



# LEBANON COUNTY RETURN ON ENVIRONMENT 2019



Photo: Courtesy Visit Lebanon Valley

Funding assistance has been provided by the Department of Conservation and Natural Resources, Bureau of Recreation and Conservation, Environmental Stewardship Fund.



**IT IS DIFFICULT TO HAVE A STRONG  
ECONOMY WITHOUT A HEALTHY  
ENVIRONMENT, PLENTY OF OPEN SPACE,  
AND QUALITY HABITAT. THE KITTATINNY  
RIDGE DOES AN EXCELLENT JOB  
OF PROVIDING ALL THREE.**

John Rogers / Keystone Conservation Trust

# 01.

## NATURE IS ONE OF LEBANON COUNTY'S MAJOR COMPETITIVE ADVANTAGES



Photo: Dax Roggio

More than just pretty places, Lebanon County's forested ridges and stream valleys are productive assets that generate over \$575 million annually in avoided costs for natural system services and air pollution removal, reduced healthcare costs, and revenues from outdoor recreation and local and state taxes.

## **ANNUAL AVOIDED COSTS**

(Dollars that do not need to be spent on the provision of environmental services, such as stormwater management and air pollution removal)

- Natural system services: \$309.8 million
- Air pollution removal impact on health: \$7.1 million

## **OUTDOOR RECREATION ANNUAL REVENUES**

- Outdoor recreation: \$183.9 million
- Jobs: 1,795
- State and local taxes: \$9.12 million

## **ANNUAL AVOIDED HEALTHCARE COSTS DUE TO INCREASED EXERCISE**

- \$67 million

# 02.

## NATURE IS SERIOUS BUSINESS



The economic benefits presented in the Return on Environment report are a new way to provide government officials, businesses, and residents with a perspective on the value of natural system services, and should contribute to informed decisions concerning land use, economic development, safety, tourism, and recreation.

## **RETURN ON ENVIRONMENT VALUATION BENEFITS**

- Nature's complex system is conveyed in a simple bottom line that everyone can understand – \$\$.
- Results directly establish nature's connection to quality of life, health, cost of living, economy, and sense of place.
- Informs local policy and decision making:
  - Conveys a level of significance or priority.
  - Engages stakeholders in an educational process.
  - Can be applied to land use, tourism, economic development, infrastructure, and recreation.
- Mapping of natural system service values can help make land use decisions explicit to policymakers, investors, and residents.

# 03.

## LEBANON COUNTY IS FACING THE WINDS OF CHANGE



Over the next 20 years, the interests of aging adults and Millennials will drive economic growth.

## **TRENDS THAT WILL IMPACT LEBANON COUNTY'S FUTURE**

- Changing demographics
- Growth in nearby areas
- Increased demand for outdoor recreation
- Interest in healthy lifestyles and adventure experiences
- Investments in water quality
- Agriculture needs
- Internet access
- Changing forms of business
- Changing climate conditions

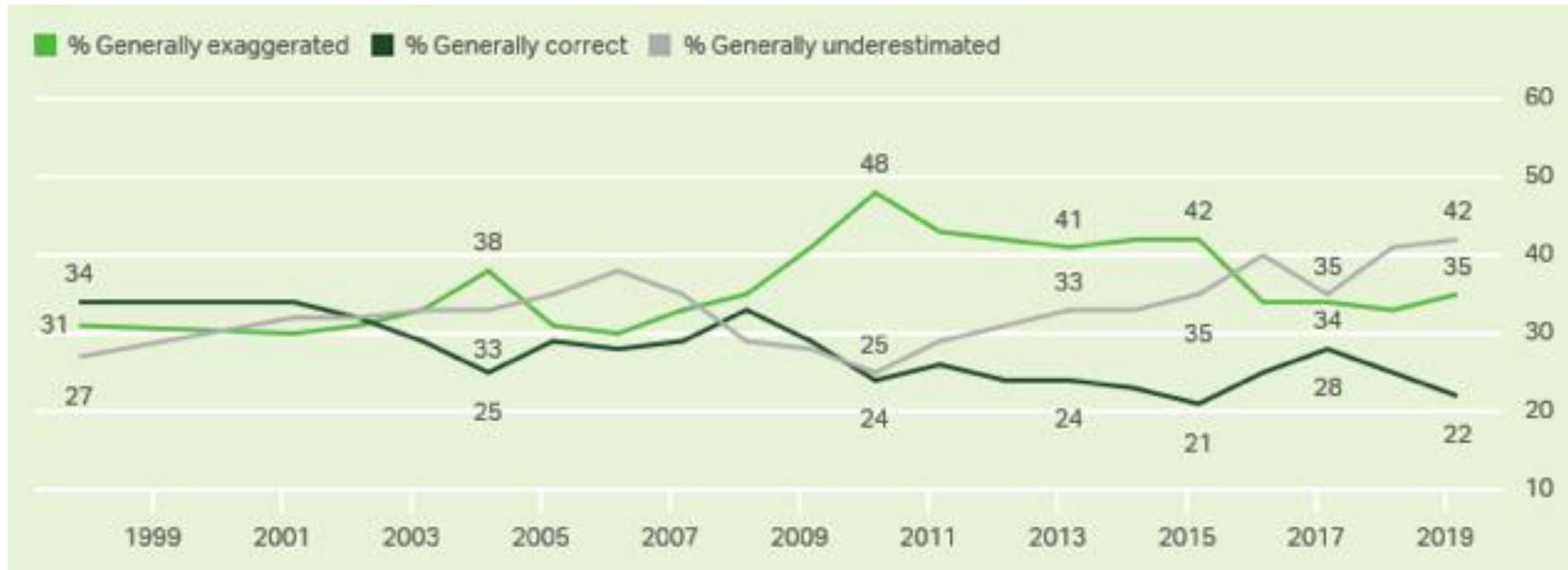
# 04.

## ATTITUDES TOWARD THE ENVIRONMENT ARE CHANGING



Over the past 30 years, national polls conducted by Gallup, Inc. have shown a changing attitude toward the environment over economic development.

## IS THE SERIOUSNESS OF GLOBAL WARMING GENERALLY UNDERESTIMATED?



Source: Gallup

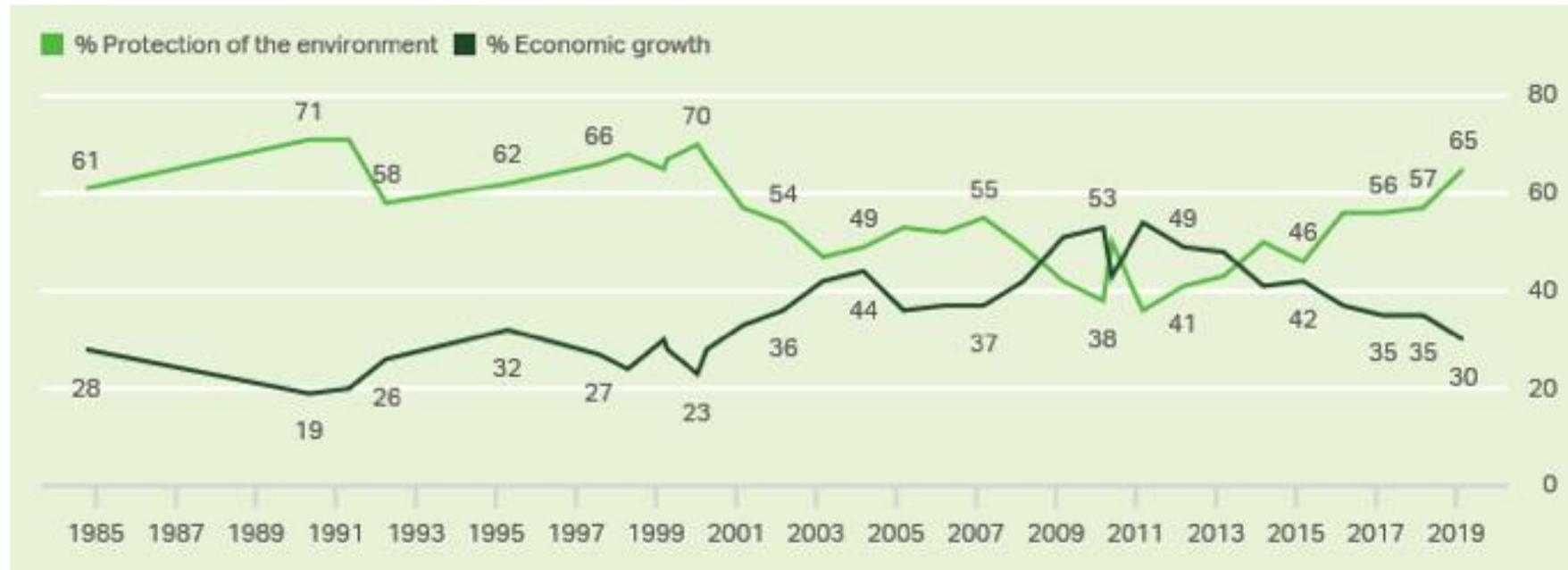
# 05.

## THE USE OF LAND IS BY FAR THE GREATEST OPPORTUNITY TO MAKE MAJOR FINANCIAL CHANGES



Stormwater, flooding, air pollution, and forest fragmentation are some of the drivers of natural system service loss and disruption. The greatest financial leverage on open space and sustainable environmental and economic health is how land is used.

## ENVIRONMENTAL PROTECTION VS. ECONOMIC GROWTH



Source: Gallup

# 06.

## **BIODIVERSITY IS CENTRAL TO MAXIMIZING NATURE'S ECOLOGICAL AND FINANCIAL VALUE**



Photo: Dax Roggio

Native plants are the foundation for all life and control local biological diversity. They help drive natural system services like photosynthesis, pest control, pollination, erosion control, soil formation, water purification and the generation of oxygen, and clean air. Additionally, they support 29 times more biological diversity than non-native plants.

# 07.

**DEMAND FOR  
OUTDOOR  
RECREATION  
MAY HELP  
ATTRACT  
FUTURE  
GROWTH**



The outdoor recreation industry is strong and growing, generating \$646 billion annually in the United States. However, the demand for outdoor recreation in Lebanon County is larger than the business capacity to meet it, and much of the retail business related to outdoor recreation leaks into surrounding areas.

## **INCREASING TRENDS IN OUTDOOR RECREATION PARTICIPATION**

- Thirty-one percent of Pennsylvanians surveyed during the Pennsylvania Department of Conservation and Natural Resources 2014 Outdoor Recreation Participation Survey of Pennsylvania said they planned to spend more time outdoors.
- About half of the region's Baby Boomers plan to increase their outdoor activity, compared to 25 percent of their older counterparts.
- By 2025, Millennials will make up 75 percent of the workforce, and these young professionals enjoy the outdoors and seek healthy and adventurous lifestyles.
- A 2015 report by the National Outdoor Foundation found that the following outdoor activities have been increasing: paddle sports, mountain biking, cross-country skiing, day hiking, bird watching, and bicycling.

08.

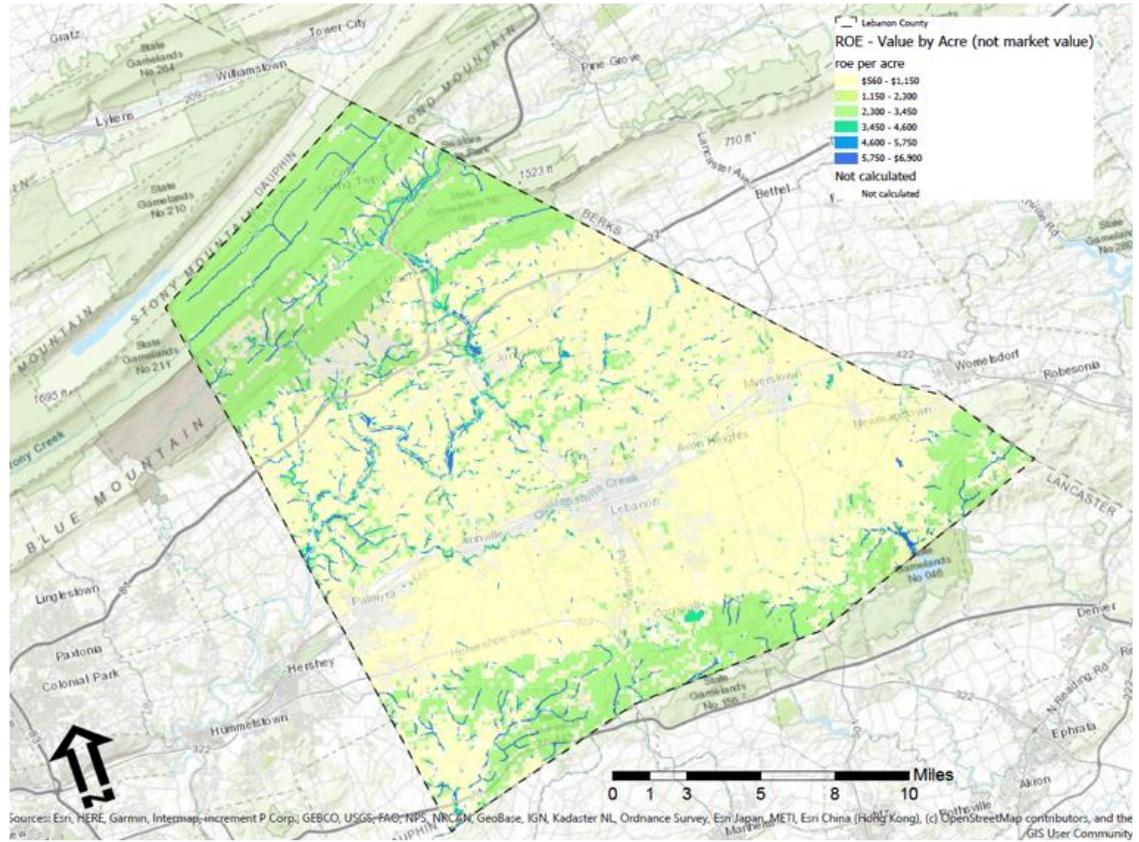
**WE CAN'T  
AFFORD NOT  
TO PROTECT  
LEBANON  
COUNTY'S  
OPEN SPACE**



Photo: Courtesy Visit Lebanon Valley

The first rule of ecology is that everything is connected to everything else. Whatever we do to natural habitats—good or bad, big or small—ripples through the economy. Simply stated, the loss of open space costs us more than we know.

# LEBANON COUNTY ROE MAP



# 09.

## PUT RETURN ON ENVIRONMENT STUDIES TO WORK



Photo: Courtesy Visit Lebanon Valley

Businesses, governments, and households need to work together to manage open space in ways that result in the highest Return on Environment. Choices made about the environment today will have a dramatic impact on the future.

# 10.

## ALL STAKEHOLDERS PLAY A PART



Photo: Dax Roggio

If the economy of Lebanon County is to remain strong, environmental stewardship cannot be the responsibility of a few dedicated people. Environmental stewardship must become part of Lebanon County's everyday culture. Residents, planners, nonprofits, land trusts, businesses, and policymakers require strong alignment to succeed.

## **BEST WAYS TO SUSTAIN AND EXPAND NATURAL SYSTEM SERVICES**

1. Incorporate ROE at the beginning of all decision-making.
2. Protect water quality at its source in headwaters and wetlands, and along riparian areas.
3. Protect large forests, particularly on steep slopes, connect wildlife habitats, and maintain and restore tree canopy cover.
4. Connect all critical habitat to ensure species migration.
5. Remove invasive plants by minimizing disturbance (edges, clearings) in natural areas.
6. Remove obsolete dams to improve water quality and aquatic habitats.
7. Minimize impermeable surfaces and limit turf grass to areas essential for recreation and landscape access.
8. Practice good stewardship and incentivize the use of native plants in the landscape of commercial, government, and residential areas surrounding parks, preserves, riparian areas, and trails.
9. Involve ROE in schools.

# DOWNLOAD THE FULL ROE REPORT AT: [KITTATINNYRIDGE.ORG/EXPLORE/ROE](http://KITTATINNYRIDGE.ORG/EXPLORE/ROE)

FOR MORE INFORMATION, VISIT  
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