

The Impacts of Maryland Green Schools on Environmental Parameters

Ayla McDonough, Dr. Sarah Haines

Research Question:

What are the environmental impacts of Maryland Green Schools (MDGS)?

Primary Assumption:

MDGS positively affect the environment

Methods:

Measured specified environmental parameters based on data submitted to Maryland Association for Environmental and Outdoor Education (MAEOE) by all 635 Maryland Green Schools.

For more information on the MDGS program, click the link:

<https://maeoe.org/green-schools-and-green-centers/green-schools-program>

Environmental Parameters:

- Square footage of stream bank cleaned
- Number of trees/shrubs planted
- Square footage of plants planted
- Square footage of habitat implemented
- Gallons of rain barrels implemented
- Square footage of gardens installed
- Square footage of streambank cleaned
- Square footage of raingardens
- Pounds of recycled materials
- Number of bird houses created
- Square footage of invasive species removed

Main Conclusion of Study: Maryland Green Schools have a positive effect on Maryland's environment

Results:

Table 1 depicts the cumulative values of environmental parameters from data submitted by Maryland Green schools from 2014-2019.

Table 1:

Environmental Parameters	Number of trees/shrubs planted	Square footage of plants implemented (ft ²)	Square footage of habitat implemented (ft ²)	Square footage of raingardens implemented (ft ²)	Volume of rain barrels implemented (gallons)
2014-2019: Totals	36,674	24,135,066.1	21,722,090.77	600,268.1	65,399

Table 2 depicts cumulative values of environmental parameters from data submitted by Maryland Green schools from 2015-2019 (certain parameters were not represented in the 2014 data set).

Table 2:

Environmental Parameters	Square footage of garden area implemented (ft ²)	Square footage of Invasive species removal (ft ²)	Number of bird houses created	Stream bank cleaned (feet)	Recycled Material (lbs.)
2015-2019: Totals	71,262.05	1,128,678.13	2,955	202,411.5	14,642,231.79

Discussion:

The Maryland Green Schools program has had a significant positive effect on the environment state-wide. Without the Green Schools program, many of these environmental action projects would not have been implemented. Additionally, students involved in the program are gaining important knowledge and skills that will make them better environmental stewards and more environmentally responsible citizens. Thus, the Maryland Green Schools program (MDGS) has both environmental and educational benefits that can be replicated in other states and school districts.