Responsiveness Summary

Northlake Shipyard

Public Comment Period
July 20 – August 20, 2012

October 2012

Washington State Department of Ecology
Northwest Regional Office
3190-160th Avenue SE
Bellevue, Washington 98008

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Introduction

A public comment period was held July 20 – August 20, 2012 on the Northlake Ship Cleanup Site.

Details of the site and documents are available at the Washington State Department of Ecology (Ecology) website:

https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=853

Ecology received three comments (attached) in response to the public notice for the Northlake Shipyard for the Interim Action Work Plan and State Environmental Policy Act Determination.

Correspondent	Date	Receive Public Comment by:
Jeff Parker	August 22, 2012	Email
Ed Strickland	July 29, 2012	Email
John Rork and Pete Rude	August 17, 2012	Email

The parties below, who did not comment, requested further information:

Mr. Larry A. Ward.

Mr. Alex A. Wilford

Background

The Interim Action will consist of dredging approximately 8,000 cubic yards of sediments and sandblast grit using an environmental clamshell bucket, and then backfilling the dredge prism with six inches of clean sand.

The dredge prism at Northlake Shipyards is a rectangle with these approximate coordinates at the corners.

NE: 47.646713,-122.339222
SE: 47.645944,-122.340462
SW: 47.646461,-122.341191
NW: 47.647346,-122.340016

Mr. Jeff Parker's Comments

1. From the Blast Grit Study, I understand that the PPCD specifies a blast grit action, but it wasn't clear to me why heavy metals are considered the only COC here when the PPCD also specifies, as reported in the workplan, "co-mingled contaminants discharged from past shipyard activities". For example, TBT might expected to be commingled. I know the Work Plan tries to keep things short and simple, but it might be useful to re-state some of the background as well as future intentions to fully remediate the Site.

2.NS06 contains blast grit, has high metals (exceeds SMS standards), but is not included in dredge area. The Work Plan is not clear about how the dredge area was selected, and why some blast grit areas are not included in the dredge area.

3. I'm happy to see the area at public Waterway #21 will be remediated, since this area has a soft shoreline where people regularly launch boats and interact with sediment; although I'm not sure if sediment concentrations are high enough for the human receptor concerns since the Blast Grit Study only compared metals to SMS standards, not something like "child beach play area" levels. Anyway, it would be a shame for the interim action to be a short-lived remedy due to recontamination. Has any work been done to assess recontamination potential from CSO's, current shipyard activities, and/or nearby contaminated sediments?

Ecology's Reply to Mr. Jeff Parker's Comments

Metals are not the only compounds of concern (COCs) at the Northlake Shipyards Site. We have not finished an RI for the site so we have not determined all the COCs. PAHs will certainly also be COCs.

Not all areas are being considered for this interim action. Ecology decided to get the largest amount of the material where it was continuous, knowing that we would miss a small portion of the grit. Ecology is taking this interim action at this time in order not to run the risk of recontamination of the cleanup of the sediments at Gas Works Park, which will occur sometime in the next few years. At that time Ecology is planning to implement a remedy around NS06 and most of the area near Northlake Shipyards. This remedy will most likely include capping. The exact remedy will be chosen as part of the Northlake Shipyards RI/FS process.

The shoreline of water way #21 is not scheduled for remediation at this time. It will of course be part of future plans. Some work at adjacent sites (Gas Works Park) to address the problem of recontamination. This work is detailed in the *Gas Works Park Joint Source Control Evaluation.*

Mr. Ed Strickland's Comments

The site has a problem with heavy petroleum products that sank to the bottom and are now covered. These came from the "gas works" just a little upstream of the site. These organics are from "coal tar" which are very dangerous to life. When you dredge you will disturb these. There is also lead on the site due to the traffic in the area and the tetraethyl lead that was added to the gasoline for many years. Dredging will stir this up. For lead due to the automobile in the environment see Eric Crecelious, University of Washington, School of Fisheries doctorate dissertation in the late 1960's.

These contaminants are the responsibility of the City of Seattle (gas works and roads), along with the public in general (lead in the gasoline). The City, State, and National Government should chip in and do this cleanup right to get all of this toxic material out of Lake Union. The material that you dislodge will go downstream and be deposited on other properties.. This will increase the contamination that we down stream people have on our property. I am ready to prove where contamination on my property comes from. You know who will then have to clean up the sites downstream.

Ecology's Response to Mr. Strickland's Comments

A number of samples were taken in and around the area to be dredged at Northlake Shipyards. Table 1 shows the concentration of benzo(a)pyrene at or near the dredge area. Benzo(a)pyrene was chosen because it is widely consided to be the most toxic of the coal tar derived chemicals. The chemical was detected, but concentrations are not elevated above lake background levels of around 9 mg/kg.

Lead in the sediments is quite elevated over lake wide levels. That is to be expected because lead was a major ingredient in marine paint until a few years ago. Areas to the south show less lead, but lead is still above the Sediment Management Standards maximum for lead. Please see tables 2 and 3.

Ecology is doing its utmost not to resuspend sediments. We are using silt curtains, close mesh cloth panels that extend from the surface to the bottom, to enclose the dredge area. We are using a dredge method, cable arm environmental bucket, chosen to minimize spread of sediments. We will be monitoring for turbidly during dredging and will stop if we find turbidity in the water column greater than 5 NTU over background.

City of Seattle and Puget Sound Energy's Comments

Based on the findings of the Sandblast Grit Study, our concern is that an attempt to remove grit-impacted sediments by dredging will expose more highly impacted sediment and release significant suspended contamination and NAPLS into the water column. As a result, dredging will potentially spread contamination throughout North Lake Union and result in contaminant flux to the water column during and after completion of the Interim action,

Related to the concern of spreading contamination, we respectfully request that Ecology conduct pre and post dredging and capping sampling at additional locations both within and outside of the dredge area for a broader suite of constituents of concern such as PAHs. We have previously urged Ecology to evaluate the potential to stabilize existing contamination at NLSV, rather than dredge it. We remain concerned that dredging in the center of the NLSY will spread contamination laterally.

Ecology's Response to City of Seattle and Puget Sound Energy's Comments

Ecology has also reviewed the Sandblast Grit Study and not found evidence of ether PAH contamination or NAPLS in the dredge area. Please see the reply to Mr. Strickland's comments.

WAC 173-340-360(3)(b) requires that preference shall be given to permanent solutions to the maximum extent practicable. This removal auction is permanent. Capping or stabilizing is not. Capping may not be implementable. Adding material to this area could interfere with the operation of the shipyard, and disrupt navigation in the area.

Ecology is planning post dredging sampling.

TABLE 1

This table contains benzo (a) pyrene concentrations for samples taken near the dredge prism

Study	Sample	Date	Result	Value	Lat Deg	Lon Deg
UNIMAR2	2B	1/29/1991	4.8	ppm	47.647018	-122.340044
RETEC_02	127-SS-0010	11/12/2002	2.7	ppm	47.646933	-122.340169
UNIMAR2	1A	1/29/1991	5.4	ppm	47.646629	-122.340433
UNIMAR2	7A	1/29/1991	12	ppm	47.646209	-122.339045
RETEC_02	125D-US-0010	11/19/2002	1.9	ppm	47.646153	-122.339706
RETEC_02	125D-US-2030	11/19/2002	0.05	ppm	47.646153	-122.339706
RETEC_99	ST-01	9/14/1999	36	ppm	47.646022	-122.338944
UNIMAR2	6A	1/29/1991	12	ppm	47.646014	-122.339434
UNIMAR2	11	1/29/1991	10	ppm	47.646014	-122.339434
UNIMAR2	3A	1/29/1991	2.6	ppm	47.646014	-122.340853
RETEC_02	124-SS-0010	11/13/2002	7.4	ppm	47.646003	-122.338903
RETEC_02	126-SS-0010	11/13/2002	13	ppm	47.645956	-122.340414

The average of these samples is 8.99 ppm

Table 2

This table contains lead concentrations for samples near the dredge prism.

Study	Sample	Date	Result	Value	Lat Deg	Lon Deg
UNIMAR2	2	1/29/1991	2800	ppm	47.647018	-122.340044
UNIMAR2	2	1/29/1991	2800	ppm	47.647018	-122.340044
UNIMAR2	2	1/29/1991	2700	ppm	47.647018	-122.340044
UNIMAR2	2	1/29/1991	2300	ppm	47.647018	-122.340044
UNIMAR2	2	1/29/1991	2100	ppm	47.647018	-122.340044
UNIMAR2	2	1/29/1991	1600	ppm	47.647018	-122.340044
UNIMAR2	2	1/29/1991	570	ppm	47.647018	-122.340044
UNIMAR2	2	1/29/1991	95	ppm	47.647018	-122.340044
NorthlakeSediment09	NS01	4/13/2009	2440	mg/Kg	47.647	-122.340035
RETEC_02	NLU127	11/12/2002	2550	ppm	47.646933	-122.340169
NorthlakeSediment09	NS02	4/13/2009	417	mg/Kg	47.646741	-122.340364
NorthlakeSediment09	NS02	4/13/2009	15.3	mg/Kg	47.646741	-122.340364
UNIMAR2	1	1/29/1991	2900	ppm	47.646629	-122.340433
UNIMAR2	1	1/29/1991	1600	ppm	47.646629	-122.340433
UNIMAR2	1	1/29/1991	1500	ppm	47.646629	-122.340433
UNIMAR2	1	1/29/1991	1300	ppm	47.646629	-122.340433
UNIMAR2	1	1/29/1991	78	ppm	47.646629	-122.340433
UNIMAR2	1	1/29/1991	45	ppm	47.646629	-122.340433
UNIMAR2	1	1/29/1991	38	ppm	47.646629	-122.340433
UNIMAR2	1	1/29/1991	31	ppm	47.646629	-122.340433
NorthlakeSediment09	NS03	4/13/2009	1210	mg/Kg	47.64647	-122.3407
NorthlakeSediment09	NS05	4/15/2009	2360	mg/Kg	47.646452	-122.339783
NorthlakeSediment09	NS05	4/15/2009	1580	mg/Kg	47.646452	-122.339783
NorthlakeSediment09	NS06	4/14/2009	1200	mg/Kg	47.64644	-122.339313
NorthlakeSediment09	NS06	4/14/2009	702	mg/Kg	47.64644	-122.339313
NorthlakeSediment09	NS07	4/14/2009	66.5	mg/Kg	47.646223	-122.339588
NorthlakeSediment09	NS07	4/14/2009	3.27	mg/Kg	47.646223	-122.339588
UNIMAR2	7	1/29/1991	470	ppm	47.646209	-122.339045
UNIMAR2	7	1/29/1991	170	ppm	47.646209	-122.339045
RETEC_02	NLU125D	11/19/2002	76	ppm	47.646153	-122.339706
NorthlakeSediment09	NS04	4/15/2009	3400	mg/Kg	47.646131	-122.340187
NorthlakeSediment09	NS04	4/15/2009	205	mg/Kg	47.646131	-122.340187
NorthlakeSediment09	NS11	4/14/2009	134	mg/Kg	47.64613	-122.341178
RETEC_99	ST-01	9/14/1999	423	ppm	47.646022	-122.338944
UNIMAR2	6	1/29/1991	500	ppm	47.646014	-122.339434
UNIMAR2	6	1/29/1991	480	ppm	47.646014	-122.339434
UNIMAR2	6	1/29/1991	230	ppm	47.646014	-122.339434

UNIMAR2	3	1/29/1991	210	ppm	47.646014	-122.340853
UNIMAR2	3	1/29/1991	97	ppm	47.646014	-122.340853
RETEC_02	NLU124	11/13/2002	240	ppm	47.646003	-122.338903
RETEC_02	NLU126	11/13/2002	1010	ppm	47.645956	-122.340414
NorthlakeSediment09	NS20	4/16/2009	601	mg/Kg	47.645945	-122.338716

The average lead concentration is 1029 ppm

Table 3

This table contains lead concentrations for samples south of the dredge prism.

Study	Sample	Date	Result	Value	Lat Deg	Lon Deg
RETEC_02	NLU116	11/11/2002	480	ppm	47.645322	-122.340928
RETEC_99	CR-20	10/7/1999	58	ppm	47.645319	-122.338739
RETEC_02	NLU121	11/13/2002	410	ppm	47.645308	-122.33875
RETEC_99	ST-02	9/15/1999	506	ppm	47.645306	-122.340931
RETEC_99	CR-19	10/7/1999	26	ppm	47.645219	-122.338039
RETEC_99	CR-19	10/7/1999	11	ppm	47.645219	-122.338039
RETEC_99	CR-19	10/7/1999	2	ppm	47.645219	-122.338039
NorthlakeSediment09	NS18	4/16/2009	427	mg/Kg	47.645218	-122.339656
NorthlakeSediment09	NS16	4/15/2009	312	mg/Kg	47.645172	-122.340795
RETEC_99	ST-03	9/15/1999	496	ppm	47.645122	-122.339303
RETEC_02	NLU17-SS	10/14/2002	430	ppm	47.645117	-122.340261
RETEC_99	ST-43	9/16/1999	570	ppm	47.644919	-122.341181
NorthlakeSediment09	NS23	4/17/2009	266	mg/Kg	47.64485	-122.339056
NorthlakeSediment09	NS17	4/16/2009	327	mg/Kg	47.6448	-122.340202
EPAGAS84	29	3/20/1984	572	ppm	47.64479	-122.338343
RETEC_02	NLU13-SS	10/14/2002	390	ppm	47.644761	-122.342289
RETEC_99	ST-04	9/15/1999	570	ppm	47.644703	-122.340206
RETEC_99	ST-04	9/15/1999	525	ppm	47.644703	-122.340206
RETEC_02	NLU12-SS	10/15/2002	290	ppm	47.644617	-122.338883
RETEC_02	NLU12-US	10/18/2002	242	ppm	47.644603	-122.338839
RETEC_02	NLU12-US	10/18/2002	46	ppm	47.644603	-122.338839
NorthlakeSediment09	NS24	4/17/2009	299	mg/Kg	47.644443	-122.339591
RETEC_02	NLU14-SS	10/14/2002	560	ppm	47.64435	-122.340708
RETEC_02	NLU14-US	10/22/2002	125	ppm	47.644308	-122.340711
UNIMAR2	8	1/29/1991	350	ppm	47.642627	-122.340738
UNIMAR2	8	1/29/1991	250	ppm	47.642627	-122.340738
UNIMAR2	8	1/29/1991	180	ppm	47.642627	-122.340738
UNIMAR2	8	1/29/1991	160	ppm	47.642627	-122.340738
UNIMAR2	8	1/29/1991	130	ppm	47.642627	-122.340738
UNIMAR2	8	1/29/1991	83	ppm	47.642627	-122.340738
UNIMAR2	8	1/29/1991	61	ppm	47.642627	-122.340738

UNIMAR2	8	1/29/1991	53	ppm	47.642627	-122.340738
UNIMAR2	8	1/29/1991	45	ppm	47.642627	-122.340738
UNIMAR2	9	1/29/1991	68	ppm	47.641181	-122.341211

The average of these values is 274 ppm