

Stormwater Financing Economic Impact Assessment

Presented by Dan Nees
Environmental Finance Center

February 27, 2013



Estimated Economic Impact of Construction Activities

- Based on \$100 million investment

	Lynchburg	Baltimore	Anne Arundel County
Direct	\$ 186,138,948	\$ 119,596,600	\$ 134,906,126
Indirect	\$ 71,862,242	\$ 16,896,723	\$ 38,795,636
Induced	\$ 57,928,686	\$ 8,536,405	\$ 46,499,275
Total	\$ 315,929,876	\$ 145,029,732	\$ 220,201,036

Estimated Economic Impact of Construction Activities

- Based on \$100 million investment

Lynchburg, VA	1,411
Anne Arundel County MD	776
Baltimore, MD	344



Estimated Economic Impact of Construction Activities

- Based on \$100 million investment

Lynchburg, VA	830
Anne Arundel County MD	476
Baltimore, MD	285



Estimated Economic Impact of Construction Activities

- Based on total estimated implementation cost

Anne Arundel County MD

3,800

Estimated Economic Impact of Operations and Maintenance Activities

- Based on \$10 million annual investment

	Lynchburg	Baltimore	Anne Arundel County
Direct	\$15,115,420	\$22,539,589	\$20,745,186
Indirect	\$ 3,547,828	\$ 3,794,157	\$ 4,085,823
Induced	\$ 3,876,330	\$ 4,225,402	\$ 8,813,986
Total	\$22,539,589	\$22,969,639	\$33,644,996

Estimated Economic Impact of Operations and Maintenance Activities

- Based on \$10 million annual investment

Lynchburg	90
Anne Arundel County	118
Baltimore	95

Estimated Economic Impact of Operations and Maintenance Activities

- Based on \$10 million annual investment

Lynchburg	60
Anne Arundel County	73
Baltimore	62

Impacts on Industry Sectors

IMPLAN

Sector Code

369	Architectural, engineering, and related services
380	All other miscellaneous professional, scientific, and technical services
319	Wholesale trade businesses
36	Construction of other new nonresidential structures
375	Environmental and other technical consulting services
426	Private household operations

Businesses

Product Development	<ul style="list-style-type: none">• Civil Engineering• Landscape Architecture• Hydrologic/Hydraulic Engineering• Environmental Engineering
Manufacturing/ Distribution	<ul style="list-style-type: none">• Landscape Media• Construction Equipment• Plumbing Equipment & Supplies• Building Supplies• Farm & Garden Machinery & Equipment• Nurseries and Horticultural Services• Arborist Services• Cistern Manufacturers• Meters Sensors and Components Manufacturers
Site Design	<ul style="list-style-type: none">• Landscape Architecture• Architecture Firms• Planning and Expediting Services• Civil Engineering Services• Hydrology• Permitting and Administrative Services• Soil Scientist Services

Businesses

Construction

- General Construction Services
- Paving, Surfacing and Tamping Services
- Roof Contracting Services
- Landscaping Services
- Poured Concrete Foundation & Structure Contracting Services
- Site Management and Evaluation Plumbing Services
- Electrical Services
- Hauling Services
- Truck and Tractor Operations
- Weatherization Companies
- Demolition/Deconstruction
- Hazardous Waste Treatment and Disposal Services

Monitoring/ Maintenance

- Service Technician Firms
- Landscaping
- Compliance Testing and Monitoring
- Septic Tank Servicers and Sewer Pipe Cleaning
- Plumbing/Sprinklers/Irrigation
- Jetvac Cleaning Services
- Erosion and Sediment Inspection

Occupations

Product Development	<ul style="list-style-type: none">• Civil Engineers• Landscape Architects• Environmental Engineering Technicians
Manufacturing/ Distribution	<ul style="list-style-type: none">• Machinists• Welders, Cutters, and Welder Fitters• Soil and Plant Scientists
Site Design	<ul style="list-style-type: none">• Environmental Engineers• Hydrologists• Nursery & Greenhouse Managers (includes Horticulturists)

Hourly Wage Range reflects 2011 data for Philadelphia County.

Occupations

Construction

- **First-line Supervisors of Construction Trades and Extraction Workers:** \$25.87 - \$46.18
- **Cement Masons & Concrete Finishers:** \$19.21- \$24.96
- **Construction Laborers:** \$15.52 – \$24.58
- **Plumbers:** \$22.81-\$34.80
- **Roofers:** \$17.11 - \$24.87
- **Paving, Surfacing and Tamping Equipment Operators:** \$21.45- \$36.61

Monitoring/ Maintenance

- **Supervisors of Landscaping and Groundskeeping Workers**
- **Landscaping and Groundskeeping Workers**
- **Maintenance and Repair Workers, General**
- **Water and Wastewater Treatment Plant and System Operators**
- **Septic Tank Servicers and Sewer Pipe Cleaners**



Key Issues

- About to be a very large investment across the 10 urban subdivisions
- In the long-term, supply of services will grow, industries will develop capacity
- In the short-term, supply of services may be restricted, costs may rise
- Expanding industry capacity is key