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Subject	Weekly Monitoring Report – SRP Submarine Cable Diver Burial Activities			
Client	Eversource Energy	Date	November 26, 2019	
Project	Independent Environmental Monitor Reliability Project	Independent Environmental Monitoring, Little Bay Submarine Cable Installation, Seacoast Reliability Project		
Project No.	E2X85301	File	Daily Monitoring Report_SRP Little Bay IEM_Diver Burial Week 2 11-24 to 11-30	
Prepared by	Jeffrey Nield	Phone No.	617-963-3109	
Copies to	Gregg Comstock, NH DES David Price, NH DES Chris Nash, NH DES Kurt Nelson, Eversource Energy Pamela Munroe, NH SEC			

Weather Observations

Sunday, November 24, 2019			Est. Tides: 4:50 p.m. Low; 10:40 a.m. High	
TIME	WIND (DIRECTION AND SPEED [MPH])	VISIBILITY (NM)	PRECIPITATION (PREV. 24H)	COMMENTS
07:00	5 NW gusts 7	>5 NM	-	36 °F; rain
13:00	18 NW gusts 10	>5 NM	-	41 °F; rain
16:00	23 N gusts 29	>5 NM	-	39 °F; rain
Monday, N	Monday, November 25, 2019		Est. Tides: 5:05 a.m. Low; 11:30 a.m. High	
TIME	WIND (DIRECTION AND SPEED [MPH])	VISIBILITY (NM)	PRECIPITATION COMMENTS (PREV. 24H)	
07:00	14 W gusts to 33	>5 NM	-	36 °F; cloudy
13:00	12 W gusts to 20	>5 NM	-	46 °F; rain
16:00	7 W gusts to 15	>5 NM		41 °F; rain



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Tuesday, November 26, 2019			Est. Tides: 6:26 a.m. Low; 12:18 a.m. High	
TIME	WIND (DIRECTION AND SPEED [MPH])	VISIBILITY (NM)	PRECIPITATION (PREV. 24H)	COMMENTS
07:00	5 SW gusts to 6	>5 NM	0.25″	37 °F; sun
13:00	12 SW gusts to 24	>5 NM	-	54 °F; sun
16:00	8 SW gusts to 22	>5 NM	-	50 °F; sun
*No wor	*No work November 27 through December 1, 2019 due to Holiday Break.			

Summary of Work Activities

Day/Date	Work Description
Sunday, November 24, 2019	Two dive teams on east side. No west side burial. Dive Team A start 0811 and finish 1354. Dive Team B start 0814 and finish 1550. Water quality monitoring using two vessels for the duration of diver burial including pre- and post- hand-jetting monitoring. Mackworth Env on site (western shore) to adjust turbidity barrier (1340 – 1510). Drone flying.
Monday, November 25, 2019	 Two dive teams on east side. No west side burial. Dive Team A start 0700 and finish 1354. Dive Team B start 0814 and finish 1354. Water quality monitoring using two vessels for the duration of diver burial including pre- and post- hand-jetting monitoring. Mackworth launches turbidity curtain for the east side diver burial from the western shore. Drone flying.
Tuesday, November 26, 2019	Two dive teams on east side. No west side burial. Dive Team A start 0755 and finish 1510. Dive Team B start 0755 and finish 1510. Water quality monitoring using two vessels for the duration of diver burial including pre- and post- hand-jetting monitoring.



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Day/Date	Work Description
	Drone flying.

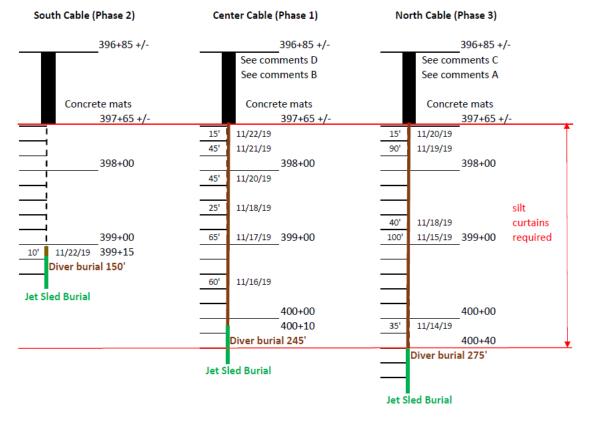
Diver Burial Progress (provided by LS Cable and Durocher Marine) through 11/26/19

			DIVER BURIAL TRACKING (see daily tracking graph below)						
			C	Durham (west	:)	Gund	alow Landing	(east)	
			South Cable (Phase 2)	Center Cable (Phase 1)	North Cable (Phase 3)	South Cable (Phase 2)	Center Cable (Phase 1)	North Cable (Phase 3)	Daily Total
#	Day	Sta. Start	39915	40010	40040	44240	44185	44175	
13	Sun	11/24/19	0	0	0	10	0	20	30
14	Mon	11/25/19	0	0	0	0	75	20	95
15	Tue	11/26/19	0	0	0	55	0	40	95
		TOTAL	10	250	280	255	320	245	1360
		Sta. Stop	39905	39760	39760	44495	44505	44420	
		% Complete	4%	102%	102%	49%	62%	53%	+/-



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DURHAM (WEST)



NOTE: INDICATES 3.5' OF DIVER BURIAL ACHIEVED

Summary of Observations

Item	Observations and Notes
1	Diver burial (hand jetting) – Short work week due to Thanksgiving Holiday. All work stopped on Tuesday evening, 11/25/19. Burial activity on eastern side in channel outside without turbidity barrier. See table above for contractor tracking of cable burial.
	West side diver burial – all activity with turbidity barrier.
2	Water quality monitoring – Weather monitored for 72 hours before scheduled diver burial water quality monitoring events. Close communication with contractor and water quality teams whenever wind forecasts called for winds greater than 15 mph leading up to work days. No weather cancellations but wind conditions were closely monitored by IEM, Normandeau and Durocher.
	Swift ebb tide currents preventing divers on east side channel burial and resulting in $1 - 3$ hour breaks on the east side on a daily basis. Water quality team taking breaks when possible. Drone images very useful in monitoring activity and observing a visual plume.



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Item	Observations and Notes
	No exceedances of BSAL reported to IEM throughout duration of the week. Turbidity readings during hand-jetting indicate very low increases in turbidity above background on both east and west sides. Normandeau providing daily water quality summaries to NH DES for previous day's events.
	IEM able to view activity for Gundalow landing with binoculars and by work boat. Durocher Marine provided several opportunities for "on the water" inspections. IEM able to monitor western side diver burial from the shore and Getchell Property.
	Drone imagery continues to be useful to observe hand jetting activity. Drone continues to be used to guide the water quality monitoring team to run transects to "find" the plume with instruments. Water quality team did not detect elevated levels that could define a plume based on drone images. Any plume developed from hand jetting on the eastern channel edge quickly dissipated due to tidal forces.

Turbidity Data Reports and Photographs

Turbidity (NTU) Reported and Observations

Boundary Station Action Levels (BSAL)

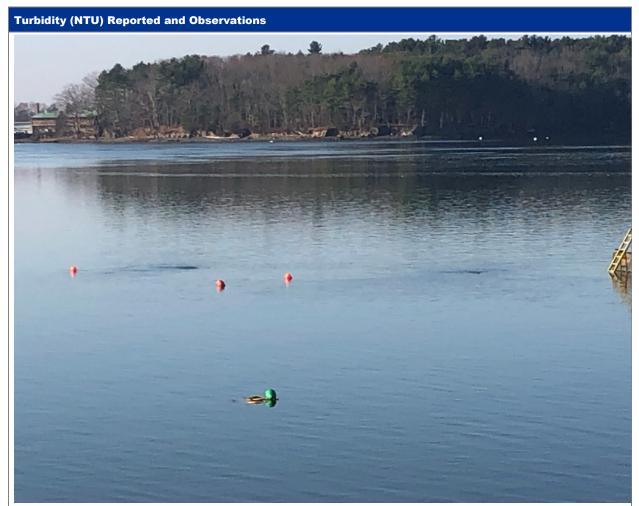
Tidal: BSAL = 15 NTU

Channel: BSAL = 16 NTU

Per NH DES, Normandeau is providing daily water quality summaries via email for hand-jetting activities.



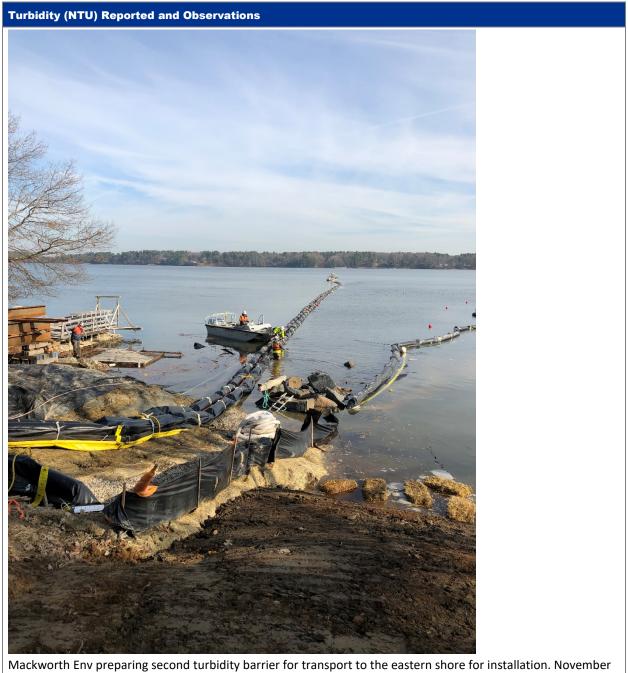
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Surface disturbance (bubbles) from two dive teams conducting burial in the eastern side of the channel of Little Bay near Gundalow Landing site. November 26, 2019 at 0902h.



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26, 2019 at 1155h.



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Summary of Work Stops, Modification and Other Operational changes requested by the IEM during Operations

Item	
1	No water quality exceedances of the BSAL were reported. No work stops or modifications were requested by the IEM. No work on west side due to issues with turbidity barrier movement and cable damage that resulted.

Action Items

Item	
1	Daily diver burial on eastern and western sides of Little Bay scheduled to resume after the Holiday. Mackworth to maintain western turbidity barrier in working condition and to install eastern turbidity barrier.

I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my own inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate, and complete to the best of my knowledge and belief.

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Signed:

Jeffrey Nield Independent Environmental Monitor 617-963-3109 jeffrey.nield@jacobs.com

Dated: November 26, 2019