



JOHN BEATH ENVIRONMENTAL, LLC
Striving to make something better every day

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March 27, 2022

Joseph Shacat
Director of Sustainable Pavements
jshacat@asphaltpavement.org
301-731-4748

National Asphalt Pavement Association
6406 Ivy Lane, Suite 350
Greenbelt, MD 20770-1441

Dear Mr. Shacat,

The National Asphalt Pavement Association (NAPA) commissioned John Beath Environmental, LLC (JBE) to conduct an external independent verification of its online Emerald Eco-Label EPD tool, version 2.0.0, for generating environmental product declarations (EPDs) of asphalt mixtures. The tool was developed by Trisight LLC and is intended to support NAPA's Emerald Eco-Label EPD program. Trisight, in turn, relied on the LCA study "Update to the Life Cycle Assessment for Asphalt Mixtures in Support of the Emerald Eco Label Environmental Product Declaration Program", conducted by Dr. Amlan Mukherjee on behalf of NAPA and released in March 2022, as a basis for the tool.

The tool was reviewed for conformance to the following standards:

- ISO 14025:2006, Environmental labels and declarations – Type III environmental declarations – Principles and procedures
- ISO 21930:2017, Sustainability in buildings and civil engineering works – Core rules for environmental product declarations of construction products and services
- Product Category Rules (PCR) for Asphalt Mixtures, version 2, April 2022

The verification took place near the end of tool development. Access to a development server was granted to the verifier; tool input fields, generated EPD content, and calculated results were evaluated for conformance to the applicable standards. Results were furthermore cross-checked against those from NAPA's LCA study. Only tool front-end inputs and results were assessed for conformance; the review excluded an evaluation of back-end calculations and other operations. Feedback was sent to Trisight and NAPA via a comment matrix spreadsheet. Three rounds of feedback were conducted.

With the exception of certain elements highlighted in NAPA's "Statement of Limitations in Emerald Eco-Label Software", effective April 1, 2022, NAPA's Emerald Eco-Label EPD tool, version 2.0.0, was found to be in conformance with the applicable standards referenced herein. Software calculations appear to be accurate and the EPD generated by the tool conforms to the required elements of the EPD template (as defined by the PCR). Background information used by the tool was found to be valid and scientifically sound.

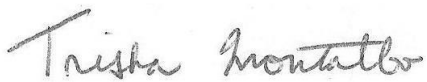


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This verification acknowledges and accepts that NAPA has not yet implemented all features in the EPD tool due to time constraints—as stated in NAPA’s “Statement of Limitations in Emerald Eco-Label Software”, effective April 1, 2022. As the verifier, I look forward to NAPA closing these gaps to eventually bring the software into alignment with the PCR and help work towards a more sustainable paving industry.

Sincerely,



Trisha Montalbo, Sc.D.
Senior Consultant
John Beath Environmental