



**HASKELL**  
CONSTRUCTORS - SINCE 1890

DEPARTMENT OF ECOLOGY

MAY 10 2018

WATER QUALITY PROGRAM

May 9, 2018

Mr. Shawn Hopkins  
Washington Department of Ecology  
PO Box 47696  
Olympia, Washington 98504-7696

**RE: Level 3 Corrective Action Deadline Extension Request**

**- NPDES Permit Number WAR127009**

Mr. Hopkins:

Please consider this supporting information for the attached Modification of Permit Coverage. We are requesting additional time to evaluate and improve stormwater treatment system operations and maintenance, with the goal of improved treatment efficiency and adherence to the required benchmarks.

In 2015 our facility invested over \$125,00 on the purchase and installation of a stormwater treatment system (StormwaterRx Aquip) in response to exceedances in metals. In 2016 the system operated well and there were no benchmark exceedances, even though we had performed non-standard levels of work in the rear laydown yard.

We have not experienced exceedance instances for Copper, Lead, Diesel, or Lube Oil for 18 consecutive quarters. We have not had a Zinc exceedance for 4 quarters. We are effectively treating the metals present in our Stormwater.

However, significant knowledge and experience in treatment system operation was lost due to the retirement of key stormwater management personnel at the end of 2016 and turbidity benchmark exceedances began to occur 2017. Additionally, this time frame mirrored the final stages in the life cycle of the media in the Aquip, effectively putting us in uncharted territory relative to its functionality.

**HASKELL CORPORATION**

1001 Meador Avenue, P.O. Box 917, Bellingham, WA 98227 (360) 734-1200, FAX (360) 734-5538 Contractor # HASKE\*\*374NT  
www.haskellcorp.com



We initiated a series of source control BMP's in response to this trend:

1. Asphalt repair where large areas of cracked "crocodile" surfaces reduced effectiveness of our sweeping efforts.
2. Scarifying, grading, and compacting of the primary roadway through our yard.
3. Installation of 5,000 square feet of new asphalt in a 'high traffic, high turn' zone at the main entrance to the Pipe Shop.
4. Educational training for truck drivers and forklift operators to raise awareness of their actions relative to turbidity.

Although primarily designed to address metals, we believe our existing Aquip system will achieve the established turbidity benchmarks through increased diligence and system maintenance. The system, when maintained properly, consistently reduces turbidity as demonstrated by the attached lab reports where we sampled both Inflow and Outflow for turbidity.

The first step is our commitment to resources: we are restructuring our Facilities Manager position so this person will have primary responsibility to manage Stormwater at our facility.

We have purchased a Hach Turbidimeter so we can immediately assess point source sampling, additional BMP solutions and the success of the following suggested changes.

**Specifically, we would implement and evaluate these changes:**

**1) increased sediment removal frequency at the Stormwater collection pump vault.** The vault sump does not evacuate the final 3 inches of the vault. We suspect this residual reservoir may allow accumulation and concentration of sediments between rain events. This residual is then stirred up during the event, creating non-typical levels of turbidity. Accordingly, we will pump the vault a minimum of each quarter with increased frequency as appropriate based upon rain event frequency and intensity. In addition, we will examine pump and float settings to evaluate the impact these changes will make in turbidity levels.

**2) increased surface scraping and maintenance of the sand filtration media.**

The StormwaterRx Aquip O&M manual suggests that "routine surface maintenance may need to be done as frequently as every 3-4 weeks depending on ...the loading". We believe our 3Q exceedance to be directly related to media loading, resulting in 'channeling' around rather than through the media layers.



We have gathered data from other users of this same system and they indicate their best results involve weekly inspection and surface maintenance every 2-3 weeks, adjusted for frequency of rain events and when it takes longer than 15 minutes for water to move through the Aquip filter.

We are developing and will incorporate a weekly inspection form to track and document this effort and provide data for evaluation of what is best matched to our facility.

### **3) alternate grain size sand filtration media for the Aquip filter**

Our Aquip was designed with an 'Enhanced Build': this configuration is two layers of inert sand over two layers of sorptive media and a bed of underdrain gravel. Our current configuration is A1/A2 (course inert over fine inert) media, as the focus was not geared to turbidity resolution.

Peter Evans (StormwaterRx) has suggested that a change to an A1/A1 (fine/fine) would increase the available surface area in those layers and improve particle capture at that stage of treatment. We are consistently seeing turbidity reduction across our filter now by a factor of 10, so judge this recommendation to have a high probability for success.

We replaced our top layer inert medias and the pre-treatment buffer media (on 10/13/17) per the specified maintenance schedule (Aquip Seasonal Maintenance), but want to explore changing to the A1/A1 media configuration and evaluate the impact on our long term results. Unfortunately, our 4Q sample was taken immediately after this media change (before the media had time to compress), resulting in a non-representative turbidity concentration and taking us to the Level 3 exceedance. However, results from the first quarter 2018 sample were below all benchmark values.

We are committed to devoting the required time and resources to maintenance efforts at the treatment system. The length of the requested extension would allow us the opportunity to incorporate these options and evaluate the effectiveness of the changes, explore other BMP's or initiate bench/field tests to best define additional treatment stream modalities if needed.

On behalf of the Haskell Corporation I would like to request this extension, with the intent of fine-tuning the operations of our existing stormwater treatment system to achieve better treatment results.

Sincerely,

Evan Haskell, President  
Haskell Corporation



Avocet Environmental Testing  
1500 North State Street, Suite 200  
Bellingham, WA 98225-4551  
(360) 734-9033



**Client**  
**Contact Name** Haskell Corporation  
Evan Haskell

**Chain of Custody** 9747

**Date Sampled** 12/22/15  
**Date Received** 12/22/15  
**Date Reported** 12/28/15

**Project Name** Stormwater  
**P.O. #** 9747

12/22/15

52% reduction in turbidity  
across Aquap Filter

Sample Identification	Log Number	Test Performed	Method	Sample Result	Units	QL	MDL	Date Analyzed	Analyst
Outflow #20	05758383	Turbidity	EPA180.1	14	NTU	0.1	-	12/23/15	GW
Inlet #20A	05758384	Turbidity	EPA180.1	29	NTU	0.1	-	12/23/15	GW

#### QUALITY CONTROL DATA

Test Performed	QC Known Recovery	Recovery Limits	Duplicate Difference
Turbidity	99%	90-110%	N/A

—: No Existing Value

MDL: Method Detection Limit

N/A: Not Applicable

NTU: Nephelometric Turbidity Units

QL: Quantitation Limit

Laboratory Supervisor

Avocet Environmental Testing  
 1500 North State Street, Suite 200  
 Bellingham, WA 98225-4551  
 (360) 734-9033



**Client** Haskell Corporation  
**Contact Name** Evan Haskell

**Date Sampled** 03/28/17  
**Date Received** 03/28/17  
**Date Reported** 04/04/17

**Project Name:** Stormwater  
**Matrix** Stormwater

3/28/17

85% reduction in  
 turbidity across  
 the Aquip filter

Sample Identification	Log Number	Test Performed	Method	Sample Result	Units	QL	MDL	Date Analyzed	Analyst
Outfall 20	05771966	Turbidity	EPA180.1	3.9	NTU	0.10	—	03/30/17	CP
Outfall 20A	05771967	Turbidity	EPA180.1	27	NTU	0.10	—	03/30/17	CP

is actually FLOW

#### QUALITY CONTROL DATA

Test Performed	QC Known Recovery	Recovery Limits	Duplicate Difference
Turbidity	100%	90-110%	1%
Zinc	98%	90-110%	3%

—: No Existing Value

MDL: Method Detection Limit

NTU: Nephelometric Turbidity Units

QL: Quantitation Limit

Laboratory Supervisor



Burlington, WA Corporate Laboratory (a)  
1620 S Walnut St - Burlington, WA 98233 - 808.755.9295 • 360.757.1400  
Bellingham, WA Microbiology (b)  
805 Orchard Dr Box 4 - Bellingham, WA 98225 - 360.715.1212

Portland, OR Microbiology/Chemistry (c)  
9150 SW Pioneer Ct Ste W - Wilsonville, OR 97070 - 503.532.7802  
Corvallis, OR Microbiology/Chemistry (d)  
549 SW Third Street - Corvallis, OR 97333 • 541.763.4546  
Bend, OR Microbiology (e)  
20302 Empire Blvd Ste 4 - Bend, OR 97701 • 541.639.8425

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## Data Report

Client Name: Haskell Corporation  
1001 Meador Avenue  
Bellingham, WA 98229

Reference Number: **18-14775**  
Project: Stormwater

Report Date: 5/8/18

Date Received: 4/30/18

Approved by: bj

Authorized by:

Lawrence J Henderson, PhD  
Director of Laboratories, Vice President

4/30/18

86% reduction  
in turbidity  
across the  
AQUIP filter

Sample Description: <u>Outflow #20</u>		Sample Date: 4/28/18 10:35 am									
Lab Number: 30610		Sample Comment:									
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch
E-10617	TURBIDITY	2.24	0.10		NTU	1.0	190.1	a	5/1/18	BP	TURB_180501

  

Sample Description: <u>Inlet #20A</u>		Sample Date: 4/28/18 10:35 am									
Lab Number: 30611		Sample Comment:									
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch
E-10617	TURBIDITY	16.0	0.10		NTU	1.0	190.1	a	5/1/18	BP	TURB_180501

  

Sample Description: Vault		Sample Date: 4/28/18 10:35 am									
Lab Number: 30612		Sample Comment:									
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch
E-10617	TURBIDITY	19.2	0.10		NTU	1.0	190.1	a	5/1/18	BP	TURB_180501

### Notes:

ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.  
PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.  
D.F. = Dilution Factor

If you have any questions concerning this report contact us at the above phone number.

Form: cRsl\_2.rpt





# Modification of Permit Coverage Form for Industrial Stormwater General Permit

 Permit No. WAR127009
**I. Operator/Permittee for the Facility** (All permit and billing correspondence will be mailed here)

Operator/Permittee's Name Evan Haskell		Phone No. 360-734-1200	Email Address ehaskell@haskellcorp.com
Company Name Haskell Corporation		DEPARTMENT OF ECOLOGY	
Street Address or P.O. Box 1001 Meador Avenue		MAY 10 2018	
City Bellingham	State WA	Zip + 4 98229	WATER QUALITY PROGRAM

**II. Modified Permit Information CHECK ALL THAT APPLY**
☐ New Industrial Process (requires public notice), please list the associated SIC codes:

1					2					3					4					5				
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Type or Nature of New Industrial Activities: \_\_\_\_\_

 Are there new monitoring points associated with the new industrial process? ☐ No ☐ Yes

 If no, please list the previously established monitoring points associated with the new process (i.e, CB1, DP4):  
 \_\_\_\_\_

If yes, please identify new monitoring points:

Discharge identifier. These cannot be symbols. (maximum of three characters ex. 01A)	Latitude degrees, minutes, seconds	Longitude degrees, minutes, seconds	Location description (i.e. Catch Basin 1)
	° ' N	° ' W	
	° ' N	° ' W	
	° ' N	° ' W	

If Applicable, New Receiving Water

Receiving Water Body	Latitude degrees, minutes, seconds	Longitude degrees, minutes, seconds
	° ' N	° ' W
	° ' N	° ' W

**What type of modification are you requesting?**
☒ Level 2 / Level 3 Deadline Extension, please list the new deadline requested 09/30/2019.

- Attach detailed technical basis for extension. Include proposed timeline for completion and describe issues that affect completion date; for example, state/local permits, study, design, financing, professional services and contracting, etc.

☐ Level 2 / Level 3 Waiver. Attach technical basis for request.

- If request is based on claim that it is "not feasible" to perform corrective actions, provide detailed information to support request (e.g., lease, contract, affidavit, maps, photos, and/or other documentation).
- If request is based on claim that corrective action is "not necessary" to prevent violations of water quality standards, Ecology recommends including an engineering report and sampling information to support claim.

☐ Other (please explain): \_\_\_\_\_

**III. Public Notice**

Facilities modifying existing coverage must publish a public notice at least once a week for **two** consecutive weeks with **seven** days in between publications, in a **single** newspaper of general circulation in the county in which the facility is located. Ecology cannot grant permit coverage sooner than the end of the 30-day public comment period, which begins on the date of the second public notice.

Submit (or fax: 360-407-6426) the application to Ecology on or **before** the date of the first public notice. If you fax the application to Ecology, you must follow up with hard copy by mail.

Date of the first public notice: 05 / 14 / 2018

Date of second public notice: 05 / 21 / 2018 (Begins 30-day public comment period)

Example: Date of the first public notice: 01 / 01 / 2010

Date of second public notice: 01 / 08 / 2010

Name of the newspaper that will publish the public notices: Bellingham Herald.

Complete this template using site-specific information. The **bold** language is required by WAC 173-226-130 and must be included in its entirety. (Either use the fill-in template below or attach on a separate sheet of paper, if necessary.)

EVAN HASKELL, 1001 MEADOR AVENUE is seeking modification of coverage under the **Washington Department of Ecology's NPDES General Permit for Stormwater Discharges Associated with Industrial Activities at the industrial site, known as HASKELL CORPORATION located at 1001 Meador Avenue in Bellingham, WA.**

**Activities requiring permit modification include a Level 2 / Level 3 deadline extension.**

Any person desiring to present their views to the Department of Ecology concerning this application may notify Ecology in writing within 30 days from the last date of publication of this notice. Comments may be submitted to:

Washington Dept of Ecology  
Water Quality Program – Industrial Stormwater  
PO Box 47696  
Olympia, WA 98504-7696

**IV. Certification of Permittee**

*"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

Evan Haskell

Haskell Corporation

05/10/2018

Printed Name

Company

Date

Signature

Date