Electronic Copy

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Region Office
PO Box 330316, Shoreline, WA 98133-9716 • 206-594-0000

August 15, 2022

Ryan Roberts
Project Engineer
Public Works Department
City Hall
18415 101st NE
Bothell, WA 98011
(Ryan.Roberts@bothellwa.gov)

Re: Proposal for a path toward cleanup closure:

- Name: Bothell Paint & Decorating Facility
- Address: 18004 and 18005 Bothell Way NE, Bothell 98011 and adjacent parcel to the east
- County Assessor's Parcel Numbers 945720-0081 and 945720-0072

Dear Ryan Roberts:

This letter is a follow-up to Ecology's letter dated May 20, 2021 that proposed a path toward cleanup closure. Recent compliance monitoring results, including the use of silica gel cleanup (SGC), have indicated that an expedited path to closure is possible. The following describes the monitoring results, existing Site conditions and institutional controls, and Ecology's proposed next steps. If the City of Bothell (City) agrees with the proposal, Ecology will implement the next steps proposed in this letter.

Recent groundwater compliance monitoring

Soil excavations were conducted in September-October 2010 and March 2013. Following the excavations, confirmation samples were taken. Oxygen Release Compound (ORC) was placed in the 2010 excavation.

Ground water monitoring data following the soil cleanups indicated the following COCs remained on Site:

- Diesel- and oil-range TPH (CUL 500 µg/L)
- Arsenic (CUL 5 µg/L)

The Cleanup Action Plan (CAP) and January 2, 2018 Compliance Monitoring Plan (CMP) required extended monitoring to determine if TPH concentrations would decrease below cleanup levels and if the arsenic concentrations can be determined to be a natural occurrence or induced by the dissolved petroleum contamination (TPH). The period of extended monitoring under the CAP began in 2018, although groundwater monitoring had been conducted before 2018. Nine quarters of groundwater monitoring have indicated that the TPH contamination has been below cleanup levels in the last four quarters (see Attachment 1).
Two years of quarterly monitoring shows that only arsenic in BPMW-6 appears to be above cleanup levels and co-located with TPH detections. Monitoring wells BC-10 and BC-11/BC-11R are below cleanup levels. BPMW-1 appears to have high arsenic concentrations that are localized and naturally occurring.

Upon road construction and re-parceling by the City of Bothell in 2011, the Site now lies on three separate parcels of land: the Lot C Parcel, the City Parcel, and one public roadway (the City ROW Parcel).

- **Lot C Parcel** - The north portion of the Site lies on part of a tax parcel (Parcel number 9457200081) called LOT C (zoned General Commercial). The Lot C parcel has no remaining soil or ground water impacts exceeding cleanup levels.

- **City ROW Parcel** - The central portion of the Site is not a tax parcel and lies on a portion of a City Right-of-Way (new SR 522 roadway) called CITY ROW. The Right-of-Way is owned by the City. The City ROW has TPH impacts to soil and arsenic impacts to ground water that exceed cleanup levels.

- **City Parcel (Parcel 3)** - The south portion of the Site lies on a portion of a tax parcel (Parcel number 9457200072) called CITY PARCEL (zoned partly for park and open space use, and partly as SR522 Corridor). The City Parcel has TPH and arsenic impacts to ground water that exceed cleanup levels.

Institutional Control Areas:

The City ROW parcel follows institutional controls established under the Memorandum of Agreement (MOA) between Ecology and the City on Right of Ways at its downtown MTCA sites. The City Parcel (Parcel 3) is under a May 13, 2020 environmental covenant (Instrument Number 20200513000355), available here: https://apps.ecology.wa.gov/gsp/DocViewer.ashx?did=101045

TPH silica gel cleanup results

As reported in a January 18, 2022 memorandum to Ecology by Kane Environmental, two additional rounds of groundwater monitoring was conducted in August-September 2021 and December 2021. In these rounds, groundwater samples were analyzed for diesel and heavy oil range petroleum hydrocarbons, both with and without a silica gel cleanup (SGC), to "assess whether biogenic organics were contributing to the diesel and heavy oil concentrations in groundwater." In this case, the difference between SGC treated and non-treated analysis is interpreted to indicate degradation of the heavy dissolved petroleum hydrocarbons in groundwater as the silica gel adsorbs the polar non-hydrocarbons from the sample (polar metabolites). The analytical concentrations after SGC would therefore indicate residual primary dissolved petroleum hydrocarbon compounds that can be compared to Site cleanup levels to assess risk and compliance to cleanup standards.

The memorandum reported that samples taken at the Site were nondetect after SGC:

	TPH-Diesel				TPH-Oil			
	Sept 2021		Dec 2021		Sept 2021		Dec 2021	
Well	***Result***	***Result with SGC***	***Result***	***Result with SGC***	***Result***	***Result with SGC***	***Result***	***Result with SGC***
BPMW-2R	<220	<220	<160	<160	<220	<220	<210	<210
BPMW-6	<210	<210	<170	<170	**260**	<210	<220	<220

Concentrations in µg/L. BC-10 and BC-11/11R not included due to monitoring results below cleanup levels.

Ecology has determined that these results indicate that remaining concentrations of TPH-Diesel and TPH-Oil at these wells constitute polar metabolites produced as dissolved petroleum hydrocarbon compounds that

naturally degraded in the environment. Therefore, cleanup levels set for these contaminants of concern have been met at the Site.

No correlation of arsenic concentrations with TPH contamination in groundwater is apparent based on extended monitoring. Therefore, arsenic exceedances in the groundwater is determined to be naturally occurring.

Site status conclusion

Some residual petroleum contaminated soil exists at the Site. A single sample (Sample 180th-2-14) contained gasoline and oil-range petroleum hydrocarbons exceeding MTCA Method A cleanup levels. Soils associated with this sample were left in place and are under the new SR 522 roadway. The CAP concluded that the residual contaminated soil is a localized impact and is a small quantity, estimated at 10 cubic yards. This area was re-parceled into the City ROW Parcel, remains physically contained under the 522 roadway (see red hatched area in Attachment 1), and is under an alternative environmental covenant.

Extended groundwater monitoring indicate localized and naturally high arsenic in some groundwater wells. Petroleum hydrocarbon impacts (diesel and heavy oil) are in compliance with cleanup levels in most wells, with remaining sporadic detections of TPH-Oil due to degradation products (polar metabolites).

Proposed path forward to final cleanup

Ecology would like to propose the following:

1. If the City so desires, submit a request to terminate and remove the environmental covenant on the City Parcel (Parcel 3).

2. The City shall maintain the environmental covenant alternative under the MOA with Ecology on the City ROW Parcel.

3. Ecology will issue a letter on the status of Agreed Order No. DE 15748 to document that no further remedial action, except for actions still necessary to control and monitor the remaining contamination and periodically review conditions.

4. The wells at the Site (BP-MW-2/2R, BPMW-6, BC-10, BC-11/BC-11R, and BPMW-1) can be decommissioned following state regulations, including submitting a NOI (Notice of Intent) and required fees to Ecology's Water Resources Program and following WAC 173-160-460. Ecology Publication Number 09-11-011 provides answers to Frequently Asked Questions on resource protection wells.

Next Steps in Cleanup Process

Please reply in writing with your response to the proposed path forward for the Site. Note that should this proposal be accepted, the Site shall not be delisted due to the residual contamination that remains in place.

If you have any questions regarding this letter, please do not hesitate to contact me by email at sunny.becker@ecy.wa.gov or phone at (425) 457-3842.

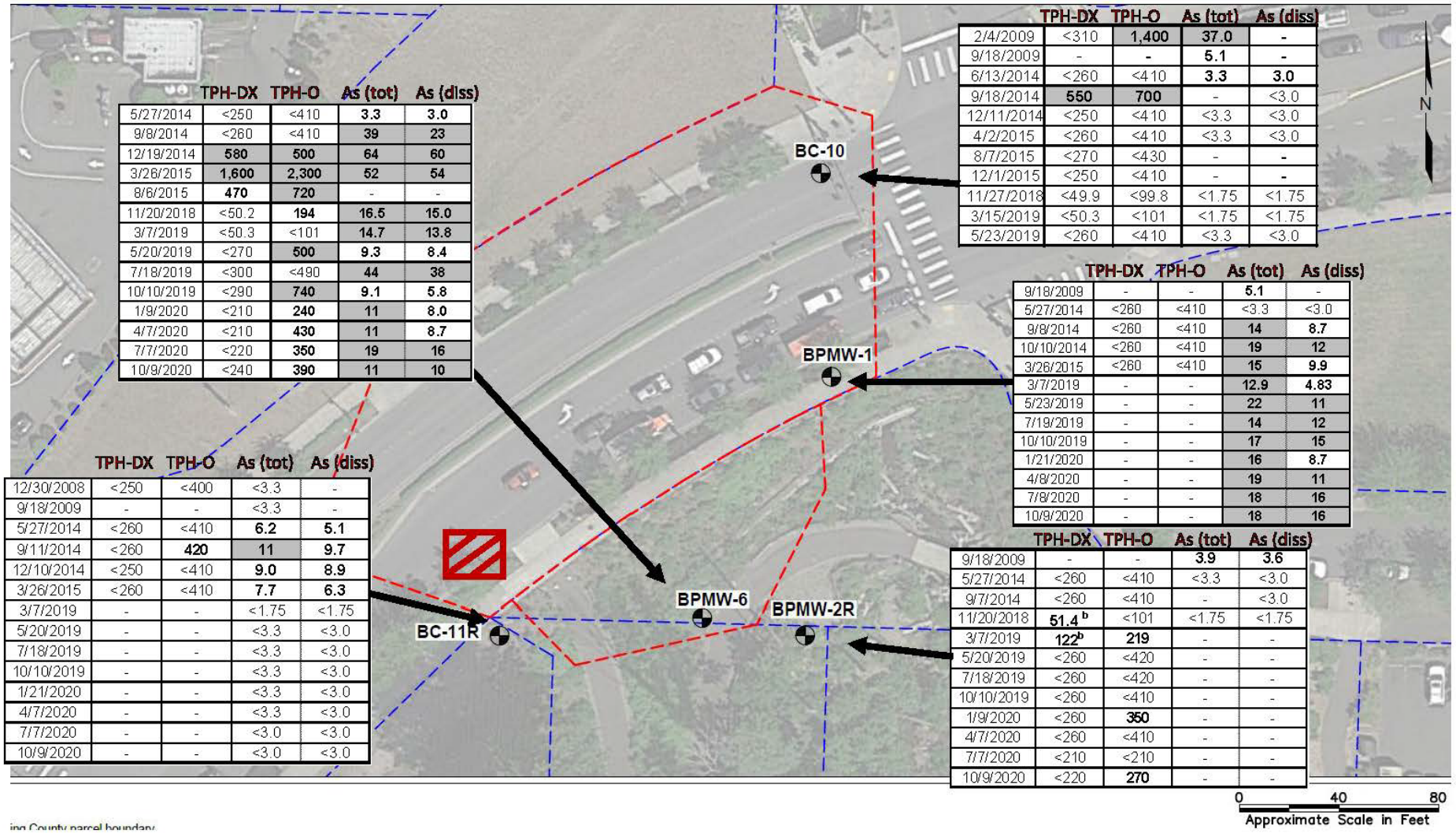
Sincerely,

Sunny Becker

Sunny Becker
Site Manager
Toxics Cleanup Program, NWR0

Enclosures: (1) Site Map

ATTACHMENT 1



	TPH-DX	TPH-O	As (tot)	As (diss)
5/27/2014	<250	<410	3.3	3.0
9/8/2014	<260	<410	39	23
12/19/2014	580	500	64	60
3/26/2015	1,600	2,300	52	54
8/6/2015	470	720	-	-
11/20/2018	<50.2	194	16.5	15.0
3/7/2019	<50.3	<101	14.7	13.8
5/20/2019	<270	500	9.3	8.4
7/18/2019	<300	<490	44	38
10/10/2019	<290	740	9.1	5.8
1/9/2020	<210	240	11	8.0
4/7/2020	<210	430	11	8.7
7/7/2020	<220	350	19	16
10/9/2020	<240	390	11	10

	TPH-DX	TPH-O	As (tot)	As (diss)
2/4/2009	<310	1,400	37.0	-
9/18/2009	-	-	5.1	-
6/13/2014	<260	<410	3.3	3.0
9/18/2014	550	700	-	<3.0
12/11/2014	<250	<410	<3.3	<3.0
4/2/2015	<260	<410	<3.3	<3.0
8/7/2015	<270	<430	-	-
12/1/2015	<250	<410	-	-
11/27/2018	<49.9	<99.8	<1.75	<1.75
3/15/2019	<50.3	<101	<1.75	<1.75
5/23/2019	<260	<410	<3.3	<3.0

	TPH-DX	TPH-O	As (tot)	As (diss)
9/18/2009	-	-	5.1	-
5/27/2014	<260	<410	<3.3	<3.0
9/8/2014	<260	<410	14	8.7
10/10/2014	<260	<410	19	12
3/26/2015	<260	<410	15	9.9
3/7/2019	-	-	12.9	4.83
5/23/2019	-	-	22	11
7/19/2019	-	-	14	12
10/10/2019	-	-	17	15
1/21/2020	-	-	16	8.7
4/8/2020	-	-	19	11
7/8/2020	-	-	18	16
10/9/2020	-	-	18	16

	TPH-DX	TPH-O	As (tot)	As (diss)
12/30/2008	<250	<400	<3.3	-
9/18/2009	-	-	<3.3	-
5/27/2014	<260	<410	6.2	5.1
9/11/2014	<260	420	11	9.7
12/10/2014	<250	<410	9.0	8.9
3/26/2015	<260	<410	7.7	6.3
3/7/2019	-	-	<1.75	<1.75
5/20/2019	-	-	<3.3	<3.0
7/18/2019	-	-	<3.3	<3.0
10/10/2019	-	-	<3.3	<3.0
1/21/2020	-	-	<3.3	<3.0
4/7/2020	-	-	<3.3	<3.0
7/7/2020	-	-	<3.0	<3.0
10/9/2020	-	-	<3.0	<3.0

	TPH-DX	TPH-O	As (tot)	As (diss)
9/18/2009	-	-	3.9	3.6
5/27/2014	<260	<410	<3.3	<3.0
9/7/2014	<260	<410	-	<3.0
11/20/2018	51.4 [b]	<101	<1.75	<1.75
3/7/2019	122 [b]	219	-	-
5/20/2019	<260	<420	-	-
7/18/2019	<260	<420	-	-
10/10/2019	<260	<410	-	-
1/9/2020	<260	350	-	-
4/7/2020	<260	<410	-	-
7/7/2020	<210	<210	-	-
10/9/2020	<220	270	-	-

Red hatched area is location of residual petroleum contaminated soil.