

**Indicator: Stewardship Behavior**Question

How many volunteer hours were logged in the watershed through the work of six NH stewardship groups in 2015 and 2016? Additionally, how many signups and events for stewardship-related activities were completed through The Stewardship Network: New England from 2015 to 2016?

Short Answer

In 2015, there were 44,174 volunteer hours logged in the watershed through the work of six selected New Hampshire-based stewardship groups. In 2016, there were 39,788 volunteer hours logged in the watershed through those same six selected groups.

In 2015, there were 422 people who signed up for 122 events in the watershed, and, in 2016, there were 524 people who signed up for 96 events in the watershed through the Stewardship Network: New England.

PREP Goal

No goal yet determined.

Why This Matters

Stewardship of local ecosystems improves environmental conditions and fosters and sustains a sense of investment in, and value for, the long-term wellbeing of those systems. No matter how stringent local environmental regulations are or how advanced wastewater and stormwater technology becomes, local communities cannot be truly sustainable without an engaged citizenry that takes action to care for and protect local natural resources. Environmental stewardship in communities has been shown to create personal connections to the landscape and improve local quality of life, and its role in strengthening the social resilience of communities is being studied (McMillen et al. 2016). Many organizations, groups, and individuals in the Piscataqua Region are already working to ensure that stewardship culture is ingrained in the identity of local residents. The health of this region depends on this stewardship culture's capacity to reach and engage new demographics of residents, including newcomers to the region and the growing millennial population.

Explanation (from 2018 State of Our Estuaries Report)

Stewardship can be defined as the careful and responsible management of something entrusted to one's care (Merriam-Webster.com). While there are many active organizations working on stewardship and conservation across the region, PREP developed criteria to determine which groups would be used for this indicator. These include 1) regular collection of volunteer data; 2) opportunities for engagement offered for a majority of the year; 3) stewardship activities occurred within the PREP watershed boundary and 4) a focus on coastal resources. The entities selected were the Blue Ocean Society for Marine Conservation, Great Bay National Estuarine Research Reserve (GBNERR), the Gundalow Company, the Seacoast Science Center, the New Hampshire Department of Resources and Economic Development (NHDRED), and the Coastal Research Volunteer (CRV) Program at University of New Hampshire Sea Grant.

These organizations have dedicated volunteer bases that combined to donate 44,174 hours in 2015 in the Piscataqua Region and 39,788 hours in 2016 (Table SB-1). Using the latest Bureau of Labor Statistics volunteer rate for New Hampshire (\$24.90 per hour), the estimated economic value of this contribution is \$1,099,993 in 2015 and \$990,721 in 2016 (Bureau of Labor Statistics 2017). These volunteers work tirelessly to care for the local landscape, be it through cleaning up litter on a beach, restoring eroded dunes, counting glass eels, or teaching students about the historical significance of Great Bay and its tributaries. The work of these passionate volunteers improves environmental conditions and lays the foundation for increased understanding of, and appreciation for, local natural resources. By tracking the hours donated by volunteers from these well-established groups, PREP can track the activity of a dedicated group of stewards in the region. PREP hopes to

expand the number of organizations contributing to this indicator in the future, with a particular focus on those that work in Maine.

It is crucial that this spirit of stewardship and understanding of local ecosystems continue in the region, especially as populations increase and our natural resources are more heavily utilized. The University of New Hampshire Cooperative Extension launched The Stewardship Network: New England in 2013 to address New Hampshire's growing need for increased stewardship capacity and volunteer coordination. The Network's mission is to mobilize volunteers to care for and study the lands and waters in New England. In keeping with this mission, the Network cultivates an online hub for stewardship and citizen science volunteer opportunities and trainings. Their Events Calendar (<http://newengland.stewardshipnetwork.org/events-training>) and weekly e-bulletin are utilized by hundreds of organizations to promote hundreds of stewardship opportunities and events. There are thousands of subscribers interested in taking part in these activities, and The Stewardship Network tracks how many people sign up and how many hours were spent on each event. Additionally, The Stewardship Network can select data by zip code, including the coastal region. In 2015, 422 people signed up for 122 events, and in 2016, 524 people signed up for 96 events (Table SB-2).

**Table SB-1. Volunteer Hours by Selected Stewardship Groups by Year. Data Source: Blue Ocean Society for Marine Conservation; NHDRED; NH Sea Grant; GBNERR; Gundalow Company; Seacoast Science Center.**

Organization	2015	2016
Blue Ocean Society for Marine Conservation	3,080	3,765
Dept. of Resources & Economic Development	19,872	16,791
Dune & Coastal Research Volunteers	1,764	1,602
Great Bay National Estuarine Research Reserve	3,883	2,963
Gundalow Company	2,500	2,779
Seacoast Science Center	13,075	11,978
<b>TOTAL</b>	<b>31,099</b>	<b>40,975</b>

**Table SB-2. The Stewardship Network: New England Volunteer Event Data in the Piscataqua Region by Year. Data Source: UNH Cooperative Extension, The Stewardship Network: New England.**

Year	Number of Signups	Number of Events
2015	422	122
2016	524	96

#### Methods and Data Sources

Data from six prominent organizations and entities who organize and facilitate stewardship events in the Piscataqua Region watershed were combined to create a regional summation of volunteer hours donated to stewardship activities. These data were compared from 2015 to 2016 and will continue to be monitored in future years. Signup and event data from The Stewardship Network: New England was extracted from the Network's

Salesforce database based on events located in the zip codes that fall within the boundaries of the Piscataqua Region watershed. Total signups were calculated by adding up the number of signups across all the events in the region for each year, and total events were calculated by adding up the number of distinct events posted on the Stewardship Network website in the relevant zip codes for each year.

#### *Data Sources*

The data sources selected for this indicator were the records kept by the six organizations and groups studied. The organizations and groups who contributed data to this indicator were as follows: Blue Ocean Society for Marine Conservation, the New Hampshire Department of Resources and Economic Development, the UNH Dune and Coastal Research Volunteers, Great Bay National Estuarine Research Reserve, The Gundalow Company, and The Seacoast Science Center.

#### References Cited

Bureau of Labor Statistics. 2017. Yearly earnings: indexed by Independent Sector in April 2017. "The Value of Volunteer Time." <https://www.independentsector.org/resource/the-value-of-volunteer-time/>

McMillen H, Campbell LK, Svendsen ES, Reynolds R. 2016. Recognizing Stewardship Practices as Indicators of Social Resilience: In Living Memorials and in a Community Garden. *Sustainability* 2016, 8 (8), 775