

Expanding Meaningful Citizen Stewardship



Citizen Stewardship and Stormwater

Citizen stewardship is an essential component of a comprehensive strategy to reduce urban stormwater pollution. Within the Chesapeake Bay Program (CBP), the reason to increase citizens' involvement in watershed health is simple: Skilled and informed community leaders become champions for greater involvement and volunteerism, which leads to greater adoption of responsible behaviors by the broader public.

The importance of citizen stewardship in reducing stormwater pollution is acknowledged by the Environmental Protection Agency in the requirements for municipal separate storm sewer systems (MS4) and by the framers of the 2014 Chesapeake Bay Watershed Agreement, which includes Citizen Stewardship as one of 29 Outcomes of the Chesapeake Bay Program. Both of these regulatory and policy requirements impact Department of Defense (DoD) installations in the Chesapeake Bay.

MS4 Permits

Public outreach is one of six minimum control measures that must be implemented with an MS4 program. MS4 permits, such as those issued to DoD installations, include jurisdiction- and permit-specific requirements for public outreach. These requirements often define the number of events and/or the size of the target audience that must be reached through public education and outreach efforts.

Chesapeake Bay Program

The Citizen Stewardship Outcome is to increase the number and diversity of trained and mobilized citizen volunteers with the knowledge and skills needed to enhance the health of their local watersheds. The DoD CBP supports this Outcome in its Two Year Workplan by continuing to increase and promote the number of volunteer-based events. Each year, the DoD CBP tracks the number of events and volunteers at DoD installations to help the DoD CBP measure progress toward this Outcome.

Although these requirements define what public outreach programs must accomplish, they do not address how to achieve outcomes that are meaningful. To assist decision-makers in the Chesapeake Bay watershed implement effective citizen stewardship programs, the Stewardship Goal Implementation Team (GIT) of the CBP developed a Stewardship Index to quantify the current level of implementation of key stewardship behaviors.



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Engaged Citizens, Big Impacts

Included in the DoD CBP Two Year Workplan is the commitment to continue to increase and promote the number of volunteer-based events, such as Clean the Bay Day, Clean the Base day, and Earth Day events on military installations by tracking events and volunteers through the DoD CBP Annual datacall. In FY2017, efforts in support of this commitment resulted in meaningful engagement at DoD installations with big impacts towards Bay watershed health.

- ▶ **DoD installations invested \$717,000 toward Engaged Communities in FY2017**
- ▶ **147 events with 4,450 volunteers held at DoD installations in FY2017**
- ▶ **12,255 pounds of trash collected by DoD volunteers on Clean the Bay in June 2017**





The Citizen Stewardship Index

In 2017, the Stewardship GIT surveyed 5,200 residents across the Chesapeake Bay to assess the adoption rate of nineteen actions that the public can take to improve water quality and environmental health in their community and the level of public engagement on behalf of the environment. A perfect Citizen Stewardship score would indicate that all citizens were doing everything they could to better the environment. Currently, the average score across the Bay watershed is 24 out of 100. Therefore, the potential score—a measure of the potential for expanded citizen stewardship—is 76.

How the Score is Calculated

The score is composed of three elements: The Personal Action score (score is 38 out of 100), which measures the adoption of specific behaviors, the Volunteering score (23), which measures participation in community efforts for the environment, and the Advocating score (19), which measures the level of engagement in activities to benefit the environment. The Index also predicts future stewardship based on three scores that measure the likelihood of future adoption or engagement: Likely to Take Personal Action score (25), Likely to Volunteer and Advocate score (65), and the Motivating Attitudes score (63).

Strategies for Success

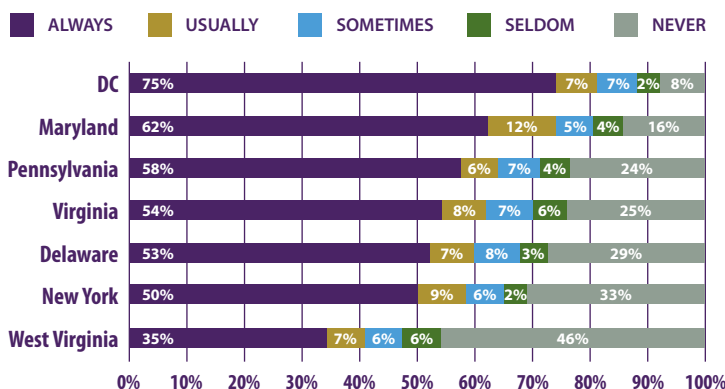
The results from the Citizen Stewardship Index indicate that citizens desire to do more to enhance their local watersheds, and that they can do more to create clean and healthy waterways. However, researchers noted a disconnect between individuals' understanding of the need for action and their perception of their specific impact on water quality in their community. The goal, therefore, is to bridge this gap by strategically promoting behaviors that citizens are most likely to implement with the greatest impact for local waterways and providing opportunities for citizens to act.

Select focus areas and actions with the greatest potential for success

In some cases, citizens can be encouraged to increase positive impact behaviors, such as installing a rain garden or picking up dog waste. In other cases, programs may focus on discouraging negative behaviors, such as pouring oil and grease down the drain or littering.

Behavior will vary among households with different geographic, socioeconomic, or demographic characteristics. The Citizen Stewardship Index includes segmentation data to help environmental managers evaluate behaviors among the groups that most closely match their target audience.

FOCUS BEHAVIOR: PICKING UP DOG WASTE



The results of the Index indicate that behavior will vary by state. For example, respondents in Washington, D.C. are 40% more likely to always pick up dog waste than respondents in West Virginia. Therefore, decision-makers in Washington, D.C. and West Virginia may address pet waste differently in their respective communities. Figure adapted from Stewardship Workgroup presentation at November 2017 Quarterly Progress Meeting.

Promote volunteerism and engagement through smart messaging

There are two questions to consider when developing opportunities for citizen involvement: 1. What is the existing awareness among the local population and 2. What resources are available to increase public knowledge of local water resource issues and actions they can take. Public access to natural areas and awareness of local issues and problem spots can create personal investment for members of the public who may otherwise consider water quality concerns a broad, general problem beyond their reach. Environmental managers can focus their message to community groups, neighborhoods, and industries most impacted by water quality and environmental health.

Strategy in Focus

A specific observation related to the data collected was that 52% of apartment or condo residents are very likely to begin picking up dog waste compared to 11% of the average population. Consider outreach materials to apartment or condo residents to promote a positive behavior among a population already predisposed to adopt the behavior.

Applications for DoD

As DoD installations develop strategies to comply with MS4 permit requirements and achieve the targets of the DoD CBP Work Plan for citizen stewardship, the Citizen Stewardship Index and survey results can provide valuable information to expand meaningful citizen stewardship most effectively.

About this Publication

To learn more about the Stewardship GIT, Citizen Stewardship Index, or to view the results of the Index, visit the Chesapeake Progress website (www.chesapeakeprogress.com/engaged-communities/citizen-stewardship) or the Stewardship GIT webpage at www.chesapeakebay.net.