

**Department of Legislative Services**  
 Maryland General Assembly  
 2013 Session

**FISCAL AND POLICY NOTE**

Senate Bill 906 (Senator DeGrange)  
 Rules

**Transportation - Life Cycle Cost Analysis**

This bill requires the Maryland Department of Transportation (MDOT) to adopt regulations establishing a methodology for applying “life cycle cost analysis” to its evaluation of each capital project that costs more than \$5.0 million. The methodology must apply life cycle cost analysis to all aspects of a project under consideration, including specified items, and specify the criteria to be considered in evaluating the project and the weight to be given to each criterion. Upon completing a life cycle cost analysis, MDOT must submit a comprehensive report on the results to the Board of Public Works (BPW) to inform its consideration of MDOT construction contracts. A “life cycle cost analysis” is an engineering economic analysis tool that evaluates alternative infrastructure investment options by comparing all costs associated with a project over its expected life span, including (1) construction, maintenance, and operating costs; (2) costs to project users; and (3) costs to MDOT and other government agencies.

**Fiscal Summary**

**State Effect:** Transportation Trust Fund (TTF) expenditures increase by \$4.0 million in FY 2014 and by \$2.0 million annually in subsequent years to develop life cycle cost analyses and associated reports. Revenues are not affected.

(\$ in millions)	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Revenues	\$0	\$0	\$0	\$0	\$0
SF Expenditure	4.0	2.0	2.0	2.0	2.0
Net Effect	(\$4.0)	(\$2.0)	(\$2.0)	(\$2.0)	(\$2.0)

*Note:() = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate effect*

**Local Effect:** The bill is not expected to materially affect local finances.

**Small Business Effect:** Potential meaningful.

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## Analysis

**Current Law:** The *Consolidated Transportation Program* (CTP) is MDOT's six-year budget for the construction, development, and evaluation of transportation capital projects. It is revised annually to reflect updated information and changing priorities. It contains a list of current and anticipated major and minor capital projects for the fiscal year it is issued and for the next five fiscal years, including:

- an expanded description of major capital projects;
- a detailed breakdown of the costs of a project, project expenditures to date, expected expenditures for the current fiscal year, projected annual expenditures for the next five years, and total project costs; and
- MDOT's estimates of the source (*i.e.*, federal funds, special funds, etc.) and amount of revenues required to fund projects in the CTP.

**Background:** Generally, life cycle costs are the total costs that can be reasonably anticipated for an infrastructure investment during the entire life of the project. Life cycle costs may include initial construction, operation, maintenance, environmental, safety, and other costs reasonably anticipated during the life of the project, such as recovery after disruption from natural or manmade hazards. According to the National Conference of State Legislatures (NCSL), considering total costs ensures that the focus is not only on the upfront delivery of infrastructure, but also on how cost-efficient the investment will be over time. By accounting for total life cycle costs, NCSL notes that states can build longer lasting and more affordable projects.

Some states are taking life cycle costs into account during transportation decisionmaking. For example, in Illinois, a life cycle cost analysis must be completed for each state road project with total pavement costs exceeding \$500,000.

**State Fiscal Effect:** TTF expenditures increase by \$4.0 million in fiscal 2014 and by \$2.0 million annually thereafter for contractual costs associated with conducting life cycle cost analyses for capital projects and developing a comprehensive report on each analysis for BPW. This estimate assumes that a life cycle cost analysis must be completed for 80 capital projects in fiscal 2014 and 40 capital projects annually thereafter at a cost of *at least* \$50,000 per assessment. Because a life cycle cost analysis may cost approximately \$100,000 for a large project and conducting these analyses may delay

projects currently in the design phase, TTF expenditures may increase further in fiscal 2014 and future years.

**Small Business Effect:** The bill has a meaningful impact to the extent MDOT contracts with small businesses to complete life cycle cost analyses for construction projects.

**Additional Comments:** MDOT advises that because the Maryland Transit Administration is the only mode that brings construction projects to BPW for approval, it is not likely that BPW will review a majority of the life cycle reports required under the bill.

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### **Additional Information**

**Prior Introductions:** None.

**Cross File:** None designated; however, HB 1325 (Delegate Wood – Ways and Means) is essentially identical.

**Information Source(s):** Board of Public Works, Department of Budget and Management, Maryland Department of Transportation, Illinois Office of the Auditor general, National Conference of State Legislatures, Department of Legislative Services

**Fiscal Note History:** First Reader - March 18, 2013  
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Analysis by: Amanda Mock

Direct Inquiries to:  
(410) 946-5510  
(301) 970-5510