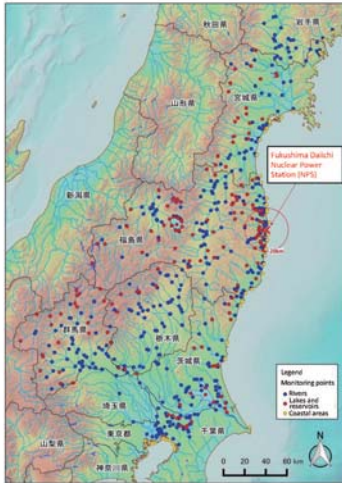


Radioactive Material Monitoring in and around Fukushima Prefecture (Public Water Areas)



[Coverage]
Whole Area of Fukushima, Miyagi, Ibaraki, Tochigi and Gunma Prefectures, and part of Iwate and Chiba Prefectures, etc.

[Monitoring points]
602 locations

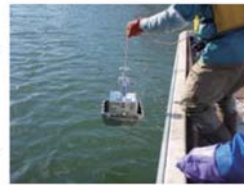
[Radionuclide analyses]
• Samples
Water, sediments and Surrounding environment (soil)

• Analyzed radionuclides
Radioactive cesium
Radioactive strontium (only for some water and sediment samples)

[Frequencies]
Twice to 10 times a year depending on the contamination status, etc.



(River: water sampling)



(Lake: sediments sampling)

Prepared based on the Results of the FY2019 Radioactive Material Monitoring in the Water Environment (Public Water Areas) by the Ministry of the Environment
http://www.env.go.jp/jishin/monitoring/results_r-pw-r01.html (in Japanese)

Radioactive material monitoring was conducted at rivers, lakes and coastal areas in locations centered on Fukushima Prefecture, such as Miyagi and Ibaraki Prefectures, where contamination with radioactive materials was suspected.

In FY2019, monitoring covered 602 locations and analysis was conducted for radioactive cesium and strontium in water, etc.

Monitoring results of radioactive cesium concentrations in water are as follows. Monitoring results for sediments (mud of the bottom of rivers, lakes, etc.) are shown in p.40 of Vol. 2, "Radioactive Material Monitoring in the Water Environment (River Sediments)" through to p.42 of Vol. 2, "Radioactive Material Monitoring in the Water Environment (Coastal Area Sediments)."

[Monitoring results of radioactive cesium concentrations in water]

River water samples (2,004 samples): Radioactive cesium was not detected in any samples.

Lake/reservoir water samples (1,358 samples): Radioactive cesium was not detected in any samples except for 14 collected at 6 locations in the Hamadori District, Fukushima Prefecture.

Coastal samples (534 samples): Radioactive cesium was not detected in any samples.

* At all locations where radioactive cesium or strontium was detected, amounts of suspended solids (SS) and turbidity were relatively large.

Included in this reference material on March 31, 2013

Updated on March 31, 2021

Distribution of Radioactive Cesium Concentrations in River Sediments (FY2019)

Number of collected samples

Radioactive cesium concentrations [Bq/kg(dry)]	Number of collected samples											Total	Percentage
	Iwate Prefecture	Miyagi Prefecture	Fukushima Prefecture, Hamamori District	Fukushima Prefecture, Makabe District	Fukushima Prefecture, Aizu District	Ibaraki Prefecture	Tochigi Prefecture	Gunma Prefecture	Chiba Prefecture	Saitama Prefecture	Tokyo Metropolis		
Less than 1,000	79	193	294	323	168	209	278	214	196	8	8	1970	98.3%
1,000 or more but less than 2,000	0	0	18	0	0	3	0	0	4	0	0	25	1.2%
2,000 or more but less than 3,000	0	0	4	0	0	0	0	0	0	0	0	4	0.2%
3,000 or more but less than 4,000	0	0	3	0	0	0	0	0	0	0	0	3	0.1%
4,000 or more but less than 5,000	0	0	2	0	0	0	0	0	0	0	0	2	0.1%
5,000 or more but less than 10,000	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
10,000 or more	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Total	79	193	321	323	168	212	278	214	200	8	8	2004	100.0%

Prepared based on the FY2019 Radioactive Material Monitoring in the Water Environment (Environmental Management Bureau,
Ministry of the Environment)

Radioactive cesium concentrations in river sediments were measured in FY2019 as in the previous year.

A total of 2,004 samples, including 812 samples collected in Fukushima Prefecture and others collected in Iwate, Miyagi, Ibaraki, Tochigi, Gunma, Chiba and Saitama Prefectures and the Tokyo Metropolis, were surveyed.

The survey results showed that concentrations of radioactive cesium detected in approx. 98% of these samples were less than 1,000 Bq/kg (dry).

Included in this reference material on March 31, 2013

Updated on March 31, 2021

Distribution of Radioactive Cesium Concentrations in Lake and Reservoir Sediments (FY2019)

Radioactive cesium concentrations [Bq/kg(dry)]	Number of collected samples									Percentage
	Miyagi Prefecture	Fukushima Prefecture, Hamadori District	Fukushima Prefecture, Nakadori District	Fukushima Prefecture, Aizu District	Ibaraki Prefecture	Tochigi Prefecture	Gunma Prefecture	Chiba Prefecture	Total	
Less than 1,000	70	80	43	154	70	30	82	28	557	66.9%
1,000 or more but less than 2,000	3	21	17	19	6	2	11	1	80	9.6%
2,000 or more but less than 3,000	0	22	8	11	0	0	2	3	46	5.5%
3,000 or more but less than 4,000	0	18	7	11	0	0	1	0	37	4.4%
4,000 or more but less than 5,000	0	8	4	3	0	0	0	0	15	1.8%
5,000 or more but less than 10,000	0	30	1	2	0	0	0	0	33	4.0%
10,000 or more	0	64	0	1	0	0	0	0	65	7.8%
Total	73	243	80	201	76	32	96	32	833	100.0%

Prepared based on the FY2019 Radioactive Material Monitoring in the Water Environment (Environmental Management Bureau,
Ministry of the Environment)

Radioactive cesium concentrations in lake and reservoir sediments were measured in FY2019 as in the previous year.

A total of 833 samples, including 524 samples collected in Fukushima Prefecture and others collected in Miyagi, Ibaraki, Tochigi, Gunma and Chiba Prefectures, were surveyed.

The survey results showed that concentrations of radioactive cesium detected in approx. 67% of these samples were less than 1,000 Bq/kg (dry).

Included in this reference material on March 31, 2013

Updated on March 31, 2021

Distribution of Radioactive Cesium Concentrations in Coastal Area Sediments (FY2019)

Radioactive cesium concentrations [Bq/kg(dry)]	Number of collected samples							Total	Percentage
	Iwate Prefecture	Miyagi Prefecture	Fukushima Prefecture	Ibaraki Prefecture	Chiba Prefecture	Tokyo Metropolis	Total		
Less than 1,000	4	52	150	20	23	18	267	100.0%	
1,000 or more but less than 2,000	0	0	0	0	0	0	0	0.0%	
2,000 or more but less than 3,000	0	0	0	0	0	0	0	0.0%	
3,000 or more but less than 4,000	0	0	0	0	0	0	0	0.0%	
4,000 or more but less than 5,000	0	0	0	0	0	0	0	0.0%	
5,000 or more but less than 10,000	0	0	0	0	0	0	0	0.0%	
10,000 or more	0	0	0	0	0	0	0	0.0%	
Total	4	52	150	20	23	18	267	100.0%	

Prepared based on the FY2019 Radioactive Material Monitoring in the Water Environment (Environmental Management Bureau,
Ministry of the Environment)

Radioactive cesium concentrations in sediments in coastal areas were measured in FY2019 as in the previous year.

A total of 267 sediment samples collected in coastal areas, including 150 samples collected in Fukushima Prefecture and others collected in Iwate, Miyagi, Ibaraki, Chiba Prefectures and the Tokyo Metropolis, were surveyed.

The survey results showed that concentrations of radioactive cesium detected in all of these samples were less than 1,000 Bq/kg (dry).

Included in this reference material on March 31, 2013

Updated on March 31, 2021