



## Lehigh Valley Return on Environment – Outdoor recreation economic benefit

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In December 2014, the Lehigh Valley Planning Commission (LVPC) completed the *Lehigh Valley Return on Environment* study, which documents the substantial economic value of regional open space. The purpose for the study is to show that through open space preservation, quality of life can be improved while saving tax dollars and growing the economy. The analysis includes four components—natural system services, air quality, outdoor recreation and property values. Each of these components will be highlighted in this and upcoming newsletters, with the first being Outdoor Recreation.

Open space in the Lehigh Valley provides a desirable place for many free and low-cost recreational activities. Levels of participation and direct annual spending by residents were tracked for 11 outdoor recreational activities. Also, the activities are associated with Lehigh Valley residents recreating on Lehigh Valley open space. The outdoor recreational activities included are:

- Fishing (freshwater)
- Hunting (all types)
- Walking (on trails, in parks and on streets)
- Running (on and off-road)
- Bicycle-based recreation (on paved roads or off-road)
- Camp-based recreation (in a tent or RV)
- Water-based recreation (kayaking, rafting and canoeing)
- Trail-based recreation (hiking on an unpaved trail, backpacking and climbing natural rock)
- Wildlife viewing (wildlife watching and photography, except birds)
- Birding (near home and away from home, bird feeding, watching and photography)
- Nature Study/Outdoor education

The rate of participation and levels of spending depend on the recreational activity. Participation rates from five surveys (local, state and national) were compared.

- Department of Conservation and Natural Resources. 2014. *Outdoor Recreation in Pennsylvania A Resident Survey*.
- U.S. Department of the Interior, Fish and Wildlife Service, and U.S. Department of Commerce, Census Bureau. *2011 National Survey of Fishing, Hunting and Wildlife-Associated Recreation—Pennsylvania*.
- Outdoor Foundation. 2013. *Outdoor Participation Report*.
- Northampton County. August 6, 2014. Personal communication with Bryan Cope, Open Space Coordinator, preliminary results from survey for *Livable Landscapes An Open Space Plan for Northampton County*.

- Centers for Disease Control and Prevention. 2012. "More People Walk to Better Health." *Vitalsigns*.

Financial data is less available than participation rates and is usually derived from surveys and national studies. For example, the U.S. Fish and Wildlife Service conducts a *National Survey of Fishing, Hunting and Wildlife-Associated Recreation* every five years. The survey breaks down spending, demographic and participation information and provides information on a state-by-state basis. This survey is a well-established reference for fishing, hunting and wildlife watching. Also, spending can vary by region. As an example, the 2009 DCNR statewide *Outdoor Recreation Resident Survey* estimated annual spending for running/jogging for an individual to be \$238 per year, yet interviews with local experts indicated it was closer to \$900 per year.

Results from the survey review are presented below. The study identified both the lowest participation and spending rates from the surveys and also the expected rates based on local expert input. Walking had the highest participation rates for both low and expected at 60%, but the lowest expenditures per year (\$96). Camping had the lowest expected participation rate (6%). The highest expected expenditure amount was \$1,207 per year for hunting, with the second highest being \$900 per year for running/jogging. Six activities had the same low and expected expenditure amounts.

Activity	Participation (%)		Expenditure Per Year (\$)	
	Low	Expected	Low	Expected
Walking	60	60	96	96
Fishing	11	14	409	409
Hunting	5	11	687	1,207
Birding/Bird Watching	5	31	211	329
Wildlife Watching	8	35	308	308
Camping	6	6	600	600
Kayaking/Canoeing	3	14	375	375
Bicycling	16	17	453	600
Hiking/Backpacking	10	10	280	458
Running/Jogging	16	16	238	900
Nature Study	9	14	150	150

Scenarios were developed to illustrate a conservative range of economic impacts. The low economic contribution scenario included the lowest participation rate of all surveys reviewed and the lowest spending rate of all surveys reviewed. The expected economic contribution scenario included participation and spending rates estimated to better reflect the expected levels of use and spending in the Lehigh Valley.

According to this analysis, the low and expected economic contribution scenarios—representing the expenditures of outdoor recreation participants, plus the ripple effects of those dollars through the economy—for the Lehigh Valley would result in over \$340 million and nearly \$796 million, respectively.

The report, which is available on the LVPC website ([www.lvpc.org](http://www.lvpc.org)), provides more detailed information. Additional report sections include: 1) regional background information, 2) the State of the Environment, providing a snapshot of the Lehigh Valley's air quality, water quality, land cover and habitat, and wildlife, and 3) trends impacting the quality of life, local economy and the environment.

Please contact Teresa Mackey or Geoff Reese at the LVPC office (610-264-4544) with any questions related to the *Lehigh Valley Return on Environment* study.