**MARYLAND SHA OFFICE OF STRUCTURES**

 **Structure Hydrology and Hydraulics Division**

 **In-house Software Programs**

 **May 2015**

The Program User is encouraged to refer to the guidance presented below regarding the Office of Structures recommendations for use of these programs.

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| PROGRAM | DESCRIPTION | DATE |
| ABSCOUR 10 | SHA Bridge Scour Analysis: H&H Manual, Bridge Scour Program Chapter 11, Appendix A  | 2015 |
| MPADD 2 | Deck Drainage Analysis: H&H Manual, Chapter 12 | 2015 |
| TIDEROUT 2 | Tidal Flow through Contracted Bridge Openings Analysis: H&H Manual, Chapter 11, Appendix B | 2015 |
| Riprap Culvert Outlet Basin Design(Spreadsheet) | This spreadsheet was developed by the Office of Structures from the information contained in the FHWA Manual HEC-14 in an effort to reduce the size of the outlet energy dissipation basins computed by the FHWA criteria. These energy dissipation basins should not be used without prior consultation with the Office of Structures. | 2005 |
| Scour Computations in Rock(Spreadsheet) | This spreadsheet uses the concept of the erodibility index developed by George Annandale to estimate scour in rock. It reflects the guidance contained in the FHWA Hydraulic Engineering Circular HEC-18, Fifth Edition dated April 2012. The Erodibility Index should be estimated only by specialists with a background and knowledge of rock mechanics. | 2014 |

**General comment:**

**While OOS no longer recommends the use of earlier versions of the programs the users can obtain the archived versions by contacting the Office of Structures, Structure Hydrology and Hydraulics Division. When necessary please email Michael Blahut at** **mblahut@sha.state.md.us** **or call (410) 545-8357.**