

SPOKANE RIVER REGIONAL TOXICS TASK FORCE HYDROSEED PILOT PROJECT WORKPLAN

SRRTTF Hydroseed Project Team:

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Objective: to verify elevated PCB concentrations in Hydroseed products, identify components of Hydroseed products that may be contributing to elevated PCB concentrations, and develop product specifications with reduced levels of PCBs for distribution in WA State.

Background: the purpose of the Spokane River Regional Toxics Task Force (SRRTTF) is to “work collaboratively to characterize the sources of toxics in the Spokane River and identify and implement appropriate actions needed to make measurable progress towards meeting applicable water quality standards for the State of Washington, State of Idaho, and the Spokane Tribe of Indians and in the interests of public and environmental health.”

In addition, the 2014 legislature adopted Senate Bill 6086 that requires State agencies to establish a purchasing and procurement policy that provides a preference for products that do not contain PCB’s (<http://apps.leg.wa.gov/billinfo/summary.aspx?bill=6086&year=2013>). Spokane County and the City of Spokane adopted similar ordinances in response to concerns with PCB impairment of the Spokane River (<https://my.spokanecity.org/smc/?Section=07.06.172>). The City of Spokane’s ordinance requires City departments to purchase PCB-free items (defined as less than the practical quantification limit using EPA Method 1668) if a feasible alternative is available at less than a 25% cost increase. To implement the ordinance, the City is gathering more information about products known to contain PCBs. In 2014, the City sampled Nature’s Own Hydroseed manufactured by Hamilton Manufacturing, Inc. and discovered elevated levels of PCB’s exceeding 2,500 parts per billion (ppb).

The Washington State Department of Transportation (WSDOT) has a list of qualified suppliers (attached) of Hydraulically Applied Erosion Control Products (HECPs) that a contractor can select off the list depending on price and their preference for use. WSDOT also has a 2014 Specification Book for material specifications (attached). The City of Spokane also uses the WSDOT Specification Book plus a General Special Provisions to supplement the WSDOT specifications as needed (<https://static.spokanecity.org/documents/business/designstandards/general-special-provisions.pdf>). Unlike the WSDOT, the City currently does not have an approved supplier list for Hydroseed or HECP. After contracts go out to bid, the contractor can select anyone they like who meets the project requirements.

The SRRTTF Advisory Committee approved the Hydroseed Analysis and Reformulation PCB Removal Pilot Projects during the February, 2015 meeting. This project is designed to assist manufacturers of Hydroseed in the analysis of their products and to develop specifications/reformulations with reduced levels of PCB’s. This demonstration project will provide an example of how the State, City and County PCB Products Purchasing Referendums may be implemented towards removal of PCB’s from the Spokane River watershed and ultimately for state-wide use. This process may then be applied to other purchased products that have been identified with elevated levels of PCB’s (Deicer’s, road paints, etc.).

Project Description:

Hamilton Manufacturing, Inc. agreed to participate in this pilot project to examine the specific components that may be contributing to elevated levels of PCB’s in their end product. This project will also be conducted in collaboration with the City of Spokane on their continued studies of other Hydroseed products used by City Departments. This pilot project may be expanded to other manufacturers of Hydroseed should elevated levels of PCB’s be discovered by the City on these products (see “City of Spokane Continued Study” below for more details).

Hamilton Manufacturing, Inc. produces multiple Hydroseed products intended for specific end uses, including their X9000, Evolution and Nature’s Own brands. The manufacturing process for the Hamilton Manufacturing, Inc. Hydroseed consists of hand sorting the base fiber, grinding while adding water, dye, and surfactants. The material is then sent to an automated bagging process and sealed. The finished product is then hand-stacked and shrink-wrapped. The City of Spokane tested Hamilton’s “Nature’s Own” brand which will be the initial focus of this study due to the elevated levels of PCB’s detected in this product. For this study, samples will be collected of the finished product and of each component used to manufacture the product. Sample collection to be submitted for laboratory analysis includes the following:

- Nature’s Own Hydroseed Finished Sample
- Wood fiber (recycled paper)
- Dye
- Surfactant
- Water

Note: Tackifier is added during application and was not a component of the dry Hydroseed tested by the City of Spokane, and therefore will not be included with this round of testing.

Sampling and analysis will be performed in accordance with the QAPP used by the City of Spokane, supplemented with the PCB Product Sampling QAPP Addendum for Supplemental Product Sampling: SRRTTF (attached). The QAPP addendum reflects the samples identified in this work plan. For sake of expediency and consistency, AXYS Analytical Services will be used to performing the laboratory testing of the samples, since AXYS is already under contract with the SRRTTF. Since the PCB contamination levels within the Hydroseed are relatively high, initial testing will be performed using a modification of EPA Method 8082, GS/MS using an isotope dilution method, AXYS in-house method MLA-007. This method will provide a practical quantification limit (PQL) of 0.2 ppb, well below the 2,500 ppb levels detected in the sample analyzed by the City. The following provides the estimated costs for the initial study using this test method:

Sample Description	Analysis Cost	Level 4 Data Package	Total
Nature’s Own Hydroseed Finished Sample	\$425.00	\$35.00	\$460.00
Wood fiber (recycled paper)	\$425.00	\$35.00	\$460.00
Dye	\$425.00	\$35.00	\$460.00
Surfactant	\$425.00	\$35.00	\$460.00
Water	\$425.00	\$35.00	\$460.00
Subtotal	\$2,125.00	\$175.00	\$2,300.00



City of Spokane Continued Study:

As mentioned above, this Hydroseed pilot project will be performed in collaboration with continued studies being performed by the City on other Hydroseed manufacturers and products. The City of Spokane intends to analyze finished Hydroseed products using EPA Method 1668 as was done previously for the Hamilton Nature's Own. If elevated levels of PCBs are detected in any of the finish samples tested, this SRRTTF pilot project will be extended to these products as described above, assuming that the Supplier desires to participate in this project. The City of Spokane's continued study of additional Hydroseed manufacturers and products is described below.

Three additional Hydroseed samples will be collected by the City in March 2015, consisting of the full Hydroseed product including mulch, dye, and binder, as applicable. Samples will be analyzed using EPA Method 1668 at Pacific Rim Laboratories. Procedures in the City's QAPP (attached) for PCB Product Sampling will be followed. Samples include:

- Sample 201 - dye free straw mulch available for sampling at Wilbur-Ellis, 12001 Empire Avenue, Spokane Valley, WA. The product manufacturer is HydroStraw, LLC out of Rockford, WA
- Sample 202 - dyed wood fiber mulch available for sampling at FMI Equipment Sales & Rental, LLC, 11111 E. Trent Ave, Spokane Valley, WA. The product is manufactured on the West side by Rainier Veneer
- Sample 203 - dye free wood fiber mulch with details the same as Sample 202.