

Pathway to Revitalization

Economic Impacts of the Phased Completion of the Naugatuck River Greenway

March, 2017



Funding and Research Partners

Funding Partners:

- Connecticut Community Foundation
- Valley Community Foundation
- Katharine Matthies Foundation
- The Community Foundation of Northwest Connecticut (Through NHCOCG)
- US Department of Transportation
- CT Department of Transportation
- Member Municipalities

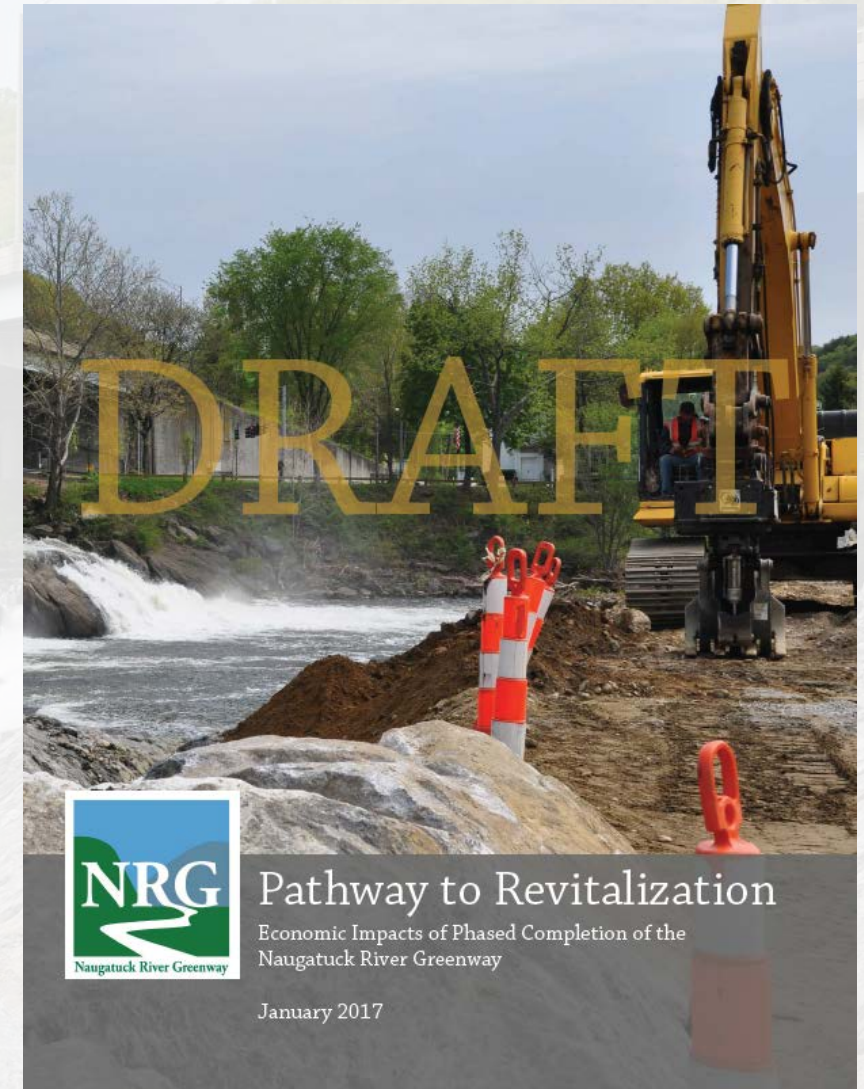
Research Partners:

- Naugatuck Valley COG
- UConn College of Agriculture, Health & Natural Resources
- UConn Connecticut Center for Economic Analysis



Purpose of Study

- Understand how completion of the Greenway would:
 - Change trail usage
 - Induce visitor spending
 - Impact property values
 - Spur development and redevelopment possibilities
 - Deliver health benefits
 - Improve quality of life
 - Generate brownfield remediation projects





Study Approach

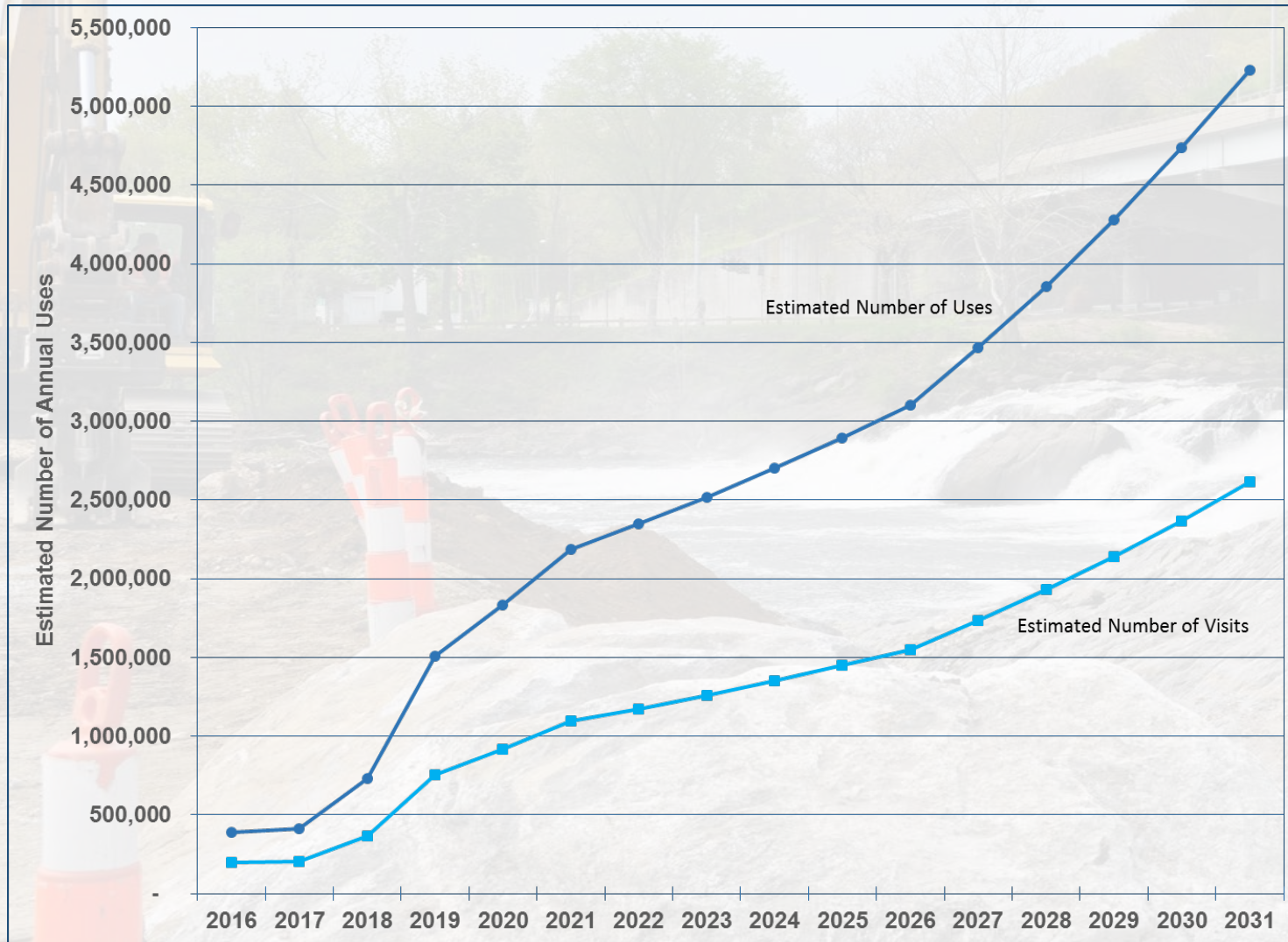
- Literature Review – UConn Extension
- Infrared Trail Counts – NVCOG
 - Placed on open sections + Middlebury Greenway & Sue Grossman Trail
- Intercept Surveys – NVCOG + Volunteers
 - Conducted at trailheads – Derby, Beacon Falls, Naugatuck, Middlebury & Torrington
- Focus Groups – UConn Extension
 - Learn best practices
 - Public health professionals, trail administrators & business owners
- Economic Analysis – CCEA
 - Three Scenarios – Baseline, Current Trends & Accelerated Growth
 - Direct Economic Impacts
 - Indirect/Induced Impacts – REMI Model



Trail Counts

- Conducted during summer & fall 2015
- Installed passive Infrared counters – 4 weeks of uninterrupted counts
- Some limitations:
 - Can't distinguish bikes & pedestrians
 - Under-counts
 - Represents number of "hits" not visits
- National Bicycle Pedestrian Documentation used to extrapolate annual uses = $\pm 545,000$
 - Derby Greenway = $\pm 302,000$
 - Naugatuck Greenway = $\pm 58,000$
 - Beacon Falls = $\pm 25,000$
 - Middlebury Greenway = $\pm 95,000$
 - Sue Grossman Trail = $\pm 64,000$

Estimated Annual Uses (Baseline)



- Assumes full build-out
- Annual uses based on open NRG sections
- Set per-mile use rate
- 2 uses = 1 visit

**2.6 Million
Annual Visits
(2031)**



Intercept Survey

- Conducted during October 2015; 2 hour windows over 12 separate days
- 383 surveys were completed
- 74% use trail one or more times per week
- 71% travel by car – alone or with someone
- <3% were bicyclists
- 88% use the trail for exercise
- Average spending = \pm \$14 (including travel costs)
- 97% consider the trail an asset to the community



Focus Groups

- Discussions focused on:
 - Trail uses & users
 - Community impacts of trails
 - Challenges
 - Recommendations
- Emphasized:
 - Potential for increasing use by promoting & supporting the trail
 - Use as venue for public health education & events
 - Add value to adjacent properties
 - Business impacts can be positive & negative
 - Actual vs. perceived safety & security issues
 - ADA compliance & access issues
 - Maintenance issues
 - Provide more amenities, wayfinding/information signs & maps

Economic Analysis

- Trail Construction & Maintenance Costs
 - Direct Spending by trail users – from Intercept Survey
 - Consumer Surplus
 - Health Benefits
 - REMI economic model
 - Three Analysis Scenarios:
 - Baseline
 - Current Trends
 - Accelerated Growth
- Amenity Benefits

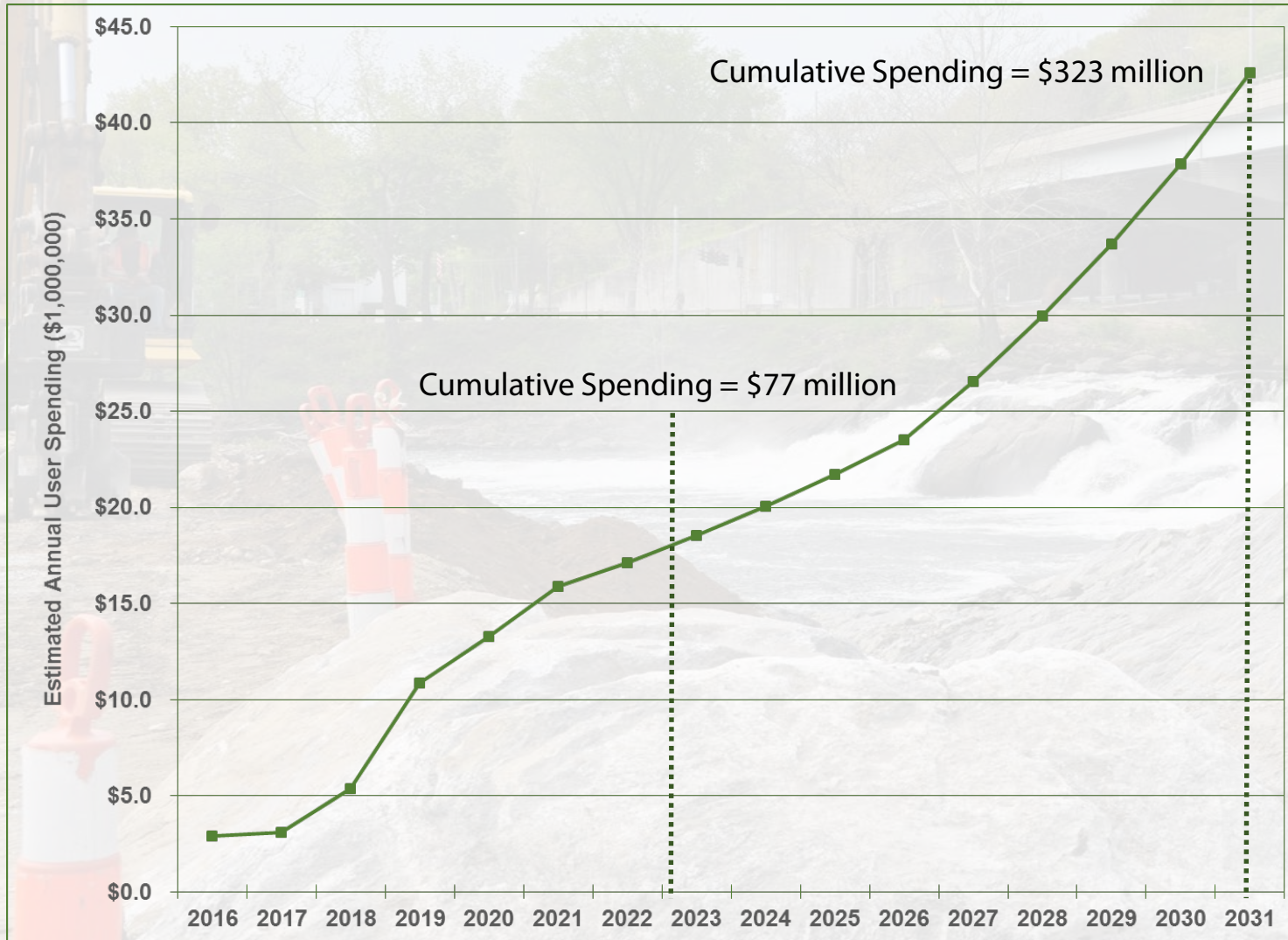
Construction Costs

<i>Community</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>Annually (2021– 2025)</i>	<i>Annually (2026– 2030)</i>	<i>Total</i>
Litchfield County Total	\$0	\$0	\$2,347	\$0	\$6,029	\$900	\$2,190	\$24,021
Torrington	\$0	\$0	\$500	\$0	\$0	\$900	\$0	\$5,000
Litchfield/ Harwinton	\$0	\$0	\$0	\$0	\$0	\$0	\$2,190	\$10,950
Thomaston	\$195	\$0	\$0	\$0	\$5,529	\$0	\$0	\$5,724
Watertown	\$0	\$0	\$1,847	\$0	\$500	\$0	\$0	\$2,347
New Haven County Total	\$2,220	\$7,457	\$6,210	\$3,200	\$14,580	\$420	\$3,490	\$53,197
Waterbury	\$0	\$5,500	\$0	\$0	\$8,600	\$0	\$2,380	\$26,000
Naugatuck	\$0	\$0	\$3,000	\$0	\$3,236	\$420	\$0	\$8,336
Beacon Falls Trail	\$0	\$1,357	\$0	\$3,200	\$2,744	\$0	\$0	\$7,301
Seymour	\$700	\$0	\$0	\$0	\$0	\$0	\$750	\$4,450
Ansonia	\$1,500	\$0	\$0	\$0	\$0	\$0	\$360	\$3,300
Derby [1]	\$0	\$600	\$3,210	\$0	\$0	\$0	\$0	\$3,810
Total Construction Costs	\$2,395	\$7,457	\$8,557	\$3,200	\$20,609	\$1,320	\$5,680	\$77,218

- Additional Expenditures to Complete Entire Trail
- 41.4 miles to complete
- Estimated Timeline
 - Completion by 2030
 - Fully Operational 2031

\$77.2 Million

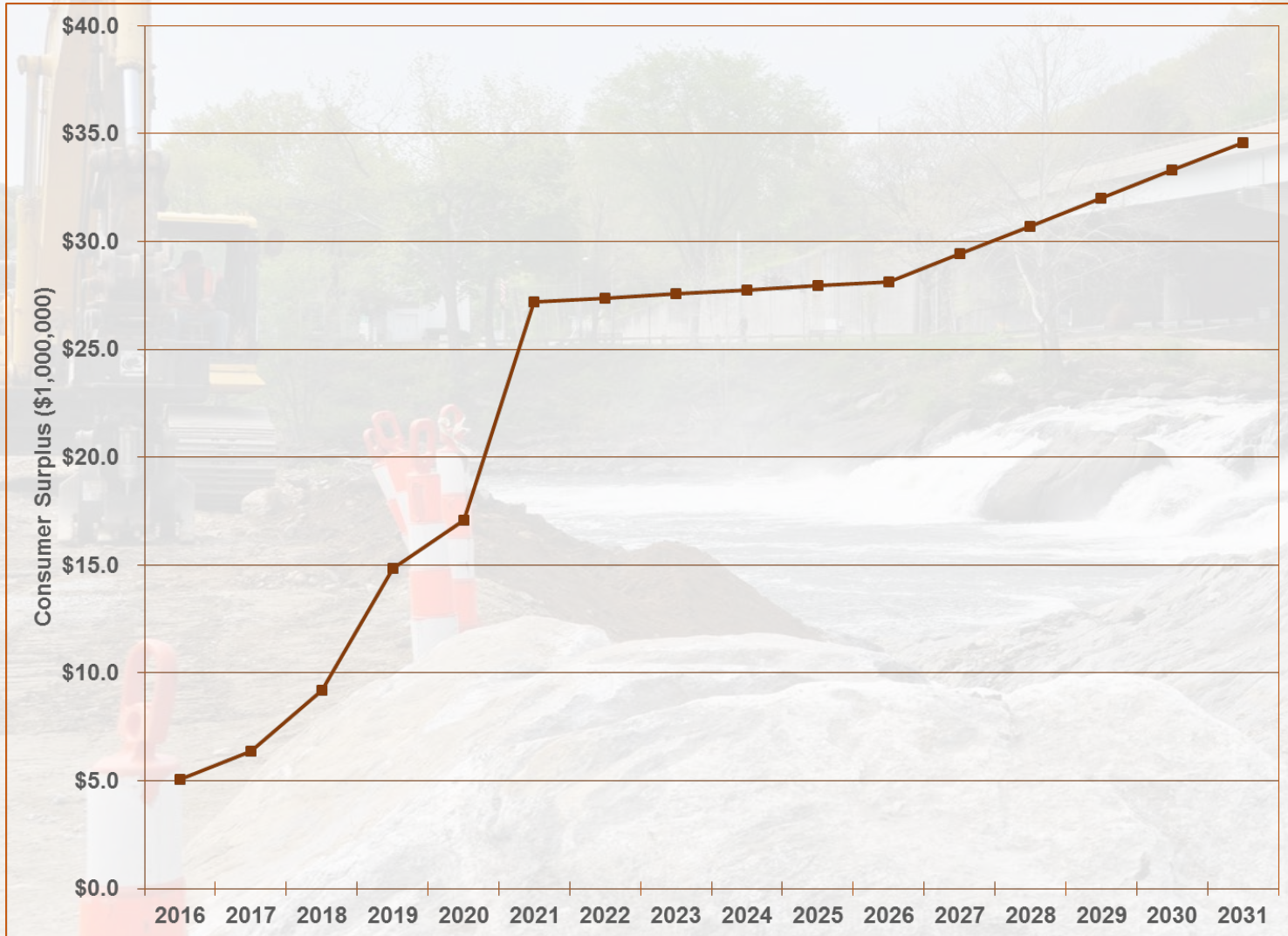
Direct User Spending (Baseline)



- Travel Costs
- Meals
- Refreshments
- Gear & Equipment
- Retail Items
- Activities
- B:C = 4.2

**\$42.6 Million
(2031)**

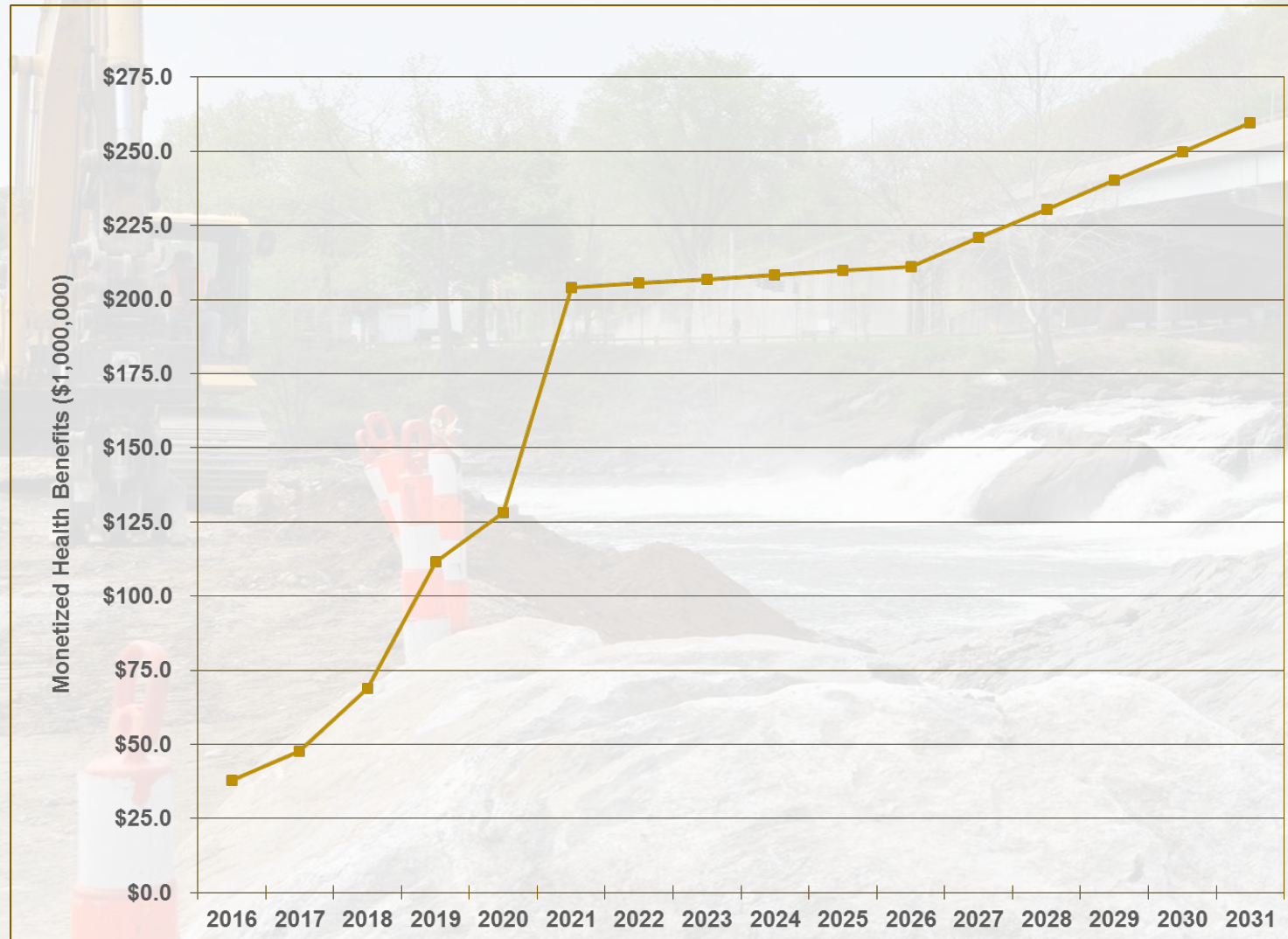
Consumer Surplus (Baseline)



- *Consumer surplus* is the value that consumers are willing to pay over and above what they actually pay for consumption of a good or to participate in an activity.
- Calculated based on avoided transportation costs

**\$34.6 Million
(2031)**

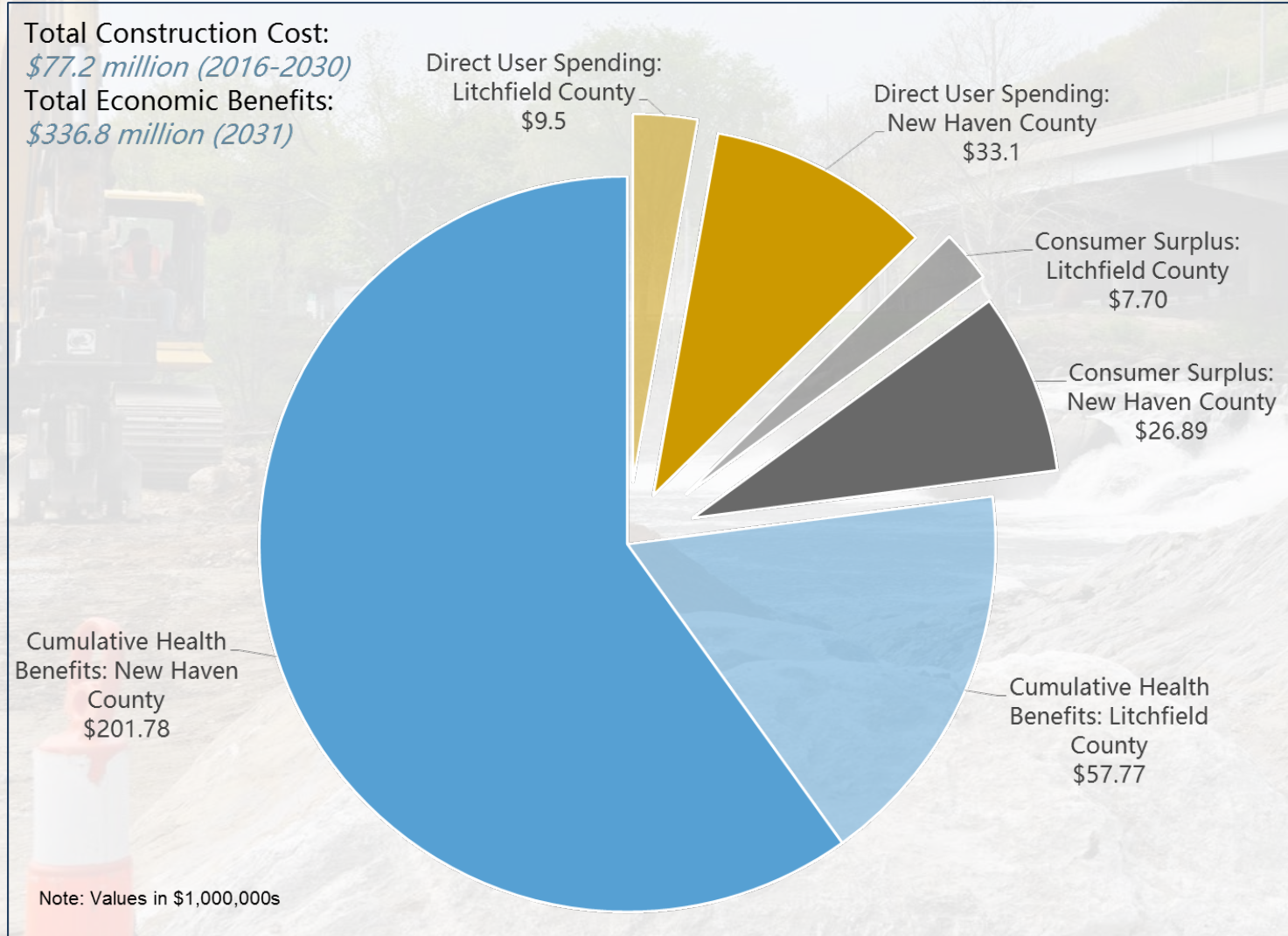
Monetized Health Benefits (Baseline)



- Measured in terms of lives saved & extended life years
- Reduced incidence:
 - Obesity
 - Diabetes
 - Cardiovascular Disease
- Based on:
 - Regional incidence rates
 - Number of users that use the trail frequently enough to realize health benefits
 - Surgeon General's report

\$259.6 Million
(2031)

Total Direct Economic Benefits (Baseline)



- Direct User Spending
- Consumer Surplus
- Health Benefits
- Excluding Indirect & Induced Impacts
- Benefits far exceed investment

**\$336.8 Million
(2031)**

REMI Modeling

Summary Total Economic Impacts in 2031 by County and Growth Scenario

Economic Indicator	Baseline Scenario		Current Trend Scenario		Accelerated Growth Scenario	
	Litchfield	New Haven	Litchfield	New Haven	Litchfield	New Haven
Population (N of People)	590	1,933	1,143	3,747	2,017	7,668
Percent Increase	0.30%	0.20%	0.60%	0.40%	1.05%	0.85%
Employment (N of Jobs)	258	1,157	500	2,244	972	4,568
Percent Increase	0.25%	0.20%	0.50%	0.45%	0.95%	0.85%
RGDP (\$1,000,000 2009 Constant)	\$21.66	\$106.24	\$42.00	\$311.00	\$85.77	\$633.88
Percent Increase	0.25%	0.20%	0.45%	0.35%	0.90%	0.70%
Personal Income (\$1,000,000 Nominal)	\$45.39	\$160.40	\$88.00	\$311.00	\$168.20	\$633.88
Percent Increase	0.20%	0.15%	0.35%	0.30%	0.70%	0.65%
DPI (\$1,000,000 Nominal)	\$36.88	\$128.94	\$71.50	\$250.00	\$134.81	\$509.42
Percent Increase	0.20%	0.15%	0.35%	0.30%	0.70%	0.65%

- Simulates county & state economies based on Direct Expenditures & Construction Costs
- Indirect and Induced Impacts - By County
 - Population
 - Employment
 - Real Domestic Gross Product (RGDP)
 - Personal Income
 - Personal Income Tax
 - Fiscal Impacts

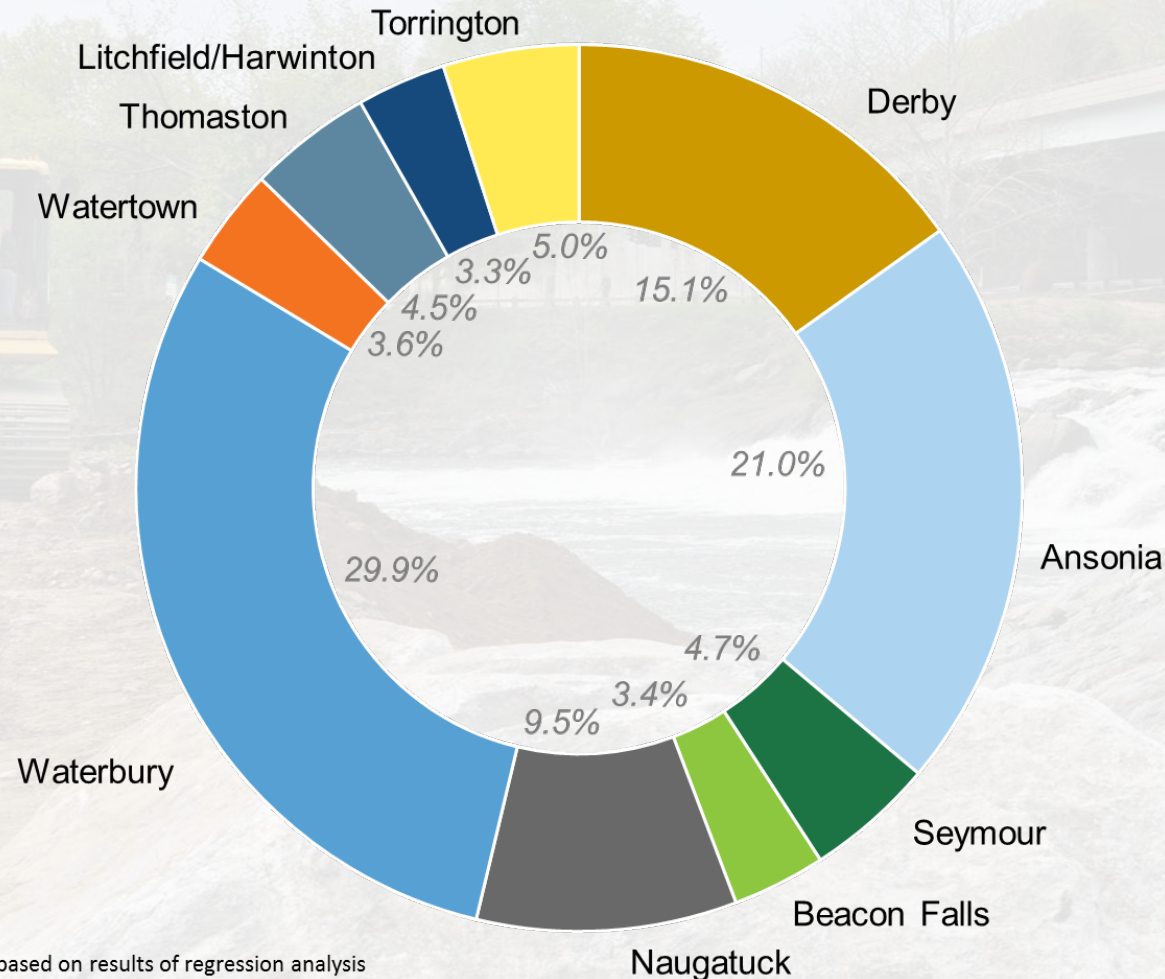
Brownfields

- Discussion about obstacles and opportunities presented by the Naugatuck Valley's industrial legacy
- Environmental Regulations
- Technical Assistance Available
- Funding Opportunities
 - EPA Revolving Loan Fund
 - EPA Assessment Grants
 - EPA Cleanup Grants
 - DECD Municipal Grant Program



Community Impacts

Percentage* Breakdowns by Community



- Disaggregated economic benefits by community
- Used a multiple regression analysis to estimate use and infer impact:
 - Population density
 - Population within 5 miles of the trail
- Adjusted based on county population and totals

*Percentages based on results of regression analysis



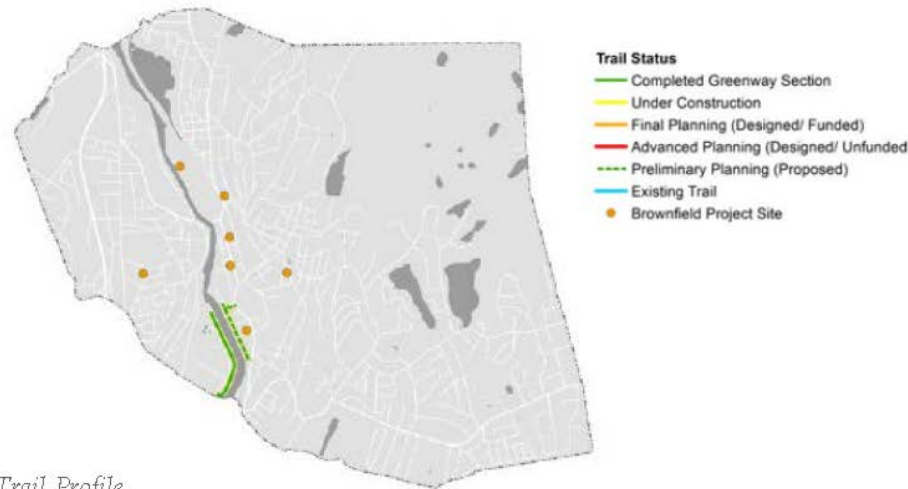
Naugatuck River Greenway

Local Economic Impact - City of Ansonia

Overview

The City of Ansonia is located in New Haven County, positioned conveniently between the cities of Bridgeport, Waterbury, and New Haven with a population of approximately 19,000.

The planned NRG through Ansonia extends from Division Street to the Seymour town line. A short, half-mile has been construction and an overpass of the Waterbury branch rail line tracks is expected to be constructed during 2017. The City has plans to connect the completed section to the downtown area and construct a new section along the east side of the river. A route to connect the downtown with Seymour needs to be identified.



Trail Profile

Trail Length: **1.9 miles**

Completed Trail Section: **0.5 miles**

Estimated Number of Uses by 2031: **1,097,400**

Direct Construction Cost to Complete Trail: **\$3,300,000**

Estimated Annual Maintenance Cost: **\$7,600**

Economic Impacts (2031)

An attractive and accessible linear trail punctuated by high quality public spaces and downtowns has the potential to attract new residents and businesses to the area, creating more opportunities for employment and economic activity. The Connecticut Center for Economic Analysis (CCEA) impact analysis estimated amenity benefits, monetize health effects, and used the Regional Economic Impact Model (REMI) to estimate indirect/induced economic changes brought about by the completion of the trail. Municipal level data was calculated by NVCOG staff using the baseline scenario.

Economic impact values are the estimated returns from which the City of Ansonia and its residents will benefit should the trail be completed from Torrington to Derby by 2031. The REMI results indicate the effects trail construction would have on the entire New Haven County. The Estimates are conservative.

\$16,623,650 Total Direct User Spending

Direct user spending is an estimate of the amount of money trail users spend when they visit the trail on snacks, beverages, meals, travel and other retail items, as well as one time purchases on gear, equipment and apparel.

\$18,379,443 Total Consumer Surplus

In the context of the NRG, consumer surplus reflects the cumulative value trail users save after a trail section is constructed in terms of travel costs avoided. The money may be spent elsewhere.

\$101,253,524 Cumulative Health Benefits

Health benefits are expressed in terms of extended life years and improvement in the quality of trail users' health by reducing the incidence of diseases from frequent exercise.

\$136,256,617 Total Direct Economic Impacts

REMI Results - New Haven County

\$213,969,253 Real Gross Domestic Product (RGDP)

\$320,795,320 Personal Income

\$62,921,269 Income Taxes Generated

2,315 Jobs Impacts

3,865 Population Impacts

Brownfields

There are two brownfield parcels within 250 feet of the proposed NRG in Ansonia. Investing in the completion of the Naugatuck River greenway may be an opportunity to revitalize and reuse these properties.



Recommendations

- Safety
 - Engage public safety officials early
 - Provide for easy locating along trail
- Amenities
 - Wayfinding and Signage are essential
 - Provide for connections to pedestrian network
- Demonstrate Value
 - Educate leaders and the public about trail benefits
- Maintenance
 - Create plan and budget from the beginning
 - Engage volunteers
- Business/Community Engagement
 - Help businesses capitalize on the trail
 - Integrate the trail into community planning
 - Program events and activities
- Routing and Planning
 - Integrate other uses like playgrounds
 - Create destinations



Funding Opportunities

State Programs

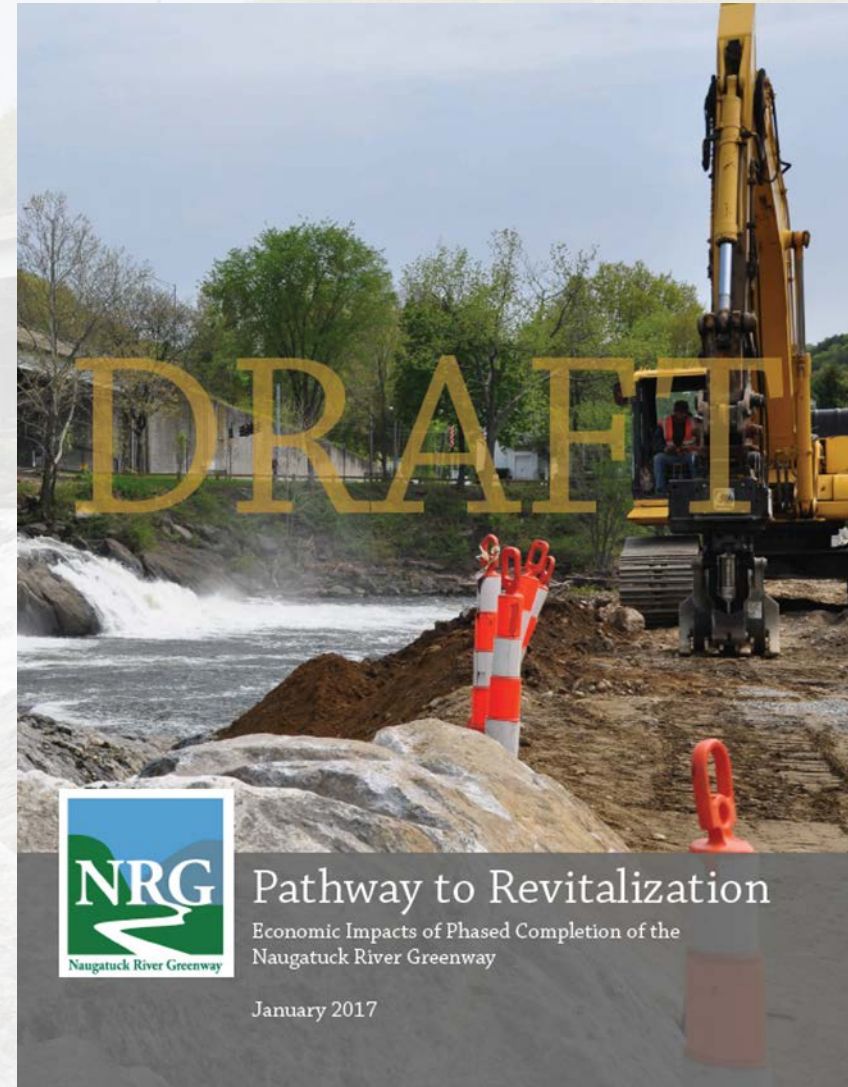
- Community Connectivity
- Multipurpose Trails Program
- Recreational Trails Program
- Local Transportation Capital Improvement Program (LOTICIP)
- Urban Action Bonds
- Small Town Economic Assistance Program (STEAP)

Federal Programs

- Surface Transportation Block Grant Program STBG
- Transportation Alternatives Set-Aside Program (TAP)
- Congestion Mitigation and Air Quality Program (CMAQ)
- National Highway Performance Program (NHHP)
- FTA Section 5307 Capital Program

Next Steps

- Publish Report
- Publicize findings
- Finalize Community Summaries
- Present findings to town boards and community groups



Questions?

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