○Results of Radioactive Material Monitoring of Aquatic Organisms (Location E along the Niida River)

<Location E along the Niida River: Samples collected>

Items / Locations	General items		Radioactive materials			
	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)
E-2 a	○	○	○	○	○	○

<Location E along the Niida River: Site measurement item>

Items / Locations	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	Contaminants	Water depth (m)	Transparency (cm)
E-2 a	37.6640°	140.9447°	2024/8/26	13:29	13:36	26.1	25.7	Silt	5Y3/2	None	0.70	37

<Location E along the Niida River: General survey items/Analysis of radioactive materials Water>

Items / Locations	Latitude and longitude of the location		Survey date and time		pH	BOD	COD	DO	Electric conductivity	Salinity	TOC	SS	Turbidity	Cs-134	Cs-137	Sr-90
	Latitude	Longitude	Date	Time (water)		(mg/L)	(mg/L)	(mg/L)	(mS/m)		(mg/L)	(mg/L)	(FNU)	(Bq/L)	(Bq/L)	(Bq/L)
E-2 a	37.6640°	140.9447°	2024/8/26	13:29	7.2	1.7	7.9	8.1	8.2	0.05	3.7	22	10.4	N.D.(0.0018)	0.14	0.0021

Note) N.D. means to be below the detection limit and figures in parentheses show the detection limit.

<Location E along the Niida River: General survey items/Analysis of radioactive materials Sediment>

Items / Locations	Latitude and longitude of the location		Survey date and time		pH	Redox potential	Water content	IL	TOC	Soil particle density	Grain size distribution								Cs-134	Cs-137	Sr-90
											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)	Median grain diameter	Maximum grain diameter			
	Latitude	Longitude	Date	Time (sediment)		$E_{N.H.E}$ (mV)	(%)	(%)	(mg/g-dry)	(g/cm^3)	(%)	(%)	(%)	(%)	(%)	(%)	(mm)	(mm)	(Bq/kg-dry)	(Bq/kg-dry)	(Bq/kg-dry)
E-2 a	37.6640°	140.9447°	2024/8/26	13:36	6.9	280	59.1	9.4	41.0	2.560	1.8	3.5	16.7	26.4	27.2	24.4	0.058	4.8	31	2200	0.88

Note) N.D. means to be below the detection limit and figures in parentheses show the detection limit.

<Location E along the Niida River: Analysis items Aquatic organisms>

Locations	Sampling point	Latitude and longitude of the location		Sampling date	Division	Class	Order	Family	Scientific name	English name	Population	Sample weight (kg-wet)	Note			Radioactive cesium (Bq/kg-wet)			Sr-90
		Latitude	Longitude										Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	(Bq/kg-wet)
E-2 b	The main stream of the Niida River	37.6635°	140.9452°	2024/8/23	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0077	-	-	-	110	N.D.(21)	110	-
					Arthropoda	Insecta	Trichoptera	Stenopsychidae	*Stenopsyche marmorata*	*Stenopsyche marmorata*	180	0.058	Larva	-	-	47	N.D.(4.7)	47	-
					Arthropoda	Insecta	Odonata	Corduliidae	*Macromia amphigena amphigena*	*Macromia amphigena*	48	0.013	Larva (Dragonfly larva)	-	-	8.5	N.D.(3.6)	8.5	-
					Arthropoda	Insecta	Odonata	Cordulegastridae	*Anotogaster sieboldii*	*Anotogaster sieboldii*									
					Arthropoda	Insecta	Odonata	Gomphidae	*Melligomphus viridicostus*	*Melligomphus viridicostus*									
					Arthropoda	Insecta	Odonata	Gomphidae	*Sieboldius albardae*	*Sieboldius albardae*									
					Arthropoda	Insecta	Odonata	Gomphidae	*Davidius* sp.	Davidius									
					Arthropoda	Insecta	Odonata	Gomphidae	*Shaogomphus postocularis*	*Shaogomphus postocularis*									
					Arthropoda	Insecta	Megaloptera	Corydalidae	*Protohermes grandis*	*Protohermes grandis*	35	0.023	Larva	-	-	6.1	N.D.(1.8)	6.1	-
					Arthropoda	Malacostraca	Decapoda	Cambaridae	*Procambarus clarkii*	Red swamp crawfish	3	0.083	Imago	-	-	20	N.D.(3.0)	20	-
					Arthropoda	Malacostraca	Decapoda	Palaemonidae	*Palaemon paucidens*	Common prawn	14	0.015	Imago	-	-	13	N.D.(2.6)	13	-
					Arthropoda	Malacostraca	Decapoda	Atyidae	Atyidae	Freshwater shrimp	353	0.074	Juvenile	-	-	14	N.D.(2.1)	14	-
					Arthropoda	Malacostraca	Decapoda	Varunidae	*Eriocheir japonica*	Japanese mitten crab	30	0.12	Juvenile	-	-	20	N.D.(2.1)	20	-
					Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	*Anguilla japonica*	Japanese eel	1	0.088	Immature fish	Empty stomach	Viscera removed	8.3	N.D.(1.7)	8.3	-
					Vertebrata	Osteichthyes	Scorpaeniformes	Cottidae	*Cottus reinii*	Sculpin	1	0.024	Immature fish	-	-	17	N.D.(2.7)	17	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Opsariichthys platypus*	Pale chub	237	0.70	Immature fish	-	-	12	N.D.(1.2)	12	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Candidia temminckii*	Dark chub	9	0.043	Immature fish, Mature fish	-	-	6.6	N.D.(1.1)	6.6	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Gnathopogon elongatus elongatus*	*Gnathopogon elongatus elongatus*	8	0.045	Immature fish, Mature fish	-	-	14	N.D.(2.3)	14	-
					Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	*Plecoglossus altivelis altivelis*	Sweetfish	9	0.083	Immature fish	-	-	44	N.D.(2.7)	44	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius fluviatilis*	*Rhinogobius fluviatilis*	31	0.082	Immature fish, Mature fish	-	-	12	N.D.(1.4)	12	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius nagoyae*	*Rhinogobius nagoyae*									
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius* sp.	Rhinogobius									
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Sicyopterus japonicus*	Monk goby	11	0.030	Immature fish	-	-	26	N.D.(6.6)	26	-
					Vertebrata	Osteichthyes	Siluriformes	Siluridae	*Silurus asotus*	Amur catfish	2	1.3	Mature fish	Fish	Viscera removed	15	N.D.(2.1)	15	0.42
					Vertebrata	Osteichthyes	Siluriformes	Siluridae	*Silurus asotus*	Amur catfish	1	2.9	Mature fish	Empty stomach	Viscera removed	34	N.D.(1.3)	34	1.4
					Vertebrata	Amphibia	Anura	Lithobates	*Lithobates catesbeianus*	American bullfrog	43	0.18	Larva(Tadpole)	-	-	274.7	4.7	270	-
					Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.25	-	-	-	89.6	1.6	88	-
E-3	The main stream of the Niida River	37.6444°	141.0018°	2024/8/22	Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	*Anguilla japonica*	Japanese eel	5	1.0	Immature fish, Mature fish	Empty stomach	Viscera removed	16	N.D.(0.99)	16	-
				2024/8/24	Vertebrata	Osteichthyes	Siluriformes	Siluridae	*Silurus asotus*	Amur catfish	1	0.69	Mature fish	Empty stomach	Viscera removed	24.95	0.95	24	-

*1: Organisms were collected in or around the targeted water areas.

*2: When multiple types of aquatic organisms were collected, a sample was prepared by mixing them.

*3: For a sample made of multiple types of aquatic organisms, the English name of the dominant one largest in number is underlined.

*4: Basically, measurement was conducted for all organism samples. Viscera (stomach and bowels) were removed for the measurement when possible so that undigested food and sediments, etc. in the digestive system would be excluded.

*5: Plankton (suspended algae) is the residue remaining after the filtration of lake water or seawater with a plankton net (40μm-mesh).

*6: River bottom materials (incl. algae) are algae, etc. that were scratched off stones with a brush, etc. and may include very fine particles such as inorganic silt and clay.

*7: N.D. means to be below the detection limit and figures in parentheses show the detection limit.

*8: Activity concentrations include counting errors, but the details are omitted here.