)			Sediment composition (%)			Density		Property			Radioactive cesium								
19	Ankawa River	Sakachi Bridge	Shiyoa Town	2014/5/17	Sunny	22.5	0.5	15.3	5	Brown	None	0.8	75.1	14.9	3.6	1.6	0.2	0.2	0.1	96.5	2.64	Gravel/sand	16 ± 2.8	49 ± 4.6	65						
				2014/8/18	Cloudy	26.2	0.5	21.0	5	Dark brown	None	9.6	29.4	11.4	7.7	18.9	12.4	0.0	4.6	67.1	2.90	Sand/gravel	85 ± 8.0	270 ± 14	38						
				2014/11/12	Cloudy	11.8	0.3	12.0	5	Dark brown	None	1.0	53.6	29.9	5.9	7.5	1.3	0.5	0.4	87.1	2.69	Gravel/sand	28 ± 3.2	97 ± 5.8	125						
				2015/2/7	Sunny	1.8	0.3	4.0	3	Dim yellowish brown	None	0.0	36.2	39.2	15.0	6.8	0.6	0.6	0.6	85.1	2.69	Gravel/sand	26 ± 4.1	100 ± 7.2	126						
				2014/5/17	Sunny	24.0	0.4	20.1	6	Fine fish	None	0.0	41.4	20.7	16.4	4.3	2.6	0.8	2.4	96.0	2.64	Sand/gravel	5.8 ± 1.9	13 ± 2.9	13						
				2014/8/18	Sunny	30.0	0.2	26.0	5	Dark olive brown	None	5.0	44.1	33.0	11.2	5.2	0.4	0.6	0.1	91.1	2.64	Gravel/sand	2.5 ± 0.39	7.3 ± 0.47	9.8						
		2014/11/12	Cloudy	13.0	0.3	15.2	3	Blackish brown	None	1.1	4.8	13.8	29.5	42.3	3.8	0.4	1.9	82.8	2.69	Sand/gravel	5.4 ± 1.7	13 ± 2.7	13								
		2015/2/7	Sunny	8.3	0.4	11.0	3	Olive black	None	2.8	9.3	8.1	18.8	55.5	5.6	0.3	1.8	81.5	2.67	Sand/gravel	7.9 ± 2.4	11 ± 3.2	11								
		2014/5/17	Sunny	24.2	0.3	18.1	8	Dark brown	None	3.8	40.9	25.5	21.3	7.0	0.4	0.2	0.4	85.5	2.66	Sand/gravel	26 ± 3.2	79 ± 5.1	105								
		2014/8/18	Sunny	28.8	0.3	24.8	5	Blackish brown	None	0.8	42.6	28.5	4.6	46.0	4.3	0.5	2.6	85.4	2.74	Gravel/sand	42 ± 4.7	110 ± 7.2	152								
		2014/11/12	Cloudy	12.5	0.2	12.5	5	Blackish brown	None	1.2	34.5	41.1	14.5	7.1	0.9	0.1	0.6	87.6	2.72	Gravel/sand	13 ± 2.3	50 ± 4.2	63								
		2015/2/7	Sunny	5.4	0.2	6.7	3	Dark grayish yellow	None	0.0	33.1	25.3	18.9	18.2	2.7	0.7	1.1	81.3	2.69	Gravel/sand	26 ± 3.7	71 ± 6.1	97								
	20	Uchikawa River	Tanaka Bridge	Yata City	2014/5/17	Sunny	24.4	0.5	20.4	8	Dark brown	None	2.4	22.4	14.4	26.9	27.7	0.8	0.6	2.0	78.3	2.65	Sand/gravel	12 ± 2.5	42 ± 4.2	54					
					2014/8/18	Cloudy	30.5	0.4	28.0	5	Dark brown	None	1.2	6.4	8.1	15.4	36.0	19.7	7.2	5.9	53.8	2.66	Silt/sand	69 ± 8.6	210 ± 14	279					
					2014/11/12	Cloudy	13.0	0.3	14.0	5	Dim yellowish brown	None	0.0	14.1	30.2	25.4	47.9	4.5	2.8	2.3	83.9	2.69	Sand/gravel	6.2 ± 1.8	19 ± 2.8	25.2					
			2015/2/7	Sunny	8.0	0.3	9.5	3	Dark brown	None	0.0	19.2	24.0	16.5	29.6	8.5	6.9	1.4	81.4	2.79	Sand/gravel	8.3 ± 2.7	33 ± 3.9	41.3							
			2014/5/17	Sunny	19.8	0.5	19.1	8	Dark brown	None	3.1	46.1	16.7	9.1	21.2	2.0	0.2	1.7	80.9	2.70	Sand/gravel	7.6 ± 2.3	16 ± 2.8	16							
			2014/9/16	Cloudy	26.5	0.5	23.8	4	Faint hydrocyan sulfide	None	0.0	23.8	29.5	24.4	19.8	1.1	0.1	1.2	81.3	2.64	Sand/gravel	6.7 ± 2.0	10 ± 2.3	10							
		Ankawa River	Mikada Bridge	Naga Karayama City	2014/7/8	Sunny	27.2	0.3	23.8	4	Dim yellowish orange	None	0.0	22.1	21.9	13.6	31.9	3.4	0.3	1.6	86.1	2.70	Sand/gravel	7.3 ± 2.2	20 ± 2.9	20					
					2014/8/2	Sunny	34.1	0.6	36.2	6	Dark olive brown	None	3.8	5.1	5.5	6.8	17.4	28.0	1.7	4.8	81.9	2.78	Sand/gravel	11 ± 2.1	28 ± 3.5	39					
					2014/9/9	Sunny	27.0	0.3	22.7	5	Dark olive brown	None	0.0	5.4	4.9	3.4	44.7	36.0	3.5	5.0	64.3	2.70	Sand/gravel	22 ± 4.4	51 ± 6.3	73					
					2014/11/11	Cloudy	15.0	0.3	13.8	3	Dark grayish yellow	None	0.2	24.8	33.0	16.2	18.5	3.8	0.2	1.3	87.4	2.65	Sand/gravel	5.5 ± 1.8	12 ± 2.3	12					
					2015/2/16	Sunny	7.5	0.2	6.7	3	Olive black	Faint clam	0.0	19.1	27.6	28.4	19.0	4.1	0.0	1.3	85.5	2.66	Gravel/sand	7.8 ± 2.5	21 ± 3.6	21					
					2014/5/19	Sunny	21.0	0.6	21.0	7	Dark brown	None	7.5	50.9	14.3	11.1	14.0	1.4	0.0	0.0	85.0	2.73	Sand/gravel	9.9 ± 2.0	21 ± 3.0	30.9					
21	Nakagawa River System	Asahi Bridge	Sakura City	2014/8/18	Cloudy	25.1	0.6	24.1	4	Faint hydrocyan sulfide	None	0.0	8.9	1.2	2.1	15.3	24.3	41.8	14.4	36.8	2.44	Silt	130 ± 13	309 ± 22	520						
				2014/7/8	Sunny	27.4	0.6	24.6	4	Blackish brown	None	0.0	11.3	12.4	14.2	86.3	2.3	9.7	29	78.7	2.69	Sand/gravel	10 ± 2.1	26 ± 3.9	36						
				2014/8/2	Sunny	33.5	0.6	28.0	5	Dim yellowish brown	None	2.2	28.8	12.4	6.2	31.8	12.1	1.2	4.4	81.6	2.67	Sand/gravel	9.6 ± 2.4	28 ± 3.6	37.6						
				2014/9/9	Cloudy	27.2	0.4	24.5	5	Faint hydrocyan sulfide	Faint down	0.0	0.0	0.1	0.3	4.4	26.4	47.9	21.0	31.1	2.40	Silt	55 ± 14	200 ± 22	255						
				2014/11/11	Cloudy	13.7	0.3	11.0	3	Blackish brown	None	0.2	22.5	36.4	18.1	28.4	5.0	0.1	1.4	85.4	2.72	Sand/gravel	7.8 ± 1.8	20 ± 2.6	27.8						
				2015/2/16	Sunny	11.0	0.3	6.0	3	Dark brown	None	0.0	30.8	32.6	17.6	13.4	3.1	0.7	1.8	91.2	2.73	Gravel/sand	6.5 ± 1.8	18 ± 3.0	18						
				22	Ankawa River	Kawaji District Power Station, front	Nikko City	2014/5/28	Cloudy	20.9	0.4	16.0	5	Grayish olive	None	0.4	37.0	24.0	15.5	19.4	1.7	0.4	1.7	83.8	2.73	Gravel/sand	9.2 ± 1.6	21 ± 3.1	30.2		
								2014/8/19	Cloudy	30.3	0.3	24.0	5	Grayish olive	None	0.5	41.5	39.6	31.9	3.9	0.3	0.1	0.3	84.9	2.67	Gravel/sand	6.1 ± 2.0	13 ± 3.5	13		
								2014/11/13	Cloudy	9.8	0.3	12.0	5	Grayish olive	None	0.0	47.2	32.9	11.1	6.5	1.4	0.2	0.6	96.1	2.67	Gravel/sand	7.1 ± 1.9	17 ± 3.0	24.1		
								2015/2/9	Sunny	1.2	0.3	5.1	3	Grayish olive	None	0.0	34.6	42.9	17.3	3.9	0.3	0.2	1.1	95.0	2.70	Gravel/sand	6.3 ± 2.1	13 ± 2.7	13		
								2014/5/30	Sunny	23.1	0.3	15.9	7	Blackish brown	None	7.5	30.5	21.5	18.9	17.1	5.1	0.7	1.0	83.7	2.69	Sand/gravel	1.7 ± 0.38	6.7 ± 1.44	8.4		
								2014/8/29	Sunny	27.0	0.3	20.0	3	Grav	None	0.0	18.6	5.3	8.6	23.7	10.3	1.1	2.4	83.6	2.69	Sand/gravel	3.4 ± 0.39	11 ± 0.50	14.2		
2014/11/13	Cloudy	5.8	0.2					9.1	3	Grav	None	0.0	0.6	1.4	32.1	60.1	3.2	0.1	3.2	79.5	2.68	Sand	6.7 ± 2.2	21 ± 3.4	21						
2015/2/9	Light snow	4.0	-					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground
2014/8/28	Cloudy	20.4	0.4					17.4	4	Grayish olive	None	0.0	40.7	36.5	15.9	14.3	-	0.5	1.2	88.0	2.66	Gravel/sand	3.5 ± 0.26	11 ± 0.35	14.3						
2014/8/19	Cloudy	31.2	0.4					22.0	5	Grayish olive	None	0.5	40.4	36.3	16.7	4.7	0.3	0.3	0.7	91.4	2.69	Sand/gravel	6.1 ± 1.9	14 ± 2.5	14						
2014/11/13	Sunny	9.3	0.4					11.5	5	Grayish olive	None	0.0	27.5	42.4	20.8	7.7	0.6	0.1	1.0	89.9	2.66	Gravel/sand	6.7 ± 1.8	20 ± 3.0	20						
2015/2/9	Cloudy	4.5	0.3					5.3	3	Dim yellowish orange	None	0.0	24.4	41.3	20.3	11.0	1.3	0.2	1.3	88.3	2.66	Gravel/sand	7.2 ± 2.4	11 ± 2.9	11						
23	Kinogawa River	Kosagoe	Nikko City	2014/8/23	Sunny	30.4	0.2	13.8	5	Olive brown	None	3.1	34.1	25.6	19.2	14.2	1.9	0.3	1.6	83.5	2.75	Gravel/sand	17 ± 2.8	49 ± 4.4	66						
				2014/8/21	Cloudy	27.7	0.2	20.0	5	Olive brown	None	0.0	36.6	38.5	10.9	9.7	3.7	0.6	1.0	82.0	2.69	Gravel/sand	17 ± 3.0	56 ± 4.6	73						
				2014/11/13	Sunny	8.0	0.2	11.0	5	Olive black	None	0.0	23.0	37.0	19.8	16.5	1.4	0.7	1.6	84.3	2.66	Gravel/sand	25 ± 3.1	93 ± 5.8	118						
				2015/2/10	Sunny	4.2	0.3	6.0	3	Dim yellowish brown	None	0.0	25.5	41.4	23.5	9.7	1.3	0.4	0.4	83.0	2.66	Gravel/sand	12 ± 2.9	24 ± 4.2	29						





# Tochigi River (Sediment) 6/6

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										Activity concentration (Bq/kg/day)					
												Coarse gravel	Medium gravel	Fine gravel	Grain size distribution (%)		Fine sand	Silt	Clay	slim content (%)	Density (g/cm <sup>3</sup> )	Property	Radioactive cesium				
															Coarse sand	Medium sand							Coarse silt		Medium silt	Co-134	Co-137
49	Onoi River	Tanoto Bridge	Tochigi City	2014/9/3	Sunny	25.1	0.1	21.5	5	Dark brown	None	0.0	12.7	43.2	18.5	4.6	0.1	0.1	0.0	87.9	2.67	Gravel/sand	2.3 ± 0.23	0.6 ± 0.28	8.9		
				2014/9/7	Cloudy	25.8	0.2	24.0	5	Blackish brown	None	1.9	33.1	21.6	20.1	9.4	2.4	0.1	1.4	84.4	2.69	Gravel/sand	1.2 ± 0.31	4.5 ± 0.38	5.7		
				2014/11/21	Sunny	10.8	0.2	12.5	5	Olive black	None	0.0	0.7	18.0	88.7	6.9	0.1	0.0	5.2	86.2	2.69	Sand	<0.81 ± 0.22	2.3 ± 0.31	2.3		
				2015/2/19	Sunny	9.8	0.2	12.5	3	Olive black	None	0.0	18.6	49.9	21.5	8.9	0.4	0.2	0.5	88.0	2.69	Gravel/sand	0.85 ± 0.25	2.7 ± 0.26	3.65		
				2014/5/20	Sunny	26.4	0.3	26.1	6	Dark brown	None	8.3	46.5	18.1	7.6	6.3	1.3	0.3	1.3	85.1	2.78	Gravel/sand	6.1 ± 1.3	1.5 ± 2.4	21.1		
				2014/6/17	Sunny	24.1	0.3	20.3	3	Dim yellowish orange	Faint drain	0.0	0.0	0.0	0.0	6.3	69.9	13.9	13.9	65.8	2.60	Sand/silt	<9.5 ± 3.2	4.3 ± 5.2	4.1		
		2014/7/9	Cloudy	27.7	0.8	20.2	3	Dim yellowish orange	None	0.0	0.0	0.1	0.1	7.0	69.1	10.9	12.8	66.3	2.65	Sand/silt	18 ± 3.5	4.7 ± 5.1	65				
		2014/8/25	Cloudy	26.3	0.3	24.0	5	Faint hydrogen sulfide	Faint drain	1.6	36.9	0.1	4.5	13.7	23.1	5.1	7.3	99.3	2.68	Silt/gravel	100 ± 11	300 ± 17	540				
		2014/8/24	Sunny	23.6	0.2	21.0	3	Grayish olive	None	4.0	28.8	14.8	6.3	24.0	19.5	3.4	2.4	85.0	2.69	Sand/gravel	1.7 ± 0.34	5.2 ± 0.42	6.9				
		2014/11/21	Sunny	12.5	0.2	14.0	5	Grayish olive	None	0.0	14.3	10.9	9.4	48.1	12.3	2.3	2.6	83.3	2.74	Sand/gravel	2.4 ± 0.28	8.0 ± 0.34	10.4				
		2015/2/19	Sunny	8.0	0.2	8.0	2	Olive brown	None	0.7	30.1	28.0	10.8	19.5	9.4	0.6	1.0	89.3	2.78	Gravel/sand	1.3 ± 0.25	4.3 ± 0.33	5.6				
		2014/5/26	Cloudy	21.4	0.7	21.4	5	Faint hydrogen sulfide	None	0.0	0.0	0.1	0.1	7.7	69.2	12.6	19.4	90.2	2.79	Silt	45 ± 6.6	150 ± 11	195				
	2014/6/17	Sunny	24.8	0.8	21.8	3	Olive black	None	11.2	30.6	11.4	3.8	7.8	8.4	15.6	13.1	66.3	2.67	Silt/sand	1.6 ± 0.43	4.3 ± 0.48	5.9					
	2014/7/9	Light rain	25.1	0.8	21.0	2	Yellowish brown	None	0.0	0.7	0.2	0.3	4.7	34.9	39.3	20.0	99.2	2.56	Silt	29 ± 4.9	86 ± 7.4	114					
	2014/8/8	Cloudy	29.2	0.5	26.5	3	Faint hydrogen sulfide	None	0.0	30.7	27.3	5.3	9.3	8.7	8.8	69.8	24.8	242.1	Silt/sand	21 ± 3.1	61 ± 5.4	82					
	2014/9/12	Sunny	23.5	1.0	22.5	5	Dark brown	None	0.0	23.3	19.6	9.6	13.4	13.5	12.7	8.0	76.3	2.66	Sand/gravel	13 ± 2.9	50 ± 4.9	69					
	2014/11/21	Sunny	11.5	0.5	15.2	5	Dark brown	None	0.0	0.8	0.5	0.7	1.6	28.3	36.4	32.8	2.60	Sand/silt	27 ± 4.6	130 ± 8.7	137						
	2015/2/19	Sunny	10.8	1.0	9.0	1	Brown	None	7.4	7.5	1.7	1.3	9.5	17.5	30.8	24.7	49.5	2.50	Silt/sand	33 ± 6.5	83 ± 10	116					
	2014/5/20	Sunny	19.7	0.4	18.4	5	Grayish olive	None	0.0	31.5	27.3	2.4	18.3	1.6	0.7	1.2	80.1	2.90	Gravel/sand	9.3 ± 2.7	1.5 ± 3.8	28.3					
	2014/6/25	Cloudy	25.3	0.4	13.8	4	Olive black	None	0.0	10.2	11.5	23.9	43.2	9.7	6.8	2.8	78.8	2.67	Sand/gravel	24 ± 3.3	66 ± 5.1	90					
	2014/7/23	Sunny	29.4	0.3	16.9	5	Grayish olive	None	0.6	19.3	46.5	22.2	8.9	0.7	0.3	1.4	88.3	2.67	Gravel/sand	7.5 ± 1.6	1.8 ± 2.4	25.5					
	2014/8/19	Sunny	29.8	0.6	20.5	6	Olive brown	None	0.0	27.3	31.3	24.4	14.8	0.8	0.1	1.3	92.4	2.69	Gravel/sand	<6.1 ± 1.9	1.5 ± 2.5	13					
	2014/9/10	Cloudy	21.5	0.5	16.3	5	Faint hydrogen sulfide	None	0.0	26.3	34.9	12.2	0.8	0.3	1.6	81.6	2.67	Gravel/sand	6.6 ± 2.0	1.3 ± 2.6	19.5						
	2014/11/19	Sunny	3.5	0.4	7.0	3	Grayish olive	None	14.2	16.3	14.4	25.1	26.7	1.7	0.2	1.1	78.1	2.65	Gravel/sand	<9.4 ± 3.0	1.8 ± 3.6	118					
2015/2/12	Sunny	4.2	0.5	4.0	3	Olive brown	None	0.0	4.4	20.3	36.5	10.8	1.6	0.4	1.3	78.8	2.68	Sand/gravel	11 ± 2.9	1.7 ± 3.6	28						
2015/5/20	Sunny	28.2	0.3	18.9	7	Blackish brown	None	0.0	47.6	27.4	13.3	9.0	1.1	0.2	0.1	89.0	2.74	Sand/gravel	3.1 ± 0.35	6.7 ± 0.43	9.8						
53	Tonegawa River System	Watarase River Area	Watarase River intake weir at Soti Power Station	Nikko City	2014/8/29	Cloudy	23.3	0.3	22.3	5	Blackish brown	None	1.5	46.4	27.1	13.3	9.4	1.2	1.0	84.6	2.79	Gravel/sand	<4.6 ± 1.5	1.5 ± 2.8	13		
					2014/11/29	Cloudy	11.0	0.5	11.0	5	Blackish brown	None	0.0	24.6	26.4	23.3	23.8	0.6	0.2	1.1	84.5	2.78	Sand/gravel	1.6 ± 0.32	4.6 ± 0.42	6.2	
					2015/2/2	Sunny	7.0	0.3	1.4	3	Olive brown	None	0.0	1.6	8.1	26.0	51.2	9.8	0.7	2.1	83.1	2.79	Sand	<6.5 ± 1.7	1.4 ± 2.7	14	
					2014/6/3	Sunny	27.7	0.3	25.0	5	Blackish brown	None	0.0	20.9	24.1	16.2	31.6	3.0	0.5	1.8	83.9	2.79	Sand/gravel	<8.3 ± 2.2	1.0 ± 2.4	10	
					2014/8/29	Cloudy	23.0	0.3	22.0	5	Blackish brown	None	4.6	45.8	18.7	11.8	15.3	2.8	0.1	0.9	86.3	2.79	Gravel/sand	2.0 ± 0.32	5.2 ± 0.37	7.2	
					2014/11/28	Cloudy	12.3	0.4	12.3	3	Blackish brown	Faint drain	0.0	22.6	25.8	27.9	23.8	0.9	0.3	1.3	83.8	2.69	Sand/gravel	2.5 ± 0.36	6.2 ± 0.43	8.7	
54	Watarase River Area	Watarase River	Nakabashi Bridge	Ashikaga City	2015/2/2	Sunny	6.8	0.3	4.0	2	Olive brown	None	0.0	21.1	27.8	21.2	23.0	2.0	0.2	2.7	86.3	2.71	Gravel/sand	1.1 ± 0.30	6.6 ± 0.29	7.7	
					2014/6/3	Sunny	27.5	0.6	26.5	5	Blackish brown	None	2.3	16.6	4.9	5.9	37.9	21.8	4.1	6.6	77.2	2.72	Sand/gravel	1.4 ± 0.43	4.4 ± 0.53	5.3	
					2014/8/29	Cloudy	24.2	0.3	24.0	5	Faint hydrogen sulfide	None	0.0	25.1	14.2	11.1	25.8	15.5	2.7	4.7	84.5	2.76	Sand/gravel	1.7 ± 2.7	4.2 ± 4.2	9.9	
					2014/11/29	Sunny	14.0	0.3	13.2	5	Yellowish gray	None	0.0	12.0	24.1	26.5	33.9	1.5	0.0	2.0	86.1	2.72	Sand/gravel	<7.6 ± 2.2	1.2 ± 2.9	12	
					2015/2/3	Sunny	9.8	0.3	7.0	6	Grayish olive	None	0.0	2.7	9.9	18.6	46.3	20.6	0.5	1.5	80.2	2.74	Sand/gravel	1.5 ± 0.27	4.4 ± 0.30	5.9	
					2014/6/4	Cloudy	28.3	0.6	28.5	5	Faint hydrogen sulfide	None	0.0	0.7	1.7	12.7	67.2	11.3	2.3	4.3	78.7	2.70	Sand	<8.0 ± 2.6	1.7 ± 3.7	17	
55	Tonegawa River System	Watarase River Area	Watarase River	Tatebayashi City	2014/6/26	Sunny	23.4	0.6	22.0	6	Faint hydrogen sulfide	None	0.0	4.8	13.8	18.0	37.0	11.3	0.7	3.4	83.6	2.72	Sand	6.2 ± 1.8	1.1 ± 2.6	17.3	
					2014/7/25	Sunny	31.2	1.0	24.2	3	Blackish brown	None	0.0	37.0	28.7	7.7	12.8	11.4	0.3	1.9	76.2	2.82	Sand/gravel	1.9 ± 3.2	5.8 ± 4.9	7.7	
					2014/8/20	Sunny	30.0	0.3	29.0	7	Faint hydrogen sulfide	None	0.0	14.4	10.2	11.5	18.5	12.0	1.5	1.8	79.5	2.82	Gravel/sand	6.9 ± 1.8	1.6 ± 2.6	22.9	
					2014/9/12	Sunny	20.8	0.5	21.5	5	Blackish brown	None	0.0	5.0	4.9	2.3	29.8	54.9	2.3	3.9	76.3	2.73	Sand	9.8 ± 2.6	2.4 ± 3.8	33.8	
					2014/12/5	Sunny	10.2	0.4	10.0	5	Blackish brown	None	0.0	24.7	36.6	13.6	17.7	3.1	1.6	2.1	87.6	2.80	Gravel/sand	<6.0 ± 1.9	1.8 ± 3.3	18	
					2015/2/5	Sunny	9.8	0.1	9.0	5	Olive black	Faint drain	0.0	32.9	30.5	10.2	17.7	7.4	0.4	1.3	86.6	2.80	Gravel/sand	<6.7 ± 1.8	1.1 ± 2.8	11	

# Tochigi River (Surrounding Environment) 1/6

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)]												
R i v e r s	Nakagawa River System	Nakagawa River	Ikuyobashishita	Nasushiobara City	2014/6/2	Sunny	28.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Left bank/Right bank to collect samples due to previously normal land.				
					2014/8/6	Sunny	25.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Left bank/Right bank to collect samples due to previously normal land.		
					2014/11/4	Cloudy	6.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Left bank/Right bank to collect samples due to previously normal land.	
					2015/2/2	Light snow	-2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect sample due to snow on the ground.	
		2	Komei Bridge	Nasushiobara City	2014/5/22	Sunny	20.5	Dark brown	faint earth	Loamy	1,500 ± 39	4,300 ± 66	5,800	0.19	Dim reddish brown	faint earth	Loamy	490 ± 21	1,300 ± 35	1,790	0.22	-	-	-	-	-		
					2014/8/6	Sunny	30.3	Blackish brown	faint earth	Loamy	690 ± 25	2,100 ± 45	2,790	0.23	Dim yellowish brown	faint earth	Loamy	330 ± 18	970 ± 30	1,300	0.24	-	-	-	-	-	-	
					2014/11/4	Sunny	10.0	Blackish brown	faint earth	Loamy	1,800 ± 50	5,400 ± 90	7,200	0.20	Dark brown	faint earth	Loamy	460 ± 24	1,400 ± 44	1,860	0.26	-	-	-	-	-	-	
					2015/2/2	Cloudy	-2.0	Dim yellowish brown	faint earth	Loamy	310 ± 22	990 ± 38	1,300	0.23	Dark brown	faint earth	Loamy	180 ± 15	680 ± 29	860	0.21	-	-	-	-	-	-	
		3	Takaomata River	Takaomata Bridge	Nasu Town	2014/5/22	Sunny	22.0	Blackish brown	faint earth	Loamy	240 ± 14	700 ± 23	940	0.18	Dark brown	faint earth	Loamy	1,700 ± 52	4,500 ± 87	6,200	0.23	-	-	-	-	-	
						2014/8/6	Sunny	27.5	Blackish brown	faint earth	Loamy	480 ± 20	1,400 ± 35	1,880	0.20	Dark reddish brown	faint earth	Loamy	530 ± 27	1,800 ± 50	2,330	0.22	-	-	-	-	-	-
						2014/11/4	Sunny	9.0	Blackish brown	faint earth	Loamy	290 ± 17	1,000 ± 32	1,290	0.20	Extremely dark brown	faint earth	Loamy	630 ± 34	1,800 ± 57	2,430	0.25	-	-	-	-	-	-
						2015/2/2	Sunny	-0.8	Dim yellowish brown	faint earth	Loamy	510 ± 28	1,800 ± 53	2,310	0.19	Blackish brown	faint earth	Loamy	640 ± 37	2,100 ± 70	2,740	0.21	-	-	-	-	-	-
		4	Yukawa River	Yukawa Bridge	Nasu Town	2014/5/22	Sunny	18.5	Blackish brown	faint earth	Loamy	220 ± 14	680 ± 24	900	0.21	Blackish brown	faint earth	Loamy	510 ± 22	1,500 ± 37	2,010	0.21	-	-	-	-	-	
						2014/8/6	Sunny	25.9	Dark brown	faint earth	Loamy	330 ± 18	1,000 ± 32	1,330	0.35	Dim yellowish brown	faint earth	Loamy	870 ± 31	2,600 ± 54	3,470	0.24	-	-	-	-	-	
						2014/11/4	Sunny	9.6	Blackish brown	faint earth	Loamy	630 ± 30	2,000 ± 54	2,630	0.28	Blackish brown	faint earth	Loamy	710 ± 31	2,000 ± 54	2,710	0.21	-	-	-	-	-	-
						2015/2/2	Sunny	-1.2	Dark brown	faint earth	Loamy	990 ± 39	3,200 ± 71	4,190	0.28	Dark brown	faint earth	Loamy	290 ± 19	1,000 ± 36	1,290	0.16	-	-	-	-	-	-
	5	Nakagawa River	Kamikuroiso	Nasushiobara City/Nasu Town	2014/5/22	Sunny	24.5	Dark brown	faint earth	Loamy	210 ± 20	690 ± 34	900	0.22	Dark brown	faint earth	Loamy	310 ± 16	870 ± 27	1,180	0.15	-	-	-	-	-		
					2014/6/13	Sunny	25.8	Dark brown	faint earth	Loamy	380 ± 28	1,100 ± 48	1,480	0.22	Dim yellowish brown	faint earth	Loamy	410 ± 20	1,200 ± 35	1,610	0.23	-	-	-	-	-		
					2014/7/8	Sunny	26.9	Brown	faint earth	Loamy	290 ± 25	880 ± 46	1,170	0.24	Yellowish brown	faint earth	Loamy	570 ± 24	1,600 ± 41	2,170	0.23	-	-	-	-	-		
					2014/8/6	Cloudy	29.6	Dark brown	faint earth	Loamy	500 ± 28	1,600 ± 50	2,100	0.23	Dark greyish yellow	faint earth	Loamy	450 ± 18	1,400 ± 31	1,850	0.25	-	-	-	-	-		
					2014/9/8	Cloudy	22.0	Extremely dark brown	faint earth	Loamy	260 ± 22	850 ± 39	1,110	0.23	Blackish brown	faint earth	Loamy	460 ± 19	1,400 ± 35	1,860	0.24	-	-	-	-	-		
					2014/11/6	Sunny	19.2	Blackish brown	faint earth	Loamy	510 ± 36	1,800 ± 68	2,310	0.22	Blackish brown	faint earth	Loamy	890 ± 33	2,900 ± 62	3,790	0.24	-	-	-	-	-		
	6	Yosasa River	Yosasa Bridge	Nasu Town	2015/2/3	Sunny	1.0	Dark brown	faint earth	Loamy	280 ± 26	970 ± 48	1,250	0.20	Dark brown	faint earth	Loamy	260 ± 17	970 ± 32	1,230	0.22	-	-	-	-	-		
					2014/5/31	Sunny	23.9	Blackish brown	faint earth	Loamy	2,600 ± 45	7,200 ± 76	9,800	0.33	Dim yellowish brown	faint earth	Loamy	860 ± 25	2,500 ± 43	3,360	0.22	-	-	-	-	-		
					2014/8/20	Sunny	28.4	Blackish brown	faint earth	Loamy	4,800 ± 82	15,000 ± 150	19,800	0.43	Blackish brown	faint earth	Loamy	780 ± 30	2,300 ± 54	3,080	0.23	-	-	-	-	-		
					2014/11/6	Sunny	17.8	Blackish brown	faint earth	Loamy	5,900 ± 94	18,000 ± 170	23,900	0.39	Dark brown	faint earth	Loamy	830 ± 29	2,600 ± 52	3,430	0.22	-	-	-	-	-		
	7	Kurokawa River	Shinden Bridge	Nasu Town	2015/2/3	Sunny	1.0	Dark brown	faint earth	Loamy	310 ± 17	1,100 ± 33	1,410	0.41	Dim yellowish brown	faint earth	Loamy	98 ± 9.2	310 ± 16	408	0.23	-	-	-	-	-		
					2014/5/31	Sunny	25.5	Blackish brown	faint earth	Loamy	870 ± 28	2,500 ± 47	3,370	0.31	Blackish brown	faint earth	Loamy	1,200 ± 29	3,400 ± 50	4,600	0.24	-	-	-	-	-		
2014/8/20					Sunny	28.8	Blackish brown	faint earth	Loamy	620 ± 29	1,800 ± 52	2,420	0.39	Blackish brown	faint earth	Loamy	650 ± 29	2,000 ± 51	2,650	0.29	-	-	-	-	-			
2014/11/6					Sunny	23.1	Dark brown	faint earth	Loamy	2,800 ± 63	8,600 ± 110	11,400	0.38	Dark brown	faint earth	Loamy	790 ± 31	2,500 ± 56	3,290	0.26	-	-	-	-	-			
8	Yosasa River	Kawada Bridge	Otawara City	2015/2/3	Sunny	3.8	Dim yellowish brown	faint earth	Loamy	700 ± 25	2,400 ± 47	3,100	0.30	Blackish brown	faint earth	Loamy	600 ± 25	2,200 ± 50	2,800	0.27	-	-	-	-	-			
				2014/5/22	Cloudy	23.0	Dark brown	faint earth	Loamy	390 ± 19	1,200 ± 33	1,590	0.20	Dark brown	faint earth	Loamy	700 ± 26	1,800 ± 42	2,500	0.30	-	-	-	-	-			
				2014/6/13	Sunny	21.8	Blackish brown	faint earth	Loamy	370 ± 22	1,200 ± 39	1,570	0.24	Extremely dark brown	faint earth	Loamy	540 ± 29	1,600 ± 50	2,140	0.25	-	-	-	-	-			
				2014/7/8	Sunny	27.4	Dim yellowish brown	faint earth	Loamy	540 ± 30	1,500 ± 49	2,040	0.22	Dim yellowish brown	faint earth	Loamy	570 ± 32	1,600 ± 53	2,170	0.32	-	-	-	-	-			
				2014/8/20	Cloudy	28.0	Blackish brown	faint earth	Loamy	490 ± 28	1,500 ± 49	1,990	0.20	Dark brown	faint earth	Loamy	490 ± 28	1,400 ± 49	1,890	0.34	-	-	-	-	-			
				2014/9/11	Cloudy	23.3	Blackish brown	faint earth	Loamy	460 ± 24	1,500 ± 43	1,960	0.21	Dim hydrogen sulfate	faint earth	Loamy	690 ± 30	2,000 ± 53	2,690	0.23	-	-	-	-	-			
				2014/11/6	Sunny	21.2	Dark brown	faint earth	Loamy	530 ± 29	1,700 ± 52	2,230	0.22	Dark brown	faint earth	Loamy	620 ± 32	1,900 ± 58	2,520	0.30	-	-	-	-	-			
				2015/2/3	Sunny	4.0	Blackish brown	faint earth	Loamy	200 ± 16	710 ± 30	910	0.23	Brown	faint earth	Loamy	440 ± 27	1,500 ± 51	1,940	0.33	-	-	-	-	-			
9	Nakagawa River	Kurobane	Otawara City	2014/5/31	Sunny	28.2	Dark brown	faint earth	Loamy	450 ± 21	1,400 ± 36	1,850	0.15	Dark brown	faint earth	Loamy	200 ± 14	530 ± 24	730	0.10	-	-	-	-	-			
				2014/6/23	Sunny	27.2	Dark brown	faint earth	Loamy	160 ± 15	410 ± 25	570	0.15	Blackish brown	faint earth	Loamy	220 ± 18	700 ± 31	920	0.10	-	-	-	-	-			
				2014/7/15	Sunny	30.5	Blackish brown	faint earth	Loamy	200 ± 12	530 ± 20	730	0.14	Blackish brown	faint earth	Loamy	130 ± 11	400 ± 19	530	0.09	-	-	-	-	-			
				2014/8/20	Sunny	31.8	Dark brown	faint earth	Loamy	310 ± 22	980 ± 39	1,290	0.15	Blackish brown	faint earth	Loamy	190 ± 17	620 ± 31	810	0.10	-	-	-	-	-			
				2014/9/11	Cloudy	21.1	Dark brown	faint earth	Loamy	340 ± 20	1,000 ± 35	1,340	0.15	Blackish brown	faint earth	Loamy	260 ± 17	790 ± 29	1,050	0.11	-	-	-	-	-			
				2014/11/7	Sunny	13.9	Dark brown	faint earth	Loamy	220 ± 21	720 ± 36	940	0.14	Blackish brown	faint earth	Loamy	280 ± 22	960 ± 39	1,240	0.11	-	-	-	-	-			
				2015/2/5	Cloudy	4.2	Dark brown	faint earth	Loamy	150 ± 17	580 ± 31	730	0.16	Blackish brown	faint earth	Loamy	54 ± 11	250 ± 20	304	0.12	-	-	-	-	-			

# Tochigi River (Surrounding Environment) 2/6

No.	Location				Sampling Date	Weather	Air temperature (°C)	Surrounding Environment (Soil, Air dose)															Remarks
	Water area	Location	Municipality	Left bank				Right bank			Air Dose (μSv/h)	Activity concentration [Bq/kg(dry)]											
				Color				Odor	Property	Color		Odor	Property	Radioactive cesium			Radioactive cesium			Air Dose (μSv/h)			
														Cs-134	Cs-137	Total	Cs-134	Cs-137	Total				
R i v e r s	Nakagawa River System	Matsuba River	Tributary	Otagawa City	2014/5/31	Sunny	27.6	Yellowish brown	faint earth	Loamy	140 ± 11	390 ± 18	530	0.12	Dark brown	faint earth	Loamy	340 ± 20	940 ± 33	1,280	0.15		
					2014/6/23	Sunny	28.1	Blackish brown	faint earth	Loamy	180 ± 18	470 ± 30	650	0.12	Blackish brown	faint earth	Loamy	150 ± 17	410 ± 27	560	0.13		
					2014/7/15	Sunny	31.0	Blackish brown	faint earth	Loamy	50 ± 9.6	180 ± 15	230	0.14	Blackish brown	faint earth	Loamy	230 ± 18	760 ± 32	990	0.13		
					2014/8/20	Sunny	32.2	Blackish brown	faint earth	Sandy	160 ± 17	540 ± 30	700	0.13	Dark brown	faint earth	Loamy	450 ± 28	1,300 ± 50	1,750	0.16		
					2014/9/11	Cloudy	21.3	Blackish brown	faint earth	Loamy	190 ± 17	520 ± 28	710	0.12	Blackish brown	faint earth	Loamy	83 ± 12	240 ± 19	323	0.14		
					2014/11/7	Cloudy	13.5	Blackish brown	faint earth	Loamy	190 ± 19	630 ± 35	820	0.12	Blackish brown	faint earth	Loamy	120 ± 16	510 ± 31	630	0.17		
					2015/2/5	Cloudy	5.0	Blackish brown	faint earth	Loamy	73 ± 12	240 ± 21	313	0.14	Blackish brown	faint earth	Loamy	57 ± 14	210 ± 21	267	0.12		
					2014/6/2	Sunny	27.7	Dim yellowish brown	faint earth	Loamy	150 ± 11	490 ± 19	640	0.12	Blackish brown	faint earth	Loamy	87 ± 9.0	230 ± 15	317	0.11		
					2014/8/28	Cloudy	21.0	Extremely dark brown	faint earth	Loamy	170 ± 15	640 ± 28	810	0.10	Blackish brown	faint earth	Loamy	110 ± 11	290 ± 19	400	0.08		
					2014/11/7	Sunny	13.8	Dark brown	faint earth	Loamy	160 ± 15	420 ± 26	580	0.10	Blackish brown	faint earth	Loamy	120 ± 13	350 ± 22	470	0.10		
		11	Sabigawa River	Udagawa Bridge	Otagawa City	2015/2/14	Sunny	3.5	Blackish brown	faint earth	Loamy	200 ± 13	700 ± 25	900	0.11	Blackish brown	faint earth	Loamy	72 ± 8.5	320 ± 17	392	0.11	
						2014/6/4	Cloudy	24.1	Brownish gray	faint earth	Loamy	800 ± 27	2,200 ± 45	3,000	0.12	Grayish olive	faint earth	Loamy	680 ± 23	1,900 ± 39	2,580	0.11	
						2014/9/2	Sunny	25.0	Blackish brown	faint earth	Loamy	510 ± 21	1,600 ± 38	2,110	0.12	Blackish brown	faint earth	Loamy	170 ± 13	510 ± 22	680	0.11	
		12	Momura River	Momuranaka Bridge	Otagawa City	2014/11/10	Sunny	12.2	Blackish brown	faint earth	Loamy	2,200 ± 52	6,700 ± 94	8,900	0.18	Blackish brown	faint earth	Loamy	120 ± 12	350 ± 21	470	0.11	
						2015/2/6	Cloudy	6.0	Blackish brown	faint earth	Loamy	350 ± 23	1,300 ± 43	1,650	0.16	Blackish brown	faint earth	Loamy	68 ± 11	290 ± 19	358	0.12	
						2014/6/2	Sunny	30.1	Dark brown	faint earth	Loamy	270 ± 16	830 ± 27	1,100	0.16	Dark brown	faint earth	Loamy	300 ± 19	810 ± 31	1,110	0.13	
		13	Yunohara	Nasushiobara City	Nasushiobara City	2014/8/28	Cloudy	19.8	Extremely dark brown	faint earth	Loamy	24 ± 5.3	56 ± 8.6	80	0.16	Extremely dark brown	faint earth	Loamy	260 ± 20	850 ± 37	1,110	0.16	
						2014/11/10	Sunny	13.0	Blackish brown	faint earth	Loamy	430 ± 25	1,400 ± 46	1,830	0.18	Blackish brown	faint earth	Loamy	290 ± 23	930 ± 41	1,220	0.11	Unable to collect samples due to water on the ground.
						2015/2/6	Cloudy	3.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		14	Sekiba Bridge	Nasushiobara City	Nasushiobara City	2014/6/2	Sunny	29.9	Blackish brown	faint earth	Loamy	860 ± 34	2,200 ± 56	3,060	0.35	Blackish brown	faint earth	Loamy	940 ± 37	2,600 ± 61	3,540	0.57	
						2014/8/28	Cloudy	24.0	Blackish brown	None	Loamy	190 ± 22	510 ± 36	700	0.26	Blackish brown	None	Loamy	330 ± 29	1,100 ± 51	1,430	0.36	
						2014/11/10	Sunny	16.8	Blackish brown	faint earth	Loamy	440 ± 31	1,500 ± 54	1,740	0.26	Blackish brown	faint earth	Loamy	990 ± 46	3,100 ± 85	4,090	0.38	
		15	Hokigawa River	Iwai Bridge	Otagawa City	2015/2/6	Sunny	6.2	Black	faint earth	Loamy	290 ± 25	1,100 ± 47	1,390	0.26	Black	faint earth	Loamy	310 ± 25	1,100 ± 47	1,410	0.35	
						2014/6/4	Sunny	24.6	Dim yellowish orange	faint earth	Loamy	110 ± 10	300 ± 17	410	0.11	Grayish olive	faint earth	Loamy	140 ± 10	380 ± 17	520	0.08	
						2014/9/2	Sunny	23.0	Dark brown	faint earth	Loamy	140 ± 12	500 ± 23	640	0.10	Dark brown	faint earth	Loamy	330 ± 18	1,000 ± 31	1,330	0.09	
		16	Hokigawa Bridge	Otagawa City	Otagawa City	2014/11/10	Sunny	13.3	Blackish brown	faint earth	Loamy	360 ± 17	1,100 ± 30	1,460	0.12	Blackish brown	faint earth	Loamy	260 ± 17	770 ± 28	1,030	0.10	
						2015/2/6	Sunny	6.8	Dark brown	faint earth	Loamy	140 ± 12	460 ± 23	600	0.14	Dark brown	faint earth	Loamy	130 ± 13	470 ± 23	600	0.12	
						2014/5/19	Sunny	22.7	Dark brown	faint earth	Loamy	110 ± 11	330 ± 18	440	0.10	Dim reddish brown	faint earth	Loamy	33 ± 8.4	81 ± 13	114	0.09	
		17	Nakagawa River	Shinnaka Bridge	Nakagawa Town	2014/6/17	Cloudy	26.2	Brown	faint earth	Loamy	150 ± 11	480 ± 18	630	0.10	Orange	faint earth	Loamy	60 ± 8.4	180 ± 14	240	0.09	
						2014/7/17	Cloudy	26.6	Brown	faint earth	Loamy	130 ± 11	400 ± 18	530	0.10	Dim orange	faint earth	Loamy	62 ± 9.8	130 ± 15	192	0.09	
						2014/8/8	Sunny	31.5	Dim yellowish brown	faint earth	Loamy	140 ± 12	430 ± 21	570	0.13	Light brown	faint earth	Loamy	140 ± 14	380 ± 23	520	0.10	
		18	Munogawa River	Kosei Bridge	Nakagawa Town	2014/9/8	Cloudy	24.3	Blackish brown	faint earth	Loamy	140 ± 11	450 ± 20	590	0.11	Brown	faint earth	Loamy	45 ± 9.6	160 ± 16	205	0.09	
						2014/11/7	Sunny	12.2	Dim yellowish orange	faint earth	Loamy	150 ± 10	480 ± 19	630	0.11	Brown	faint earth	Loamy	120 ± 14	430 ± 25	550	0.12	
2015/2/14	Sunny					5.0	Dark grayish yellow	faint earth	Loamy	91 ± 10	340 ± 17	431	0.10	Brown	faint earth	Loamy	33 ± 7.8	150 ± 14	183	0.10			
17	Nakagawa River	Shinnaka Bridge	Nakagawa Town	2014/5/19	Sunny	21.5	Dark reddish brown	faint earth	Loamy	41 ± 6.5	120 ± 11	161	0.07	Dark reddish brown	faint earth	Loamy	66 ± 8.9	170 ± 14	236	0.09			
				2014/6/16	Sunny	27.8	Blackish brown	faint earth	Loamy	44 ± 6.0	140 ± 11	184	0.07	Olive black	faint earth	Loamy	70 ± 7.7	180 ± 12	250	0.08			
				2014/7/8	Sunny	27.1	Dark brown	faint earth	Loamy	19 ± 6.3	65 ± 11	84	0.07	Blackish brown	faint earth	Loamy	55 ± 8.1	120 ± 12	175	0.08			
				2014/8/2	Sunny	29.9	Grayish brown	faint earth	Loamy	29 ± 5.6	92 ± 8.6	121	0.05	Grayish brown	faint earth	Loamy	33 ± 6.1	100 ± 8.8	133	0.05			
				2014/9/8	Cloudy	23.1	Dim yellowish brown	faint earth	Loamy	15 ± 5.1	75 ± 8.8	90	0.08	Dim yellowish brown	faint earth	Loamy	14 ± 2.4	48 ± 3.9	62	0.09			
				2014/11/11	Sunny	16.3	Dim yellowish brown	faint earth	Loamy	54 ± 8.0	150 ± 12	204	0.10	Dim yellowish brown	faint earth	Loamy	99 ± 9.9	360 ± 18	459	0.09			
				2015/2/16	Sunny	2.5	Dark brown	faint earth	Loamy	36 ± 6.0	110 ± 9.9	146	0.09	Dark brown	faint earth	Loamy	48 ± 6.6	160 ± 12	208	0.09			
				2014/5/19	Sunny	24.5	Brown	faint earth	Loamy	33 ± 6.5	110 ± 11	143	0.09	Dark brown	faint earth	Loamy	90 ± 11	250 ± 18	340	0.08			
				2014/6/10	Sunny	22.0	Dim yellowish brown	faint earth	Loamy	41 ± 7.4	130 ± 12	171	0.10	Olive black	faint earth	Loamy	98 ± 13	230 ± 18	328	0.09			
				2014/7/2	Sunny	25.6	Brown	faint earth	Loamy	68 ± 7.1	190 ± 12	258	0.09	Blackish brown	faint earth	Loamy	76 ± 9.8	240 ± 16	316	0.08			
18	Munogawa River	Kosei Bridge	Nakagawa Town	2014/8/2	Sunny	33.4	Blackish brown	faint earth	Loamy	37 ± 5.5	110 ± 9.4	147	0.05	Blackish brown	faint earth	Loamy	62 ± 9.1	200 ± 15	262	0.06			
				2014/9/8	Cloudy	22.8	Blackish brown	faint earth	Loamy	34 ± 6.1	80 ± 9.5	114	0.08	Blackish brown	faint earth	Loamy	30 ± 6.5	110 ± 11	140	0.10			
				2014/11/11	Cloudy	11.0	Dark grayish yellow	faint earth	Loamy	73 ± 7.6	240 ± 14	313	0.10	Dark grayish yellow	faint earth	Loamy	87 ± 10	350 ± 19	437	0.11			
				2015/2/16	Sunny	6.7	Dark grayish yellow	faint earth	Loamy	36 ± 5.7	130 ± 10	166	0.10	Dark grayish yellow	faint earth	Loamy	28 ± 6.6	150 ± 12	178	0.10			

# Tochigi River (Surrounding Environment) 3/6

Location				Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air dose)													Remarks	
							Left bank						Right bank								
							Activity concentration [Bq/kg(dry)]			Air Dose (µSv/h)			Activity concentration [Bq/kg(dry)]			Air Dose (µSv/h)					
No.	Water area	Location	Municipality	Color	Odor	Property	Radioactive cesium			Total	Color	Odor	Property	Radioactive cesium			Total	Air Dose (µSv/h)			
							Cs-134	Cs-137						Cs-134	Cs-137						
R i v e r s	Nakagawa River System	Arakawa River	Sakachi Bridge	Shiyoa Town	2014/5/17	Sunny	22.5	Dark brown	faint earth	Loamy	83 ± 5.5	230 ± 9.1	313	0.14	Dark reddish brown	faint earth	Loamy	38 ± 9.7	94 ± 15	132	0.14
					2014/8/18	Cloudy	28.2	Dark brown	faint earth	Loamy	120 ± 13	430 ± 25	550	0.12	Dark brown	faint earth	Loamy	160 ± 20	450 ± 33	610	0.13
					2014/11/12	Cloudy	11.8	Dark brown	faint earth	Loamy	130 ± 12	450 ± 21	580	0.14	Dark brown	faint earth	Loamy	120 ± 16	540 ± 31	660	0.13
			2015/2/7	Sunny	1.8	Dark brown	faint earth	Loamy	93 ± 11	350 ± 22	443	0.15	Brown	faint earth	Loamy	48 ± 12	180 ± 20	228	0.11		
			2014/5/17	Sunny	24.0	Dark brown	faint earth	Loamy	51 ± 6.4	140 ± 11	191	0.09	Grayish brown	faint earth	Loamy	23 ± 4.4	46 ± 6.2	69	0.09		
			2014/8/18	Sunny	30.0	Blackish brown	faint earth	Loamy	110 ± 13	410 ± 24	520	0.10	Blackish brown	faint earth	Loamy	81 ± 10	290 ± 20	371	0.08		
		Uchikawa River	Renjo Bridge	Sakura City	2014/11/12	Cloudy	13.0	Dark grayish yellow	faint earth	Loamy	150 ± 13	590 ± 25	740	0.09	Dark brown	faint earth	Loamy	83 ± 10	300 ± 17	383	0.10
					2015/2/7	Sunny	8.3	Dark brown	faint earth	Loamy	50 ± 10	230 ± 17	280	0.11	Dark yellowish brown	faint earth	Loamy	30 ± 6.7	140 ± 12	170	0.10
					2014/5/17	Sunny	24.2	Dark brown	faint earth	Loamy	200 ± 16	540 ± 26	740	0.13	Dark brown	faint earth	Loamy	160 ± 13	400 ± 20	560	0.10
			2014/8/18	Sunny	28.8	Blackish brown	faint earth	Loamy	230 ± 13	650 ± 22	880	0.10	Dark brown	faint earth	Loamy	170 ± 14	470 ± 24	640	0.12		
			2014/11/12	Cloudy	12.5	Dark brown	faint earth	Loamy	110 ± 10	420 ± 19	530	0.10	Dark brown	faint earth	Loamy	210 ± 14	720 ± 25	930	0.12		
			2015/2/7	Sunny	5.6	Dark brown	faint earth	Loamy	140 ± 13	530 ± 24	670	0.16	Dark brown	faint earth	Loamy	45 ± 9.0	190 ± 15	235	0.14		
		Asahi Bridge	Sakura City	2014/5/17	Sunny	24.5	Dark brown	faint earth	Loamy	50 ± 8.4	170 ± 14	220	0.10	Dark brown	faint earth	Loamy	52 ± 8.9	140 ± 15	192	0.08	
				2014/8/18	Cloudy	30.5	Blackish brown	faint earth	Loamy	39 ± 8.0	110 ± 14	149	0.08	Blackish brown	faint earth	Loamy	110 ± 12	370 ± 22	480	0.09	
				2014/11/12	Cloudy	13.0	Blackish brown	faint earth	Loamy	59 ± 8.4	170 ± 13	229	0.09	Blackish brown	faint earth	Loamy	160 ± 13	440 ± 22	600	0.10	
				2015/2/7	Sunny	8.0	Blackish brown	faint earth	Loamy	34 ± 4.2	120 ± 7.2	154	0.07	Blackish brown	faint earth	Loamy	36 ± 4.6	120 ± 7.3	156	0.08	
				2014/5/19	Sunny	19.8	Dark brown	faint earth	Loamy	110 ± 13	310 ± 21	420	0.08	Dim yellowish brown	faint earth	Loamy	99 ± 12	240 ± 18	339	0.06	
				2014/6/16	Cloudy	26.5	Brown	faint earth	Loamy	37 ± 6.7	140 ± 13	197	0.07	Dark olive brown	faint earth	Loamy	110 ± 8.9	300 ± 14	410	0.07	
		Makada Bridge	Nasu Karasuyama City	2014/7/8	Sunny	27.7	Dark brown	faint earth	Loamy	50 ± 5.1	160 ± 8.1	210	0.09	Olive black	faint earth	Loamy	83 ± 12	210 ± 18	293	0.07	
				2014/8/2	Sunny	34.1	Faint fish	faint earth	Loamy	61 ± 8.9	170 ± 13	231	0.05	Faint fish	faint earth	Loamy	48 ± 7.7	190 ± 14	238	0.05	
				2014/9/9	Sunny	27.0	Dim yellowish brown	faint earth	Loamy	100 ± 11	280 ± 18	380	0.10	Dark brown	faint earth	Loamy	62 ± 11	200 ± 18	262	0.07	
				2014/11/11	Cloudy	15.0	Dim yellowish brown	faint earth	Loamy	67 ± 9.1	210 ± 16	277	0.09	Dim yellowish brown	faint earth	Loamy	38 ± 7.7	160 ± 13	198	0.08	
				2015/2/16	Sunny	7.5	Dark brown	faint earth	Loamy	85 ± 10	210 ± 16	295	0.08	Dark brown	faint earth	Loamy	52 ± 8.6	240 ± 16	292	0.06	
				2014/5/19	Sunny	21.0	Brown	faint earth	Loamy	56 ± 8.1	160 ± 13	216	0.08	Brown	faint earth	Loamy	45 ± 4.3	95 ± 6.0	140	0.06	
Egawa River	Tributary	2014/6/16	Cloudy	25.1	Blackish brown	faint earth	Loamy	59 ± 9.1	220 ± 16	279	0.06	Dark brown	faint earth	Loamy	33 ± 6.7	110 ± 11	143	0.07			
		2014/7/8	Sunny	27.4	Blackish brown	faint earth	Loamy	78 ± 11	200 ± 16	278	0.07	Blackish brown	faint earth	Loamy	48 ± 7.1	140 ± 13	188	0.07			
		2014/8/2	Sunny	33.5	Blackish brown	faint earth	Loamy	67 ± 7.9	190 ± 13	257	0.04	Faint fish	faint earth	Loamy	53 ± 7.6	130 ± 12	183	0.04			
		2014/9/9	Cloudy	27.2	Dark brown	faint earth	Loamy	46 ± 12	210 ± 19	256	0.08	Dark brown	faint earth	Loamy	34 ± 8.5	100 ± 14	134	0.06			
		2014/11/11	Cloudy	13.7	Blackish brown	faint earth	Loamy	40 ± 8.1	130 ± 13	170	0.08	Dark brown	faint earth	Loamy	45 ± 8.3	140 ± 13	185	0.07			
		2015/2/16	Sunny	11.0	Dark brown	faint earth	Loamy	37 ± 8.0	190 ± 15	227	0.07	Dark brown	faint earth	Loamy	33 ± 8.1	130 ± 12	163	0.08			
Tonegawa River System	Kinugawa River System	Kinugawa River	Kawaji Daiichi Power Station, front	2014/5/28	Cloudy	20.9	Blackish brown	faint earth	Loamy	380 ± 22	1,000 ± 37	1,380	0.16	Blackish brown	faint earth	Loamy	320 ± 17	1,000 ± 31	1,320	0.14	
				2014/8/19	Cloudy	30.3	Blackish brown	faint earth	Loamy	130 ± 11	330 ± 17	460	0.16	Black	faint earth	Loamy	310 ± 23	800 ± 37	1,110	0.16	
				2014/11/13	Cloudy	9.8	Dark brown	faint earth	Loamy	170 ± 12	600 ± 23	770	0.17	Blackish brown	faint earth	Loamy	410 ± 30	1,200 ± 51	1,610	0.17	
		Yunishi River	Maesawa Bridge	2015/2/9	Sunny	1.2	Dark grayish yellow	faint earth	Loamy	150 ± 14	600 ± 27	750	0.15	Black	faint earth	Loamy	140 ± 21	560 ± 39	700	0.16	
				2014/5/30	Sunny	23.3	Blackish brown	faint earth	Loamy	20 ± 3.5	47 ± 6.4	67	0.07	Blackish brown	faint earth	Loamy	<8.1 ± 2.0	<10 ± 3.0	-	0.09	
				2014/8/19	Sunny	27.0	Blackish brown	faint earth	Loamy	5.6 ± 1.7	17 ± 2.6	22.6	0.09	Blackish brown	faint earth	Loamy	<4.9 ± 1.4	5.1 ± 1.6	5.1	0.07	
		Ojika River	Tributary	2014/11/13	Cloudy	5.8	Dim yellowish orange	faint earth	Sandy	12 ± 3.6	44 ± 6.4	56	0.09	Blackish brown	faint earth	Loamy	<7.2 ± 2.1	<8.2 ± 2.7	-	0.08	
				2015/2/9	Light snow	-4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground.
				2014/5/28	Cloudy	20.6	Dim yellowish brown	faint earth	Loamy	120 ± 9.3	360 ± 16	480	0.14	Dim yellowish orange	faint earth	Loamy	130 ± 9.5	420 ± 17	550	0.15	
				2014/8/19	Sunny	31.2	Grayish olive	faint earth	Sandy	<9.4 ± 2.8	24 ± 4.2	24	0.12	Grayish olive	faint earth	Loamy	89 ± 7.8	240 ± 13	329	0.13	
				2014/11/13	Sunny	9.3	Grayish olive	faint earth	Sandy	11 ± 2.2	33 ± 3.3	44	0.11	Dim yellowish brown	faint earth	Sandy	160 ± 11	560 ± 20	720	0.18	
				2015/2/9	Cloudy	-0.5	Grayish olive	faint earth	Sandy	21 ± 4.8	52 ± 7.6	73	0.11	Olive black	faint earth	Loamy	170 ± 14	540 ± 24	710	0.17	
Kinugawa River	Kosagoe	2014/5/23	Sunny	20.4	Brown	faint earth	Loamy	270 ± 16	790 ± 28	1,060	0.16	Blackish brown	faint earth	Loamy	310 ± 18	880 ± 30	1,190	0.19			
		2014/8/21	Cloudy	27.7	Dark reddish brown	faint earth	Loamy	270 ± 16	850 ± 28	1,120	0.21	Blackish brown	faint earth	Loamy	460 ± 21	1,500 ± 38	1,960	0.16			
		2014/11/13	Sunny	8.0	Blackish brown	faint earth	Loamy	260 ± 17	830 ± 30	1,090	0.24	Blackish brown	faint earth	Loamy	270 ± 17	850 ± 29	1,120	0.17			
		2015/2/10	Sunny	4.2	Dark brown	faint earth	Loamy	360 ± 23	1,300 ± 45	1,660	0.20	Dim yellowish brown	faint earth	Loamy	270 ± 20	840 ± 35	1,110	0.15			



# Tochigi River (Surrounding Environment) 4/6

Location					Sampling Date	Weather	Air temperature (°C)	Surrounding Environment (Soil, Air dose)																Remarks		
No.	Water area		Location	Municipality				Left bank				Right bank				Air Dose (μSv/h)										
								Activity concentration [Bq/kg(dry)]			Activity concentration [Bq/kg(dry)]			Radioactive cesium			Radioactive cesium									
								Color	Odor	Property	Cs-134	Cs-137	Total	Air Dose (μSv/h)	Color		Odor	Property	Cs-134	Cs-137	Total					
R i v e r s	29	Itaana River	Tributary		2014/5/23	Sunny	19.3	Blackish brown	faint earth	Loamy	540 ± 27	1,600 ± 46	2,140	0.22	Dark brown	faint earth	Loamy	280 ± 16	750 ± 27	1,030	0.19					
					2014/6/16	Sunny	26.2	Blackish brown	faint earth	Loamy	450 ± 25	1,200 ± 42	1,650	0.24	Blackish brown	faint earth	Loamy	340 ± 21	880 ± 36	1,220	0.19					
					2014/7/8	Sunny	25.1	Blackish brown	faint earth	Loamy	510 ± 27	1,400 ± 45	1,910	0.22	Dark brown	faint earth	Loamy	240 ± 18	730 ± 30	970	0.20					
					2014/8/4	Sunny	23.5	Dark brown	faint earth	Loamy	220 ± 15	670 ± 26	890	0.11	Extremely dark brown	faint earth	Loamy	420 ± 22	1,200 ± 37	1,620	0.10					
					2014/9/9	Sunny	25.2	Blackish brown	faint earth	Loamy	640 ± 34	1,900 ± 59	2,540	0.22	Dark brown	faint earth	Loamy	460 ± 25	1,400 ± 45	1,860	0.21					
					2014/11/17	Cloudy	7.0	Blackish brown	faint earth	Loamy	230 ± 18	750 ± 32	980	0.22	Dark brown	faint earth	Loamy	400 ± 21	1,300 ± 38	1,700	0.22					
					2015/2/10	Sunny	2.0	Dark brown	faint earth	Loamy	410 ± 23	1,500 ± 46	1,910	0.22	Dark brown	faint earth	Loamy	560 ± 28	1,900 ± 53	2,460	0.20					
					30	Yukawa River	Tributary		2014/5/30	Sunny	21.0	Dark brown	faint earth	Loamy	34 ± 3.7	98 ± 6.1	132	0.06	-	-	-	-	-	-	-	High bank/Unable to collect samples due to primary road limit
									2014/8/7	Sunny	24.8	Blackish brown	faint earth	Loamy	14 ± 2.5	52 ± 4.3	66	0.09	-	-	-	-	-	-	-	High bank/Unable to collect samples due to primary road limit
									2014/11/14	Sunny	2.8	Dark brown	faint earth	Loamy	<5.6 ± 1.9	28 ± 3.3	28	0.08	-	-	-	-	-	-	-	High bank/Unable to collect samples due to primary road limit
									2015/2/13	Sunny	-5.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					31	Daiya River	Shinkyo Bridge	Nikko City	2014/5/27	Sunny	22.3	Black	faint earth	Loamy	340 ± 23	750 ± 35	1,090	0.11	Blackish brown	faint earth	Loamy	410 ± 24	1,200 ± 41	1,610	0.07	
									2014/8/21	Cloudy	24.0	Blackish brown	faint earth	Loamy	350 ± 24	1,000 ± 41	1,350	0.12	Extremely dark reddish brown	faint earth	Loamy	860 ± 40	2,600 ± 70	3,460	0.13	
									2014/11/14	Sunny	7.8	Blackish brown	faint earth	Loamy	140 ± 17	490 ± 31	630	0.15	Dark reddish brown	faint earth	Loamy	260 ± 21	790 ± 37	1,050	0.15	
					32	Shidobuchi River	Sujichigai Bridge		2015/2/12	Cloudy	4.2	Black	faint earth	Loamy	320 ± 24	900 ± 42	1,220	0.16	Blackish brown	faint earth	Loamy	280 ± 23	1,000 ± 43	1,280	0.10	
									2014/6/5	Light rain	18.7	Faint hydrogen sulfide	faint earth	Loamy	87 ± 9.8	210 ± 15	297	0.11	Blackish brown	faint earth	Loamy	26 ± 6.1	94 ± 10	120	0.14	
									2014/8/21	Cloudy	27.0	Blackish brown	faint earth	Loamy	620 ± 30	2,100 ± 56	2,720	0.14	Blackish brown	faint earth	Loamy	1,200 ± 43	3,400 ± 74	4,600	0.16	
					33	Kinugawa River System	Daiya River	Kaishin Bridge (Harigai)	Nikko City	2014/11/14	Sunny	7.2	Blackish brown	faint earth	Loamy	150 ± 15	630 ± 29	780	0.16	Blackish brown	faint earth	Loamy	280 ± 20	910 ± 35	1,190	0.18
										2015/2/12	Cloudy	4.6	Blackish brown	faint earth	Loamy	290 ± 21	1,000 ± 39	1,290	0.15	Blackish brown	faint earth	Loamy	180 ± 16	580 ± 29	760	0.13
										2014/6/4	Sunny	27.0	Blackish brown	faint earth	Loamy	260 ± 18	670 ± 30	930	0.20	Dark brown	faint earth	Loamy	8.7 ± 2.4	25 ± 3.5	33.7	0.08
										2014/6/26	Sunny	26.5	Blackish brown	faint earth	Loamy	470 ± 26	1,400 ± 46	1,870	0.17	Blackish brown	faint earth	Loamy	<4.3 ± 1.3	11 ± 1.8	11	0.15
	2014/7/23	Cloudy	30.1	Blackish brown						faint earth	Loamy	310 ± 19	910 ± 33	1,220	0.18	Blackish brown	faint earth	Loamy	<4.8 ± 1.3	14 ± 2.0	14	0.08				
	2014/8/19	Sunny	31.5	Blackish brown						faint earth	Loamy	480 ± 21	1,500 ± 37	1,980	0.14	Blackish brown	faint earth	Loamy	<5.8 ± 1.8	14 ± 2.5	14	0.06				
	2014/9/10	Sunny	23.3	Blackish brown						faint earth	Loamy	450 ± 24	1,400 ± 43	1,850	0.17	Dark reddish brown	faint earth	Loamy	<5.6 ± 1.7	11 ± 2.4	11	0.08				
	2014/11/17	Cloudy	9.2	Dark brown						faint earth	Loamy	200 ± 17	660 ± 30	860	0.19	Blackish brown	faint earth	Sandy	<4.2 ± 1.3	12 ± 1.9	12	0.08				
	2015/2/10	Cloudy	8.2	Blackish brown						faint earth	Loamy	340 ± 23	1,000 ± 38	1,340	0.16	Blackish brown	faint earth	Sandy	<6.4 ± 1.9	18 ± 2.7	18	0.09				
	34	Kinugawa River	Sanuki	Shioya Town						2014/6/4	Sunny	27.0	Dark brown	faint earth	Loamy	250 ± 17	660 ± 27	910	0.19	Brown	faint earth	Loamy	500 ± 25	1,300 ± 40	1,800	0.16
					2014/6/26	Sunny	20.0	Extremely dark reddish brown	faint earth	Loamy	160 ± 14	500 ± 23	660	0.15	Blackish brown	faint earth	Loamy	240 ± 18	650 ± 30	890	0.16					
					2014/7/23	Cloudy	26.3	Dark brown	faint earth	Loamy	130 ± 11	300 ± 17	430	0.08	Dark brown	Faint grass	Loamy	330 ± 17	1,100 ± 30	1,430	0.10					
					2014/8/19	Sunny	33.5	Brown	faint earth	Loamy	60 ± 7.3	180 ± 13	240	0.14	Brown	faint earth	Loamy	720 ± 27	2,200 ± 49	2,920	0.15					
					2014/9/10	Cloudy	23.5	Extremely dark brown	faint earth	Loamy	120 ± 13	430 ± 23	550	0.14	Dark brown	faint earth	Loamy	350 ± 19	1,100 ± 33	1,450	0.16					
	35	Nishi-Kinugawa River	Nishi-Kinugawa Bridge	Utsunomiya City	2014/11/17	Cloudy	10.2	Dark brown	faint earth	Loamy	140 ± 12	400 ± 22	540	0.15	Dim yellowish brown	faint earth	Loamy	310 ± 18	1,000 ± 33	1,310	0.19					
					2015/2/10	Sunny	5.0	Dark brown	faint earth	Loamy	210 ± 15	670 ± 27	880	0.14	Dark brown	faint earth	Loamy	390 ± 20	1,200 ± 37	1,590	0.17					
					2014/6/4	Sunny	23.8	Grayish olive	faint earth	Loamy	110 ± 11	300 ± 19	410	0.08	Dim yellowish orange	faint earth	Loamy	200 ± 17	620 ± 29	820	0.07					
					2014/8/22	Cloudy	31.3	Blackish brown	faint earth	Loamy	33 ± 6.4	100 ± 9.8	133	0.07	Blackish brown	faint earth	Loamy	84 ± 8.2	240 ± 14	324	0.08					
					2014/11/18	Sunny	11.8	Dark brown	faint earth	Loamy	41 ± 8.3	200 ± 16	241	0.08	Olive brown	faint earth	Loamy	67 ± 9.3	200 ± 16	267	0.08					
	36	Kinugawa River	Kinugawa Bridge (Hohakujji Temple)		2015/2/17	Cloudy	5.5	Dark brown	faint earth	Loamy	35 ± 5.4	120 ± 11	155	0.07	Blackish brown	faint earth	Loamy	28 ± 5.4	110 ± 9.9	138	0.07					
					2014/6/19	Sunny	26.1	Blackish brown	None	Loamy	22 ± 3.9	81 ± 7.2	103	0.08	Dim yellowish brown	faint earth	Loamy	98 ± 8.2	280 ± 14	378	0.09					
					2014/8/22	Sunny	30.0	Dim yellowish orange	faint earth	Loamy	<8.4 ± 2.6	22 ± 4.2	22	0.09	Olive black	faint earth	Loamy	49 ± 5.9	150 ± 10	199	0.09					
					2014/11/18	Sunny	11.0	Dark brown	faint earth	Loamy	38 ± 7.7	140 ± 13	178	0.08	Dark brown	faint earth	Loamy	140 ± 14	490 ± 26	630	0.09					
					2015/2/17	Cloudy	2.3	Dim yellowish orange	faint earth	Sandy	<9.1 ± 2.3	9.7 ± 2.9	9.7	0.09	Dark grayish yellow	faint earth	Loamy	86 ± 9.0	300 ± 15	386	0.12					
	37	Daidoizumi Bridge		Mooka City	2014/6/19	Sunny	27.7	Brown	None	Loamy	28 ± 6.6	110 ± 11	138	0.08	Olive black	faint earth	Loamy	<9.2 ± 2.4	<9.6 ± 2.8	-	0.07					
2014/8/23					Cloudy	29.0	Dark brown	faint earth	Loamy	34 ± 7.6	120 ± 12	154	0.08	Dark brown	faint earth	Loamy	<8.2 ± 2.4	11 ± 2.2	11	0.06						
2014/11/20					Cloudy	8.0	Dark grayish yellow	faint earth	Loamy	35 ± 8.8	130 ± 14	165	0.09	Dark grayish yellow	faint earth	Loamy	<7.1 ± 2.0	7.8 ± 2.0	7.8	0.09						
					2015/2/19	Sunny	7.7	Blackish brown	faint earth	Loamy	16 ± 4.5	71 ± 8.3	87	0.09	Dark brown	faint earth	Loamy	<4.2 ± 1.3	10 ± 1.8	10	0.07					

# Tochigi River (Surrounding Environment) 5/6

No.	Location				Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air dose)																Remarks					
	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)									
										Cs-134	Cs-137	Total					Cs-134	Radioactive cesium	Cs-137		Total								
R i v e r s	Kinugawa River System	Egawa River	Tributary	Shimotsuke City	2014/5/20	Sunny	27.8	Blackish brown	faint earth	Loamy	28 ± 5.0	8.0 ± 8.2	108	0.07	Dark brown	faint earth	Loamy	23 ± 5.4	7.2 ± 7.9	95	0.08								
					2014/6/17	Sunny	28.2	Dark brown	faint earth	Loamy	49 ± 7.5	15.0 ± 12	199	0.08	Dim yellowish brown	faint earth	Loamy	23 ± 2.9	6.1 ± 4.5	84	0.08								
					2014/7/9	Cloudy	28.1	Blackish brown	faint earth	Loamy	160 ± 15	530 ± 26	690	0.07	Dark brown	None	Loamy	24 ± 2.8	7.3 ± 4.3	97	0.08								
					2014/8/4	Sunny	34.0	Dark brown	None	Loamy	120 ± 11	390 ± 18	510	0.06	Grayish brown	faint earth	Loamy	38 ± 6.1	11.0 ± 10	148	0.06								
					2014/9/12	Sunny	25.8	Blackish brown	faint earth	Loamy	63 ± 8.2	240 ± 15	303	0.07	Dark brown	faint earth	Loamy	31 ± 6.3	11.0 ± 10	141	0.07								
					2014/11/20	Cloudy	6.2	Dark brown	faint earth	Loamy	27 ± 2.7	93 ± 4.7	120	0.09	Dim yellowish brown	faint earth	Loamy	21 ± 5.9	9.8 ± 11	119	0.07								
					2015/2/19	Sunny	7.0	Blackish brown	faint earth	Loamy	35 ± 3.1	150 ± 6.0	185	0.08	Dark brown	faint earth	Loamy	63 ± 9.3	23.0 ± 17	293	0.07								
					39	Akabori River	Nikko City Hall, front	Nikko City	2014/5/23	Sunny	18.6	-	-	-	-	-	-	-	-	Blackish brown	faint earth	Sandy	220 ± 20	630 ± 33	850	0.08	Left bank Unable to collect samples due to previously removed land		
									2014/8/21	Sunny	24.0	-	-	-	-	-	-	-	-	-	Blackish brown	faint earth	Loamy	270 ± 21	880 ± 38	1,150	0.10	Left bank Unable to collect samples due to previously removed land	
									2014/11/14	Sunny	8.2	-	-	-	-	-	-	-	-	-	-	Blackish brown	faint earth	Loamy	150 ± 17	400 ± 27	550	0.09	Left bank Unable to collect samples due to previously removed land
									2015/2/13	Sunny	1.5	-	-	-	-	-	-	-	-	-	-	Blackish brown	faint earth	Loamy	190 ± 18	740 ± 33	930	0.13	Left bank Unable to collect samples due to previously removed land
					40	Kiwadajima			2014/5/23	Cloudy	16.2	Blackish brown	faint earth	Loamy	110 ± 11	330 ± 18	440	0.10	Blackish brown	faint earth	Loamy	220 ± 21	640 ± 34	860	0.10				
									2014/8/22	Cloudy	28.0	Black	Loamy	270 ± 15	820 ± 25	1,090	0.10	Faint hydrogen sulfide	faint earth	Loamy	220 ± 18	700 ± 32	920	0.09					
									2014/11/17	Sunny	11.0	Blackish brown	faint earth	Loamy	310 ± 22	980 ± 39	1,290	0.10	Blackish brown	faint earth	Loamy	130 ± 13	350 ± 22	480	0.10				
									2015/2/13	Cloudy	4.2	Dark brown	faint earth	Loamy	72 ± 8.6	270 ± 16	342	0.10	Dark brown	faint earth	Loamy	180 ± 15	610 ± 27	790	0.10				
					41	Tagawa River	Ozobashi Bridge	Utsunomiya City	2014/5/13	Sunny	25.2	Blackish brown	None	Loamy	120 ± 13	400 ± 22	520	0.07	Blackish brown	None	Loamy	28 ± 3.5	75 ± 5.3	103	0.08				
									2014/6/13	Sunny	21.9	Black	faint earth	Loamy	130 ± 11	360 ± 19	490	0.06	Blackish brown	faint earth	Loamy	53 ± 9.3	160 ± 15	213	0.05				
									2014/7/9	Cloudy	21.7	Blackish brown	faint earth	Loamy	52 ± 9.3	190 ± 16	242	0.07	Blackish brown	faint earth	Loamy	180 ± 18	590 ± 31	770	0.08				
									2014/8/29	Cloudy	23.0	Blackish brown	faint earth	Loamy	64 ± 8.6	230 ± 14	294	0.06	Blackish brown	faint earth	Loamy	120 ± 12	300 ± 18	420	0.09				
									2014/9/24	Cloudy	24.5	Blackish brown	faint earth	Loamy	81 ± 8.8	230 ± 15	311	0.07	Evenly rich organic brown	faint earth	Loamy	89 ± 11	260 ± 18	349	0.07				
									2014/11/18	Cloudy	12.0	Blackish brown	faint earth	Loamy	41 ± 7.6	140 ± 13	181	0.08	Blackish brown	faint earth	Loamy	220 ± 17	690 ± 31	910	0.08				
									2015/2/17	Cloudy	6.0	Blackish brown	faint earth	Loamy	88 ± 9.9	330 ± 17	418	0.06	Dark brown	faint earth	Loamy	46 ± 8.1	190 ± 15	236	0.08				
									2015/5/16	Sunny	21.8	Dark brown	faint earth	Loamy	68 ± 10	200 ± 17	268	0.08	Blackish brown	faint earth	Loamy	170 ± 21	590 ± 35	760	0.07				
					42	Kanagawa River	Tsukushi Bridge		2014/8/22	Cloudy	30.8	Dark brown	faint earth	Loamy	46 ± 7.5	150 ± 13	196	0.09	Blackish brown	faint earth	Loamy	260 ± 19	820 ± 32	1,080	0.09				
									2014/11/18	Sunny	12.5	Dark brown	faint earth	Loamy	39 ± 4.7	110 ± 7.4	149	0.08	Blackish brown	faint earth	Loamy	230 ± 23	640 ± 37	870	0.10				
									2015/2/17	Cloudy	5.5	Dark brown	faint earth	Loamy	61 ± 8.7	160 ± 14	221	0.08	Blackish brown	faint earth	Loamy	250 ± 20	870 ± 36	1,120	0.10				
									2014/5/16	Sunny	24.3	Dim yellowish brown	faint earth	Loamy	52 ± 8.3	130 ± 12	182	0.07	Olive black	faint earth	Loamy	28 ± 5.7	65 ± 8.5	93	0.07				
					43	Tagawa River	Meiji Bridge	Kaminokawa Town	2014/8/23	Cloudy	30.0	Brownish gray	faint earth	Loamy	75 ± 7.9	210 ± 13	285	0.07	Dim yellowish brown	faint earth	Loamy	96 ± 9.0	250 ± 14	346	0.06				
									2014/11/20	Cloudy	4.7	Grayish olive	faint earth	Loamy	77 ± 11	260 ± 19	337	0.07	Dim yellowish brown	faint earth	Loamy	26 ± 7.1	100 ± 12	126	0.06				
									2015/2/13	Sunny	5.0	Dark grayish yellow	faint earth	Loamy	33 ± 5.3	90 ± 8.4	123	0.07	Dark brown	faint earth	Loamy	35 ± 5.5	110 ± 9.7	145	0.07				
									2014/5/16	Sunny	24.5	Olive black	faint earth	Loamy	23 ± 5.3	49 ± 8.0	72	0.06	Brown	faint earth	Loamy	25 ± 5.0	69 ± 8.8	94	0.07				
					44	Yanabashi Bridge	Oyama City	2014/8/23	Sunny	32.2	Dark brown	faint earth	Loamy	38 ± 7.4	170 ± 13	208	0.06	Dim yellowish brown	faint earth	Loamy	45 ± 6.0	110 ± 9.1	155	0.06					
								2014/11/20	Cloudy	11.0	Blackish brown	faint earth	Clay-loamy	12 ± 2.7	47 ± 4.1	59	0.06	Blackish brown	faint earth	Loamy	18 ± 5.6	76 ± 10	94	0.07					
								2015/2/19	Sunny	11.8	Blackish brown	faint earth	Loamy	28 ± 5.8	89 ± 12	117	0.07	Blackish brown	faint earth	Loamy	28 ± 3.2	93 ± 5.5	121	0.07					
								2014/5/15	Light rain	20.5	Dim yellowish brown	faint earth	Loamy	51 ± 5.8	110 ± 9.1	161	0.08	Blackish brown	faint earth	Loamy	23 ± 3.1	60 ± 5.1	83	0.07					
					45	Kurokawa River	Kaijima Bridge	Kanuma City	2014/8/9	Cloudy	26.5	Dark olive brown	faint earth	Loamy	34 ± 7.0	120 ± 11	154	0.09	Dim yellowish brown	faint earth	Loamy	85 ± 12	280 ± 20	365	0.07				
									2014/11/19	Sunny	10.5	Dark brown	faint earth	Loamy	30 ± 6.3	79 ± 9.0	109	0.09	Dark brown	faint earth	Loamy	18 ± 3.7	68 ± 5.7	86	0.08				
									2015/2/20	Cloudy	6.1	Dark brown	faint earth	Loamy	25 ± 5.9	72 ± 9.2	97	0.09	Dark brown	faint earth	Loamy	51 ± 11	240 ± 21	291	0.09				
									2014/6/3	Sunny	22.9	Blackish brown	faint earth	Loamy	29 ± 9.1	82 ± 12	111	0.09	Dim yellowish orange	faint earth	Loamy	21 ± 3.3	75 ± 5.4	96	0.11				
					46	Onari Bridge	Mibu Town	2014/8/25	Cloudy	24.3	Dark brown	faint earth	Loamy	78 ± 11	270 ± 19	348	0.07	Dim yellowish brown	faint earth	Loamy	91 ± 11	290 ± 19	381	0.09					
								2014/11/21	Sunny	9.0	Dark brown	faint earth	Loamy	64 ± 13	330 ± 25	394	0.07	Dark brown	faint earth	Loamy	97 ± 13	250 ± 21	347	0.09					
								2015/2/19	Sunny	9.0	Blackish brown	faint earth	Loamy	75 ± 13	270 ± 21	345	0.08	Blackish brown	faint earth	Loamy	35 ± 10	200 ± 19	235	0.10					
								2014/5/15	Sunny	25.5	Dark brown	faint earth	Loamy	23 ± 3.1	65 ± 5.0	88	0.08	Grayish olive	faint earth	Loamy	60 ± 8.1	140 ± 12	200	0.09					
					47	Oushi River	Akaishi Bridge	Kanuma City	2014/8/9	Cloudy	26.2	Dark brown	faint earth	Loamy	60 ± 9.2	160 ± 14	220	0.08	Dim yellowish orange	faint earth	Loamy	120 ± 10	350 ± 17	470	0.07				
									2014/11/19	Sunny	11.0	Dark brown	faint earth	Loamy	30 ± 8.1	120 ± 13	150	0.12	Dark brown	faint earth	Loamy	49 ± 7.3	170 ± 13	219	0.12				
									2015/2/20	Cloudy	6.3	Brown	faint earth	Loamy	51 ± 9.1	200 ± 18	251	0.12	Dark grayish yellow	faint earth	Loamy	53 ± 7.9	170 ± 14	223	0.08				
									2014/5/15	Cloudy	22.0	Blackish brown	faint earth	Loamy	54 ± 8.4	150 ± 13	204	0.08	Blackish brown	faint earth	Loamy	33 ± 7.6	97 ± 11	130	0.08				
					48	Koyabu River	Koyabu Bridge	2014/8/9	Cloudy	26.5	Dark brown	faint earth	Loamy	86 ± 11	280 ± 18	366	0.08	Dark brown	faint earth	Loamy	59 ± 8.1	160 ± 13	219	0.07					
2014/11/19	Sunny	11.2	Dark grayish yellow	faint earth				Loamy	31 ± 7.0	130 ± 13	161	0.09	Dark brown	faint earth	Loamy	30 ± 6.7	69 ± 10	99	0.10										
2015/2/20	Cloudy	6.0	Blackish brown	faint earth				Loamy	21 ± 3.2	85 ± 6.0	106	0.08	Blackish brown	faint earth	Loamy	42 ± 8.1	180 ± 16	222	0.09										

# Tochigi River (Surrounding Environment) 6/6

No.	Location				Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air dose)														Remarks
	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		Total					Radioactive cesium		Total			
Cs-134		Cs-137		Total	Cs-134		Cs-137		Total													
49	Omoi River	Omoi River	Tamosu Bridge	Tochigi City	2014/6/3	Sunny	25.1	Blackish brown	faint earth	Loamy	29 ± 3.1	74 ± 5.0	103	0.07	Grayish olive	faint earth	Loamy	150 ± 15	410 ± 23	560	0.06	
					2014/8/9	Cloudy	25.8	Blackish brown	faint earth	Loamy	37 ± 6.6	100 ± 10	137	0.09	Grayish olive	faint earth	Loamy	120 ± 10	330 ± 18	450	0.09	
50	Omoi River	Omoi River	Otome-ohashi Bridge	Oyama City	2014/1/21	Sunny	10.8	Dark brown	faint earth	Loamy	32 ± 7.0	78 ± 9.4	110	0.08	Dark brown	faint earth	Loamy	72 ± 10	220 ± 17	292	0.09	
					2015/2/19	Sunny	9.8	Blackish brown	faint earth	Loamy	33 ± 7.8	130 ± 13	163	0.08	Dark brown	faint earth	Loamy	22 ± 2.5	87 ± 4.6	109	0.08	
					2014/5/20	Sunny	29.5	Brown	faint earth	Loamy	68 ± 10	220 ± 17	288	0.10	Brown	faint earth	Loamy	68 ± 9.7	190 ± 16	258	0.07	
					2014/6/17	Sunny	24.1	Dark brown	faint earth	Loamy	130 ± 15	470 ± 27	600	0.11	Dark reddish brown	faint earth	Loamy	68 ± 9.2	210 ± 17	278	0.08	
					2014/7/9	Cloudy	27.7	Dark brown	faint earth	Loamy	69 ± 11	230 ± 19	299	0.10	Extremely dark brown	None	Loamy	25 ± 6.2	93 ± 9.8	118	0.09	
					2014/8/25	Cloudy	26.3	Olive black	faint earth	Loamy	90 ± 10	320 ± 19	410	0.10	Dim yellowish brown	faint earth	Loamy	79 ± 8.3	180 ± 13	259	0.08	
					2014/9/24	Sunny	23.6	Dark grayish yellow	faint earth	Loamy	140 ± 14	350 ± 22	490	0.09	Dim yellowish brown	faint earth	Loamy	36 ± 7.5	110 ± 11	146	0.08	
					2014/11/21	Sunny	12.5	Dark brown	faint earth	Loamy	19 ± 6.3	78 ± 9.9	97	0.10	Dark brown	faint earth	Loamy	33 ± 3.5	100 ± 6.0	133	0.10	
					2015/2/19	Sunny	8.0	Blackish brown	faint earth	Loamy	100 ± 13	330 ± 22	430	0.10	Dark brown	faint earth	Loamy	44 ± 8.6	200 ± 16	244	0.08	
					51	Utsun River Area	Uzuma River	Uzuma Bridge	Tochigi City	2014/5/26	Cloudy	21.5	Dark brown	faint earth	Loamy	43 ± 7.4	110 ± 12	153	0.08	Dark brown	faint earth	Loamy
2014/6/17	Sunny	24.8	Brown	faint earth						Loamy	38 ± 8.9	110 ± 13	148	0.08	Brown	faint earth	Loamy	35 ± 8.0	110 ± 12	145	0.07	
2014/7/9	Light rain	25.1	Brown	None						Loamy	34 ± 10	140 ± 17	174	0.07	Brown	faint earth	Loamy	28 ± 3.5	92 ± 5.6	120	0.06	
2014/8/8	Cloudy	29.2	Dark brown	faint earth						Loamy	100 ± 12	300 ± 19	400	0.09	Dark brown	faint earth	Loamy	92 ± 10	260 ± 17	352	0.07	
2014/9/12	Sunny	23.5	Dark brown	faint earth						Loamy	110 ± 11	290 ± 19	400	0.08	Dark brown	faint earth	Loamy	35 ± 7.5	110 ± 11	145	0.07	
2014/11/21	Sunny	11.5	Dark brown	faint earth						Loamy	34 ± 7.1	90 ± 10	124	0.10	Dim yellowish brown	faint earth	Loamy	32 ± 6.0	110 ± 10	142	0.07	
2015/2/19	Sunny	10.8	Dark brown	faint earth						Loamy	53 ± 11	170 ± 17	223	0.09	Brown	faint earth	Loamy	30 ± 3.3	110 ± 5.8	140	0.06	
2014/5/30	Sunny	19.7	Dark grayish yellow	faint earth						Sandy	7.3 ± 1.8	24 ± 3.1	31.3	0.16	Grayish olive	faint earth	Sandy	13 ± 2.7	46 ± 3.9	59	0.17	
2014/6/25	Cloudy	25.3	Olive brown	Faint grass						Sandy	34 ± 6.5	72 ± 8.6	106	0.19	Olive black	None	Sandy	16 ± 4.2	37 ± 6.4	53	0.18	
2014/7/23	Sunny	29.4	Dim yellowish orange	faint earth						Sandy	62 ± 7.9	210 ± 14	272	0.18	Olive black	faint earth	Sandy	15 ± 2.3	40 ± 3.6	55	0.18	
52	Tonogawa River System	Watarase River Area	Watarase River intake weir at Sori Power Station	Nikko City	2014/8/19	Sunny	29.9	Grayish olive	None	Sandy	92 ± 9.6	270 ± 15	362	0.15	Olive brown	None	Sandy	31 ± 5.0	80 ± 8.1	111	0.15	
					2014/9/10	Cloudy	21.5	Grayish olive	None	Sandy	9.2 ± 2.1	34 ± 3.4	43.2	0.16	Grayish olive	None	Sandy	15 ± 2.1	40 ± 3.2	55	0.17	
					2014/11/19	Sunny	3.5	Grayish olive	faint earth	Sandy	7.8 ± 1.8	17 ± 2.4	24.8	0.16	Olive brown	faint earth	Loamy	12 ± 3.5	31 ± 6.5	43	0.12	
					2015/2/12	Sunny	3.2	Dark brown	faint earth	Loamy	35 ± 7.2	130 ± 12	165	0.17	Grayish olive	None	Sandy	11 ± 1.9	33 ± 2.9	44	0.18	
					2014/5/20	Sunny	28.2	Dark brown	faint earth	Loamy	66 ± 10	160 ± 15	226	0.07	Dark reddish brown	faint earth	Loamy	10 ± 2.8	36 ± 3.9	46	0.09	
					2014/8/29	Cloudy	23.3	Dark brown	faint earth	Loamy	97 ± 12	300 ± 20	397	0.06	Blackish brown	faint earth	Loamy	150 ± 13	400 ± 21	550	0.09	
					2014/11/29	Cloudy	11.0	Dark brown	faint earth	Loamy	27 ± 3.9	110 ± 6.9	137	0.06	Dark brown	faint earth	Loamy	62 ± 7.7	150 ± 12	212	0.09	
					2015/2/2	Sunny	7.0	Dark brown	faint earth	Loamy	45 ± 8.9	170 ± 16	215	0.07	Dim yellowish brown	faint earth	Loamy	64 ± 12	250 ± 20	314	0.08	
					2014/6/3	Sunny	27.7	Brown	faint earth	Loamy	27 ± 8.9	88 ± 14	115	0.07	Brown	faint earth	Loamy	12 ± 2.6	43 ± 4.3	55	0.07	
					2014/8/29	Cloudy	23.0	Faint fish	faint earth	Loamy	13 ± 3.9	56 ± 6.0	69	0.06	Dark reddish brown	faint earth	Loamy	24 ± 5.3	69 ± 8.3	93	0.08	
53	Watarase River Area	Watarase River	Hajika Bridge	Ashikaga City	2014/11/29	Cloudy	12.2	Brown	faint earth	Loamy	57 ± 8.7	140 ± 13	197	0.07	Dark brown	faint earth	Loamy	22 ± 5.2	82 ± 8.8	104	0.08	
					2015/2/2	Sunny	6.8	Brown	faint earth	Loamy	47 ± 11	160 ± 19	207	0.06	Dark brown	faint earth	Loamy	28 ± 7.4	140 ± 13	168	0.07	
					2014/6/3	Sunny	27.5	Olive black	faint earth	Loamy	74 ± 10	220 ± 16	294	0.06	Olive black	faint earth	Loamy	12 ± 1.3	30 ± 1.7	42	0.09	
					2014/8/29	Cloudy	24.2	Blackish brown	faint earth	Loamy	24 ± 5.1	75 ± 8.7	99	0.08	Blackish brown	faint earth	Loamy	27 ± 6.1	74 ± 8.4	101	0.08	
					2014/11/29	Sunny	14.0	Dark brown	faint earth	Loamy	9.6 ± 2.4	25 ± 3.1	34.6	0.09	Blackish brown	faint earth	Loamy	35 ± 3.7	100 ± 6.0	135	0.09	
					2015/2/3	Sunny	9.8	Blackish brown	faint earth	Loamy	54 ± 9.0	170 ± 15	224	0.08	Blackish brown	faint earth	Loamy	31 ± 7.4	100 ± 12	131	0.08	
					2014/6/4	Cloudy	25.3	Dim yellowish brown	faint earth	Loamy	48 ± 4.5	120 ± 6.9	168	0.07	Dark brown	faint earth	Loamy	71 ± 9.6	190 ± 14	261	0.09	
					2014/6/26	Sunny	23.5	Blackish brown	faint earth	Loamy	27 ± 3.9	90 ± 6.2	117	0.06	Dark brown	faint earth	Loamy	46 ± 3.7	120 ± 5.8	166	0.08	
					2014/7/25	Sunny	31.2	Dark brown	faint earth	Loamy	12 ± 2.0	36 ± 3.3	48	0.06	Dark brown	None	Loamy	60 ± 9.8	200 ± 15	260	0.09	
					2014/8/20	Sunny	30.0	Grayish brown	faint earth	Loamy	66 ± 9.0	180 ± 13	246	0.07	Dark brown	faint earth	Loamy	84 ± 11	260 ± 19	344	0.06	
56	Watarase River Area	Watarase River	Shinkai Bridge	Tochigi City	2014/9/12	Sunny	20.8	Dark olive brown	faint earth	Loamy	19 ± 5.2	70 ± 8.3	89	0.07	Blackish brown	faint earth	Loamy	38 ± 7.9	190 ± 15	228	0.07	
					2014/12/3	Sunny	10.2	Dark brown	faint earth	Loamy	45 ± 8.1	140 ± 12	185	0.08	Blackish brown	faint earth	Loamy	53 ± 6.3	170 ± 12	223	0.08	
					2015/2/3	Sunny	9.8	Dim yellowish brown	faint earth	Loamy	35 ± 9.1	160 ± 15	195	0.08	Blackish brown	faint earth	Loamy	64 ± 9.5	200 ± 16	264	0.08	

# Tochigi Lakes and Reservoirs (Water) 1/2

L a k e s a n d R e s e r v o i 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	Secchi disk depth (m)	Electrical conductivity (µS/cm)	SS (mg/L)	Turbidity (FNU)	Radioactive cesium		
																		Cs-134		Cs-137
57	Nakagawa River System	Miyama Dam Reservoir	Center	Nasushiobara City	Surface layer	2014/5/29	Sunny	20.7	38.3	17.6	0.5	Grayish bluish green	None	4.2	7.8	1	0.6	<0.67 ± 0.14	<0.78 ± 0.17	
					Deep layer	-	-	-	-	-	-	-	8.2	1	0.5	<0.64 ± 0.12	<0.71 ± 0.12			
					Surface layer	2014/8/1	Cloudy	28.2	38.0	20.8	0.5	Grayish blue green	None	4.5	8.1	<1	0.3	<0.59 ± 0.12	<0.68 ± 0.14	
					Deep layer	-	-	-	-	-	-	-	8.4	<1	0.2	<0.62 ± 0.13	<0.59 ± 0.10			
					Surface layer	2014/10/16	Sunny	13.3	37.8	13.0	0.5	Light grayish yellow green	None	2.0	6.0	4	2.9	<0.65 ± 0.14	<0.52 ± 0.10	
					Deep layer	-	-	-	-	-	-	-	12.1	36.8	-	-	<1	1.3	<0.50 ± 0.11	<0.45 ± 0.091
		Surface layer	2014/12/8		Sunny	5.2	29.6	7.0	0.5	Dark grayish bluish green	None	3.5	5.9	<1	0.8	<0.58 ± 0.11	<0.71 ± 0.14			
		Deep layer	-		-	-	-	6.5	28.6	-	-	6.2	<1	0.9	<0.74 ± 0.16	<0.74 ± 0.14				
		Surface layer	2014/5/29		Cloudy	21.4	26.8	21.2	0.5	Dark grayish yellow green	None	4.4	14.7	<1	0.5	<0.67 ± 0.12	<0.82 ± 0.18			
		Deep layer	-		-	-	-	13.7	25.8	-	-	15.5	4	1.8	<0.58 ± 0.10	<0.66 ± 0.14				
		Surface layer	2014/8/1		Cloudy	29.5	20.0	23.1	0.5	Grayish yellowish green	None	2.5	14.7	2	0.4	<0.48 ± 0.094	<0.52 ± 0.10			
		Deep layer	-		-	-	-	18.0	19.0	-	-	13.9	6	1.2	<0.53 ± 0.11	<0.45 ± 0.13				
	Surface layer	2014/10/1	Cloudy	15.4	19.4	18.1	0.5	Dark grayish bluish green	None	2.5	15.1	1	1.6	<0.56 ± 0.12	<0.55 ± 0.11					
	Deep layer	-	-	-	-	17.0	18.4	-	-	14.8	3	3.0	<0.54 ± 0.12	<0.63 ± 0.14						
	Surface layer	2014/12/1	Cloudy	12.3	31.0	11.1	0.5	Light grayish yellowish green	None	3.7	6.8	<1	0.8	<0.57 ± 0.11	<0.52 ± 0.13					
	Deep layer	-	-	-	-	10.5	30.0	-	-	7.5	1	1.3	<0.65 ± 0.14	<0.58 ± 0.11						
	59	Kingagawa River System	Kawaji Dam Reservoir	Center	Nikko City	Surface layer	2014/5/30	Sunny	22.5	75.5	17.8	0.5	Grayish yellowish green	None	4.5	4.0	1	0.7	<0.51 ± 0.13	<0.55 ± 0.10
						Deep layer	-	-	-	-	-	-	-	7.7	1	0.9	<0.65 ± 0.15	<0.66 ± 0.15		
						Surface layer	2014/8/4	Sunny	30.0	66.3	26.5	0.5	Dark grayish yellowish green	None	3.0	5.3	0.4	0.4	<0.57 ± 0.12	<0.65 ± 0.11
						Deep layer	-	-	-	-	-	-	-	8.5	2	2.2	<0.55 ± 0.10	<0.52 ± 0.12		
						Surface layer	2014/10/2	Cloudy	16.0	66.4	17.5	0.5	Grayish yellow green	None	1.7	6.0	2	2.7	<0.56 ± 0.14	<0.73 ± 0.14
						Deep layer	-	-	-	-	7.4	65.4	-	-	7.9	6	5.7	<0.51 ± 0.090	<0.68 ± 0.13	
			Surface layer	2014/12/2		Sunny	5.0	71.8	10.3	0.5	Light grayish yellowish green	None	4.2	5.2	<1	1.0	<0.58 ± 0.13	<0.41 ± 0.094		
			Deep layer	-		-	-	-	7.1	70.8	-	-	4.5	21	16	<0.55 ± 0.11	<0.55 ± 0.10			
Surface layer			2014/6/5	Cloudy		19.0	65.0	17.5	0.5	Dark grayish yellow green	None	5.5	5.1	1	0.5	<0.44 ± 0.11	<0.62 ± 0.12			
Deep layer			-	-		-	-	7.3	64.0	-	-	6.8	2	0.8	<0.54 ± 0.10	<0.65 ± 0.13				
Surface layer			2014/8/4	Sunny		31.5	47.1	25.5	0.5	Dark grayish yellow green	None	5.5	4.9	<1	0.3	<0.67 ± 0.14	<0.74 ± 0.15			
Deep layer			-	-		-	-	15.5	46.1	-	-	6.3	<1	0.6	<0.51 ± 0.10	<0.74 ± 0.13				
Surface layer		2014/10/2	Cloudy	16.0	57.6	17.7	0.5	Dark grayish greenish blue	None	3.8	5.9	<1	0.9	<0.64 ± 0.13	<0.56 ± 0.12					
Deep layer		-	-	-	-	8.7	56.6	-	-	8.0	4	4.3	<0.58 ± 0.15	<0.66 ± 0.17						
Surface layer		2014/12/2	Sunny	4.2	49.9	8.8	0.5	Dark grayish green	None	4.4	4.3	1	1.2	<0.59 ± 0.13	<0.55 ± 0.12					
Deep layer		-	-	-	-	8.5	48.9	-	-	4.6	1	1.1	<0.59 ± 0.13	<0.55 ± 0.14						
Surface layer		2014/5/27	Sunny	21.9	73.5	18.2	0.5	Greenish dark gray	None	6.2	10.9	<1	0.5	<0.52 ± 0.10	<0.58 ± 0.11					
Deep layer		-	-	-	-	8.5	72.5	-	-	11.7	<1	0.7	<0.60 ± 0.12	<0.58 ± 0.11						
Surface layer		2014/8/5	Sunny	27.5	68.0	25.8	0.5	Light grayish yellowish green	None	8.4	8.8	<1	0.2	<0.67 ± 0.13	<0.56 ± 0.12					
Deep layer		-	-	-	-	9.3	67.0	-	-	11.0	2	0.3	<0.73 ± 0.13	<0.71 ± 0.12						
Surface layer		2014/10/3	Sunny	22.8	67.0	19.1	0.5	Grayish yellow green	None	7.2	8.7	<1	0.5	<0.55 ± 0.10	<0.56 ± 0.14					
Deep layer		-	-	-	-	8.4	66.0	-	-	11.3	5	5.9	<0.51 ± 0.11	<0.56 ± 0.15						
Surface layer		2014/12/5	Cloudy	2.3	76.0	9.0	0.5	Dark grayish yellowish green	None	6.3	6.4	<1	0.5	<0.74 ± 0.15	<0.66 ± 0.16					
Deep layer		-	-	-	-	5.5	75.0	-	-	6.1	2	1.7	<0.52 ± 0.12	<0.50 ± 0.094						
Surface layer	2014/6/6	Light rain	11.3	12.8	17.5	0.5	Yellow greenish dark gray	None	2.3	15.3	1	0.7	<0.60 ± 0.12	<0.58 ± 0.090						
Deep layer	-	-	-	-	11.5	11.8	-	-	16.2	1	1.0	<0.47 ± 0.10	<0.52 ± 0.12							
Surface layer	2014/8/5	Sunny	28.2	12.2	21.4	0.5	Grayish yellow green	None	2.5	15.7	1	0.5	<0.64 ± 0.13	<0.66 ± 0.14						
Deep layer	-	-	-	-	13.4	11.2	-	-	18.4	1	0.7	<0.64 ± 0.15	<0.74 ± 0.14							
Surface layer	2014/10/6	Sunny	11.7	12.6	13.6	0.5	Dark grayish yellow green	None	2.7	14.6	2	2.3	<0.58 ± 0.10	<0.56 ± 0.11						
Deep layer	-	-	-	-	11.0	11.6	-	-	16.6	2	1.7	<0.58 ± 0.14	<0.66 ± 0.16							
Surface layer	2014/11/28	Sunny	7.2	12.5	7.1	0.5	Dark grayish yellow green	None	3.0	9.5	2	2.1	<0.59 ± 0.12	<0.59 ± 0.12						
Deep layer	-	-	-	-	6.4	11.5	-	-	9.9	2	2.5	<0.57 ± 0.12	<0.71 ± 0.14							

# Tochigi Lakes and Reservoirs (Water) 2/2

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 (nS/m)	SS (mg/L)	Turbidity (FNU)	Radioactive cesium			
																Cs-134	Cs-137		
63	Kinugawa River System	Lake Chuzenji	Center	Nikko City	Surface layer	2014/5/30	Sunny	19.2	162.0	12.8	0.5	Grayish bluish green	None	10.0	11.3	2	0.4	<0.55 ± 0.10	<0.52 ± 0.095
					Deep layer				8.0	161.0		None		11.5	3	0.4	<0.57 ± 0.11	<0.60 ± 0.12	
					Surface layer	2014/8/7	Sunny	27.0	162.4	23.3	0.5	Dark grayish greenish blue	None	8.5	10.3	<1	0.3	<0.50 ± 0.12	<0.50 ± 0.12
					Deep layer				8.9	161.4		None		11.7	<1	0.2	<0.69 ± 0.14	<0.62 ± 0.13	
					Surface layer	2014/10/8	Sunny	14.0	162.2	17.0	0.5	Dark grayish greenish blue	None	9.5	10.1	<1	0.2	<0.48 ± 0.10	<0.51 ± 0.12
					Deep layer				6.4	161.2		None		11.3	<1	1.0	<0.56 ± 0.11	<0.59 ± 0.12	
					Surface layer	2014/12/9	Sunny	1.2	167.5	6.8	0.5	Dark grayish bluish green	None	9.0	10.5	<1	0.8	<0.58 ± 0.10	<0.71 ± 0.16
					Deep layer				4.2	166.5		None		10.9	<1	0.3	<0.61 ± 0.13	<0.62 ± 0.13	
64	Watarase River System	Watarase Reservoir	Center	Tochigi City	Surface layer	2014/5/26	Cloudy	20.6	6.5	20.5	0.5	Grayish greenish yellow	None	0.7	19.3	4	1.9	<0.65 ± 0.12	<0.58 ± 0.15
					Deep layer				20.2	5.5		None		17.6	53	15	<0.55 ± 0.12	<0.73 ± 0.14	
					Surface layer	2014/8/8	Cloudy	29.7	2.4	30.2	0.5	Grayish greenish yellow	None	0.5	19.5	13	6.5	<0.66 ± 0.15	<0.55 ± 0.11
					Deep layer				29.9	1.4		None		19.5	15	4.0	<0.46 ± 0.098	<0.65 ± 0.11	
					Surface layer	2014/10/7	Sunny	21.0	3.9	21.5	0.5	Grayish greenish yellow	None	0.7	18.6	12	9.4	<0.55 ± 0.14	<0.62 ± 0.14
					Deep layer				21.3	2.9		None		18.9	12	9.2	<0.58 ± 0.11	<0.62 ± 0.14	
					Surface layer	2014/12/15	Sunny	3.6	6.7	8.1	0.5	Grayish yellow green	None	1.4	17.3	8	5.6	<0.60 ± 0.12	<0.45 ± 0.047
					Deep layer				8.0	5.7		None		17.7	7	5.4	<0.48 ± 0.087	<0.63 ± 0.14	

# Tochigi Lakes and Reservoirs (Sediment) 1/1

Location				Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Sediment														Sediment content (%)	Density (g/cm <sup>3</sup> )	Property	Activity concentration [Bq/kg(dry)]			Remarks
No.	Water area	Location	Municipality					Sediment temperature (°C)	Sample length (cm)	Color	Odor	Coarse gravel	Medium gravel	Fine gravel	Grain size distribution (%)				Silt	Clay	Radioactive cesium							
															Coarse sand	Medium sand	Fine sand	Clay			Cs-134				Cs-137	Total		
Lakes and Reservoirs	Nakagawa River System	Miyama Dam Reservoir	Center	Nasu-shiobara City	2014/5/29	Sunny	20.7	38.3	8.0	5	Faint hydrogen sulfide	None	0.0	0.4	0.0	0.2	0.1	0.2	43.3	55.9	36.6	2.523	Silt	83 ± 13	260 ± 20	343		
					2014/8/1	Cloudy	28.2	38.0	12.0	5	Dim yellowish brown	Faint drain	0.0	0.0	0.0	0.0	0.1	0.4	50.2	29.0	2.501	Silt	130 ± 16	430 ± 27	569			
					2014/10/16	Sunny	13.3	37.8	11.5	5	Olive brown	Faint drain	0.0	0.0	0.0	0.0	0.2	41.8	57.1	2.517	Silt	300 ± 25	930 ± 43	1,230				
		2014/12/8	Sunny	5.2	29.6	6.0	5	Yellowish brown	None	0.0	0.0	0.0	0.1	0.3	41.6	58.0	2.546	Silt	170 ± 16	570 ± 29	740							
		2014/5/29	Cloudy	21.4	26.8	14.2	5	Faint hydrogen sulfide	Dim yellow	0.0	0.0	0.0	0.0	0.1	2.9	71.0	24.1	42.8	2.495	Silt	230 ± 17	700 ± 30	930					
		2014/8/1	Cloudy	29.5	20.0	18.5	5	Grayish olive	Faint drain	0.0	0.0	0.0	0.1	0.3	3.5	67.1	29.0	37.1	2.460	Silt	260 ± 18	800 ± 31	1,069					
	58	Shiobara Dam Reservoir	Center	Nasu-shiobara City	2014/10/1	Cloudy	15.4	19.4	16.0	5	Faint hydrogen sulfide	Faint drain	0.0	0.0	0.0	0.1	1.2	63.0	35.7	28.2	2.505	Silt	250 ± 18	780 ± 31	1,030			
					2014/12/1	Cloudy	12.3	21.0	10.5	5	Grayish olive	None	0.0	0.0	0.0	0.1	0.1	64.7	55.1	39.7	2.489	Silt	280 ± 21	930 ± 37	1,210			
					2014/5/30	Sunny	22.5	75.5	7.5	10	Dark brown	None	0.0	0.3	0.0	0.1	0.3	1.6	34.7	62.9	41.4	2.515	Silt	420 ± 23	1,000 ± 38	1,420		
					2014/8/4	Sunny	30.0	66.3	13.0	10	Dark brown	None	0.0	0.0	0.0	0.1	0.1	0.5	59.3	40.1	43.7	2.439	Silt	67 ± 9.6	240 ± 16	307		
					2014/10/2	Cloudy	16.0	66.4	8.2	5	Grayish olive	Medium drain	0.0	0.0	0.0	0.0	0.0	0.1	36.6	63.3	29.2	2.489	Silt	75 ± 9.7	280 ± 18	355		
					2014/12/2	Sunny	5.0	71.8	7.0	7	Grayish olive	None	0.0	0.0	0.0	0.0	0.1	0.0	42.1	57.8	46.7	2.581	Silt	80 ± 9.8	250 ± 17	330		
60	Kawaji Dam Reservoir	Center	Nikko City	2014/6/5	Cloudy	19.0	65.0	7.5	10	Grayish olive	Faint drain	0.0	0.0	0.0	0.0	0.2	44.1	55.7	34.8	2.544	Silt	440 ± 27	1,300 ± 47	1,740				
				2014/8/4	Sunny	31.5	47.1	16.5	8	Dark olive brown	None	0.0	0.0	0.0	0.0	0.2	44.9	54.9	31.7	2.535	Silt	2,300 ± 55	6,500 ± 97	8,700				
				2014/10/2	Cloudy	16.0	57.6	7.7	10	Grayish olive	None	0.0	0.0	0.0	0.5	0.4	47.4	51.8	37.8	2.534	Silt	1,100 ± 25	3,400 ± 63	4,500				
				2014/12/2	Sunny	4.2	49.9	8.0	3	Faint hydrogen sulfide	Faint drain	0.0	0.3	0.0	0.0	0.0	0.0	46.0	53.6	34.5	2.532	Silt	490 ± 29	1,600 ± 51	2,090			
				2014/5/27	Sunny	21.9	73.5	8.5	10	Grayish olive	Faint drain	0.0	0.0	0.0	0.0	0.1	23.6	76.3	35.7	2.555	Silt	83 ± 9.0	210 ± 14	293				
				2014/8/5	Sunny	27.5	68.0	10.0	5	Grayish olive	Faint drain	0.0	0.0	0.0	0.1	0.1	14.5	85.3	33.9	2.534	Silt	94 ± 12	260 ± 20	354				
	61	Kawanata Dam Reservoir	Center	Nikko City	2014/10/3	Sunny	22.8	67.0	9.0	5	Olive brown	None	0.0	0.1	0.1	0.2	23.4	75.8	35.6	2.567	Silt	52 ± 8.8	180 ± 16	232				
					2014/12/5	Cloudy	2.3	76.0	5.8	3	Faint hydrogen sulfide	None	0.0	0.0	0.3	2.0	3.4	2.8	24.7	66.9	35.2	2.570	Silt	46 ± 9.0	150 ± 15	196		
					2014/6/6	Light rain	11.3	12.8	12.0	10	Black	Dim yellow	0.0	0.0	0.0	0.1	0.1	51.4	48.4	11.9	2.244	Silt	310 ± 48	960 ± 76	1,270			
					2014/8/5	Sunny	28.2	12.2	14.0	5	Faint hydrogen sulfide	Dim yellow	0.0	0.0	0.0	0.0	0.0	61.6	38.4	22.8	2.526	Silt	50 ± 12	200 ± 22	250			
					2014/10/6	Sunny	11.7	12.6	10.5	5	Faint hydrogen sulfide	Dim yellow	0.0	0.0	0.0	0.0	0.0	22.2	67.8	12.3	2.315	Silt	400 ± 42	1,100 ± 69	1,500			
					2014/11/28	Sunny	7.2	12.5	6.0	7	Black	Faint drain	0.0	0.0	0.0	0.0	0.0	46.6	53.4	15.4	2.355	Silt	79 ± 3.9	260 ± 6.4	339			
62	Lake Yuno	Center	Nikko City	2014/5/30	Sunny	19.2	162.0	8.2	10	Greenish black	Faint drain	0.0	0.0	0.0	0.1	0.1	0.6	27.7	71.5	12.6	2.130	Silt	230 ± 39	610 ± 60	840			
				2014/8/7	Sunny	27.0	162.4	9.0	5	Black	None	0.0	0.0	0.0	0.1	0.8	43.5	45.6	15.1	2.163	Silt	170 ± 27	470 ± 41	640				
				2014/10/8	Sunny	14.0	162.2	6.0	7	Black	Faint drain	0.0	0.0	0.0	0.0	0.3	42.0	47.7	12.7	2.132	Silt	110 ± 29	440 ± 45	550				
				2014/12/9	Sunny	1.2	167.5	3.5	5	Faint hydrogen sulfide	Faint drain	0.0	0.0	0.0	0.0	0.0	47.0	52.7	12.4	2.196	Silt	230 ± 32	780 ± 57	1,010				
				2014/5/26	Cloudy	20.6	6.5	20.5	5	Olive black	None	0.0	0.0	0.2	0.3	1.5	13.0	44.1	40.9	46.8	2.582	Silt	46 ± 6.6	100 ± 9.8	146			
				2014/8/8	Cloudy	29.7	2.4	29.5	5	Grayish olive	None	0.0	0.5	0.5	0.3	1.4	9.6	46.8	45.5	2.553	Silt	34 ± 6.4	100 ± 9.4	134				
64	Watarase River System	Watarase Reservoir	Center	Tochigi City	2014/10/7	Sunny	21.0	3.9	21.0	5	Grayish olive	Faint drain	0.0	0.0	0.6	0.6	1.2	5.2	35.6	45.1	47.0	2.570	Silt	24 ± 7.0	120 ± 11	144		
					2014/12/15	Sunny	3.6	6.7	7.8	3	Olive black	None	0.0	3.1	10.3	11.4	40.3	7.1	10.0	17.9	62.9	2.516	Sand/silt	91 ± 7.6	330 ± 14	421		

# Tochigi Reservoirs (Surrounding Environment) 1/1

Location				Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air dose)								Remarks	
							Soil			General items			Air Dose (μSv/h)			
No.	Water area	Location		Municipality	Color	Odor	Property	Activity concentration [Bq/kg(dry)]			Total	Air Dose (μSv/h)				
								Radioactive cesium								
								Cs-134	Cs-137							
L a k e s  a n d  R e s e r v o i r s	57	Nakagawa River System	Miyama Dam Reservoir	Center	Nasushiobara City	2014/5/29	Sunny	20.7	Blackish brown	faint earth	Loamy	120 ± 13	390 ± 21	510	0.10	
						2014/8/1	Cloudy	28.2	Dark brown	faint earth	Loamy	230 ± 21	640 ± 35	870	0.10	
						2014/10/16	Sunny	13.3	Blackish brown	faint earth	Loamy	43 ± 8.2	140 ± 14	183	0.10	
			2014/12/8	Sunny		5.2	Blackish brown	faint earth	Loamy	45 ± 6.0	150 ± 10	195	0.10			
			2014/5/29	Cloudy		21.4	Blackish brown	faint earth	Loamy	570 ± 22	1,700 ± 38	2,270	0.20			
			2014/8/1	Cloudy		29.5	Dark grayish yellow	faint earth	Loamy	550 ± 21	1,500 ± 35	2,050	0.33			
	58	Shiobara Dam Reservoir	Center	Nasushiobara City	2014/10/1	Cloudy	15.4	Grayish olive	faint earth	Loamy	370 ± 17	1,200 ± 31	1,570	0.20		
					2014/12/1	Cloudy	12.3	Dark olive brown	faint earth	Loamy	74 ± 8.0	270 ± 14	344	0.28		
					2014/5/30	Sunny	22.5	Dark brown	faint earth	Loamy	420 ± 17	1,100 ± 28	1,520	0.19		
	59	Kinugawa River System	Kawaji Dam Reservoir	Center	Nikko City	2014/8/4	Sunny	30.0	Blackish brown	faint earth	Loamy	330 ± 16	930 ± 26	1,260	0.22	
						2014/10/2	Cloudy	16.0	Dim yellowish brown	faint earth	Loamy	260 ± 13	730 ± 23	990	0.22	
						2014/12/2	Sunny	5.0	Dark olive brown	faint earth	Loamy	210 ± 13	720 ± 24	930	0.19	
2014/6/5			Cloudy	19.0		Brown	faint earth	Loamy	360 ± 19	1,000 ± 32	1,360	0.19				
60			Ikari Dam Reservoir	Center		Nikko City	2014/8/4	Sunny	31.5	Dim yellowish brown	faint earth	Loamy	92 ± 8.4	300 ± 15	392	0.20
							2014/10/2	Cloudy	16.0	Brown	faint earth	Loamy	140 ± 11	510 ± 19	650	0.19
	2014/12/2	Sunny			4.2		Dark grayish yellow	faint earth	Loamy	230 ± 14	750 ± 25	980	0.18			
61	Kinugawa River System	Kawamata Dam Reservoir	Center	Nikko City	2014/5/27	Sunny	21.9	Blackish brown	faint earth	Loamy	24 ± 5.8	85 ± 8.6	109	0.07		
					2014/8/5	Sunny	27.5	Blackish brown	faint earth	Loamy	15 ± 3.8	65 ± 7.2	80	0.08		
					2014/10/3	Sunny	22.8	Dark grayish yellow	faint earth	Loamy	22 ± 2.7	58 ± 4.3	80	0.09		
		2014/12/5	Cloudy		2.3	Blackish brown	faint earth	Loamy	<5.9 ± 1.9	17 ± 2.7	17	0.09				
		62	Lake Yuno		Center	Nikko City	2014/6/6	Light rain	11.3	Dim yellowish brown	faint earth	Loamy	17 ± 2.6	45 ± 3.9	62	0.09
							2014/8/5	Sunny	28.2	Dim yellowish brown	faint earth	Loamy	20 ± 3.7	65 ± 7.1	85	0.10
2014/10/6	Sunny			11.7			Dim yellowish brown	faint earth	Loamy	22 ± 4.1	81 ± 7.7	103	0.10			
63	Lake Chuzenji	Center	Nikko City	2014/11/28	Sunny	7.2	Brown	faint earth	Loamy	37 ± 5.2	110 ± 9.0	147	0.10			
				2014/5/30	Sunny	19.2	Blackish brown	faint earth	Loamy	65 ± 7.7	160 ± 12	225	0.09			
				2014/8/7	Sunny	27.0	Blackish brown	faint earth	Loamy	72 ± 8.1	260 ± 14	332	0.11			
				2014/10/8	Sunny	14.0	Blackish brown	faint earth	Loamy	94 ± 8.1	350 ± 15	444	0.07			
64	Watarase River System	Watarase Reservoir	Center	Tochigi City	2014/12/9	Sunny	1.2	Blackish brown	faint earth	Loamy	120 ± 9.4	400 ± 17	520	0.11		
					2014/5/26	Cloudy	20.6	Brown	faint earth	Loamy	99 ± 11	240 ± 19	339	0.07		
					2014/8/8	Cloudy	29.7	Dark grayish yellow	faint earth	Loamy	270 ± 18	740 ± 29	1,010	0.08		
					2014/10/7	Sunny	21.0	Dark brown	faint earth	Loamy	54 ± 8.3	160 ± 13	214	0.08		
					2014/12/15	Sunny	3.6	Dim yellowish brown	faint earth	Loamy	48 ± 4.7	150 ± 7.7	198	0.08		

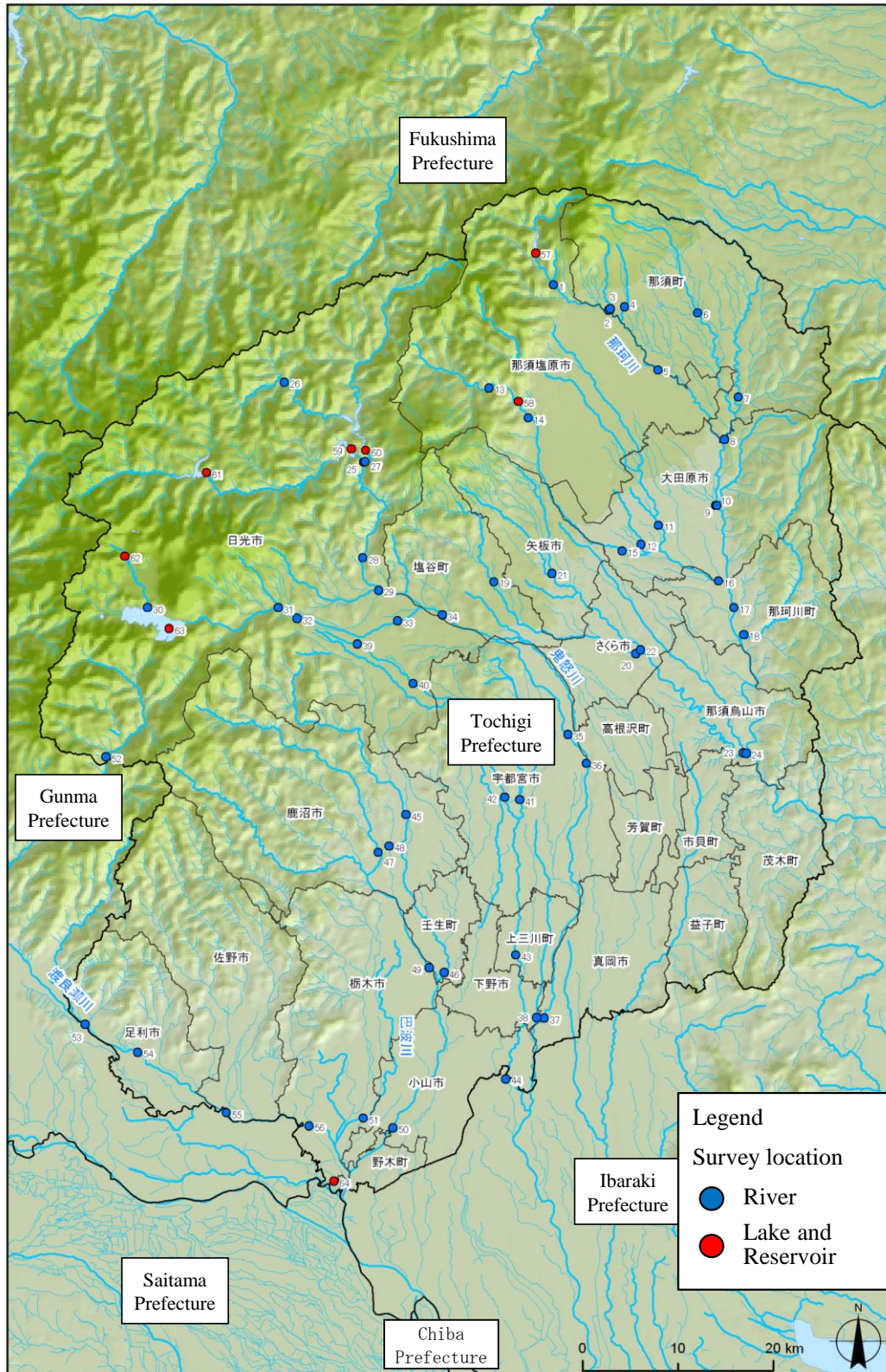


Figure 3.5.6 Survey Locations (Tochigi Prefecture)