Weekly Field Report Week: 05-18-14 through 05-24-14 New Bedford Harbor Lower Harbor CAD Cell (LHCC)

This Weekly Field Report was prepared to serve as a summary of field activities conducted throughout the week for Phase I dredging of the New Bedford Harbor Lower Harbor CAD Cell (LHCC) in New Bedford, Massachusetts.

1. Introduction:

The weekly field report describes the activities carried out by the Contractor (Cashman), the Owner's Representative (Apex Companies, LLC), and any subcontractors completing work within the scope of the project requirements.

This Weekly Field Report represents the twenty ninth Report associated with Phase I dredging of the LHCC in New Bedford Harbor, and the associated handling and disposal of dredged materials at CAD cells within the Harbor, and at designated open-water disposal sites approved for this Project.

This 29th Report for the LHCC dredging activities includes:

- Daily Inspection Reports from dredging oversight performed during the week of May 18th through May 24th, 2014. These reports include notes on the equipment used on site, and a summary of contractor activities. (See Attachment 1);
- Water Quality Monitoring Forms completed for the week of May 18th through May 24th, 2014, (Attachment 2) summarizing monitoring survey data recorded during active dredging. Included with the attached forms is Figure 1 Lower Harbor CAD Cell Phase I Water Quality Monitoring Plan, which shows the locations of the water quality monitoring events conducted during this reporting period. Per the approved Water Quality Monitoring Plan and associated performance standards for the dredging efforts being conducted during this reporting period, Apex has:
 - Conducted a minimum of one day of water quality monitoring during dredging.
 - Performed visual inspections of dredged materials before the disposal of a scow for any visible debris or other items that could potentially become a hazard to navigation prior to the scow's departure for the offshore disposal site.

Summary:

The Contractor, Cashman Dredging and Marine Contracting, Co. LLC (Cashman) continued LHCC dredging activities for the week using the dredge plants *Wood 1* and the *Dale Pyatt*. Dredging was conducted daily May 21st through May 24th. No dredging was performed May 18th through May 20th because the dredge plant *Dale Pyatt* was off-line for generator maintenance. The dredge *Dale Pyatt* returned to service briefly on May 21st, until encountering mechanical issues - the dredge *Wood 1* was called in to finish out the day and remained in service until the *Dale Pyatt's* return on May 23rd. Dredging operations focused on the removal of Phase I Bottom of CAD Cell sediments. During this reporting period, dredging operations were conducted using a conventional digging bucket, with dredged materials being disposed offshore at the Rhode Island Sound Disposal Site (RISDS).

Cashman was observed conducting these activities during the authorized operational window of 7 AM until sunset, utilizing two dredge plants (alternating service); the tug *Lucinda Smith*; two split-

hull scows - *Mighty Quinn*, and the *M.E.R.C Shevlin*, with capacities of 3800, and 4800 cubic yards, respectively; along with two small utility boats.

With time of year restrictions currently in place (January 15th through June 15th) all dredging activities were conducted within a silt curtain perimeter surrounding the LHCC footprint.

2. Operational Notes:

Dredging:

Dredging of LHCC Phase I Bottom of CAD sediments continued during the week. Apex conducted one day of regular dredge turbidity monitoring. Monitoring was performed May 21st while dredging was being performed to ensure that these activities did not result in any exceedance of project-specific water quality standards.

Offshore Disposal:

Offshore disposal for LHCC Phase I Bottom of CAD sediments is scheduled and permitted for the Rhode Island Sound Disposal Site. Three offshore disposal events were recorded during the week as follows – scow *Mighty Quinn* (May 23rd), and the scow *M.E.R.C Shevlin* (May 22rd and 24th).

Table 1 – Cumulative Dredging Progress

Period of Activity	Volume (cy)
Approximate Top of CAD Volume Dredged to Date	24,890
Approximate Bottom of CAD Volume Dredged this Reporting Period*	4,785
Approximate Bottom of CAD Volume Dredged to Date*	80,005

^{*} Dredge volume quantities are estimated based on observed scow draft marks and an assumed density of the materials dredged. Scows may contain varying amounts of water along with the dredge materials, thereby influencing the scow draft marks and projected volumes. Given the uncertainty in the density of a composite mix of sediments being dredged, all volumes are confirmed and adjusted as necessary using bathymetric survey data.

3. Monitoring Summary

There were no water quality exceedances observed during this reporting period related to dredging operations. Turbidity monitoring was performed, however since there were no exceedances, no water quality samples were collected for chemical analysis.

Prepared by:

Apex Companies, LLC

John B. McAllister, P.E.

Senior Project Engineer

Donald Boyé

Senior Project Manager

Attachment 1 Daily Inspection Reports



Inspector:	Adam Hart						Date:	5/18/2014		
Contractor:	Cashman/W	Veeks				Foreman/Supt:	John	Benoit, Thon	nas Mitc	hell
Weather	AM:	Clear			-	Temperature	· ·	50		
	PM:	Mosti	y Clo	udy. Win	ds 5-1	Oknts. ENE	PM:	70		
Tides	High		11	31	AM	2354	PM			
	Low		04		AM	1643	PM			
Manpower O	nsite					Equipment Ons	site			
	Foreman	2	@	11/2	Hrs	Description:			Hrs.	0
	Engineer	1	@	11	Hrs		MERC Shelv	/in	Hrs.	0
	Operators	1	@	11	Hrs		Mighty Qui	nn	Hrs.	0
	Mate	1	@_	11	_ Hrs		Lucinda Sm	ith	Hrs.	0
	Deckhand	1	@	11	Hrs		Blue Skiff		Hrs	0
Cra	ane Operator		@_	11	_ Hrs		Survey 4		Hrs	0
			_				Weeks 30		Hrs.	11
Contractor Ac										
	•					ster Bulkhead. Cr		_		
					_	Plant Dale Pyatt.				
_						ratt. 1205-Crane		_		_
_				•		eks 30 crane is loa ohn Benoit are or	-	-		_
are connecting t	•						13110. 1743	Dicage plant	Daic i y	att 3 ci cw
are connecting t	ne new gene	rator.	100	i i iii ci c w	5 01151	ic, no activity.				
Problems/Issu	ues or Action	Itoms								
None / N/A	des of Action	items.	1							
None / N//										
Visitors:										
Signature:	edda			-			Date:	5/18/2014		
Title:	Environmer	ntal Te	chnic	ian		•		1of2	2	
Copy to:	File						File:	DIR_LHCC_0	51814	



Inspector: Contractor:	Adam Hart Cashman	Date: 5/18/2014 Foreman/Supt: John Benoit, Thomas	
	ale Pyatt docked at Shuster Bulkhead while replace the damaged generator.		
Signature: Title: Copy to:	Environmental Technician File	Date: <u>5/18/2014</u> Page:2of2 File: DIR_LHCC_051814	



				III	specti	on Report				
Inspector:	Adam Hart						Date:	5/19/2014		
Contractor:	Cashman/W	/eeks				Foreman/Supt:		John Ben	oit	
Weather	AM: PM:	Clear Cloudy	//Rain	. Winds	 5 5-15kı	Temperature nts. NNW	AM: PM:	50 68		
Tides	High Low		- 0534	1	AM AM	1227 1737	PM PM			
Manpower O	nsite Foreman	1	@	11		Equipment Ons Description:			Hrs.	0
	Engineer	$\frac{1}{1}$	@ @	11 11	Hrs Hrs	Description.	MERC Shel	vin	Hrs.	0
	Operators		@ @	11	Hrs		Mighty Qu		Hrs.	0
	Mate	1	<u> </u>	11	Hrs		Lucinda Sm		Hrs.	0
	Deckhand		<u> </u>	11	Hrs		Blue Skiff		Hrs.	0
	Other		<u> </u>		Hrs		Survey 4		Hrs.	0
			<u> </u>		_	•			_	
Contractor Ac	tivities: (Atta	ch Add	itiona	l Sheets	s as Ne	cessary)				
	ite were activ n Milton CAT) ge plant Dale	vely ins on the	talling crane	a new of the	genera Dale P	tor aboard the cyatt connecting t	dredge. 113 the generat	30-Caterpillar or. According	Equipmo	ent tain
Problems/Issu	ues or Action	Items:								
None / N/A										
Visitors:										
Signature: Title: Copy to:	Environmen File				-		Page:	5/19/2014 1of1 DIR_LHCC_05		



Inspector:	Adam Hart						Date:	5/20/2014		
Contractor:	Cashman/W	/eeks				Foreman/Supt:		John Ben	oit	
Weather	AM:	Clear				Temperature		46		
	PM:	Cloud	ly /Rain	. Wind	s 5-15k	ents. SSW	PM:	70		
Tides	High		0051		AM	1326	PM			
	Low		0630		AM	1843	PM			
Manpower O	nsite					Equipment Ons	site			
	Foreman	1	@	11	Hrs	Description:	Dale Pyatt		Hrs.	0
	Engineer	1	@	11	Hrs		MERC Shel		Hrs.	0
	Operators	1	@	10	Hrs		Mighty Qu		Hrs.	0
	Mate		@	11	Hrs		Lucinda Sn	nith	Hrs.	1
	Deckhand	1	@	11	Hrs		Blue Skiff		Hrs	0
	Other		@		Hrs		Survey 4 Weeks 30		Hrs	0
Contractor Ac	tivitios: ICan	tinuad	on nov	t naga	.1		VVEEKS SU		Hrs.	T
The dredge plan	•					nment failure of	one of the	crane's genera	ators N	650-The
dredge plant Dal	-							_		
Milton CAT) arriv	•						•			-
All of the crew o			•	•	•					
bucket, wires, ar			•	_				•	_	
the dredge plant	_			•	_					_
crane. (Continue	•							- •	•	
Problems/Issu	ues or Action	Items	<u> </u>							
None / N/A										
Visitors:										
Signature:	edda				-		Date:	5/20/2014		
Title:	Environmer	ital Te	chnicia	1			Page:	1of3		
Copy to:	File						File:	DIR_LHCC_05	52014	



		ļ	Inspecti	on Report			
Inspector:	Adam Hart				Date	5/20/2014	
Contractor:	Cashman/V	Veeks		Foreman/Sup	t: John	Benoit	
Weather	AM: PM:	Clear Cloudy /Rain. Wi	nds 5-15k	Temperatur ents. SSW	e AM:	46 70	
Tides	High Low	0051 0630	AM AM	1326 1843	PM PM		
Contractor Ac	tivities: (Con	ntinued from Page	1)				
the crew boat do damage is reportit's bucket in the the crane's wires boom and lifts the dredge plant Dale Pyatt onto are actively perform Benoit the Cell area on 5/22	ock. Crew do ted, and the water and los. 1510-Cate bucket ou Dale Pyatt. the deck of torming routitug boat Luc. 1/14 at appro	walkway is raise walkway appears owers its boom to expillar Equipment at of the water. 16: 1630-The Weeks the Weeks 30. 174 are maintenance. The maintenance oximately 0530. 1	ed approx to be Cas be horized Technicia 505-Tug be 30 crane 45-The We The opera	kimately 4 inch hman's proper ontal above the in is offsite. 16 bat Lucinda Sm loads the malfu eeks 30 is repo tor from the D ne dredge plan	es off the gro ty . 1449-The Shuster bul 500-The dred with ties the V unctioning ge sitioned back ale Pyatt goe t Dale Pyatt I	ound, however dredge plant khead so the o ge plant Dale Veeks 30 cran enerator from k to the stagin es offsite. Acco	t Dale Pyatt places crew can lubricate Pyatt raises the le barge alongside the deck of the lag area. All crew ording to Captain
Problems/Issu	ies or Action	Items:					
None / N/A							
Visitors:							
Signature: Title: Copy to:		ntal Technician	7		Page	: <u>5/20/2014</u> : <u>2</u> of: : <u>DIR_LHCC_0</u>	



Inspection Report

Inspector: Adam Hart Date: 5/20/2014

Contractor: Cashman/Weeks Foreman/Supt: John Benoit



Dredge plant Dale Pyatt testing the bucket, wires, and generator.



Tug boat Lucinda Smith tying the Weeks 30 alongside the Dale Pyatt.



Dale Pyatt's crew lubricating the wires on the crane.



Weeks 30 placing the old generator onto its deck.

Date: 5/20/2014
Page: __3___of__3___

Signature:

Title: Environmental Technician

 Copy to:
 File
 DIR_LHCC_052014



					ороот	топ корот				
Inspector:	Adam Hart						Date:	5/21/2014		
Contractor:	Cashman/V	Veeks				Foreman/Supt:		John Ben	oit	
Weather	AM: PM:	Clear Ptlv. (Cloud	v. Wind	s 5-15kı	Temperature	AM: PM:	41 70		
Tides	High Low		015	50	AM AM	1424 2021	PM PM			
Manpower O		4		11	Han	Equipment Ons			Una	4
	Foreman	1		11	Hrs	Description:		-lt	Hrs	4
	Engineer	1		11	Hrs		MERC Shev		Hrs	11
	Operators Mate	1_	@_	11	— Hrs Hrs		Mighty Qui		Hrs Hrs.	<u>4</u> 6
	Deckhand		@ 	11	— Hrs		Blue Skiff	iitti	Hrs.	2
	Other		. @ _		—Hrs		Wood 1		Hrs.	4
	Other				_''''		VV 000 1			
Contractor Ac	tivities: (Con	tinued	on n	ext page	<u>-)</u>					
0615-Tug Lucind Pyatt and the scool closed and dredg Lucinda Smith tie 0920. 0930-Boo investigating. Agreportedly in neethe silt curtained	a Smith and ow MERC Shoging begins a ed off at stagem on Dale Propers WQ moned of repairs area.	dredge evlin se t 0737 ging are yatt wa itoring . 0953	e plan ecure at co ea. 09 ay up, boat 3-Luci	t Dale P d inside ordinate 15-Dre closer v arrives	ryatt he the silt es 2696 dge rep wire jur on site.	curtain. 0711-Lu 946, 815156. 09 ositions to 26960 nped back, boom 0937-Slack pull	ucinda Smitl 200-Dredgin 2048, 815169 In wires are co ed out of bo	n heads south g into the ME D and dredging completely sla dom wires - D	n. Silt cu RC Shev g resum nck - crev ale Pyat	rtain Iin. es at w t
Problems/Issu	ies or Action	Items	:							
None / N/A										
Visitors:										
Signature: Title:	Environmer File				-		Page:	5/21/2014 1of2		
Copy to:	FIIE						riie:	DIR_LHCC_0)2114	



		Ins	pecti	on Report					
Inspector:	Adam Hart				Da	ate:	5/21/2014		
Contractor:	Cashman/W	eeks		Foreman/Supt	: <u>Jo</u>	ohn B	Benoit		
Weather	_	Clear Ptly. Cloudy. Winds	5-15kr	Temperature nts. SSE	e AM PM	_	41 70		
Tides	High Low	0150 0741	AM AM	1424 2021	_PM _PM				
Contractor Ac	tivities: (Cont	inued from Page 1)							
to location of EP Shevlin tied off t secured at stagir Dale Pyatt - book transiting to the Lucinda Smith recurtain closed. A stops for the day	A pipeline - loo o scow Mighting area by 112 m lowered do LHCC; heading trieves scow 1 fe27-Wood 1 or with plans on	ut of silt curtained a cal fishing vessel co y Quinn at staging a 25 - boom is lowered wn on the barge 19 ng north through bri MERC Shevlin from begins dredging at 2 n resuming in morni e Pyatt. No further	mplica rea. 1d d on de 6. 15 dge at staging 269684 ing with	tes maneuver b 055-Lucinda Smeck and repairs 03-Lucinda Smi 1525. 1545-W g areas and has 16, 815032. 17 h same gear set	oy blocking the ties of the ti	ng pa off to 330-0 ff to t t in po ide W ging o	th of tug. 10 Dale Pyatt a Crane barge The dredge V Osition insid Vood 1 at 16 Continues. 1	047-Scow and has he SEI-30 tie Vood 1 an e silt curt 00. 1625 735-Dred	MERC er s off to nd begins ainSilt
Problems/Issu	ies or Action I	tems:							
None / N/A									
Visitors:									
Signature: Title: Copy to:		al Technician			Pa	age: _	5/21/2014 2of2 DIR_LHCC_0		
						_	_		



						<u> </u>				
Inspector:	Don Boye						Date:	5/22/2014		
Contractor:	Cashman					Foreman/Supt:	Thomas	Mitchell		
Weather	AM: PM:	Ptly. 0		•	_ Winds	Temperature s 5knts. SE	AM: PM:	53 62		
Tides	High		024		AM	1524	PM			
	Low		08		AM	2209	PM			
Manpower Or	nsite					Equipment Ons	ite			
	Foreman	1	@	12	Hrs	Description:	Wood 1		Hrs.	12
	Engineer	1	@	12	Hrs		Lucinda Sm	ith	Hrs.	12
	Operators	1	@	12	Hrs	•	Gray Skiff		Hrs.	4
	Mate		@		Hrs		M.E.R.C. Sh	evlin	Hrs.	12
	Deckhand	1	@	11	Hrs	•	AF Maurice	& SEI 38	Hrs.	
	Other:		@		Hrs		Mighty Qui	nn	Hrs.	
Contractor Ac	tivities: (Con	tinued	on n	ext page)						
0630-On-board o	redge plant	Wood	1, dr	edging ur	nderwa	ay into scow MEF	RC Shevlin, d	rafting 6'-6".	Dredging	gat
coordinates 2696	5785 <i>,</i> 81503	5. Dre	dge n	naterials _l	primar	ily tan colored sa	ands - good	production of	served v	with a
14CY open diggir	ng bucket. 0	738-Dr	edge	repositio	ns to 2	2696804, 815027	7. 0747-Obs	erved silt cur	tain near	ly intact
all around LHCC,	one small "i	ntact"	section	on with a	deflat	ed bladder; one	open sectior	n for passage	of skiff -	barge
captain informed	and openin	g was t	tighte	ened. 084	15-Buc	ket on deck to cl	ear fouled c	able reave an	d to re-p	aint
marks on closing	wire. 0900	-Dredg	ing re	esumes.	1000-[Oredge stops, bu	cket on decl	k for service (greasing)	, issue
discovered with	wire jumped	out of	head	d sheave -	repai	rs start at 1025.	1048-Dredg	ing resumes.		
Problems/Issu	es or Action	Items:								
None / N/A										
Visitors:										
Signature:	Ching	br.	th	Ør			Date:	5/22/14		
Title:	Environmer	ntal Ins	pecto	or			-	1of1		
Copy to:	File						File:	DIR_LHCC_05	52214	



		ilispeci	ion Report		
Inspector:	Don Boye			Date:	: 5/22/2014
Contractor:	Cashman		Foreman/Supt:	Thoma	s Mitchell
Weather	AM: PM:	Ptly. Cloudy Overcast / Rain PM. Wind	Temperature s 5knts. SE	AM: PM:	53 62
Tides	High Low	0249 AM 0859 AM	1524 2209	PM PM	
Contractor Ac	tivities: (Cor	ntinued from Page 1)			
815097. 1225-Circling and takin Dredge stops - cl 815053 to dig in Dredge resumes now drafting 11' drafting 11' -3" f	Oredge stops ng photograp hecking dred an area furt and at 1500 -3" fwd and wd/aft. 173	ohs of dredge. 1238-Dredge dge planes, digging slope of her down slope at -37'. 133 scow drafting 11' fwd and	n closing wire. Obe repositions to 2 cell at an elevati 34-Dredge stops, 9-1/2' aft. 1600 rection to keep ong. 1740-Silt curi	oserved a sr 2696789, 81 ion of -27'. , scow draft -Dredge cor ligging until	mall blue skiff with a whale logo 15025 and resumes. 1303- Dredge then shifts to 2696797, ting 12' fwd and 9'aft. 1408- nducts a wash-down of scow I scow on even keel. 1638-Scow
Problems/Issu	ies or Action	ltems:			
None / N/A					
Visitors:					
Signature: Title: Copy to:	Environment File	ntal Inspector		Page	: <u>5/22/14</u> : <u>2of2</u> : <u>DIR_LHCC_052214</u>



				ln	specti	on Report				
Inspector:	Christophe	r Stillma	an				Date:	5/23/2014		
Contractor:	Cashman					Foreman/Supt:	Thomas	Mitchell		
Weather	AM: PM:		•	5-10kts dy Wind	ls 8-10 l	Temperature <nts. se<="" td=""><td>AM: PM:</td><td>54 68</td><td></td><td></td></nts.>	AM: PM:	54 68		
Tides	High Low		035 100		AM AM	1626 2314	PM PM			
Manpower O	nsite					Equipment Ons	ite			
	Foreman	1	@	11	Hrs	Description:			Hrs.	11
	Engineer		@		Hrs		Lucinda Sm	ith	Hrs.	12
	Operators	1	@ _	11	Hrs		Gray Skiff		Hrs	5
	Mate		@ _		Hrs		M.E.R.C. Sh		Hrs.	0
	Deckhand		@_	11	Hrs		AF Maurice		Hrs	
	Other:		@_		Hrs		Mighty Qui	nn	Hrs	12
first bucket of the on east side of the Dredge stops for 0945-Dredge dedredging resume Dredge plant stoplant resumes description at a stopped.	ed to the dre Thomas Mit te day. 0735 the curtain. 0 a preparatio pth 14.25' Fil ed. 1105-Loo ps dredging redging in cu	edge place p	ant W leckha e stop epairs nove t nediu Dredg to a	Vood 1, and- Ray oped for comple cowards m SAND ge bucke new pos	split sco mond, curtain ete, dred the sou , some et positi sition: 8	and Crane Opera repairs. 0800-N dge resumes load Itheast. 0926-Dr Silt. 0958-Gate o	ator- Rick. O Mitchell and ding the spli redging resu open too wi 5718 in cut 1 at cut 1 at oth of 12.88	710- Dredge Raymond att t scow Might med at a dep de, repairs clo 1 at a depth of a depth of 14 '. 1213-Dred	plant tal empting y Quinn. Ith of 12 ose it up of 15.77' .46' 113 ge Plant	kes its grepairs 0920- ' in cut 1. , 1126- 84-Dredge moves to
Visitors:										
Signature:		fr.						5/23/14		
Title:	Environmen	ntal Ins	pecto	r			Page:	1of2		
Copy to:	File						File:	DIR_LHCC_0	52314	



Inspector: Christopher Stillman			Ins	specti	on Report			
Weather AM: Cloudy, SE 5-10kts Temperature AM: 54 PM: Partly Cloudy Winds 8-10 knts. SE PM: 68 Tides High 0350 AM 1626 PM Low 1001 AM 2314 PM Contractor Activities: (Continued from Page 1) 310-Tug Lucinda Smith makes up to the split scow Mighty Quinn-the dredge plant Wood 1 crabs north into cut while the Tug Lucinda Smith brings the Mighty Quinn alongside the Wood's port side. 1328-Dredging resumes at new cut 3 location: 814938, 2696807- Brown fine to medium SAND with some Silt at a dredge depth of 15.78'. 1400-Dredging stops for a shift to the west to begin dredging down the north entrance channel area of the CAD rell area of cut 3- skiff busy, delaying the move. 1437-Dredging resumes at location 814870, 2696788 in cut 3- st fine to medium SAND, with some silt at a dredge depth of 15.65'. 1438-The split scow Mighty Quinn is drafting a' 8.5' on the stern and 9' on the bow. 1538- The split scow Mighty Quinn is drafting 9' Fore/Aft. 1540-Dredging stops while the dredge plant Wood 1 moves to the west to finish the entrance channel- new location: 814815, 2696771. 1605-Wood 1 calls for tug to remove Mighty Quinn from curtained area. 1645-Lucinda Smith moves Wood 1 to staging area, and at 1755 dredge crew departs. 1852-Lucinda Smith moves dredge plant Dale Pyatt in position at the LHCC. Mighty Quinn slated for offshore disposal tonight. No further activity. Problems/Issues or Action Items: None / N/A Visitors: Signature: Environmental Inspector Date: 5/23/14 Page: 2of_2_	Inspector:	Christophe	r Stillman			Date:	5/23/2014	
Tides High Low 1001 AM 1626 PM 2314 PM Contractor Activities: (Continued from Page 1) 1310-Tug Lucinda Smith makes up to the split scow Mighty Quinn- the dredge plant Wood 1 crabs north into cut while the Tug Lucinda Smith brings the Mighty Quinn alongside the Wood's port side. 1328-Dredging resumes at new cut 3 location: 814938, 2696807- Brown fine to medium SAND with some Silt at a dredge depth of 15.78'. 1400-Dredging stops for a shift to the west to begin dredging down the north entrance channel area of the CAD cell area of cut 3-skiff busy, delaying the move. 1437-Dredging resumes at location 814870, 2696788 in cut 3-st fine to medium SAND, with some silt at a dredge depth of 15.65'. 1438-The split scow Mighty Quinn is drafting a' 85' on the stern and 9' on the bow. 1538- The split scow Mighty Quinn is drafting a' Fore/Aft. 1540-Dredging stops while the dredge plant Wood 1 moves to the west to finish the entrance channel- new location: 814815, 2696771. 1605-Wood 1 calls for tug to remove Mighty Quinn from curtained area. 1645-Lucinda Smith moves Mighty Quinn to staging area. 1720-Mighty Quinn cleared for offshore disposal. 1725-Lucinda Smith moves Wood 1 to staging area, and at 1755 dredge crew departs. 1852-Lucinda Smith moves dredge plant Dale Pyatt in position at the LHCC. Mighty Quinn slated for offshore disposal tonight. No further activity. Problems/Issues or Action Items: None / N/A Visitors: Date: 5/23/14 Page:	Contractor:	Cashman			Foreman/Supt:	Thomas	s Mitchell	
Contractor Activities: (Continued from Page 1) 1310-Tug Lucinda Smith makes up to the split scow Mighty Quinn- the dredge plant Wood 1 crabs north into cut while the Tug Lucinda Smith brings the Mighty Quinn alongside the Wood's port side. 1328-Dredging resumes at new cut 3 location: 814938, 2696807- Brown fine to medium SAND with some Silt at a dredge depth of 15.78'. 1400-Dredging stops for a shift to the west to begin dredging down the north entrance channel area of the CAD cell area of cut 3- skiff busy, delaying the move. 1437-Dredging resumes at location 814870, 2696788 in cut 3- st fine to medium SAND, with some silt at a dredge depth of 15.65'. 1438-The split scow Mighty Quinn is drafting as 8.5' on the stern and 9' on the bow. 1538- The split scow Mighty Quinn is drafting 9' Fore/Aft. 1540-Dredging stops while the dredge plant Wood 1 moves to the west to finish the entrance channel- new location: 814815, 2696771. 1605-Wood 1 calls for tug to remove Mighty Quinn from curtained area. 1645-Lucinda Smith moves Mighty Quinn to staging area. 1720-Mighty Quinn cleared for offshore disposal. 1725-Lucinda Smith moves Wood 1 to staging area, and at 1755 dredge crew departs. 1852-Lucinda Smith moves dredge plant Dale Pyatt in position at the LHCC. Mighty Quinn slated for offshore disposal tonight. No further activity. Problems/Issues or Action Items: None / N/A Visitors: Date: 5/23/14 Page:2of2	Weather			s 8-10 k	•			
1310-Tug Lucinda Smith makes up to the split scow Mighty Quinn- the dredge plant Wood 1 crabs north into cut while the Tug Lucinda Smith brings the Mighty Quinn alongside the Wood's port side. 1328-Dredging resumes at new cut 3 location: 814938, 2696807- Brown fine to medium SAND with some Silt at a dredge depth of 15.78'. 1400-Dredging stops for a shift to the west to begin dredging down the north entrance channel area of the CAD cell area of cut 3- skiff busy, delaying the move. 1437-Dredging resumes at location 814870, 2696788 in cut 3- st fine to medium SAND, with some silt at a dredge depth of 15.65'. 1438-The split scow Mighty Quinn is drafting a' 8.5' on the stern and 9' on the bow. 1538- The split scow Mighty Quinn is drafting 9' Fore/Aft. 1540-Dredging stops while the dredge plant Wood 1 moves to the west to finish the entrance channel- new location: 814815, 2696771. 1605-Wood 1 calls for tug to remove Mighty Quinn from curtained area. 1645-Lucinda Smith moves Mighty Quinn to staging area. 1720-Mighty Quinn cleared for offshore disposal. 1725-Lucinda Smith moves Wood 1 to staging area, and at 1755 dredge crew departs. 1852-Lucinda Smith moves dredge plant Dale Pyatt in position at the LHCC. Mighty Quinn slated for offshore disposal tonight. No further activity. Problems/Issues or Action Items: None / N/A Visitors: Date: 5/23/14 Environmental Inspector Date: 5/23/14 Page:	Tides	_				_		
while the Tug Lucinda Smith brings the Mighty Quinn alongside the Wood's port side. 1328-Dredging resumes at new cut 3 location: 814938, 2696807- Brown fine to medium SAND with some Silt at a dredge depth of 15.78'. 1400-Dredging stops for a shift to the west to begin dredging down the north entrance channel area of the CAD cell area of cut 3- skiff busy, delaying the move. 1437-Dredging resumes at location 814870, 2696788 in cut 3- st fine to medium SAND, with some silt at a dredge depth of 15.65'. 1438-The split scow Mighty Quinn is drafting at 8.5' on the stern and 9' on the bow. 1538- The split scow Mighty Quinn is drafting 9' Fore/Aft. 1540-Dredging stops while the dredge plant Wood 1 moves to the west to finish the entrance channel- new location: 814815, 2696771. 1605-Wood 1 calls for tug to remove Mighty Quinn from curtained area. 1645-Lucinda Smith moves Mighty Quinn to staging area. 1720-Mighty Quinn cleared for offshore disposal. 1725-Lucinda Smith moves Wood 1 to staging area, and at 1755 dredge crew departs. 1852-Lucinda Smith moves dredge plant Dale Pyatt in position at the LHCC. Mighty Quinn slated for offshore disposal tonight. No further activity. Problems/Issues or Action Items: None / N/A Visitors: Date: 5/23/14 Environmental Inspector Date: 5/23/14 Page:	Contractor Ac	tivities: (Cor	ntinued from Page 1)					
None / N/A Visitors: Signature: Date: 5/23/14 Title: Environmental Inspector Page: 2 of2	while the Tug Lunew cut 3 location 1400-Dredging so cell area of cut 3 fine to medium 58.5' on the stern stops while the cap 2696771. 1605-Mighty Quinn to Wood 1 to stagin	cinda Smith on: 814938, tops for a sh s- skiff busy, SAND, with so and 9' on the dredge plant Wood 1 callso staging area	brings the Mighty Quage 2696807- Brown fine ift to the west to be delaying the move. Some silt at a dredge see bow. 1538- The specific Wood 1 moves to the for tug to remove Mar. 1720-Mighty Quin at 1755 dredge crew	uinn alo e to med gin dred 1437-Di depth d olit scow ne west Mighty (in cleard depart	ongside the Woodium SAND with dging down the redging resumes of 15.65'. 1438-v Mighty Quinn it to finish the entaguinn from curtaged for offshore cats. 1852-Lucinda	od's port side some Silt a north entral s at location The split sco is drafting 9 trance chan ained area. disposal. 17	e. 1328-Dredge t a dredge de nce channel a 814870, 269 bw Mighty Qu ' Fore/Aft. 15 nel- new loca 1645-Lucinda S ves dredge pla	ging resumes at pth of 15.78'. rea of the CAD 6788 in cut 3- stiff inn is drafting at 40-Dredging ation: 814815, a Smith moves mith moves
Visitors: Signature:		ues or Action	Items:					
Signature: Date: 5/23/14 Title: Environmental Inspector Page: _2of2	None / N/A							
Title: Environmental Inspector Page:2of2	Visitors:							
Copy to. File: DIK_LECC_052314	Title:		the state of the s			Page:	2of2	
	сору го:	riie				File:	DIK_LHCC_0	32314



				III	specii	on Report					
Inspector:	Brett Young	5					D	ate : 5/	24/2014		
Contractor:	Cashman					Foreman/Supt:	Tho	omas Mi	tchell		
Weather	AM: PM:	Cloud Cloud		n. Winds	s 8-15 k	Temperature ents. NNE	AM PM		63 49		
Tides	High Low		045 104		AM AM	1727 -	PM PM				
Manpower O	nsite					Equipment Ons	site				
manpower o	Foreman Engineer Operators Mate Deckhand Other:	1 1 1 1		12 12 12 12	Hrs Hrs Hrs Hrs Hrs Hrs	Description:	Dale Po Lucind Gray SI M.E.R. AF Ma	a Smith		Hrs Hrs Hrs Hrs Hrs Hrs	12 12 4 12
Contractor Ac	tivities:										
0630-Crew aboa adjusting lines a 2696879, 81510 off at staging are continues, mate balance of water aft. 1235-Dredg Cut-7, Sta.6+41, Dredging at 2690 curtain is opened 1808-Lucinda Sn Terminal.	nd painting n 4. 0815-Luci ea, tug ties up rial observed r. 1036-Drec ging at a posi 2696960, 81 6875, 815254 d. 1740-Sco	narks onda Snoor along of to be diging stition of 5176. Here of the manner of the man	on closonith and side Norwightops (2696 1523 14-Dre	sing cabled scow Wood 1. In sand (sproblem 884, 81! Indicated by the same state of t	le. 071 Mighty 0910- some sin with s 5190. 1 ng in Cu cut-6,	4-Dredging beging / Quinn come no Dredge reposition It), buckets are 5 puds), resumes 6 1259-Position of 1-7, 6+74, 26969 Sta.7+10, 26969 and cleared for compared for compare	ns in Cu orthbou ons to 2 50%-759 at 1050 scow sh 224, 815 004, 815	t-6, Sta- nd throu 696875, % dredg . 1055- nifted fo 5254, ma 5270. 17	5+55, at a ugh the br 815141. ed materi Scow dra rward. 1 aterial bro 735-Dreda drafting 1	a positionidge; sc 0940-D al with the fting 8'-(355-Dre own sand ging stop 1' fwd. 1	n of ow tied redging the 6"fwd 7' edging in d. 1628- os, silt 12'-6"aft.
Signature: Title:	Brett Young Environmer		pecto	r				oate: <u>5/2</u> age:1	.4/14 Lof:	l	
Copy to:	File							File: <u>DIR</u>	LHCC_0	52414	

Attachment 2 Water Quality Monitoring Forms

 PROJECT:
 New Bedford Harbor Lower Harbor CAD Cell

 JOB NUMBER:
 6724

 SURVEY DATE:
 5/21/2014

 MONITORS:
 Kaios Ryan

 WEATHER CONDITIONS:
 Low:
 46
 High:
 71

 WIND CONDITIONS:
 Speed:
 5-9 MPH
 Direction:
 SE

 PRIOR STORM EVENTS:
 DREDGE / SCOW Position:
 Northing/Easting:

 TYPE OF WATER QUALITY MONITORING EVENT:
 TOP CAD Dredging / BTM CAD Dredging / Disposal



TYPE OF WATER QUALIT					ing / Disposa	al		- /\ I-	リー X
TIDE INFORMATION:		0151/1424		0737/2001				_ / \ \	
WAS WATER QUALITY S. GENERAL NOTES:	AMPLING PERFORMED	? (YES/NO)	:	IF YES, ATTA	CH COC FOR	MS		_	
GENERAL NOTES:									
					LID CLIDDI	ENT			
					UP-CURRI	<u>EN I</u>			
		7							
			TOTAL WATER	SAMPLE	TURBIDITY			RELATIVE POSITION	NUMBER OF HOURS
Monitoring ID #	NORTHING / EASTING	TIME	DEPTH (ft)	DEPTH (ft)	(NTUs)	GPS FILE NAME	TIDAL STAGE	OF MEASUREMENT	DREDGING
052114-0-1-1		0747	_	1	3.51	Apex wqm			_
052114-0-1-2	815101, 2697016	0749	4.1	2	3.51	sterm Ihcc	Flood/Slack	200' S of Dredge	0
052114-0-1-4		0751		4	5.14	052114			
			AVERAGE T	URBIDITY:	4.05	_			
052114-2-1-1	I	0937	1	1	2.22	Apex wqm		1	
052114-2-1-3.5	815066, 2696415	0939	7.8	3.5	3.15	sterm Ihcc	Flooding	200' S of Dredge	2
052114-2-1-7		0941	10	7	2.49	052114			
			AVERAGE T		2.62				
052114-4-1-1		1145		1	2.08	Apex wqm			
052114-4-1-4	815096, 2696485	1147	8.3	4	1.86	sterm Ihcc	Flooding	200' S of Dredge	4
052114-4-1-8		1149		8	3.16	052114			
			AVERAGE T	URBIDITY:	2.37	_			
052444.6.4.4	1	4040	1		2.00	Anav		1	
052114-6-1-1	815018, 2696443	1343 1345	10.5	1 5	2.23 1.76	Apex wqm	Flooding	200' S of Dredge	6
052114-6-1-5 052114-6-1-10	013010, 2030443	1345	10.5	10	1.76	sterm Ihcc 052114	riodding	200 3 of Dreage	0
032114-0-1-10		1347	AVERAGE T		1.82	032114			
			AVERAGE	OKDIDITT.	1.02	_			
052114-8-1-1		1537		1	2.13	Apex wqm			
052114-8-1-4	815179, 2697361	1539	9	4	2.25	sterm Ihcc	Ebbing	200' N of Dredge	8
052114-8-1-8		1541		8	2.43	052114			
			AVERAGE T	URBIDITY:	2.27				
					Down-Cur	rent			
Monitoring ID #	NORTHING / EASTING	TIME	TOTAL WATER	SAMPLE	TURBIDITY		TIDAL STAGE	DISTANCE FROM	NUMBER OF HOURS
Monitoring ID #	NORTHING / EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)		rent GPS FILE NAME	TIDAL STAGE	DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
052114-0-9-1		0740	DEPTH (ft)	DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME Apex wqm		LOCATION	DREDGING
052114-0-9-1 052114-0-9-2.5	NORTHING / EASTING 815146, 2696448	0740 0742		1 2.5	TURBIDITY (NTUs) 3.1 4.12	GPS FILE NAME Apex wqm sterm lhcc	TIDAL STAGE Flood/Slack		
052114-0-9-1		0740	DEPTH (ft) 5.6	1 2.5 5	TURBIDITY (NTUs) 3.1 4.12 5.82	GPS FILE NAME Apex wqm		LOCATION	DREDGING
052114-0-9-1 052114-0-9-2.5		0740 0742	5.6 AVERAGE T	DEPTH (ft) 1 2.5 5 TURBIDITY:	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35	GPS FILE NAME Apex wqm sterm lhcc		LOCATION	DREDGING
052114-0-9-1 052114-0-9-2.5		0740 0742	DEPTH (ft) 5.6	DEPTH (ft) 1 2.5 5 TURBIDITY:	TURBIDITY (NTUs) 3.1 4.12 5.82	GPS FILE NAME Apex wqm sterm lhcc		LOCATION	DREDGING
052114-0-9-1 052114-0-9-2.5		0740 0742	5.6 AVERAGE T	DEPTH (ft) 1 2.5 5 TURBIDITY:	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35	GPS FILE NAME Apex wqm sterm lhcc		LOCATION	DREDGING
052114-0-9-1 052114-0-9-2.5 052114-0-9-5		0740 0742 0744	5.6 AVERAGE T	DEPTH (ft) 1 2.5 5 TURBIDITY:	3.1 4.12 5.82 4.35 0.29	Apex wqm sterm lhcc 052114		LOCATION	DREDGING
052114-0-9-1 052114-0-9-2.5 052114-0-9-5 052114-2-9-1	815146, 2696448	0740 0742 0744	5.6 AVERAGE T TURBIDITY	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29	Apex wqm sterm lhcc 052114	Flood/Slack	LOCATION 15' N of Silt Curtain	DREDGING 0
052114-0-9-1 052114-0-9-2.5 052114-0-9-5 052114-0-9-5 052114-2-9-1 052114-2-9-2	815146, 2696448	0740 0742 0744 0744	5.6 AVERAGE T TURBIDITY 4 AVERAGE T	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3 TURBIDITY:	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29 2.1 4.44 4.48 3.67	Apex wqm sterm lhcc 052114 Apex wqm sterm lhcc	Flood/Slack	LOCATION 15' N of Silt Curtain	DREDGING 0
052114-0-9-1 052114-0-9-2.5 052114-0-9-5 052114-0-9-5 052114-2-9-1 052114-2-9-2	815146, 2696448	0740 0742 0744 0744	5.6 AVERAGE T TURBIDITY	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3 TURBIDITY:	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29 2.1 4.44 4.48	Apex wqm sterm lhcc 052114 Apex wqm sterm lhcc	Flood/Slack	LOCATION 15' N of Silt Curtain	DREDGING 0
052114-0-9-1 052114-0-9-2.5 052114-0-9-5 052114-2-9-1 052114-2-9-2 052114-2-9-3	815146, 2696448	0740 0742 0744 0744 0947 0949 0951	5.6 AVERAGE T TURBIDITY 4 AVERAGE T	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3 TURBIDITY: INCREASE:	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29 2.1 4.44 4.48 3.67 1.05	Apex wqm sterm lhcc 052114 Apex wqm sterm lhcc 052114	Flood/Slack	LOCATION 15' N of Silt Curtain	DREDGING 0
052114-0-9-1 052114-0-9-2.5 052114-0-9-5 052114-2-9-1 052114-2-9-2 052114-2-9-3	815146, 2696448 8151401, 2697016	0740 0742 0744 0744 0947 0949 0951	DEPTH (ft) 5.6 AVERAGE T TURBIDITY 4 AVERAGE T TURBIDITY	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3 TURBIDITY: INCREASE: INCREAS	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29 2.1 4.44 4.48 3.67 1.05	Apex wqm Apex wqm sterm lhcc 052114 Apex wqm sterm lhcc 052114 Apex wqm Apex wqm	Flood/Slack Flooding	15' N of Silt Curtain 15' N of Silt Curtain	DREDGING 0
052114-0-9-1 052114-0-9-2.5 052114-0-9-5 052114-2-9-1 052114-2-9-2 052114-2-9-3 052114-4-9-1 052114-4-9-1	815146, 2696448	0740 0742 0744 0744 0947 0949 0951	5.6 AVERAGE T TURBIDITY 4 AVERAGE T	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3 TURBIDITY: INCREASE: 1 2.5 1 2.5	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29 2.1 4.44 4.48 3.67 1.05	Apex wqm sterm lhcc 052114 Apex wqm sterm lhcc 052114 Apex wqm sterm lhcc 052114	Flood/Slack	LOCATION 15' N of Silt Curtain	DREDGING 0
052114-0-9-1 052114-0-9-2.5 052114-0-9-5 052114-2-9-1 052114-2-9-2 052114-2-9-3	815146, 2696448 8151401, 2697016	0740 0742 0744 0744 0947 0949 0951	DEPTH (ft) 5.6 AVERAGE 1 TURBIDITY: 4 AVERAGE 1 TURBIDITY: 5.6	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3 TURBIDITY: INCREASE: 1 2.5 5 5	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29 2.1 4.44 4.48 3.67 1.05 3.3 3.36 3.55	Apex wqm Apex wqm sterm lhcc 052114 Apex wqm sterm lhcc 052114 Apex wqm Apex wqm	Flood/Slack Flooding	15' N of Silt Curtain 15' N of Silt Curtain	DREDGING 0
052114-0-9-1 052114-0-9-2.5 052114-0-9-5 052114-2-9-1 052114-2-9-2 052114-2-9-3 052114-4-9-1 052114-4-9-1	815146, 2696448 8151401, 2697016	0740 0742 0744 0744 0947 0949 0951	DEPTH (ft) 5.6 AVERAGE T TURBIDITY 4 AVERAGE T TURBIDITY	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3 TURBIDITY: INCREASE: 1 2.5 5 TURBIDITY:	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29 2.1 4.44 4.48 3.67 1.05	Apex wqm sterm lhcc 052114 Apex wqm sterm lhcc 052114 Apex wqm sterm lhcc 052114	Flood/Slack Flooding	15' N of Silt Curtain 15' N of Silt Curtain	DREDGING 0
052114-0-9-1 052114-0-9-2.5 052114-0-9-5 052114-2-9-1 052114-2-9-2 052114-2-9-3 052114-4-9-1 052114-4-9-1	815146, 2696448 8151401, 2697016	0740 0742 0744 0744 0947 0949 0951	DEPTH (ft) 5.6 AVERAGE 1 TURBIDITY 4 AVERAGE 1 TURBIDITY 5.6 AVERAGE 1	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3 TURBIDITY: INCREASE: 1 2.5 5 TURBIDITY:	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29 2.1 4.44 4.48 3.67 1.05 3.3 3.36 3.55 3.40	Apex wqm sterm lhcc 052114 Apex wqm sterm lhcc 052114 Apex wqm sterm lhcc 052114	Flood/Slack Flooding	15' N of Silt Curtain 15' N of Silt Curtain	DREDGING 0
052114-0-9-1 052114-0-9-2.5 052114-0-9-5 052114-0-9-5 052114-2-9-1 052114-2-9-3 052114-2-9-3 052114-4-9-1 052114-4-9-5 052114-4-9-5	815146, 2696448 8151401, 2697016 GPS DATA ERROR	0740 0742 0742 0744 0947 0949 0951 1156 1158 1200	AVERAGE 1 TURBIDITY 4 AVERAGE 1 TURBIDITY 5.6 AVERAGE 1 TURBIDITY	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3 TURBIDITY: INCREASE: 1 2.5 5 TURBIDITY: INCREASE: 1 1 2.5 5 TURBIDITY: INCREASE: 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29 2.1 4.44 4.48 3.67 1.05 3.36 3.55 3.40 1.04	Apex wqm sterm lhcc 052114	Flood/Slack Flooding Flooding	LOCATION 15' N of Silt Curtain 15' N of Silt Curtain	DREDGING 0 2
052114-0-9-1 052114-0-9-2.5 052114-0-9-5 052114-0-9-5 052114-2-9-1 052114-2-9-3 052114-2-9-3 052114-4-9-1 052114-4-9-5 052114-6-9-1 052114-6-9-3.5	815146, 2696448 8151401, 2697016	0740 0742 0744 0744 0947 0949 0951 1156 1158 1200	DEPTH (ft) 5.6 AVERAGE 1 TURBIDITY 4 AVERAGE 1 TURBIDITY 5.6 AVERAGE 1	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3 TURBIDITY: INCREASE: 1 2.5 5 TURBIDITY: INCREASE: 1 2.5 5 TURBIDITY: INCREASE:	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29 2.1 4.44 4.48 3.67 1.05 3.3 3.36 3.36 3.40 1.04	Apex wqm sterm lhcc 052114	Flood/Slack Flooding	15' N of Silt Curtain 15' N of Silt Curtain	DREDGING 0
052114-0-9-1 052114-0-9-2.5 052114-0-9-5 052114-0-9-5 052114-2-9-1 052114-2-9-3 052114-2-9-3 052114-4-9-1 052114-4-9-5 052114-4-9-5	815146, 2696448 8151401, 2697016 GPS DATA ERROR	0740 0742 0742 0744 0947 0949 0951 1156 1158 1200	DEPTH (ft) 5.6 AVERAGE T TURBIDITY 4 AVERAGE T TURBIDITY 5.6 AVERAGE T TURBIDITY 7.6	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3 TURBIDITY: INCREASE: 1 2.5 5 TURBIDITY: INCREASE: 1 2.5 7	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29 2.1 4.44 4.48 3.67 1.05 3.3 3.36 3.55 3.40 1.04 4.38 4.28 3.95	Apex wqm sterm lhcc 052114	Flood/Slack Flooding Flooding	LOCATION 15' N of Silt Curtain 15' N of Silt Curtain	DREDGING 0 2
052114-0-9-1 052114-0-9-2.5 052114-0-9-5 052114-0-9-5 052114-2-9-1 052114-2-9-3 052114-2-9-3 052114-4-9-1 052114-4-9-5 052114-6-9-1 052114-6-9-3.5	815146, 2696448 8151401, 2697016 GPS DATA ERROR	0740 0742 0744 0744 0947 0949 0951 1156 1158 1200	AVERAGE 1 TURBIDITY 1 4 AVERAGE 1 TURBIDITY 1 5.6 AVERAGE 1 TURBIDITY 1 7.6 AVERAGE 1 AVERAGE 1	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3 TURBIDITY: INCREASE: 1 2.5 5 TURBIDITY: INCREASE: 1 2.5 5 TURBIDITY: INCREASE: 1 3 TURBIDITY: INCREASE: 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29 2.1 4.44 4.48 3.67 1.05 3.3 3.36 3.55 3.40 1.04 4.38 4.28 3.95 4.20	Apex wqm sterm lhcc 052114	Flood/Slack Flooding Flooding	LOCATION 15' N of Silt Curtain 15' N of Silt Curtain 15' N of Silt Curtain	DREDGING 0 2
052114-0-9-1 052114-0-9-2.5 052114-0-9-5 052114-2-9-1 052114-2-9-2 052114-2-9-3 052114-4-9-1 052114-4-9-5 052114-6-9-1 052114-6-9-3.5	815146, 2696448 8151401, 2697016 GPS DATA ERROR	0740 0742 0744 0744 0947 0949 0951 1156 1158 1200	DEPTH (ft) 5.6 AVERAGE T TURBIDITY 4 AVERAGE T TURBIDITY 5.6 AVERAGE T TURBIDITY 7.6	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3 TURBIDITY: INCREASE: 1 2.5 5 TURBIDITY: INCREASE: 1 2.5 5 TURBIDITY: INCREASE: 1 3 TURBIDITY: INCREASE: 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29 2.1 4.44 4.48 3.67 1.05 3.3 3.36 3.55 3.40 1.04 4.38 4.28 3.95	Apex wqm sterm lhcc 052114	Flood/Slack Flooding Flooding	LOCATION 15' N of Silt Curtain 15' N of Silt Curtain 15' N of Silt Curtain	DREDGING 0 2
052114-0-9-1 052114-0-9-2.5 052114-0-9-5 052114-2-9-1 052114-2-9-2 052114-2-9-3 052114-4-9-1 052114-4-9-5 052114-6-9-1 052114-6-9-7	815146, 2696448 8151401, 2697016 GPS DATA ERROR	0740 0742 0744 0744 0947 0949 0951 1156 1158 1200	AVERAGE 1 TURBIDITY 1 4 AVERAGE 1 TURBIDITY 1 5.6 AVERAGE 1 TURBIDITY 1 7.6 AVERAGE 1 AVERAGE 1	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3 TURBIDITY: INCREASE: 1 5 TURBIDITY: INCREASE: 1 3.5 7 TURBIDITY: INCREASE:	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29 2.1 4.44 4.48 3.67 1.05 3.3 3.36 3.36 1.04 4.38 4.28 3.95 4.20 2.38	Apex wqm sterm lhcc 052114	Flood/Slack Flooding Flooding	LOCATION 15' N of Silt Curtain 15' N of Silt Curtain 15' N of Silt Curtain	DREDGING 0 2
052114-0-9-1 052114-0-9-2.5 052114-0-9-5 052114-0-9-5 052114-2-9-1 052114-2-9-2 052114-2-9-3 052114-4-9-1 052114-4-9-5 052114-6-9-3.5 052114-6-9-7	815146, 2696448 8151401, 2697016 GPS DATA ERROR	0740 0742 0744 0744 0947 0947 0951 1156 1158 1200	DEPTH (ft) 5.6 AVERAGE T TURBIDITY 4 AVERAGE T TURBIDITY 5.6 AVERAGE T TURBIDITY 7.6 AVERAGE T TURBIDITY	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3 TURBIDITY: INCREASE: 1 2.5 5 TURBIDITY: INCREASE: 1 2.5 7 TURBIDITY: INCREASE: INCREAS	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29 2.1 4.44 4.48 3.67 1.05 3.3 3.36 3.55 3.55 1.04 4.38 4.28 3.95 4.20 2.38	Apex wqm sterm lhcc 052114 Apex wqm	Flood/Slack Flooding Flooding	LOCATION 15' N of Silt Curtain 15' N of Silt Curtain 15' N of Silt Curtain	DREDGING 0 2
052114-0-9-1 052114-0-9-5 052114-0-9-5 052114-0-9-5 052114-2-9-1 052114-2-9-3 052114-2-9-3 052114-4-9-1 052114-4-9-5 052114-6-9-1 052114-6-9-7 052114-8-9-1 052114-8-9-1 052114-8-9-1 052114-8-9-1	815146, 2696448 8151401, 2697016 GPS DATA ERROR 815212, 2697073	0740 07742 0744 0744 0947 0949 0951 1156 1158 1200 1354 1356 1358	AVERAGE 1 TURBIDITY 1 4 AVERAGE 1 TURBIDITY 1 5.6 AVERAGE 1 TURBIDITY 1 7.6 AVERAGE 1 AVERAGE 1	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3 TURBIDITY: INCREASE: 1 5 TURBIDITY: INCREASE: 1 3.5 7 TURBIDITY: INCREASE:	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29 2.1 4.44 4.48 3.67 1.05 3.3 3.36 3.55 3.40 1.04 4.38 4.28 3.95 4.20 2.38	Apex wqm sterm lhcc 052114	Flood/Slack Flooding Flooding	15' N of Silt Curtain 15' N of Silt Curtain 15' N of Silt Curtain	2 4
052114-0-9-1 052114-0-9-2.5 052114-0-9-5 052114-0-9-5 052114-2-9-1 052114-2-9-2 052114-2-9-3 052114-4-9-1 052114-4-9-5 052114-6-9-3.5 052114-6-9-7	815146, 2696448 8151401, 2697016 GPS DATA ERROR 815212, 2697073	0740 0742 0744 0744 0947 0947 0951 1156 1158 1200	DEPTH (ft) 5.6 AVERAGE T TURBIDITY 4 AVERAGE T TURBIDITY 5.6 AVERAGE T TURBIDITY 7.6 AVERAGE T TURBIDITY	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3 TURBIDITY: INCREASE: 1 2.5 5 TURBIDITY: INCREASE: 1 2.5 5 TURBIDITY: INCREASE: 1 4.5 9	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29 2.1 4.44 4.48 3.67 1.05 3.3 3.36 3.55 3.55 1.04 4.38 4.28 3.95 4.20 2.38	Apex wqm sterm lhcc 052114 Apex wqm	Flood/Slack Flooding Flooding	15' N of Silt Curtain 15' N of Silt Curtain 15' N of Silt Curtain	2 4 6
052114-0-9-1 052114-0-9-5 052114-0-9-5 052114-0-9-5 052114-2-9-1 052114-2-9-3 052114-2-9-3 052114-4-9-1 052114-4-9-5 052114-6-9-1 052114-6-9-7 052114-8-9-1 052114-8-9-1 052114-8-9-1	815146, 2696448 8151401, 2697016 GPS DATA ERROR 815212, 2697073	0740 07742 0744 0744 0947 0949 0951 1156 1158 1200 1354 1356 1358	AVERAGE 1 TURBIDITY 4 AVERAGE 1 TURBIDITY 5.6 AVERAGE 1 TURBIDITY 7.6 AVERAGE 1 TURBIDITY 9.4	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3 TURBIDITY: INCREASE: 1 2.5 5 TURBIDITY: INCREASE: 1 2.5 5 TURBIDITY: INCREASE: 1 4 4.5 9 TURBIDITY: INCREASE:	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29 2.1 4.44 4.48 3.67 1.05 3.36 3.55 3.40 1.04 4.38 4.28 4.20 2.38	Apex wqm sterm lhcc 052114	Flood/Slack Flooding Flooding	15' N of Silt Curtain 15' N of Silt Curtain 15' N of Silt Curtain	2 4 6
052114-0-9-1 052114-0-9-5 052114-0-9-5 052114-0-9-5 052114-2-9-1 052114-2-9-3 052114-2-9-3 052114-4-9-1 052114-4-9-1 052114-6-9-1 052114-6-9-7 052114-8-9-1 052114-8-9-1 052114-8-9-1 052114-8-9-1	815146, 2696448 8151401, 2697016 GPS DATA ERROR 815212, 2697073	0740 07742 0744 0744 0947 0949 0951 1156 1158 1200 1354 1356 1358	DEPTH (ft) 5.6 AVERAGE 1 TURBIDITY 4 AVERAGE 1 TURBIDITY 5.6 AVERAGE 1 TURBIDITY 7.6 AVERAGE 1 TURBIDITY 9.4 AVERAGE 1	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3 TURBIDITY: INCREASE: 1 2.5 5 TURBIDITY: INCREASE: 1 2.5 5 TURBIDITY: INCREASE: 1 4 4.5 9 TURBIDITY: INCREASE:	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29 2.1 4.44 4.48 3.67 1.05 3.3 3.36 3.36 1.04 4.38 4.28 3.95 4.20 2.38	Apex wqm sterm lhcc 052114	Flood/Slack Flooding Flooding	15' N of Silt Curtain 15' N of Silt Curtain 15' N of Silt Curtain	2 4 6
052114-0-9-1 052114-0-9-5 052114-0-9-5 052114-0-9-5 052114-2-9-1 052114-2-9-3 052114-2-9-3 052114-4-9-1 052114-6-9-1 052114-6-9-1 052114-6-9-7 052114-8-9-1 052114-8-9-1	815146, 2696448 8151401, 2697016 GPS DATA ERROR 815212, 2697073	0740 0742 0742 0744 0947 0949 0951 1156 1158 1200 1354 1356 1358	DEPTH (ft) 5.6 AVERAGE T TURBIDITY 4 AVERAGE T TURBIDITY 5.6 AVERAGE T TURBIDITY 7.6 AVERAGE T TURBIDITY 9.4 AVERAGE T TURBIDITY	DEPTH (ft) 1 2.5 5 TURBIDITY: INCREASE: 1 2 3 TURBIDITY: INCREASE: 1 2.5 5 TURBIDITY: INCREASE: 1 2.5 5 TURBIDITY: INCREASE: 1 4 4.5 9 TURBIDITY: INCREASE:	TURBIDITY (NTUs) 3.1 4.12 5.82 4.35 0.29 2.1 4.44 4.48 3.67 1.05 3.3 3.36 3.36 1.04 4.38 4.28 3.95 4.20 2.38	Apex wqm sterm lhcc 052114	Flood/Slack Flooding Flooding	15' N of Silt Curtain 15' N of Silt Curtain 15' N of Silt Curtain	2 4 6

Figure 1 Lower Harbor CAD Cell Phase I – Water Quality Monitoring

