

Plans of the Sea Area Monitoring Conducted by Tokyo Electric Power Company (FY 2013, Revision 01)

1. Offshore of Fukushima Prefecture

Place of Sampling (Place No. T-)	Sampling Content	Analysis Items	Analysis Frequency	Detection limit value (Bq/L)	Note
1km Offshore of Nida River (13-1)	Seawater	Upper part (Cs detail)	1/Month	(1) Upper part (γ): Approx. 1Bq/L (Cs-134, Cs-137, I-131)	(1) Upper part (γ), Lower part (γ): Nuclide analysis of γ in the seawater at upper layer and lower layer.
	Marine soil	Marine soil(γ)			
15km Offshore of Iwasawa Shore (7)	Seawater	Upper part (Cs detail)	1/Month	(2) Upper part (Pu): Approx. 0.006Bq/L (Pu-238, Pu-239+Pu240)	(2) Upper part (Pu): Analysis of Pu-238, Pu-239+Pu240 at upper layer of the sea. Analysis of U-234, U-235, U-238, Am-241, Cm242 and Cm243+Cm244 will be conducted when Pu-238 is detected.
	Marine soil	Marine soil(γ)			
3km Offshore of Onahama Port (18)	Seawater	Upper part (Cs detail)	1/Month	(3) Upper part (α,β,H-3, Sr), Upper part (β,H-3, Sr), Upper part (β,H-3): Approx. 3Bq/L (All α), Approx. 20Bq/L (All β), Approx. 3Bq/L (H-3, approx. 4Bq/L at T-D1, D5, D9, 3, 5, 6), Approx. 0.01Bq/L (Sr-90)	(3) Upper part (α,β,H-3, Sr): Analysis of All α, All β, H-3 and Sr-90 at upper layer of the sea.
	Marine soil	Marine soil(γ)			
5km Offshore of Numanouchi (M10)	Seawater	Upper part (Cs detail)	1/Month	(4) Upper part (Cs detail), Lower part (Cs detail): Approx. 0.001Bq/L (Cs-134, 137)	(4) Upper part (β,H-3, Sr): Analysis of All β, H-3 and Sr-90 at upper layer of the sea.
	Marine soil	Marine soil(γ)			
3km Offshore of North of Iwaki City (12)	Seawater	Upper part (Cs detail)	1/Month	(5) Marine soil (γ,Pu,Sr) Marine soil (γ): Approx. 1Bq/kg dry soil (Cs-134, Cs-137), Approx. 10Bq/kg dry (Pu-238, Pu-239+Pu240, Sr-90)	(5) Upper part (β,H-3): Analysis of All β and H-3 at upper layer of the sea.
	Marine soil	Marine soil(γ)			
1km Offshore of Natsui River (17-1)	Seawater	Upper part (Cs detail)	1/Month	(6) Fish (γ): Approx. 10Bq/kg (raw) (Cs-134, Cs-137)	(6) Upper part (Cs detail), Lower part (Cs detail): Cs detail analysis of seawater at upper layer and lower layer by AMP precipitation method.
	Marine soil	Marine soil(γ)			
3km Offshore of Toyoma (20)	Seawater	Upper part (Cs detail)	1/Month	(7) Marine soil (γ,Pu,Sr): Nuclide analysis of γ, Pu-238, Pu-239+Pu240 and Sr-90 in the marine soil. Analysis of U-234, U-235, U-238, Am-241, Cm242 and Cm243+Cm244 will be conducted when Pu-238 is detected.	(7) Marine soil (γ): Nuclide analysis of γ in the marine soil.
	Marine soil	Marine soil(γ)			
3km Offshore of Soma (22)	Seawater	Upper part (Cs detail)	1/Month	(8) Marine soil (γ): Nuclide analysis of γ in the fish and shellfish.	(8) Marine soil (γ): Nuclide analysis of γ in the marine soil.
	Marine soil	Marine soil(γ)			
5km Offshore of Kashima (MA)	Seawater	Upper part (Cs detail)	1/Month	(9) Fish (γ): Nuclide analysis of γ in the fish and shellfish.	(9) Fish (γ): Nuclide analysis of γ in the fish and shellfish.
	Marine soil	Marine soil(γ)			
Around 1km Offshore of Ota River (S1)	Fish	Fish (γ)	1/Month	(10) Sr-90 will be conducted when	(10) Sr-90 will be conducted when
	Seawater	Upper part (Cs detail)			
Around 3km Offshore of Odaka Ward (S2)	Seawater	Upper part (Cs detail)	1/Month	(10) Sr-90 will be conducted when	(10) Sr-90 will be conducted when
	Marine soil	Marine soil(γ)			
Around 3km Offshore of Ukedo River (S3)	Seawater	Upper part (Cs detail)	1/Month	(10) Sr-90 will be conducted when	(10) Sr-90 will be conducted when
	Marine soil	Marine soil(γ)			
Around 3km Offshore of 1F (S4)	Seawater	Upper part (Cs detail)	1/Month	(10) Sr-90 will be conducted when	(10) Sr-90 will be conducted when
	Marine soil	Marine soil(γ)			
Around 2km Offshore of Kido River (S5)	Seawater	Upper part (Cs detail)	1/Month	(10) Sr-90 will be conducted when	(10) Sr-90 will be conducted when
	Marine soil	Marine soil(γ)			
Around 2km Offshore of 2F (S7)	Seawater	Upper part (Cs detail)	1/Month	(10) Sr-90 will be conducted when	(10) Sr-90 will be conducted when
	Marine soil	Marine soil(γ)			
Around 4km Offshore of Kumagawa (S8)	Seawater	Upper part (Cs detail)	1/Month	(10) Sr-90 will be conducted when	(10) Sr-90 will be conducted when
	Marine soil	Marine soil(γ)			
Around 15km Offshore of Odaka Ward (B1)	Seawater	Upper part (Cs detail)	1/Month	(10) Sr-90 will be conducted when	(10) Sr-90 will be conducted when
	Marine soil	Marine soil(γ)			
Around 18km Offshore of Ukedo River (B2)	Seawater	Upper part (Cs detail)	1/Month	(10) Sr-90 will be conducted when	(10) Sr-90 will be conducted when
	Marine soil	Marine soil(γ)			
Around 10km Offshore of 1F (B3)	Seawater	Upper part (Cs detail)	1/Month	(10) Sr-90 will be conducted when	(10) Sr-90 will be conducted when
	Marine soil	Marine soil(γ)			
Around 10km Offshore of 2F (B4)	Seawater	Upper part (Cs detail)	1/Month	(10) Sr-90 will be conducted when	(10) Sr-90 will be conducted when
	Marine soil	Marine soil(γ)			

Plans of the Sea Area Monitoring Conducted by Tokyo Electric Power Company (FY 2013, Revision 01)**2. Offshore of Miyagi Prefecture**

Place of Sampling (Place No. T-)	Sampling Content	Analysis Items	Analysis Frequency	Detection limit value (Bq/L)	Note			
Offshore of Minamisanriku (MG0)	Seawater	Upper part (Cs detail)	2/Month	(1) Upper part (Cs detail), Middle part (Cs detail), Lower part (Cs detail): Approx. 0.001Bq/L (Cs-134, 137)	(1) Upper part (Cs detail), Middle part (Cs detail), Lower part (Cs detail): Cs detail analysis of seawater at upper layer, middle layer and lower layer by AMP precipitation method.			
Ishinomaki Bay (MG1)		Middle part (Cs detail)						
		Lower part (Cs detail)						
Offshore of Kinkasan East (MG2)		Upper part (Cs detail)						
		Middle part (Cs detail)						
		Lower part (Cs detail)						
Offshore of Kinkasan South (MG3)		Upper part (Cs detail)				1/2 Months	(2) Upper part (Sr): Approx. 0.01Bq/L (Sr-90)	(2) Upper part (Sr): Analysis of Sr-90 at upper layer of the sea.
		Middle part (Cs detail)						
		Lower part (Cs detail)						
Offshore of Shichigahama (MG4)		Upper part (Cs detail)						
		Middle part (Cs detail)						
		Lower part (Cs detail)						
Central Area of Sendai Bay (MG5)		Upper part (Cs detail)						
		Middle part (Cs detail)						
		Lower part (Cs detail)						
Offshore of Abukuma River (MG6)	Upper part (Cs detail)	2/Month						
	Middle part (Cs detail)							
	Lower part (Cs detail)							

3. Offshore of Ibaraki Prefecture

Place of Sampling (Place No. T-)	Sampling Content	Analysis Items	Analysis Frequency	Detection limit value (Bq/L)	Note
3km Offshore of Isohara Shore (Z)	Seawater	Upper part (y)	1/Month	(1) Upper part (y), Lower part (y): Approx. 1Bq/L (Cs-134, 137)	(1) Upper part (y), Lower part (y): Nuclide analysis of y in the seawater at upper layer and lower layer.
3km Offshore of Takadokobama Shore (A)		Lower part (y)			
		Upper part (y)			
3km Offshore of Kujihama Shore (B)		Lower part (y)			
		Upper part (y)			
3km Offshore of Oarai Shore (C)		Lower part (y)	1/2 Months	(2) Upper part (Sr): Approx. 0.01Bq/L (Sr-90)	(2) Upper part (Sr): Analysis of Sr-90 at upper layer of the sea.
		Upper part (Sr)			
3km Offshore of Hirai Shore (D)		Upper part (y)	1/Month		
		Lower part (y)			
3km Offshore of Hasaki Shore (E)		Upper part (y)			
	Lower part (y)				

**Sampling Locations of the Sea Area Monitoring Conducted by Tokyo Electric Power Company
(FY 2013, Revision 01)**

Place of Sampling		Place No.	Latitude (North Latitude)	Longitude (East Longitude)	
Coast	North of Discharge Channel of 5-6 Units of 1F	T-1	37°25' 52"	141°02' 04"	
	Around South Discharge Channel of 1F	T-2 ³	37°24' 55"	141°02' 02"	
		T-2-1 ³	37°24' 22"	141°02' 01"	
	1F Port Entrance ⁵	T-0	37°25' 24"	141°02' 29"	
	0.5km Offshore of 1F North ⁵	T-0-1	37°25' 50"	141°02' 25"	
	1km Offshore of 1F ⁵	T-0-2	37°25' 24"	141°02' 48"	
	0.5km Offshore of 1F South ⁵	T-0-3	37°24' 58"	141°02' 25"	
	Around North Discharge Channel of 2F	T-3	37°19' 20"	141°01' 35"	
	2F Around Iwasawa Shore ²	T-4	37°14' 30"	141°00' 50"	
	Around the North Side of Asamigawa ^{2 4}	T-4-1	37°12' 37"	141°00' 20"	
Around the South Side of Kitasakogawa ⁴	T-4-2	37°12' 51"	141°00' 25"		
South side of Ukedo Port ⁵	T-6	37°28' 44"	141°02' 26"		
Within 20km Range of Fukushima Daiichi NPS	3km Offshore of Odaka Ward	T-14	37°33' 10"	141°3' 45"	
	3km Offshore of Iwasawa Shore	T-11	37°14' 30"	141°2' 50"	
	3km Offshore of Ukedo River	T-D1	37°30' 00"	141°4' 20"	
	3km Offshore of 1F	T-D5	37°25' 00"	141°4' 20"	
	3km Offshore of 2F	T-D9	37°20' 00"	141°4' 20"	
	15km Offshore of 1F	T-5	37°25'	141°12'	
	1km Offshore of Murakami, Odaka Ward	T-①	37°33' 6"	141°2' 30"	
	2km Offshore of Murakami, Odaka Ward	T-②	37°33' 6"	141°3' 00"	
	1km Offshore of Ukedo, Namie Town	T-③	37°27' 30"	141°2' 30"	
	2km Offshore of Ukedo, Namie Town	T-④	37°27' 30"	141°3' 00"	
	3km Offshore of Ukedo, Namie Town	T-⑤	37°27' 30"	141°3' 30"	
	1km Offshore of Kumagawa, Okuma Town	T-⑥	37°23' 00"	141°2' 30"	
	2km Offshore of Kumagawa, Okuma Town	T-⑦	37°23' 00"	141°3' 00"	
	3km Offshore of Kumagawa, Okuma Town	T-⑧	37°23' 00"	141°3' 30"	
	5km Offshore of Kumagawa, Okuma Town	T-⑨	37°23' 00"	141°5' 30"	
	10km Offshore of Kumagawa, Okuma Town	T-⑩	37°23' 00"	141°10' 00"	
	15km Offshore of Kumagawa, Okuma Town	T-⑪	37°23' 00"	141°12' 00"	
	20km Offshore of Kumagawa, Okuma Town	T-⑫	37°23' 00"	141°15' 00"	
	1km Offshore of Yamadahama, Naraha Town	T-⑬	37°14' 18"	141°1' 30"	
	Around 1km Offshore of Ota River	T-S1	37°35' 05"	141°2' 32"	
	Around 3km Offshore of Odaka Ward	T-S2	37°33' 10"	141°3' 45"	
	Around 3km Offshore of Ukedo River	T-S3	37°27' 30"	141°04' 44"	
	Around 3km Offshore of 1F	T-S4	37°25' 43"	141°04' 57"	
	Around 2km Offshore of Kido River	T-S5	37°15' 54"	141°02' 22"	
	Around 2km Offshore of 2F ¹	T-S7	37°18' 40"	141°02' 50"	
	Around 4km Offshore of Kumagawa ¹	T-S8	37°23' 00"	141°04' 44"	
	Around 15km Offshore of Odaka Ward	T-B1	37°32'	141°13'	
	Around 18km Offshore of Ukedo River	T-B2	37°31'	141°14'	
	Around 10km Offshore of 1F	T-B3	37°24' 28"	141°09' 15"	
	Around 10km Offshore of 2F	T-B4	37°20' 54"	141°08' 55"	
	Within 30km Range of Fukushima Daiichi NPS	1km Offshore of Nida River	T-13-1	37°38' 27"	141°02' 33"
		15km Offshore of Iwasawa Shore	T-7	37°14'	141°12'
	Out of 30km Range of Fukushima Daiichi NPS	Offshore of Fukushima Prefecture	3km Offshore of Onahama Port	T-18	36°54' 20"
3km offshore of North of Iwaki City			T-12	37°09' 00"	141°2' 15"
1km Offshore of Natsui River			T-17-1	37°03' 20"	141°00' 25"
3km Offshore of Toyoma			T-20	36°58' 00"	141°00' 00"
3km Offshore of Soma			T-22	37°49' 28"	141°1' 21"
5km Offshore of Kashima			T-MA	37°45'	141°5'
5km Offshore of Numanouchi			T-M10	37°00'	141°5'
Offshore of Ibaraki Prefecture		3km Offshore of Isohara Shore	T-Z	36°47' 30"	140°47' 21"
		3km Offshore of Takadokobama Shore	T-A	36°42' 50"	140°45' 50"
		3km Offshore of Kujihama Shore	T-B	36°30' 23"	140°39' 56"
		3km Offshore of Oarai Shore	T-C	36°17' 59"	140°36' 14"
		3km Offshore of Hirai Shore	T-D	35°59' 15"	140°42' 08"
		3km Offshore of Hasaki Shore	T-E	35°47' 46"	140°50' 14"
Offshore of Miyagi Prefecture		Offshore of Minamisanriku	T-MG0	38°38'	141°35'
		Ishinomaki Bay	T-MG1	38°20'	141°17'
		Offshore of Kinkasan East	T-MG2	38°18'	141°40'
		Offshore of Kinkasan South	T-MG3	38°14'	141°35'
		Offshore of Shichigahama	T-MG4	38°15'	141°08'
		Central Area of Sendai Bay	T-MG5	38°10'	141°15'
		Offshore of Abukuma River	T-MG6	38°05'	141°00'

* 1F: Fukushima Daiichi Nuclear Power Station, 2F: Fukushima Daini Nuclear Power Station

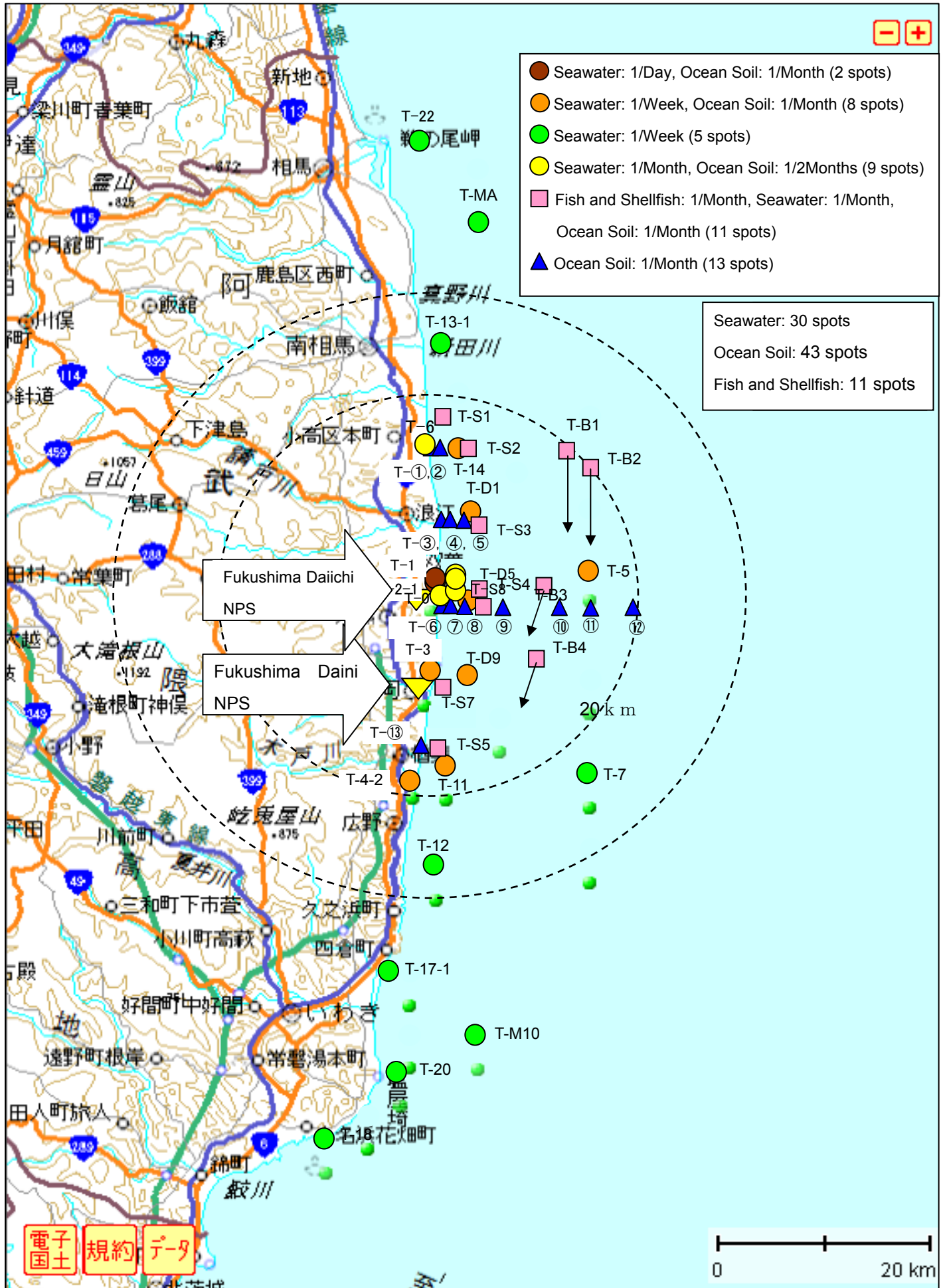
*1 Place No. "T-S6" was changed to "T-S7" in May 2012. "T-S8" was added in July 2012.

*2 "T-4-1" was newly set to substitute for "T-4" in October 2012 as the road to access "T-4" has been closed since mid-September 2012.

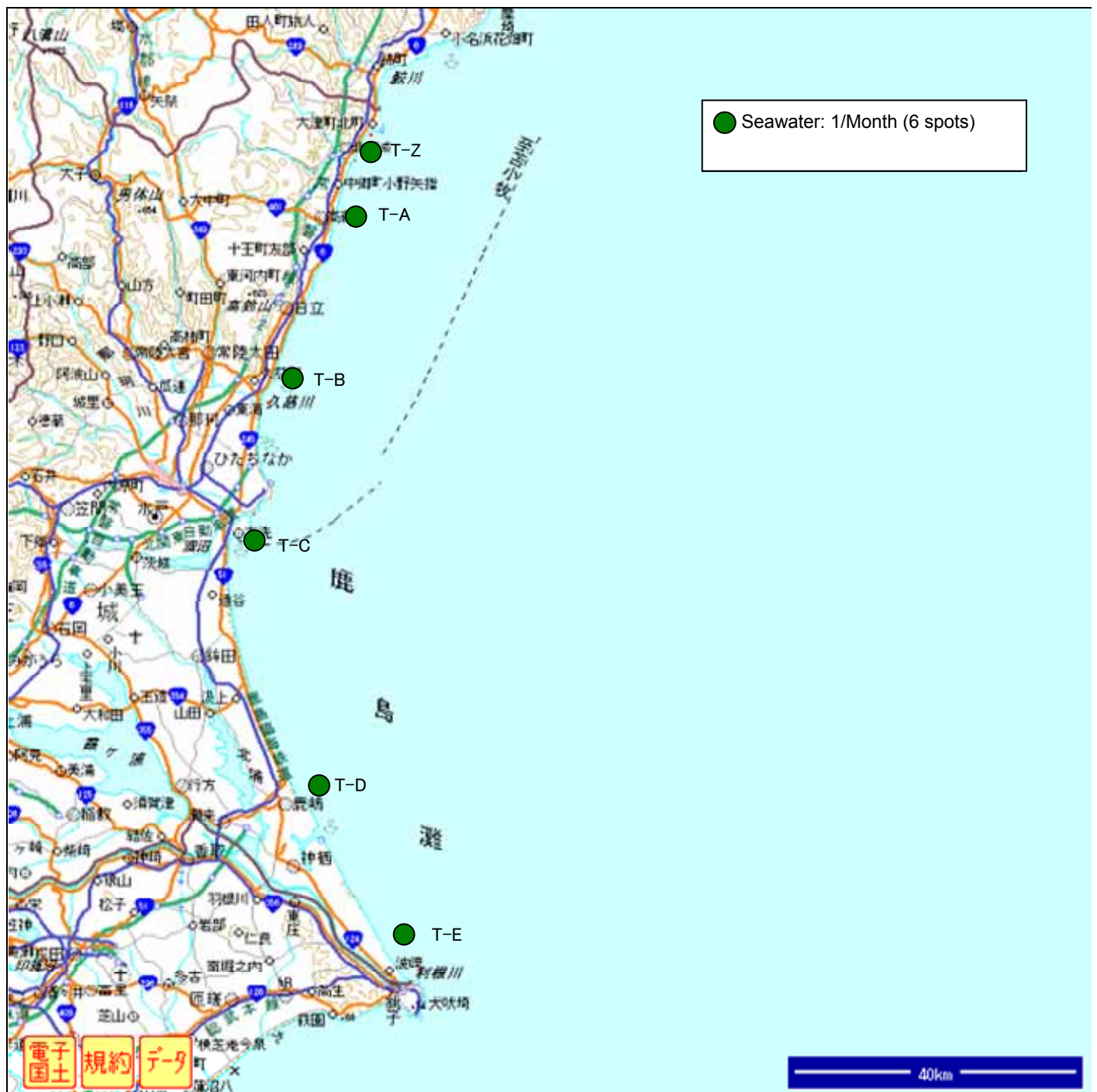
*3 "T-2-1" was newly set to substitute for "T-2", since it is impossible to conduct marine soil (sand) sampling due to erosion.

*4 "T-4-2" was newly set to substitute for "T-4-1" in March 2013 as the road to access "T-4-1" has been closed since mid-March 2013.

*5 Place of sampling was added.



**Figure 1. Sampling Locations (Seawater, etc.)
(Fukushima Coast, As of August 2013)**



**Figure 2. Sampling Locations (Seawater)
(Ibaraki Coast, as of August 2013)**



Figure 3. Sampling Locations (Seawater)
(Miyagi Coast, as of August 2013)