

# Determining the Relative Reductions of BMPs in the Phase II WIPs

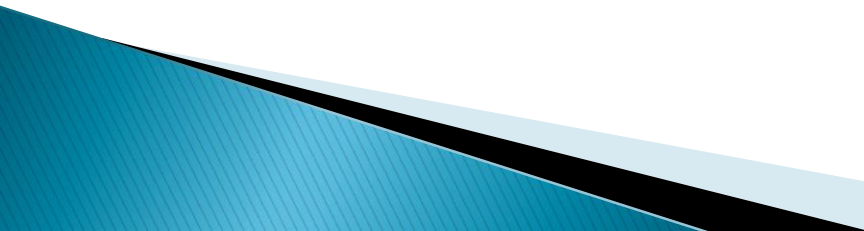
Analysis conducted by the Chesapeake Bay Program's Scenario Builder and Modeling Teams  
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# Objectives

- ▶ Identify the most common BMPs described in the Phase II Watershed Implementation Plans (WIPs).
- ▶ Identify the BMPs with the greatest reductions in nitrogen, phosphorus and sediment described in the Phase II WIPs.

# Method

- ▶ Create a NO ACTION Scenario.
  - ▶ Determine reductions from Phase II WIP Scenario compared to NO ACTION.
  - ▶ Isolate each BMP in a separate scenario using Scenario Builder processing rules.
  - ▶ Determine reductions from the isolated BMP scenario to the NO ACTION.
  - ▶ Compare the reductions from the isolated scenario to those from the Phase II WIP to determine a percent share of the reductions attributable to each BMP.
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# DISCLAIMER

- ▶ This type of analysis can ONLY tell us the relative benefits of BMPs for the Phase II WIP with a given set of land uses, animals, nutrient inputs, BMPs, etc.
- ▶ Any change to any of the above would lead to different results.

## BMP Acres in Phase II WIPs Watershed-wide

BMP	Acres
Conservation Plans	6,811,304
Enhanced Nutrient Application Management	2,082,419
Other Conservation-Till	2,002,283
Decision Agriculture	1,143,587
Cover Crop	1,136,034
Nutrient Application Management on Pasture	1,033,992
Nutrient Application Management on Crop	995,989
Prescribed Grazing	948,389
Land Retirement	609,407
Liquid & Poultry Injection	371,823
Continuous NoTill	321,901
Commodity Cover Crop	307,143
Precision Intensive Rotational Grazing	286,210
Forest Buffers	277,913
Crop Irrigation Management	251,767

# BMP Units in Phase II WIPs Watershed-wide

BMP	Measurement	Units
Dirt&Gravel Road E&S	feet	28,929,712
Urban Stream Restoration	feet	2,332,664
NonUrban Stream Restoration	feet	1,128,757
Manure Transport Outside CBWS	tons	572,999
Street Sweeping	lbs	9,628,448
Livestock+Poultry Waste Management Systems	AU	2,772,306
Livestock+Poultry Mortality Composting	AU	71,664
Septic Denitrification	systems	266,978
Septic Connections	systems	232,085
Septic Pumping	systems	141,963