Maryland
Department of
the Environment

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

March 30, 2020

Sonal Ram, P.E.
Maryland Department of Transportation
State Highway Administration
707 North Calvert Street, Mailstop C-303
Baltimore MD 21202

Dear Ms. Ram:

The Maryland Department of the Environment (Department) would like to thank you and other representatives from the Maryland Department of Transportation State Highway Administration (MDOT SHA), for meeting with us on February 12, 2020 to discuss your 2019 proposal for a Citizen Stewardship Capacity Building alternative best management practice (Education BMP). It was also a pleasure to further discuss the logistics of this proposal on March 12, 2020 between MDOT SHA and Living Classrooms, a Baltimore based nongovernmental organization. The Department believes that MDOT SHA's proposed Education BMP in coordination with Living Classrooms is innovative, promising, and supports a humanistic approach for helping to meet the water quality, restoration, and conservation goals of the 1987 Chesapeake Bay Agreement.

The Department is committed to working with MDOT SHA and Living Classrooms in establishing a scientific basis for crediting an Education BMP that supports the Chesapeake Bay Program's (CBP) *Citizen Stewardship Outcome Management Strategy*. Accordingly, the Department approves the Education BMP Pilot Monitoring Project (Pilot Project) described herein between MDOT SHA and Living Classrooms based on the following understandings:

1. MDOT SHA has developed a comprehensive proposal for crediting capacity building for environmental stewardship engagement and education programs administered by nongovernmental organizations as an Education BMP toward meeting municipal separate storm sewer system (MS4) permit impervious acre restoration requirements;
2. Living Classrooms will contribute its expertise in the implementation of comprehensive educational programs and curriculums anchored in environmental stewardship and behavioral change for water quality improvement;
3. MDOT SHA and Living Classrooms have established a working partnership (Partnership) for implementing an Education BMP and monitoring results to show water quality improvement; and
4. The Partnership is committed to working with Maryland's Chesapeake Bay Trust and the CBP's Urban Stormwater Work Group for determining scientifically based pollutant load reductions for an Education BMP.

The Department hereby agrees to provide MDOT SHA an interim impervious acre restoration

credit for the proposed Education BMP in accordance with the following conditions:

1. Impervious acre restoration credits described in this approval letter shall be restricted to MDOT SHA;
2. MDOT SHA shall administer the Pilot Project for a minimum of two consecutive years in order to fully assess the implementation of the Education BMP;
3. The Department will allow an interim impervious acre credit equal to 50% of MDOT SHA's 2019 Education BMP proposed credit, and up to 100% if subsequent analysis of monitoring data support the proposed credit, for a maximum Pilot Project restoration credit of 100 impervious acres;
4. The Education BMP and interim impervious acre credit shall be valid for MDOT SHA's current MS4 permit term, expiring October 8, 2020, and its next MS4 permit term;
5. Impervious acre credits claimed during the Pilot Project shall be calculated, documented, and reported in accordance with the monitoring methods detailed in MDOT SHA's 2019 Education BMP proposal;
6. Subsequent Education BMP impervious acre credits, beyond the two-year Pilot Project term, shall be in accordance with updated Education BMP monitoring methods;
7. By the one-year anniversary of the Pilot Project, MDOT SHA shall submit updated Education BMP monitoring methods to the Department for approval that shall, at a minimum, include:

   a. Details of Living Classrooms' comprehensive educational programs, including the curriculum and participation requirements;
   b. Incentives for the Education BMP when it results in observable implementation of BMPs with known pollutant load reductions;
   c. Incentives for the use of smart technologies (i.e., phone applications) to document BMP implementation for impervious acre credit;
   d. Before and after participant surveys to document behavioral changes (i.e., activity metrics) that can support pollutant reductions;
   e. Statistical analyses of participant surveys, BMP implementation, and behavioral changes, or other scientifically justifiable metrics, that show the Education BMP results in pollutant load reductions; and
   f. How monitoring results can be scientifically extrapolated more broadly for documenting MS4 impervious acre credit.

8. By the two-year anniversary of the Pilot Project, MDOT SHA shall use the Education BMP's updated monitoring methods for:

   a. Establishing an empirically based pollutant reduction efficiency for the Education BMP;
   b. Updating MDOT SHA's 2019 Education BMP impervious acre equivalency based on known pollution reduction efficiencies;
   c. Detailing Education BMP protocols and criteria for ensuring consistent replication and effective implementation;

     d. Showing how the Education BMP can be used as part of MDOT SHA's coordinated Total Maximum Daily Load (TMDL) implementation plan (actual pollutant load reductions shall only be used once approval has been granted by the CBP).

9. By the third-year anniversary of this Pilot Project, MDOT SHA shall submit to the Department a final report that comprehensively describes the results of the Pilot Project that includes:

     a. A summary of Living Classrooms' engagement and education activities;
     b. A summary of capacity increases by Living Classrooms that resulted from MDOT SHA's resource investment;
     c. A final determination of the Education BMP's pollutant load reduction efficiencies and equivalent impervious acres for the Department's consideration and credit in future MS4 permits;
     d. Monitoring methods that will continue into the future for verifying water quality improvements and impervious acre credits;
     e. Opportunities for incentivizing participation from other MS4s for implementing the Education BMP and increasing partnerships with nongovernmental organizations; and
     f. Making a proposal to the CBP's Urban Stormwater Work Group for consideration.

The Department would like to thank you again for your innovation and effort to grow water quality improvement and stormwater management strategies in Maryland and looks forward to working with you closely in this endeavor. If you should have any questions or would like to further discuss the crediting options outlined above, please give me a call at 410-537-3567, or contact Raymond Bahr at 410-537-3543.

Sincerely,
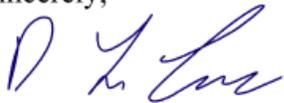
D. Lee Currey, Director
Water and Science Administration

cc: Mr. James Piper Bond, President, Living Classrooms