

○ Results of Radioactive Material Monitoring of Aquatic Organisms (Location G in Lake Hayama)

< Location G in Lake Hayama: Samples collected >						
Items	General items		Radioactive materials			
	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)
G-1	○	○	○	○	○	○
G-2	—	—	—	—	—	—
G-3	○	○	○	—	○	—
G-4	—	—	—	—	—	—
G-5	○	○	○	—	○	—

< Location G in Lake Hayama: Site measurement item >													
Items	Latitude and longitude of the location		Survey date and time			Water		Sediment				Other	
	Latitude	Longitude	Date	Time (water)	Time (sediment)	Water temperature (degrees C)	Sediment temperature (degrees C)	Property	Color	Odor	Contaminants	Water depth (m)	Secchi disk depth (m)
G-1	37.732050°	140.812717°	2013/7/16	11:45	12:10	27.9	25.0	Sand/sediment	7.5Y4/2	None	Plant	3.8	2.8
G-2	37.726733°	140.822333°	2013/7/16	—	10:10	—	17.7	Ooze	7.5Y4/2	Hydrogen sulfide	Plant	6.3	2.8
G-3	37.730167°	140.830667°	2013/7/16	9:30	—	9.45	24.3	Sand/gravel/sediment	7.5Y3/2	None	Plant	3.0	3.1
G-4	37.738200°	140.803450°	2013/7/16	14:00	—	14.00	23.7	Sand/gravel/sediment	2.5Y4/2	None	Plant	0.4	0.4
G-5	37.734117°	140.808833°	2013/7/16	11:05	11:20	11.05	26.4	Ooze	7.5Y3/2	None	Plant	3.5	3.0

< Location G in Lake Hayama: General survey items/Analysis of radioactive materials Water >																
Items	Latitude and longitude of the location		Survey date and time		pH	BOD (mg/L)	COD (mg/L)	DO (mg/L)	Electrical conductivity (mS/m)	Salinity	TOC (mg/L)	SS (mg/L)	Turbidity (FNU)	Cs-134 (Bq/L)	Cs-137 (Bq/L)	Sr-90 (Bq/L)
	Latitude	Longitude	Date	Time												
G-1 (Surface layer)	37.732050°	140.812717°	2013/7/16	11:45	7.7	1.0	6.1	9.2	7.8	0.05	1.9	5	4.1	0.038	0.080	—
G-1 (Deep layer)	—	—	—	—	8.3	1.3	6.3	9.8	8.0	0.04	2.1	6	4.5	0.039	0.080	0.0017
G-3 (Surface layer)	37.730167°	140.830667°	2013/7/16	9:30	8.8	0.8	5.8	10.2	7.6	0.04	2.3	4	3.3	0.027	0.057	—
G-3 (Deep layer)	—	—	—	—	8.7	1.1	5.6	10.1	7.7	0.04	2.0	4	3.7	0.033	0.070	—
G-5 (Surface layer)	37.734117°	140.808833°	2013/7/16	11:05	8.8	1.0	5.9	8.5	7.6	0.05	2.2	5	3.7	0.031	0.069	—
G-5 (Deep layer)	—	—	—	—	8.8	0.9	5.8	9.3	7.6	0.04	1.9	4	3.6	0.029	0.059	—

< Location G in Lake Hayama: General survey items/Analysis of radioactive materials Sediment >																					
Items	Latitude and longitude of the location		Survey date and time		pH	Redox potential E _h (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm ³)	Grain size distribution						Median grain diameter (mm)	Maximum grain diameter (mm)	Cs-134 (Bq/kg-dry)	Cs-137 (Bq/kg-dry)	Sr-90 (Bq/kg-dry)
	Latitude	Longitude	Date	Time							Gravel (2-75mm) (%)	Coarse sand (0.85-2mm) (%)	Medium sand (0.25-0.85mm) (%)	Fine sand (0.075-0.25mm) (%)	Silt (0.005-0.075mm) (%)	Clay (Less than 0.005mm) (%)					
G-1	37.732050°	140.812717°	2013/7/16	12:10	6.9	147	69.4	18.5	88	2.543	0	0.4	6.0	51.6	19.7	22.3	0.10	2	4,400	9,300	5.3
G-2	37.726733°	140.822333°	2013/7/16	10:10	7.0	116	73.8	17.6	46	2.518	0	0.8	1.7	4.5	39.8	53.2	0.0023	2	11,000	23,000	—
G-3	37.730167°	140.830667°	2013/7/16	9:45	6.9	90	53.9	7.8	20	2.634	5.6	4.8	9.4	16.0	25.8	38.4	0.027	9.5	1,800	3,900	—
G-4	37.738200°	140.803450°	2013/7/16	14:00	7.3	212	28.3	3.2	3	2.690	12.3	35.2	31.7	10.3	3.6	6.9	0.80	19	1,500	3,100	—
G-5	37.734117°	140.808833°	2013/7/16	11:20	6.8	152	75.6	27.4	99	2.410	0	0.1	3.6	21.8	41.3	33.2	0.019	2	6,700	14,000	—

< Location G in Lake Hayama: Analysis items Aquatic organisms >																				
Location	Latitude and longitude of the location		Sampling Date	Division	Class	Order	Family	Species name	English name	Population	Sample weight (kg-wet)	Note		Cs-134 (Bq/kg-wet)	Cs-137 (Bq/kg-wet)	Sr-90 (Bq/kg-wet)				
	Latitude	Longitude										Growth stage	Stomach contents							
G-1	37.732050°	140.812717°	2013/7/17	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	2	2.3	8-year-old fish	Some (details unknown)	230	480	1.0				
G-2	37.726733°	140.822333°		Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Yamame trout	2	0.087	2-year-old fish	Aquatic insects	100	210	—				
G-3	37.730167°	140.830667°		Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	3	1.9	3-year-old fish	Small fish	850	1,800	1.8				
G-4	37.738200°	140.803450°	2013/7/17	Algae/plant	—	—	—	—	—	—	—	—	—	—	1,100	2,300	—			
				Algae/plant	—	—	—	—	—	—	—	—	—	—	—	—	4.9	12	—	
				Streptophyta	Zygnematales	Zygnematales	Zygnemataceae	<i>Spirogyra sp.</i>	Spirogyra	—	—	—	—	0.47	—	—	200	420	—	
				Angiospermae	Monocotyledoneae	Najadales	Potamogetonaceae	<i>Potamogeton pectinatus</i>	Small pondweed	—	—	—	—	0.46	—	—	3.1	6.7	—	
				Arthropod	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Stenopsyche marmorata	—	—	—	—	0.057	Larva	—	—	110	230	—
				Arthropod	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche sauteri</i>	Parastenopsyche sauteri	—	—	—	—	0.057	Larva	—	—	31	58	—
				Arthropod	Insecta	Megaloptera	Corydalidae	<i>Parachauliodes continentalis</i>	Parachauliodes continentalis Weele	—	—	—	—	0.033	Larva	—	—	—	—	—
				Arthropod	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	Protohermes grandis	—	—	—	—	—	—	—	—	—	—	—
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	4	0.041	2-year-old fish	Some (details unknown)	—	—	—	—	85	170	—
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Yamame trout	8	0.055	Yearling fish	Some (details unknown)	—	—	—	—	75	150	—
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius flumineus</i>	Rhinogobius flumineus	42	0.048	More than 1 year old	—	—	—	—	—	97	190	—
				Coarse particulate organic matters (CPOMs)	—	—	—	—	—	—	—	—	—	—	0.44	—	—	—	—	180
CPOMs (fallen leaves)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

Note 1) Underlined names in the English name column indicate species largest in number in the respective samples.
 Note 2) A statement in red in the "Growth stage" column shows the age assessed based on squama or otolith.