

Downtown Trails as Community & Economic Development Engines



Photo: Visit CT

The BRIDGE Series
Connecticut Main Street Center
November 16, 2018
9:30-11:30 am

Aaron Budris, Senior Regional Planner,
Naugatuck Valley Council of Governments

Jack Walsh, Former President and CEO
Valley United Way

Laura Brown, Community & Economic
Development Educator, UConn Extension



Agenda

1. Trails as assets

**2. Overview of
Trail Census**

**3. NRG - Derby
Greenway Case Study**

4. NRG Impact Study

**5. Capitalizing
on your trail**

**6. Discussion/
Questions**

Agenda

Downtown Trails as Community & Economic Development Engines

co-hosted by **[CT Trail Census & UConn Extension]**

November 16, 2018 at CT Main Street Center, Hartford

9:00 am – Networking Breakfast 9:30-11:30 am – Program

TRAILS AS COMMUNITY ASSETS

Laura Brown, Community & Economic Development Educator, UConn Extension

NAUGATUCK RIVER GREENWAY/ DERBY GREENWAY CASE STUDY

Aaron Budris, Senior Regional Planner, Naugatuck Valley Council of Governments

Jack Walsh, former President & CEO, Valley United Way

BEST PRACTICES FOR CAPITALIZING ON A TRAIL

Laura Brown, Community & Economic Development Educator, UConn Extension



Portions of this presentation and photos from some slides are the result of a multistate grant supported by the Northeast Regional Center for Rural Development.



What is a Multi-use or Shared-use Trail?

Supports multiple forms of recreation and transportation such as walking, bicycling, equestrians and users with a diverse range of abilities

Motorized vehicles normally prohibited

Typically surfaced with asphalt, concrete or packed crushed aggregate

Physically separated from motor vehicular traffic with an open space or barrier

Designed to include pedestrians even if the primary anticipated users are cyclists

Connecticut Greenways

"Greenway" means a corridor of open space that

- (1) may protect natural resources, preserve scenic landscapes and historical resources or offer opportunities for recreation or nonmotorized transportation,
- (2) may connect existing protected areas and provide access to the outdoors,
- (3) may be located along a defining natural feature, such as a waterway, along a man-made corridor, including an unused right-of-way, traditional trail routes or historic barge canals or (4) may be a greenspace along a highway or around a village. (CGS section 23-100)

Why Consider Trails as an Asset to Downtowns?

1. Demand for healthy lifestyle, QOL amenities
2. Transportation needs (carless households)
3. Historic routes connected downtowns
4. Case studies demonstrate this can work
5. Demonstrated value - economic, improved health, property valuation, safety benefits, air and water quality benefits, connectivity & access, community engagement

People Want Access to Trails

58%
OF CONNECTICUT
RESIDENTS PARTICIPATE
IN OUTDOOR RECREATION
EACH YEAR

Communities across Connecticut recognize that outdoor recreation supports health, contributes to a high quality of life and—perhaps most importantly—attracts and sustains employers and families. Investing in outdoor infrastructure attracts employers and active workforces, ensuring those communities thrive economically and socially.



Connecticut residents are more likely to **PARTICIPATE IN DAY HIKING AND KAYAKING** than the average American

INTEREST IN
OUTDOOR
RECREATION,
PARTICULARLY
NATURE BASED
OUTDOOR
RECREATION, IS
ON THE RISE.

#PARTICIPANTS

#DAYS

People Want Access to Trails

In the Statewide Survey based on 2,026 responses from the general population, the most popular outdoor land-based activity was walking/hiking, with nearly nine-tenths (86%) of households and two-thirds (65%) of individuals reporting participation in the last twelve months.

Connecticut Department of Energy and Environmental Protection. (2017). Connecticut Statewide Comprehensive Outdoor Recreation Plan 2017-2022. [Accessed online here.](#)

Demand for Active Lifestyles

National Association of Homebuilders

“One of NAHB’s latest studies shows which community amenities are the most sought after. The study, Housing Preferences of the Baby Boomer Generation, captures the opinions of more than 4,300 prospective home buyers and compares the wants of Boomers (born between 1946 and 1964) to those of seniors (born before 1946), Gen-Xers (born 1965 to 1979), and Millennials (born after 1979).

Though the priority rankings vary slightly between generations, the results of the study reveal these different age groups actually have very similar tastes. Among the top four most-wanted amenities, **three were the same for every age group: They all desire to live in a community that’s typically suburban, with close proximity to a park area, and that has access to walking/jogging trails.”**

Demand for Active Lifestyles

From Focus Groups conducted in 2015 with Farmington River Canal Trail Area Business Owners for the Naugatuck River Greenway Economic Impact Study

*“A big part of becoming a bicycle-friendly community [is] not only attracting residents to town but attracting businesses. **Quality of life is important to the younger generation coming in. They want places where they can walk and bike and maybe commute to work three or four miles.** That’s an enormous part of that whole [bike friendly community] initiative - it isn’t just about kids in school now, it’s about the businesses.”*

*“**Leisure is the new amenity in my opinion, from my perspective as a marketing and salesperson.** When I bring people to look at a community ...trying to relocate in the area...I show them the library and the town halls, I also show them the drop off locations on the bike trails, and I have literature that I give them if they’re going back to their hotel at night...”*

Regarding several new housing developments: “They actually have their own bikes and they are one my [bike shop] sponsors. They know how important it is to be able to attract tenants via the bike story.”

Demand for Quality of Life Amenities

Combined Ratings*

Area Development Annual Survey:

“Corporate Survey respondents are very concerned with quality of life. They ranked this factor #4, with an 87.2 combined importance rating. On the other hand, the respondents to our Consultants Survey, only placed quality of life in the #20 spot among the site selection factors, with a 71.2 combined importance rating.”

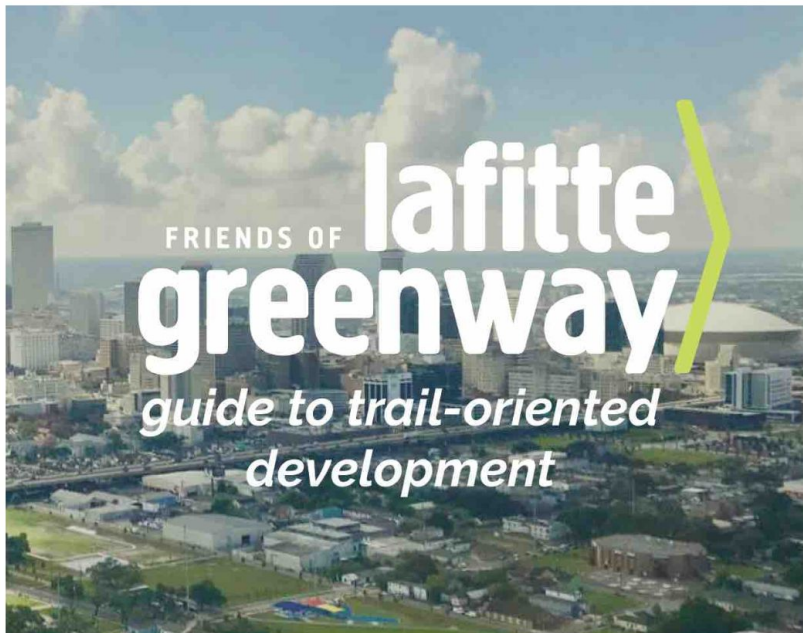
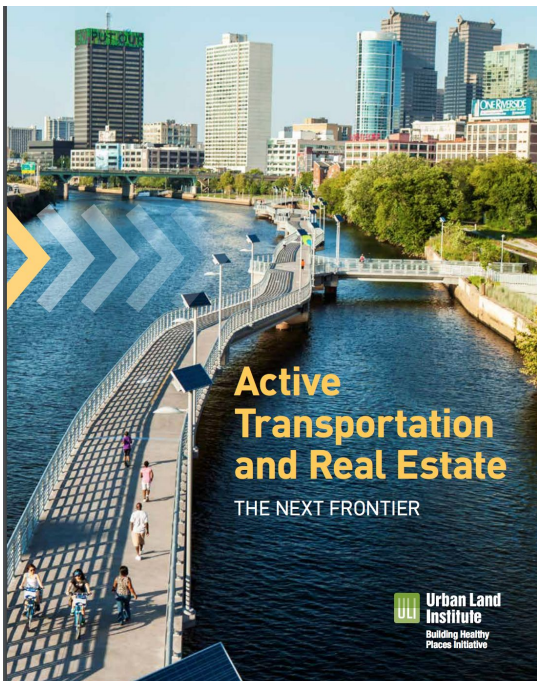
Gambale, G. (2018). 32nd Annual Corporate Survey & the 14th Annual Consultants Survey. Area Development Magazine. Accessed online November 26, 2018 at <http://www.areadevelopment.com/Corporate-Consultants-Survey-Results/Q1-2018/32nd-annual-corporate-survey-14th-annual-consultants-survey.shtml>

CORPORATE SURVEY 2017		
Site Selection Factors	2017	2016
Ranking		
1. Highway accessibility	91.3	94.4 (1)**
2. Labor costs	91.1	89.6 (3)
3. Availability of skilled labor	88.8	89.8 (2)
4. Quality of life	87.2	76.4 (10)
5. Tax exemptions	85.9	79.7 (7)
5T. Occupancy or construction costs	85.9	86.0 (4)
7. Proximity to major markets	84.6	78.1 (9)
8. Corporate tax rate	83.2	82.3 (6)
9. State and local incentives	81.3	84.0 (5)
10. Available land	76.9	75.3 (12)
11. Expedited or “fast-track” permitting	76.7	71.7 (13)
12. Proximity to suppliers	76.4	66.0 (20)
13. Energy availability and costs	76.0	78.5 (8)
14. Available buildings	75.9	75.5 (11)
15. Right-to-work state	74.7	70.1 (16)
16. Training programs/technical colleges	72.8	66.7 (18)
17. Inbound/outbound shipping costs	71.8	69.1 (17)
18. Low union profile	71.4	70.8 (14T)
19. Environmental regulations	70.2	70.8 (14)
20. Availability of long-term financing	64.6	66.7 (18T)
21. Accessibility to major airport	56.4	52.4 (22)

TrOD Trail Oriented Development

guide to trail oriented development

your guide to successful development along the lafitte greenway



[The Lafitte Greenway: Guide to Trail-Oriented Development](#) provides a comprehensive set of planning and design principles for new development along the Lafitte Greenway. Community leadership and engagement have been at center of the Greenway's development. The principles outlined in this report are built upon and codified in the following public documents:

Urban Land Institute. (2017). Active Transportation and Real Estate The Next Frontier. Accessed online at <http://uli.org/wp-content/uploads/ULI-Documents/Active-Transportation-and-Real-Estate-The-Next-Frontier.pdf>
Friends of Lafitte Greenway. (2018). Guide to Trail Orientated Development. <https://www.lafittегreenway.org/trod>

Connecticut Has Invested in Trails

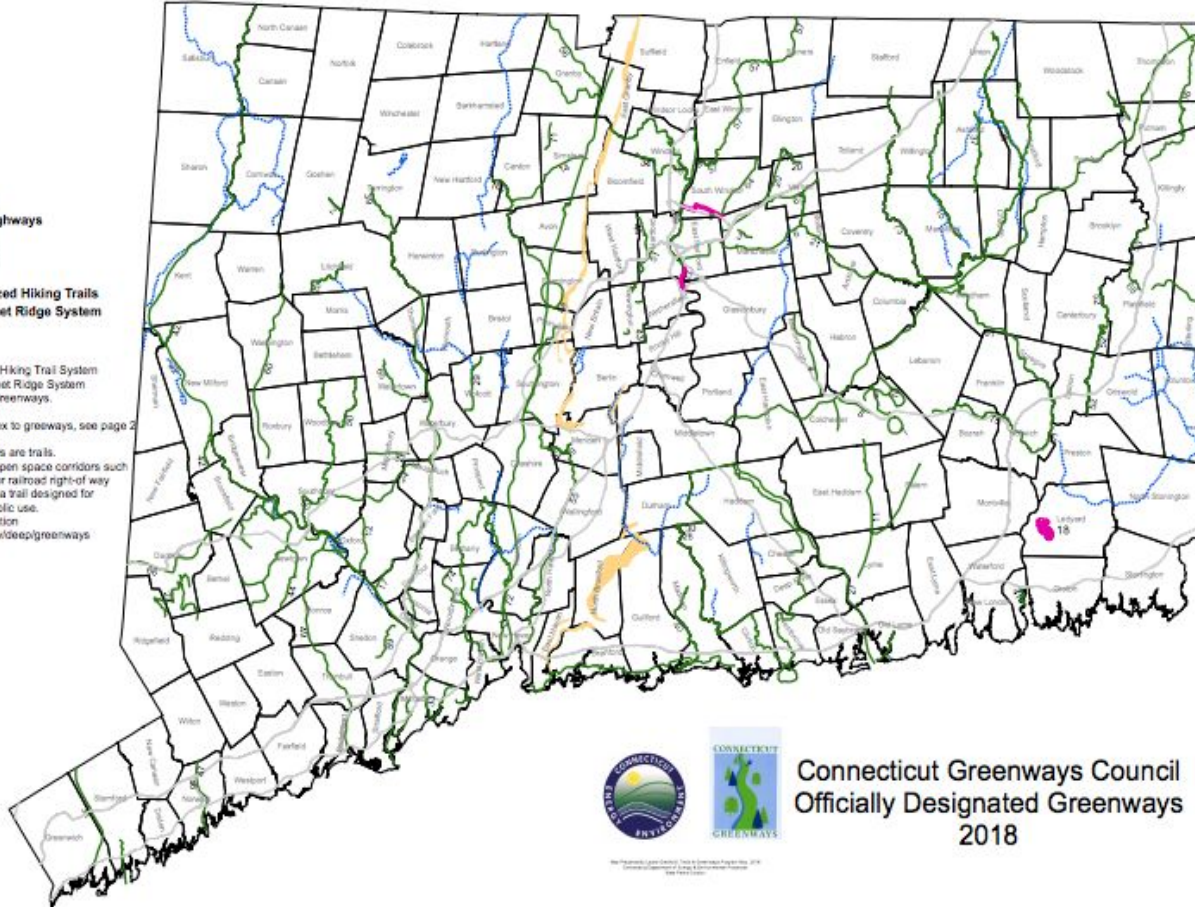


- Explanation**
- Major Highways
 - Greenways
 - Existing
 - 2018
 - Blue Blazed Hiking Trails
 - Metacomet Ridge System

Notes:
The Blue Blazed Hiking Trail System and the Metacomet Ridge System are designated Greenways.

For an alpha index to greenways, see page 2

Not all Greenways are trails.
Greenways are open space corridors such as a river valley or railroad right-of-way and may contain a trail designed for non-vehicular public use.
For more information
Visit: <http://nct.gov/deep/greenways>



Over 3,000 miles of trails in Connecticut

Recreational Trails Program provided over \$14 million since 2007 to design, build and maintain recreational trails in Connecticut



Connecticut Greenways Council
Officially Designated Greenways
2018

[Connecticut Greenways Council](http://www.ct.gov/deep/greenways)

Historic Routes Connected Downtowns and Amenities

Wikipedia contributors. (2018, July 29). Connecticut Company. In *Wikipedia, The Free Encyclopedia*. Retrieved 16:59, November 6, 2018, from https://en.wikipedia.org/w/index.php?title=Connecticut_Company&oldid=8524339

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Bell Town Village Center
The growth and change of East Harrison through the years

Small text describing the village center's development and its role in the community.

EAST HARRISON
Public Parking
Kilgus Hall

Coffey, R. May 20, 2016. The Airline Trail. [Blog Post] Retrieved from <http://rc-pedalpoint.blogspot.com/2016/05/the-airline-trail.html>

Example: Piqua, Ohio

- antiques
- arts & crafts store
- auto repair
- auto storage
- bakery
- bank
- bar
- barber
- beer garden
- bottling works
- bowling alley
- brewery
- butcher
- cafe
- chocolates store
- clothing store
- cobbler
- coffee shop
- drug store
- furniture
- hotel
- ice cream
- leather store
- local foods store
- paints & varnish
- printing
- public pool
- running store
- sporting goods
- steam laundry
- tin shop
- tire sales

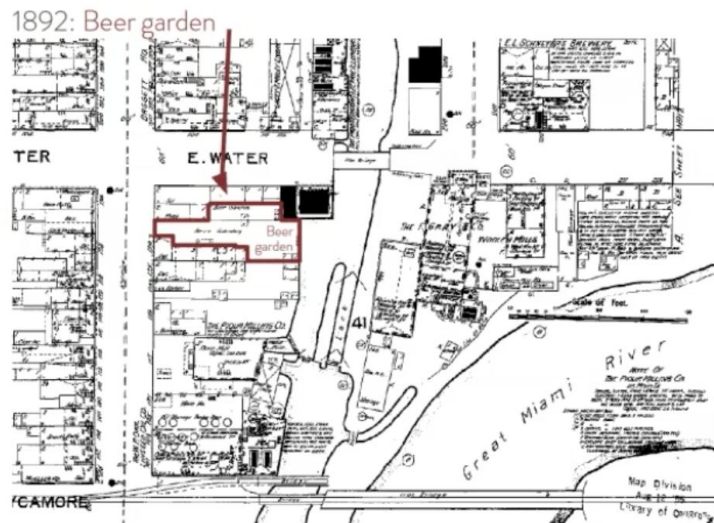
PROPOSED USES ADJACENT TO PARK

BOUTIQUE HOTEL MICRO

BREWERY ART GALLERY

PERFORMANCE PAVILION

American Trails. (Producer). (2018). *Leveraging People and Places: Trails as Economic Development*. Accessed at <https://www.americantrails.org/training/leveraging-people-and-places-trails-as-economic-development>



Orange: current services

Examples to Learn From



created by

The Progress Fund

We're the oldest,
most successful
Trail Town program.

Follow our lead.

American Trails. (Producer). (2018). *Leveraging People and Places: Trails as Economic Development*. Accessed at <https://www.americantrails.org/training/leveraging-people-and-places-trails-as-economic-development>



Montour Trail

Great Allegheny Passage



**We know this works...
because we've done it.**

Tourism potential was rich, but untapped on the Great Allegheny Passage (GAP). The 150-mile trail meets the already-popular 185-mile C&O Canal Towpath, which continues to Washington, D.C.

In 2007, The Progress Fund started working to plug the GAP's rural communities into the economic opportunity the trail created.

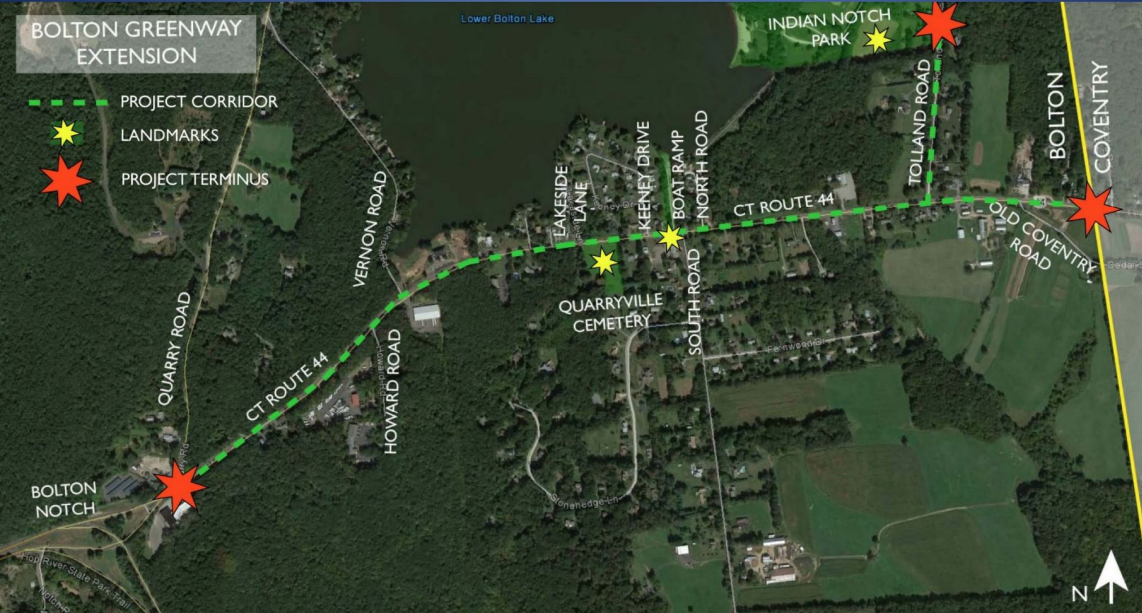
In its pioneering 10 years, The Trail Town Program® has become a model for trail community revitalization.

Building on the same model, we've grown economies on other trails, too. Every trail and every town needs a personal touch, but with these ideals as a backbone, we've set towns all across our region on the path to prosperity.

65 new businesses
270+ jobs created
10x more visitors
\$50M economic impact

Need to Demonstrate Value

Bolton Greenway Extension Project Area



Estimates of \$200,000 to over \$1,000,000/mile
Need to understand the returns on our investment

Opinion of Probable Construction Cost:

SUMMARY	
Bolton Greenway Extension Construction	\$ 1,830,000
Right-of-Way Impacts	\$ 490,000
Legal Expenses	\$ 200,000
Final Design, Surveying, and Permitting	\$ 100,000
Geotechnical Investigations of Rock Slopes	\$ 20,000
Environmental Investigations – Screening Level (Archeological / Historic / Hazardous Material / Wetland Delineation)	\$ 22,000
TOTAL	\$ 2,662,000

http://www.bolton.govoffice.com/vertical/Sites/%7B30EEBA3C-BE1C-42AE-911F-0E304A672785%7D/uploads/2016-01-07_Bolton_Bike_Path_Presentation-Dr aft.pdf

Table of Typical Pedestrian and Bicycle Facility Costs - Updated March 7, 2011

Cost Benefit Calculations

Cost benefit calculator:

<http://www.pedbikeinfo.org/bikecost/>

Cost Per Mile (March 2011 \$) (see notes below)	Existing Facility (preservation or non-routine maintenance required)				
	Separate-Alignment Shared-Use Path	Rail-Trail (RR to path conversion)	Shared-Use Paths (both sides of street)	Sidewalks (both sides of street)	Shoulders (both sides of roadway)
PE (Project Development Costs)	\$5,000	\$5,000	\$10,000	\$5,000	\$5,000
RW (Right-of-Way Acquisition Costs)	\$0	\$0	\$0	\$0	\$0
CN (Construction Costs)	\$110,000	\$110,000	\$180,000	\$70,000	\$140,000
Total Cost	\$115,000	\$115,000	\$190,000	\$75,000	\$145,000

Cost Per Mile (March 2011 \$) (see notes below)	New/Proposed Facility (construction or reconstruction required)				
	Separate-Alignment Shared-Use Path	Rail-Trail (RR to path conversion)	Shared-Use Paths (both sides of street)	Sidewalks (both sides of street)	Shoulders (both sides of roadway)
PE (Project Development Costs)	\$55,000	\$55,000	\$90,000	\$60,000	\$75,000
RW (Right-of-Way Acquisition Costs)	\$160,000	\$80,000	\$250,000	\$100,000	\$130,000
CN (Construction Costs)	\$560,000	\$560,000	\$880,000	\$620,000	\$750,000
Total Cost	\$775,000	\$695,000	\$1,220,000	\$780,000	\$955,000

A person wearing a white shirt and dark shorts is riding a bicycle on a paved trail. The trail is bordered by a wooden fence on the right side. In the background, there are trees and a signpost. The overall scene is outdoors and appears to be a recreational area.

Understanding the Value of Trails as Assets

- How do we understand/quantify the value of a trail to the community?
- How do we make the best case for our trail?
- How do we leverage the trail to increase impact?



Trails Create Value

Economic Impacts
Direct, Indirect, Induced

*Economic
Benefits*

Health impacts

Property valuation

*Individual
Benefits*

Safety benefits

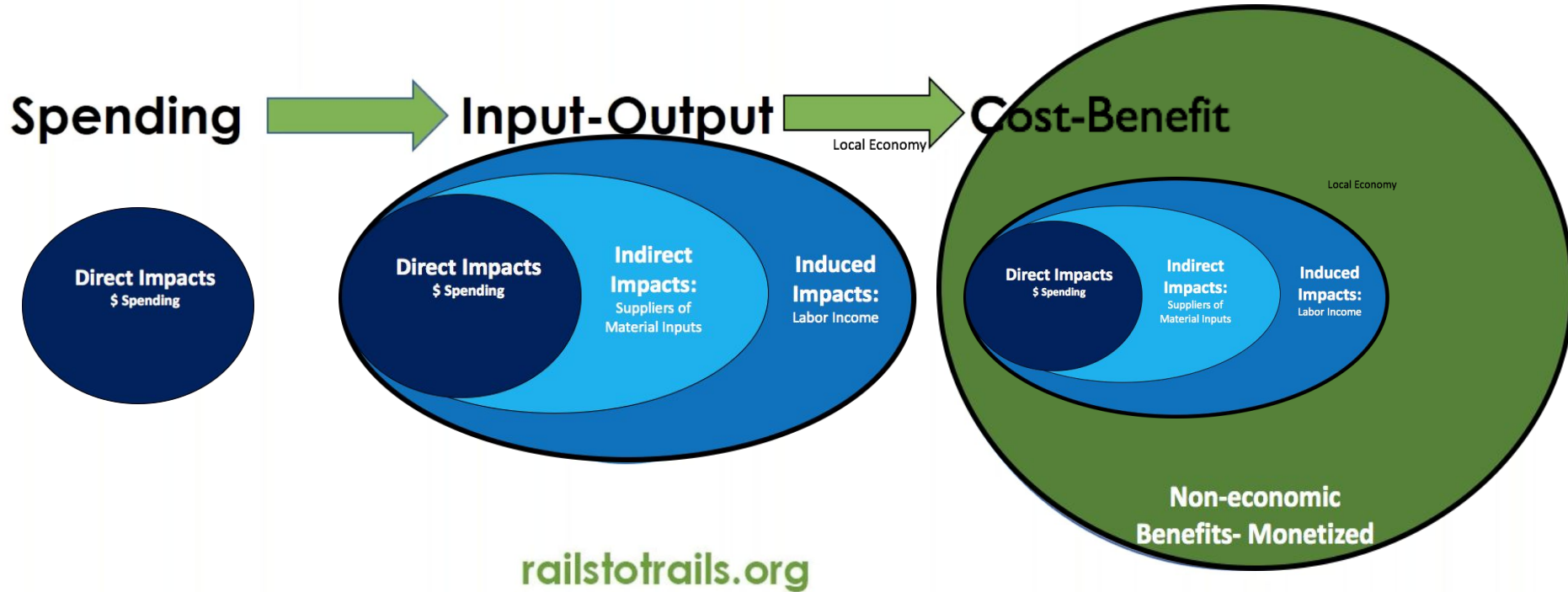
Environmental

Connectivity & access

*Social
Benefits*

Community engagement

Economic Value



Slide adapted from Rails to Trails Conservancy. (Producer) (2018). *Making the Value Case for Trails*. [Video Webinar] and Tuck, B. (2018). *Economic Impact Analysis* [Slide]. University of Minnesota, Extension.

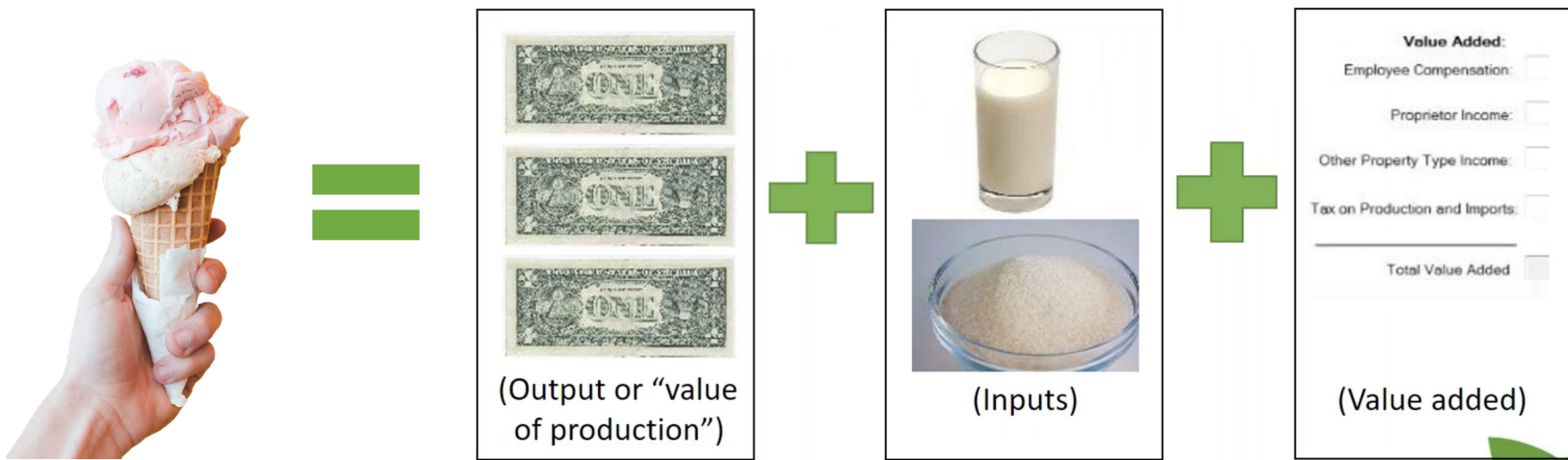
Economic Value

While walking on the trail, Kristina pays \$3 for an ice cream cone



Economic Value

When we include direct, indirect, and induced spending that \$3 for an ice cream cone may be worth \$5-\$8 to the local economy.



Multi-Use Trail Day User Spending Ranges

- Rails to Trails Conservancy Study (2009) Average: \$9.31
- Virginia Creeper (2004) Average: \$12.00-17.00
- American Tobacco Trail (2016) \$27.00
- NRG Study Intercept Survey (2015) Average \$14.03
- Burlington Waterfront Path (2010) in Vermont estimated that in-state day users \$60.20 per trip and out-of-state domestic day users spent \$67.16.
- CT Trail Census User Intercept Survey (2017) Average: \$5.64

Trail User Spending Ranges - In State Day Trip

Table 18. In-state Day Trip Spending per Trip
(Dimensions: 2 event types by 16 activity groups by 6 items)

Activity	entrance	food	other	recreate	souvenir	transport	TOTAL	N
Overall Spending per Participant Trip								
alpine	NA	\$74	NA	\$104	\$10	\$45	\$233	703
boat	\$4	\$57	\$7	\$24	\$7	\$54	\$153	2,482
camp	NA	\$80	NA	\$37	\$16	\$53	\$186	2,260
hike	NA	\$40	NA	\$14	\$9	\$37	\$100	1,389
horse	NA	\$69	NA	\$40	\$10	\$40	\$159	447
motorcycle	\$5	\$61	\$6	\$9	\$6	\$46	\$133	1,270
mountain	NA	\$55	NA	\$36	\$10	\$45	\$147	938
nordic	NA	\$69	NA	\$44	\$8	\$41	\$162	275
off_road	\$4	\$58	\$5	\$13	\$6	\$53	\$139	2,169
paddle	NA	\$49	NA	\$42	\$9	\$38	\$157	1,729
run	NA	\$78	NA	\$32	\$13	\$62	\$185	519
rv	\$5	\$88	\$10	\$44	\$10	\$93	\$250	452
sail	NA	\$92	NA	\$39	\$14	\$52	\$197	170
scuba	NA	\$82	NA	\$126	\$12	\$78	\$298	114
snowmobile	\$3	\$66	\$3	\$14	\$8	\$58	\$154	298
wheel	NA	\$52	NA	\$11	\$8	\$29	\$100	1,855

Outdoor Industry Association.
2018. Economic Contributions of
Outdoor Recreation. Technical
Report. Accessed online at
https://outdoorindustry.org/wp-content/uploads/2015/03/OIA_Recreation_Economy_Contributions_Technical_Report_2017-08-24.pdf

Trail User Spending Ranges - Out of State Day Trip

Table 19. Out-of-state Day Trip Spending per Trip
 (Dimensions: 2 event types by 16 activity groups by 6 items)

Activity	entrance	food	other	recreate	souvenir	transport	TOTAL	N
Overall Spending per Participant Trip								
alpine	NA	\$140	NA	\$131	\$28	\$84	\$383	348
boat	\$6	\$91	\$8	\$39	\$11	\$69	\$224	715
camp	NA	\$101	NA	\$66	\$29	\$82	\$279	729
hike	NA	\$73	NA	\$29	\$21	\$67	\$191	559
horse	NA	\$114	NA	\$83	\$41	\$112	\$349	132
motorcycle	\$8	\$61	\$11	\$20	\$17	\$58	\$174	354
mountain	NA	\$89	NA	\$53	\$36	\$106	\$283	451
nordic	NA	\$113	NA	\$119	\$42	\$122	\$397	87
off_road	\$9	\$88	\$10	\$46	\$14	\$88	\$255	528
paddle	NA	\$97	NA	\$79	\$23	\$75	\$274	599
run	NA	\$115	NA	\$84	\$48	\$129	\$376	189
rv	\$7	\$132	\$30	\$89	\$26	\$163	\$447	239
sail	NA	\$117	NA	\$91	\$27	\$205	\$441	92
scuba	NA	\$158	NA	\$140	\$37	\$165	\$501	93
snowmobile	\$8	\$155	\$10	\$70	\$11	\$110	\$365	115
wheel	NA	\$90	NA	\$51	\$28	\$80	\$250	361

Outdoor Industry Association. 2018. Economic Contributions of Outdoor Recreation. Technical Report. Accessed online at https://outdoorindustry.org/wp-content/uploads/2015/03/OIA_Recreation_Economy_Contributions_Technical_Report_2017-08-24.pdf

Connecticut Trail Census

Statewide multi-use trail user study



Trail Census Expenditure Profile

Expenditure	% Trips with Expenditures	Average Expense
Beverages	55.50%	\$3.16
Food	28.71%	\$1.79
Meals at a restaurant	24.64%	\$7.98
Gas	42.11%	\$6.60
Retail (gifts, clothing, etc)	4.83%	\$2.80
Equipment rental	0.00%	\$0.00
Lodging	0.00%	\$0.00
Nearby activities	3.40%	\$1.43
Other	7.21%	\$3.46
Total	21.14%	\$5.64

Trail User Spending Ranges - In State Overnight Trip

Table 20. In-state Overnight Trip Spending per Trip
 (Dimensions: 2 event types by 16 activity groups by 7 items)

Activity	entrance	food	lodge	other	recreate	souvenir	transport	TOTAL	N
Overall Spending per Participant Trip									
alpine	NA	\$180	\$307	NA	\$178	\$21	\$83	\$769	262
boat	\$8	\$97	\$88	\$10	\$29	\$15	\$74	\$321	616
camp	NA	\$82	\$67	NA	\$26	\$16	\$51	\$242	2,943
hike	NA	\$91	\$135	NA	\$32	\$18	\$57	\$332	370
horse	NA	\$96	\$159	NA	\$69	\$26	\$57	\$408	107
motorcycle	\$8	\$92	\$77	\$9	\$19	\$10	\$82	\$297	283
mountain	NA	\$80	\$109	NA	\$46	\$18	\$63	\$316	476
nordic	NA	\$150	\$242	NA	\$130	\$27	\$89	\$639	86
off_road	\$8	\$99	\$80	\$11	\$24	\$12	\$85	\$320	660
paddle	NA	\$105	\$161	NA	\$46	\$23	\$68	\$403	573
run	NA	\$88	\$197	NA	\$78	\$34	\$68	\$465	165
rv	\$4	\$112	\$71	\$7	\$23	\$9	\$94	\$321	881
sail	NA	\$166	\$142	NA	\$94	\$21	\$75	\$498	63
scuba	NA	\$224	\$255	NA	\$72	\$40	\$120	\$711	50
snowmobile	\$2	\$120	\$116	\$2	\$10	\$12	\$78	\$338	110
wheel	NA	\$73	\$102	NA	\$32	\$22	\$58	\$288	335

Heads in Beds!

Trail User Spending Ranges - Out of State Overnight

Table 21. Out-of-State Overnight Trip Spending per Trip
(Dimensions: 2 event types by 16 activity groups by 7 items)

Activity	entrance	food	lodge	other	recreate	souvenir	transport	TOTAL	N
Overall Spending per Participant Trip									
alpine	NA	\$230	\$421	NA	\$214	\$47	\$252	\$1,165	474
boat	\$6	\$153	\$141	\$7	\$38	\$22	\$102	\$469	604
camp	NA	\$117	\$114	NA	\$46	\$33	\$85	\$395	1,159
hike	NA	\$130	\$246	NA	\$35	\$30	\$116	\$557	362
horse	NA	\$183	\$265	NA	\$79	\$36	\$188	\$751	92
motorcycle	\$8	\$86	\$119	\$10	\$16	\$20	\$66	\$326	232
mountain	NA	\$133	\$159	NA	\$57	\$39	\$127	\$516	350
nordic	NA	\$195	\$357	NA	\$136	\$45	\$281	\$1,013	91
off_road	\$9	\$131	\$140	\$11	\$42	\$24	\$101	\$458	406
paddle	NA	\$178	\$321	NA	\$106	\$52	\$148	\$805	475
run	NA	\$110	\$185	NA	\$56	\$37	\$86	\$474	150
rv	\$6	\$205	\$138	\$18	\$48	\$39	\$212	\$665	594
sail	NA	\$282	\$513	NA	\$178	\$53	\$339	\$1,365	82
scuba	NA	\$307	\$491	NA	\$186	\$69	\$430	\$1,484	150
snowmobile	\$10	\$157	\$329	\$10	\$77	\$15	\$135	\$754	112
wheel	NA	\$103	\$226	NA	\$89	\$44	\$102	\$563	243

Heads in Beds!

Trail User Spending Ranges - Out of State Overnight

Table 21. Out-of-State Overnight Trip Spending per Trip
 (Dimensions: 2 event types by 16 activity groups by 7 items)

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boat	\$6	\$153	\$141	\$7	\$38	\$22	\$102	\$469	604
camp	NA	\$117	\$114	NA	\$46	\$33	\$85	\$395	1,159
hike	NA	\$130	\$246	NA	\$35	\$30	\$116	\$557	362
horse	NA	\$183	\$265	NA	\$79	\$36	\$188	\$731	92
motorcycle	\$8	\$86	\$119	\$10	\$16	\$20	\$66	\$326	232
mountain	NA	\$133	\$159	NA	\$57	\$39	\$127	\$516	350
nordic	NA	\$195	\$357	NA	\$136	\$45	\$281	\$1,013	91
off_road	\$9	\$131	\$140	\$11	\$42	\$24	\$101	\$458	406
paddle	NA	\$178	\$321	NA	\$106	\$52	\$148	\$805	475
run	NA	\$110	\$185	NA	\$56	\$37	\$86	\$474	150
rv	\$6	\$205	\$138	\$18	\$48	\$39	\$212	\$665	594
sail	NA	\$282	\$513	NA	\$178	\$53	\$339	\$1,365	82
scuba	NA	\$307	\$491	NA	\$186	\$69	\$430	\$1,484	150
snowmobile	\$10	\$157	\$329	\$10	\$77	\$15	\$135	\$734	112
wheel	NA	\$103	\$226	NA	\$89	\$44	\$102	\$563	243

Heads in
Beds!

Calculating Impacts

Direct, indirect, induced impacts can be impacts to businesses as well as impacts to the overall economy from capital and operational expenditures



Calculating Impacts

Methods vary widely from study to study

Based on average user spending and number of annual users

Involves extrapolation to all users

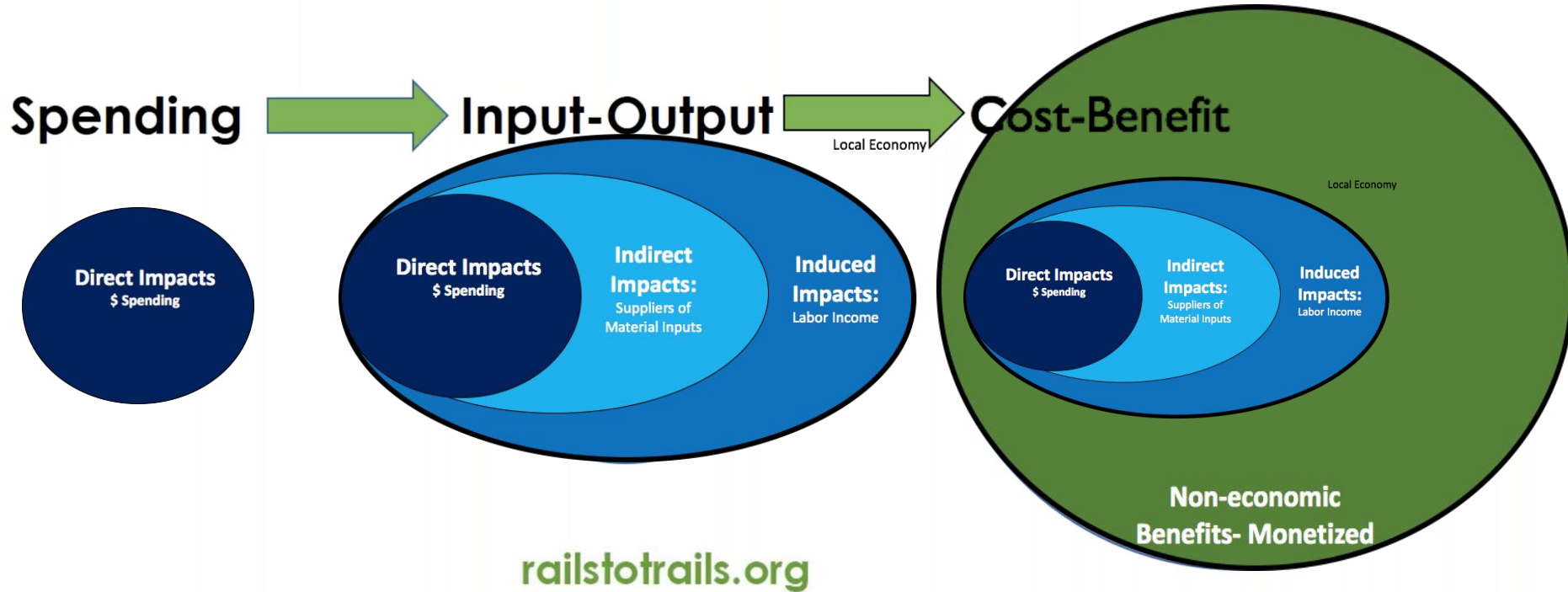
Usually \$1-\$20 million

- Vasa Pathway Study - Regular Trail Users Provide \$23.5 million of direct spending annual in Michigan with 6,200 trail users spending \$3,700 on equipment each on average
- American Tobacco Trail- After construction of a pedestrian bridge trail use rose by 133% and direct expenditures rose from \$2.4 million to \$6.1 million
- Paved trail network in Ohio estimates that 13% of trail users use the trail as tourists spending \$13 million annually.

What does this mean for communities & businesses?

“Studies have shown that trails and greenways support local business development as a result of increased visitation to the area or to “gateway communities.” Following trail openings, communities have documented increases in businesses such as lodging and restaurant facilities, bike rental establishments, and bed and breakfasts.”

Economic Value



Slide adapted from Rails to Trails Conservancy. (Producer) (2018). *Making the Value Case for Trails*. [Video Webinar] and Tuck, B. (2018). *Economic Impact Analysis* [Slide]. University of Minnesota, Extension.



Trails Create Value

Economic Impacts
Direct, Indirect, Induced

*Economic
Benefits*

Health impacts

Property valuation

*User
Benefits*

Safety benefits

Environmental

Connectivity & access

*Social
Benefits*

Community engagement

Health Values

- Healthcare cost savings
- Reduced burden of disease
- Reduced absenteeism
- Air pollution and transportation related health costs
- Avoidable deaths

MODELS-

ITHIM- Integrated transport and Healthy Impact Model

HEAT- Health Economic Impact Assessment Tool - if X number of people walk or cycle for Y amount of time, what is the economic value of the health benefits that occur as a reduction in mortality as a result of their physical activity?

Property Values

- Along a greenway in Austin Texas **the price premium for a home along the greenway ranged from 6-20%**, translating into a estimated \$59,000 per year in additional tax revenue or 5% of the annual cost of construction and maintenance.
- A 2011 study by the Connecticut Center for Economic Analysis identified a **valuation bonus of \$41,961 to \$50,124 for properties overlooking green spaces**
- In rural Methow Valley Washington, **homes within a quarter mile of trails benefited from a 10% price premium**
- In Indianapolis, researchers found a **high-profile destination trail was associated with an 11 % price premium for homes within a ½ mile**. Other trails demonstrated no premium.

Social, Environmental, and Community Value

- **Net safety benefits provided by switching from auto to active forms of travel are estimated to be 5 cents/urban mile and 3 cents/rural mile**
- Switching from driving to walking or biking lowers costs on society. Estimated **commute costs associated with driving are 2 cents per rural mile and 9 cents/urban mile.**
- **In the Connecticut Trail Census 2017 Intercept Survey (n=999) respondents' primary purpose on the trail was overwhelmingly Exercise (89.5%), followed by Relaxation (40.9%), Recreation (39.3%), and Dog Walking 18.6%. 3.6% of respondents said their primary purpose was Tourism and 1.1% had a primary purpose of Commuting to work. Less than 1% had a primary purpose of trail use for travel to school or shopping**
- **Just because it's hard to quantify doesn't mean we shouldn't measure it!**

The primary activity of trails users surveyed in the 2017-2018 Connecticut Trail Census was walking (69%) followed by bicycling (16%), running/jogging (14%), horseback riding (0.6%) and other (0.6%) n=973

Connecticut Trail Census, 2018 Aggregated Survey Report. Accessed online at <https://cttrailcensus.uconn.edu/>

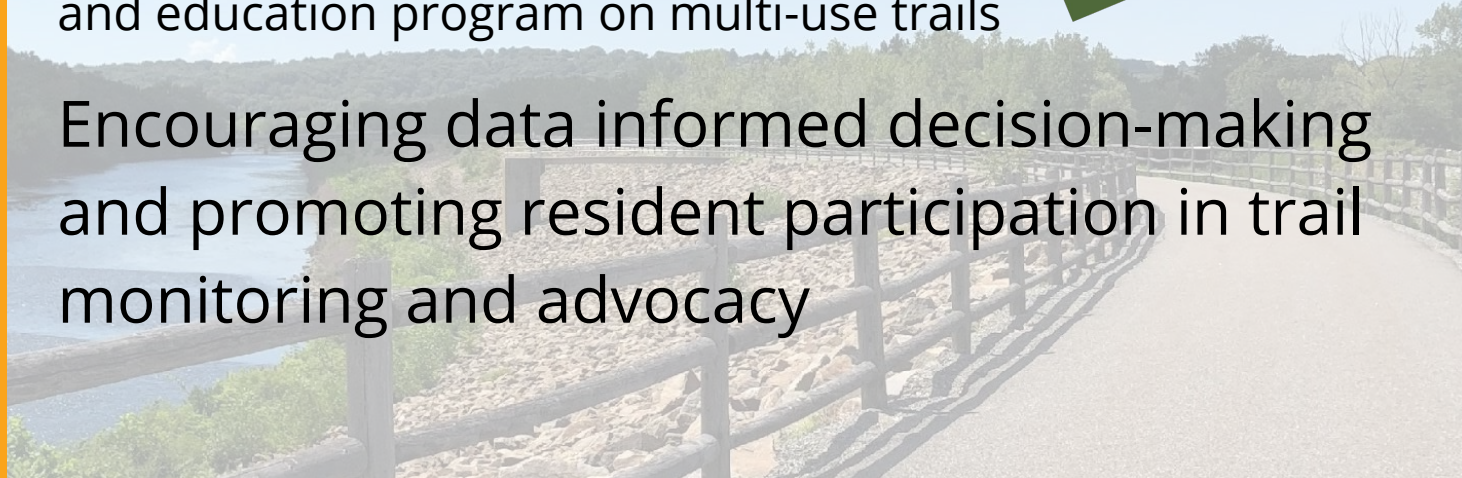


Connecticut Trail Census



A statewide volunteer-based data collection and education program on multi-use trails

Encouraging data informed decision-making and promoting resident participation in trail monitoring and advocacy



Trail User Intercept Surveys

Infrared Counters & Manual Counts

Volunteer Opportunities & Training

Data Communication Tools

Public Education Programs



16 Participating Trail Sites



Airline Trail - Thompson



Sue Grossman Greenway



Hop River Trail - Vernon



Riverfront Recapture Trail



Hop River Trail - Bolton



CTFastrak - New Britain



Airline Trail - East Hampton



Middlebury Greenway



Farmington Canal Heritage Trail - Cheshire



Still River Greenway



Larkin State Bridle Trail



Farmington Canal Heritage Trail - Hamden



Naugatuck River Greenway



Farmington Canal Heritage Trail - New Haven



Shoreline Greenway Trail



Norwalk River Valley Trail

Thompson

E.Hampton

New Britain

Cheshire

New Haven

Hamden

Bolton

Vernon

Oxford

Middlebury

Derby

Wilton

Madison

Brookfield

Torrington

*Hartford



Quantitative

Infrared Trail Counters

How many trail uses?
When are uses occurring?
Use patterns?



Qualitative

Intercept Surveys

Who is using the trails?
How are the trails being used?
Local spending?



Trail Use Count Data

- Infrared (IR) pedestrian counters
 - Monitored & calibrated by volunteers





Connecticut Trail Census Manual Count F

Location Airline Trail E. Hampton All times Eastern Daylight S
 Name Aaron Budris Record multiples passing co
 Date March 30, 2017 Record strollers, skateboar
 Time Start 12:00 pm Record activity in comment
 Time End 1:00 pm Send completed forms to:
 Weather 60 degrees, sunny Aaron Budris, NVCOG, 49 Le

#	Time	Ped	Bike	Other	Comment	#
1	12:03	2			Walking OD	41
2	12:05	1			Jogging	42
3	12:10	2			Walking SD, 1 w/dog	43
4	12:11		1			44
5	12:13	1		1	Walking w/stroller	45
6	12:13			1	rollerblades	46
7	12:15	1			Walking	47
8	12:19	2	1	1	SD, walking w/stroller	48
9	12:31	1			Walking Dog	49
10	12:39		1			50
11	"		1			51
12	"		1		Bikes in line	52
13	12:48	2			Jogging SD	53
14	12:50	1		2	Walking, double stroller	54
15	12:52	1		1	Walking, Scooter	55
16	12:56		3		SD	56
17	12:58	3		1	Walking, 1 in wheelchair	57
18						58
19						59

70						
79						
80						

TOTALS: 17 8 7 = 32

Data Communication - www.cttrailcensus.uconn.edu

2017: 1,401,415
uses across all trails

Visualizations

Interactive maps & data display

Data download portal



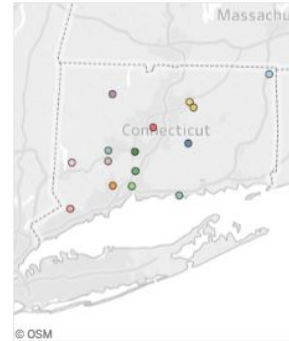
The Connecticut Trail Census is a statewide volunteer data collection program intended to inform a better understanding of multi-use trail use in the state of Connecticut and to make this important information available to trail user groups, administrators, government agencies and the general public. It is being funded by a CT DEEP Recreational Trails Grant.

2018 Counts 2017 Counts

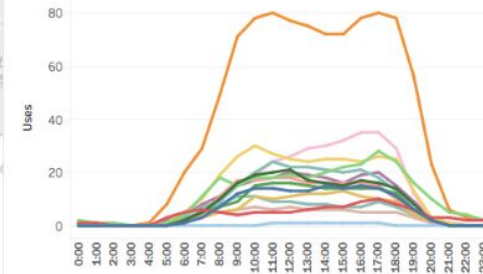
2018 Counts

Select a Trail

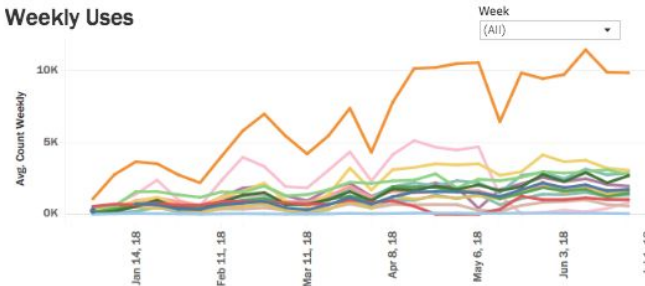
- Airline Trail East Hampton
- Airline Trail Thompson
- CTfastrak Trail New Britain
- Farmington Canal Heritage Trail Cheshire
- Farmington Canal Heritage Trail Hamden
- Farmington Canal Heritage Trail New Haven
- Hop River Trail Bolton
- Hop River Trail Vernon
- Larkin Trail Oxford
- Middlebury Greenway
- Naugatuck River Greenway Derby
- Norwalk River Valley Trail Wilton
- Shoreline Trail Madison
- Still River Greenway Brookfield
- Sue Grossman Trail Torrington



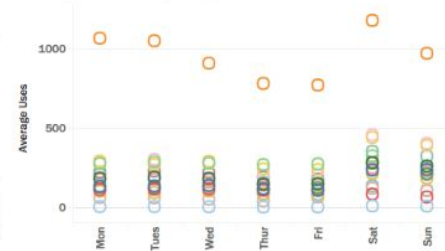
Average Uses by Hour of the Day



Weekly Uses



Average Uses by Day of Week

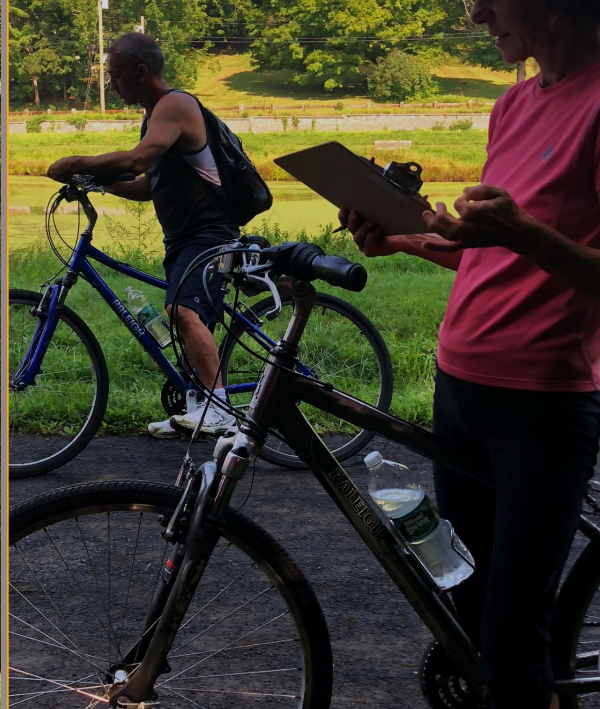




Intercept Surveying



While trail users fill out the surveys, many volunteers report that they enjoy chatting about their shared interest: the trail!



The East Hampton Air Line Trail volunteer team intercepting and surveying. This couple shared that they were using the trail while they visited all the way from MA!

Trail Census Trail User Survey

None of the information gathered will be used to identify you individually. All data will be kept confidential and will be aggregated for analysis.

1. What is your home ZIP code? _____

2. How are you traveling on the trail today?

- Walk Equestrian
 Run/Jog In-line skate
 Bike Other _____

3. If there are children age 18 or under using the trail with you today list how many _____

4. How many minutes do you plan to spend on the trail? _____ # minutes

5. What is your purpose? (select all that apply)

- Recreation Exercise - Manage weight
 Relaxation Exercise - Preventative
 Dog walking Exercise - Endurance
 Travel to school Exercise - Prescribed
 Travel to shopping Family time
 Travel to work Socializing
 Tourism/sightseeing Other _____

6. Does the availability of this trail impact your decision to exercise or the frequency at which you exercise? Yes No

7. How did you get to the trail today?

- Car/Motorcycle (alone)
 Car/Motorcycle (with someone else)
 Public Transit (bus/train)
 Bicycle Other _____
 Walk
 Run/Jog

8. How often do you use the trail at this location?
 First time Once a week
 5 or more times/week Once a month
 2-4 times/week Every few months

9. During which seasons do you generally use the trail? (Select all that apply)

- Summer Winter
 Fall Spring

10. On this trip to the trail only, if you have spent or plan to spend money, please write how much you will spend on the following in whole dollars (If nothing write "0"):

Beverages \$ _____
Food (snacks, etc.) \$ _____
Meals at a restaurant \$ _____
Gas \$ _____
Retail (gifts, clothing, etc.) \$ _____
Equipment rental \$ _____
Lodging \$ _____
Nearby activities (recreation/ amusements) \$ _____
Other _____ \$ _____
Total \$ _____

11. How much do you spend each year on goods or services related to trail use? Include gear, clothing, equipment rental, repairs, auto accessories, etc. \$ _____

12. What are your favorite things about this trail?

13. What would improve your trail experience?

14. In the past week, how many days did you get in 30 minutes of extra activity that was NOT part of your daily routine? Includes things like jogging, playing soccer, fitness or dance classes, or exercise videos. The 30 minutes could be all at once or 10 minutes or more at a time. Do not count housework, taking care of kids, or walking from place to place.

_____ # days/week

15. How many of these days included vigorous exercise? Causing increase in breathing or heart rate
_____ #days/week

16. What is your age range?

- Under 18 45-54
 18-24 55-64
 25-34 65-74
 35-44 75 or over

17. What best represents your household income?

- Under \$24,999 \$100,000 - \$199,999
 \$25,000 - \$49,999 \$50,000 - \$99,999
 \$50,000 - \$99,999 Over \$200,000

18. What is your race or ethnicity?

(Select all that apply)

- White Asian
 Black or African American Pacific Islander
 American Indian Spanish, Hispanic
 Other _____ or Latino

19. What is your gender?

- Male
 Female
 Prefer to self describe _____



Connecticut Trail Census

A statewide multi-use trail user study

www.citr/census.uconn.edu

Volunteers involved in surveying trail users contributed to 34 survey trips in 4 months



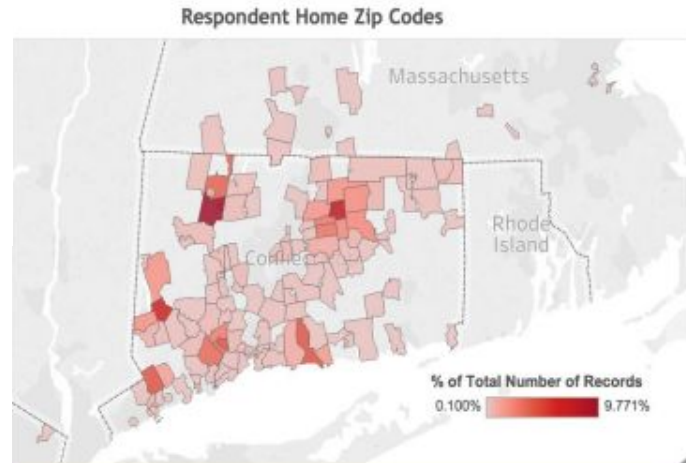
CT Multi-Use Trail User Profile

Purpose and Activities

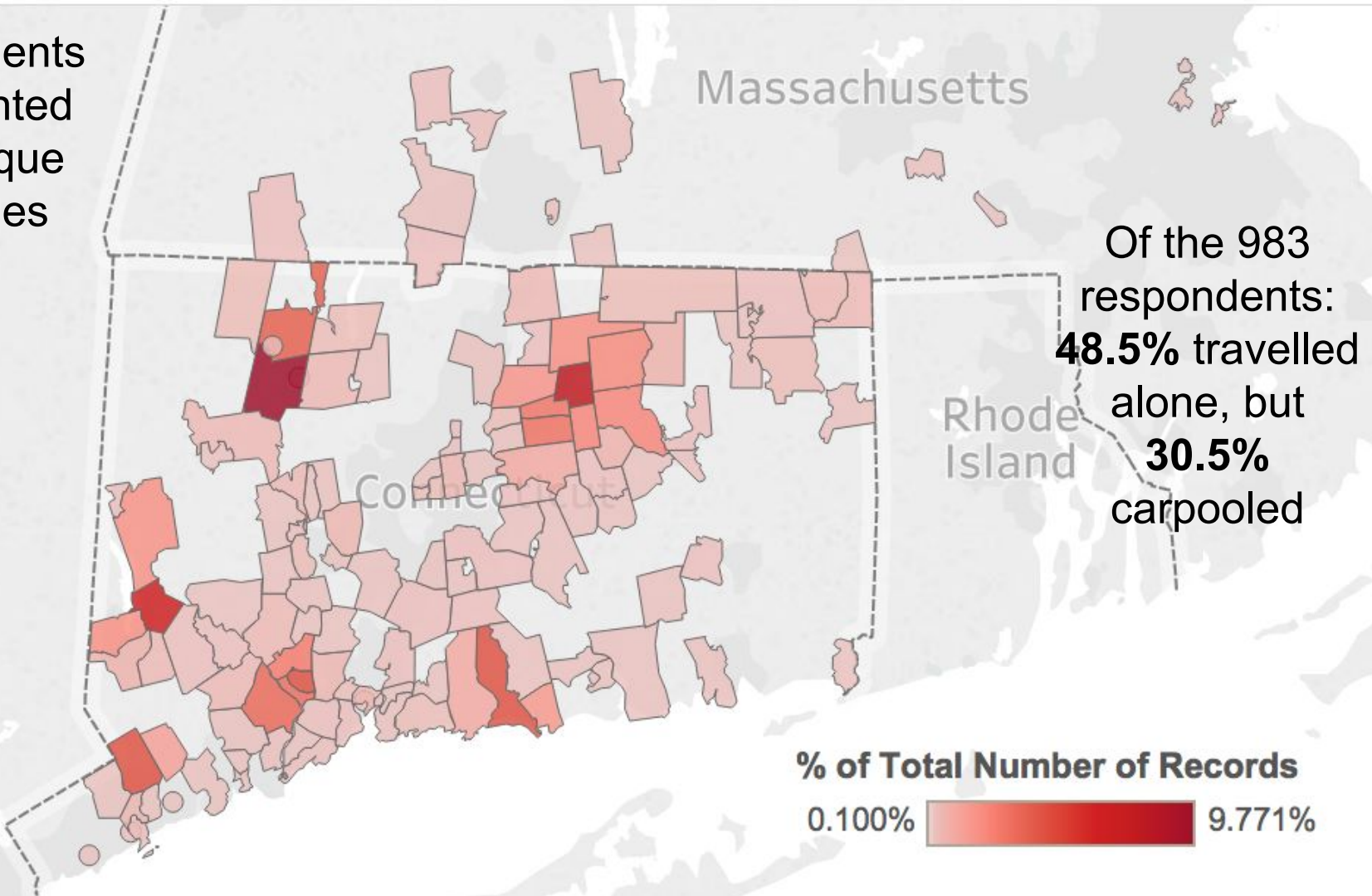
- ✓ The average group size was 2.3 people (n=1003).
- ✓ The primary activity on these trails is **Walking** (68.7%) followed by *Bicycling* (16.1%), *Running/Jogging* (14.0%), *Horseback Riding* (0.6%) and *Other* (0.6%) (n=973).
- ✓ Respondents' primary purpose on the trail was overwhelmingly **Exercise** (89.5%), followed by *Relaxation* (40.9%), *Recreation* (39.3%), and *Dog Walking* 18.6%. 3.6% of respondents said their primary purpose was *Tourism* and 1.1% had a primary purpose of *Commuting to work*. Less than 1% indicated a primary purpose of trail use for *Travel to*

- ✓ The majority of users got the trail by car or motorcycle alone (48.5%) but an encouraging 30.5% traveled in a car with someone else. 7.2% of users biked to the trail and 12.6% walked or jogged (n=983).
- ✓ Respondents represented 165 unique zip codes. While most users were from the state of Connecticut, there were multiple users from Massachusetts, New Jersey, New York, and Vermont.

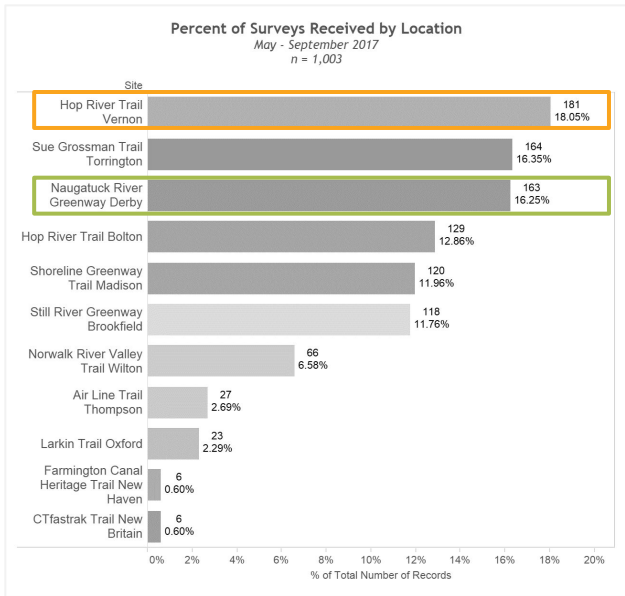
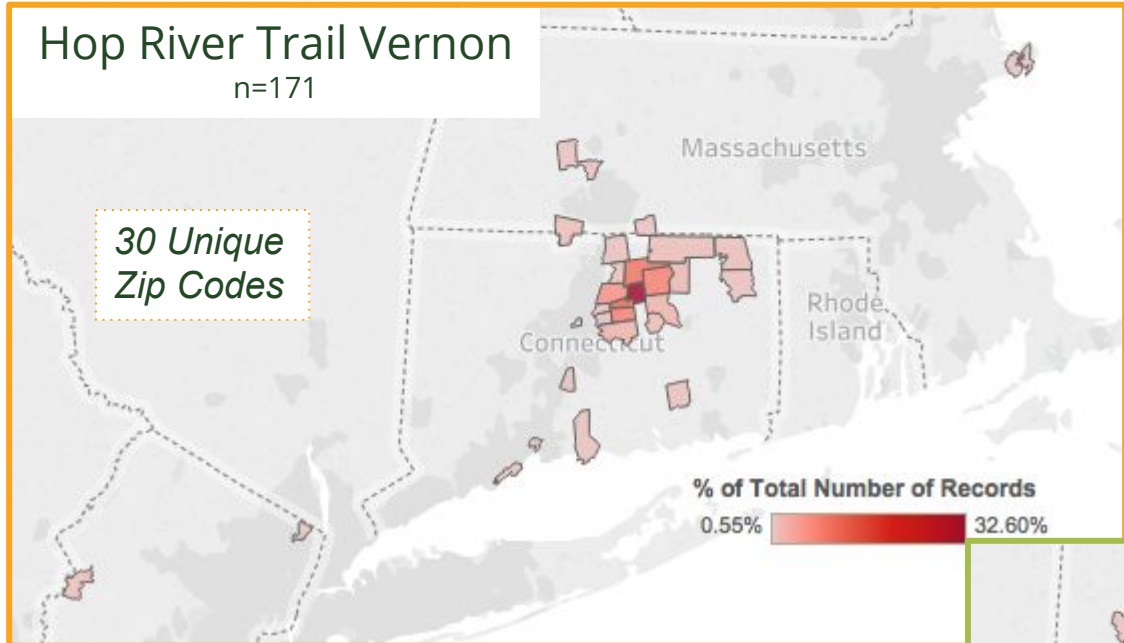
1,003 trail users intercepted
on 11 of the 15 trails



Respondents represented 165 unique zip codes



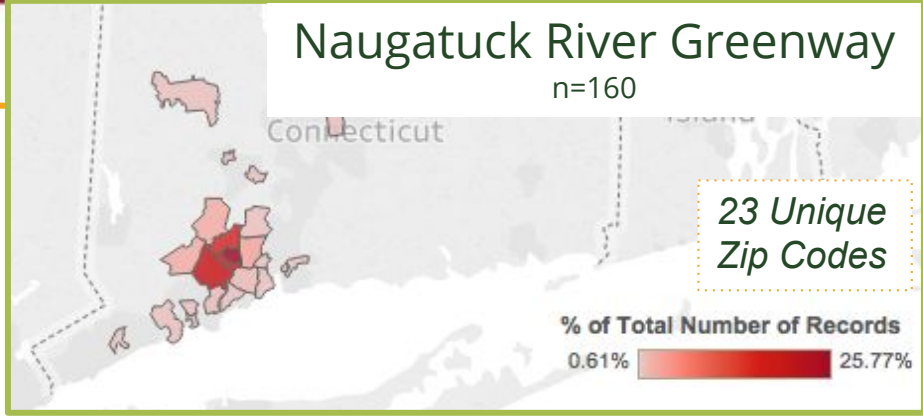
Respondent's Home Zip Codes



Total recorded uses: 133,016
Total surveys collected: 181

Community comparisons

Total recorded uses: 303,550
Total surveys collected: 163

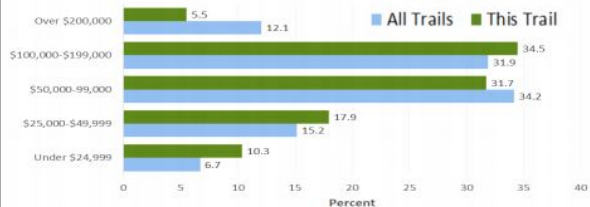


Survey Data Reports

Demographics of Trail Users

- ✓ The majority, (66.2%) of household incomes were reported as between \$50,000 and \$200,000.

Household Income - Percent of Total
All Trails n=837 This Trail n = 145

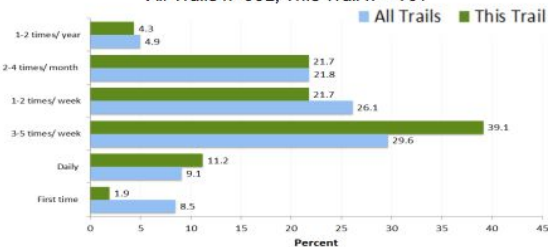


Frequency of Use

- ✓ Trail users use this trail often! 72.% of all users reported using the Naugatuck River Greenway at this location at least once per week. 50.3% of respondents use the trail 3 or more times per week, including daily users which account for 11.2% (n=161).
- ✓ Summer and Spring are the seasons of highest use. 91.3% of respondents indicated they use the trail in the Summer followed closely by Spring, (90.7%), and Fall, (81.9%). A surprising 31.6% of respondents indicated they use the trails in the Winter (n=161). Note: respondents could select more than one season.

How often, on average do you use this trail?

All Trails n=992, This Trail n = 161



Spending

- ✓ A surprising 84.4% of all respondents reported annual spending related to this trail with an average of \$166 per year (outliers not excluded).
- ✓ 26.4% of respondents indicated spending on that particular visit to the trail. This was greater than the 21% who reported any spending overall. Proximity of shopping at this location may have impacted this for the Naugatuck River Greenway compared to other trails in the Census.
- ✓ Respondents provided additional detail about their spending on that particular visit in various categories below averaging a total of \$6.23 which was also higher than the average of \$5.64 for trails across the Census.

How much will you spend on the following categories on this visit to the trail?

All Trails n = 971

This Trail n = 159



Note: Respondents were asked if they spent any money on lodging or rentals but no one in census reported spending in these categories.



Suggested Improvements

- ✓ Most cited suggested improvements included: nothing (9) as well as concerns about dogs (9), geese (7) and graffiti (4).



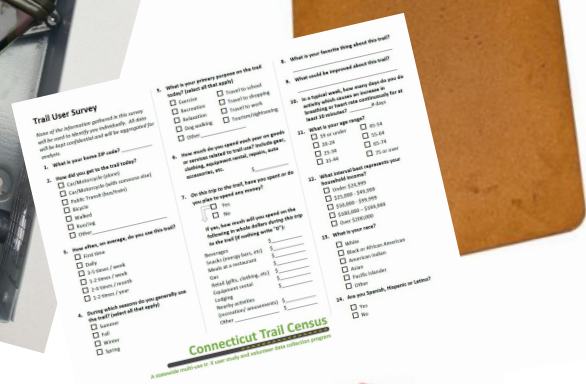
Favorite Thing About the Trail

- ✓ Most cited favorite things about this trail included the view (25), scenery (16), the river (13) and cleanliness (12).



Volunteer Opportunities and Training

Trafx IR Counter
Manual Count Forms
Paper Surveys
Stamped Return Envelopes
Instructions
Branded Vests
Informational Handouts
Face to Face Training
Webinars



In 2017 63 community volunteers donated over 818 volunteer hours to the program!

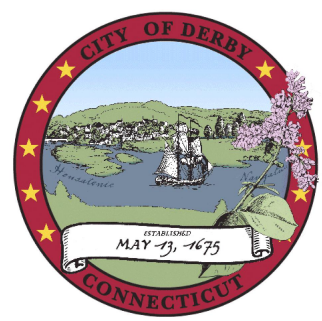
Program Update: Second Year



Participating Trail	Total	Uses/Week	Uses/Day
Naugatuck River Greenway Derby	174,128	6,697	957
Hop River Trail Vernon	56,170	2,160	309
Still River Greenway Brookfield	54,937	2,113	302
Farmington Canal Heritage Trail New Haven	51,189	1,969	281
Shoreline Trail Madison	40,845	1,571	224
Sue Grossman Trail Torrington	38,812	1,493	213
Farmington Canal Heritage Trail Cheshire	36,197	1,392	199
Norwalk River Valley Trail Wilton	33,285	1,280	183
Farmington Canal Heritage Trail Hamden	29,221	1,124	161
Airline Trail East Hampton	28,401	1,092	156
Hop River Trail Bolton	22,497	865	124
Middlebury Greenway	19,456	748	107
CTfastrak Trail New Britain	18,565	714	102
Larkin Trail Oxford	13,245	509	73
Airline Trail Thompson	1,113	43	6

Current total uses: 618,062

January 1 – June 24, 2018



Development of Derby Greenway

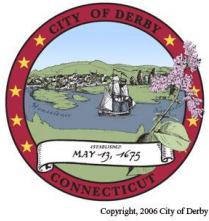
Linking two rivers, three cities and six bridges



Who Had the Original Idea?



Housatonic Valley Association (HVA) was planning a Greenway to extend from Long Island Sound to the MA border along the Housatonic River



Olde Birmingham Business Association (OBBA) started to work with HVA with an eye towards revitalization of a decaying downtown (Main Street) which ran along the Housatonic





Healthy Valley 2000 was a grant-funded community planning initiative that started working on 27 community initiatives.

One of those projects was the hope to develop a linear walking/jogging/biking trail

Coming Together

Healthy Valley proposed that a Derby Greenway could be developed on the flood control walls that ran along both the Housatonic and Naugatuck Rivers and framed Derby's retail areas - and OBBA and HVA agreed!.



Greenway Built

A local community foundation grant was received that showed that the proposed Greenway could be built on top of the flood control walls. The city owned the walls, but the Army Corps of Engineers regulated types of usage and would allow the walls to be used.

The city sought and received a grant using federal transportation funds and the trail was built. The formal ribbon cutting was on June 25, 2016, but users flooded to the trail in the fall of 2015 while construction proceeded.



So What Happened?

The trail was an immediate success in terms of usage and image improvement for the city and the entire Valley.

That success led to Phase II and Phase III which added enhancements and an extension to the trail.

Ansonia quickly moved to design and build their own trail connecting to Derby.

The Naugatuck River Greenway Steering Committee was formed to look at extending the trail the length of the Naugatuck River to Torrington



Economic Development Did Not Happen Immediately!

The infrastructure was not yet in place even if the interest was. Progress seemed to be marked by demolition!



This was the view of the back of Main Street when the trail opened.



This is how things looked as the crumbling buildings on Main Street were torn down.

This was a major loss to the history of Derby!

A Clean Slate!

This is the city's Center Design Development District Zone. This view is directly from the Derby Greenway which borders the District and the Housatonic River. Main Street is also RT. 34, and its reconstruction is critical to the economic development of the area.



The Future Is Now!

Planning & Zoning has given approval for a Planned Development District Zone allowing planning to move forward for the first new buildings in downtown Derby since the 1960's.

Part of the rationale for the District is to, “promote an attractive pedestrian environment with access to potential greenway and transportation corridors.”





Derby

The Home Depot

Derby / Shelton

ins Point

Wastewater Treatment Plant



Route 34 (Main Street) Reconstruction

RECONSTRUCTION OF ROUTE 34 (MAIN STREET)
CITY OF DERBY
STATE PROJECT NO. 36-184

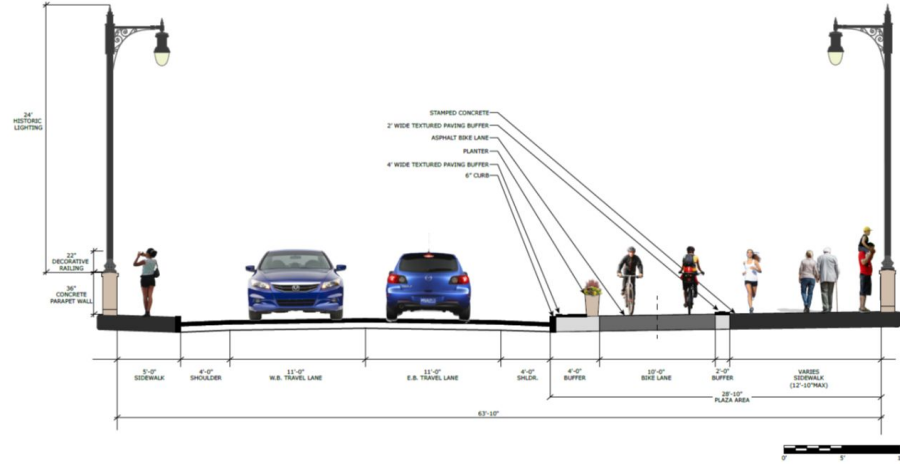


- LEGEND**
- PROPOSED PAVEMENT
 - PROPOSED KILLING & OVERLAY
 - PROPOSED DRIVEWAYS
 - UNDISTURBED PAVEMENT
 - FILL AREAS
 - CUT AREAS
 - SIDEWALK
 - TEXTURED CONCRETE BERM
 - RETAINING WALLS
 - EXISTING STREET LINES
 - ACQUISITION LINES
 - WATERCOURSE/WETLANDS

Derby-Shelton Bridge Rehab

Improve Pedestrian Access

Connect to Derby and Shelton Greenways





Derby Downtown Now-2016

DPZ Partners

Public process to envision downtown improvements

Strongest Place = The Greenway

Adjacent area is vacant/ underutilized

-  Weaknesses
-  Strengths



This map shows the combined strong places and weak places identified by participants.



Central Park (Urban) Master Plan
DOWNTOWN DERBY REVITALIZATION PLAN



Naugatuck River Greenway Trail Overview

The NRG Trail is a planned 44 mile multi-use trail following the Naugatuck River through 11 communities.

- Improve health and quality of life of residents
- Provide a viable transportation option
- Restore river access
- Provide economic opportunities

But...

- ➔ No ROW to follow
- ➔ Tight Geographies
- ➔ Industrial Legacy
- ➔ \$\$\$\$\$\$



Naugatuck River Greenway Trail Overview

Trail is being constructed at the municipal level with federal, state and local funds.

Assisted by NVCOG and NHCOCG

Overseen and guided by the NRG Steering Committee (NRGSC) including municipal and stakeholder members

- Find Funding
- Prioritize
- Coordinate
- Provide Guidance
- Research and Data

Routing Studies

Preferred route arrived at through extensive public & stakeholder engagement

Route feasibility AND community benefit

Construction phasing and cost estimates



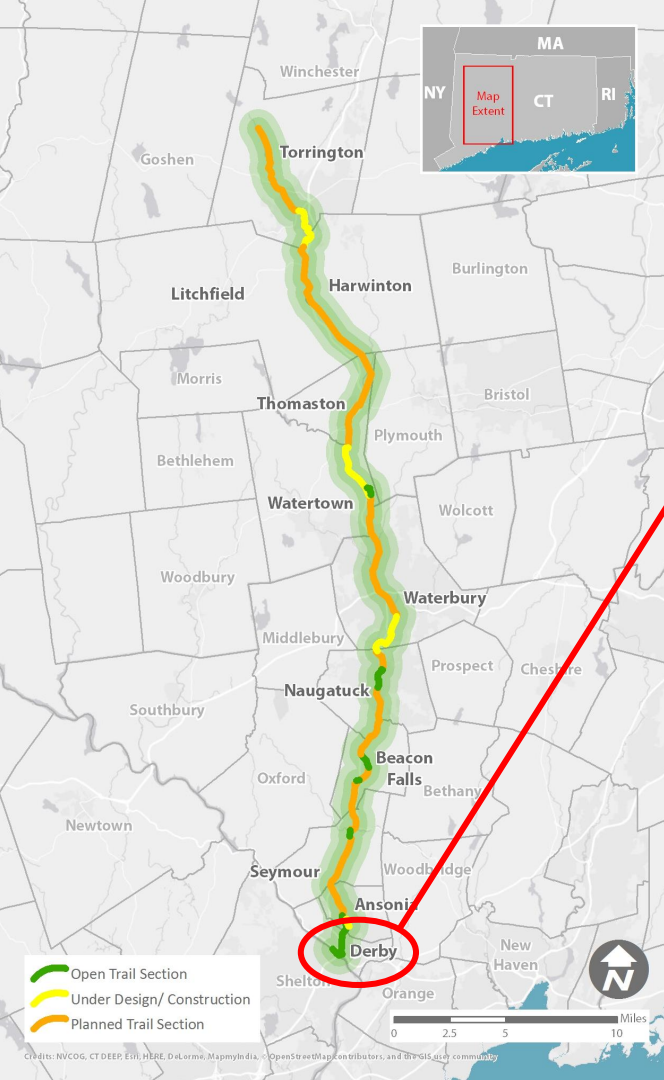
Regional Naugatuck River Greenway Routing Study Town of Thomaston, Connecticut



DECEMBER 2010

PREPARED BY:
Alta Planning + Design
IN ASSOCIATION WITH:
Fuss & O'Neill
Fitzgerald & Halliday
PREPARED FOR:
Council of Governments of the Central Naugatuck Valley





Naugatuck River Greenway Trail Progress

Derby

- ➔ 2 miles - mostly on USACE built levees
- ➔ Downtown/ Bridge Street to Division Street
- ➔ **300,000+** trips taken annually/ +150,000 visits





Naugatuck River Greenway Trail Progress

Ansonia

- 2/3 mile contiguous to Derby Greenway
- Division Street to Pershing Drive
- New bridge over RR to downtown
- Design underway for sections 2, 3 & 4

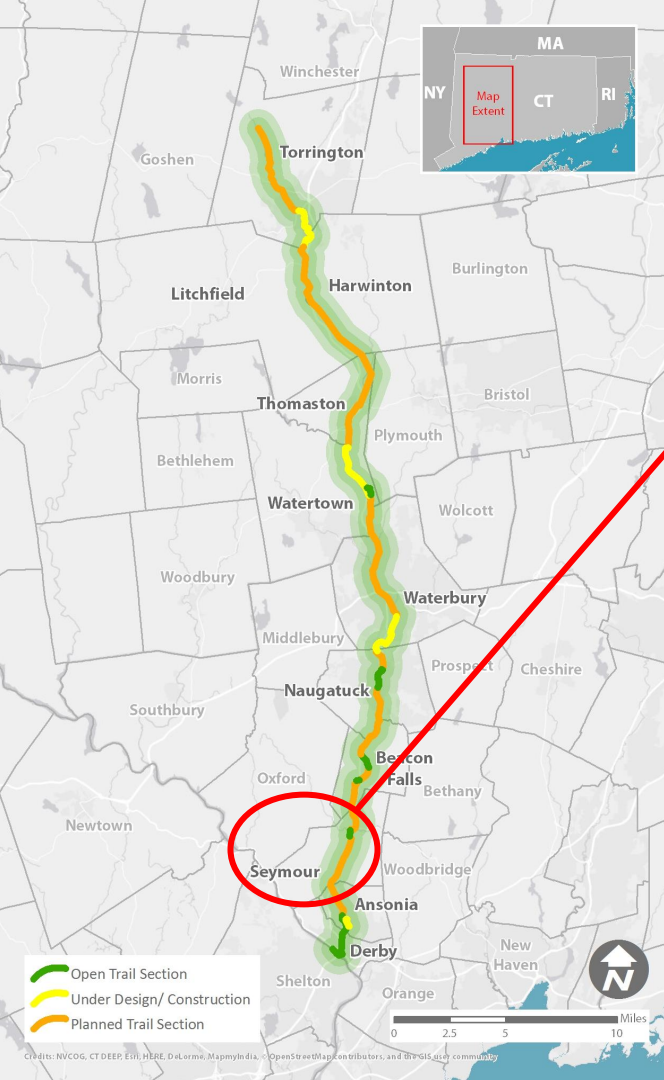




Naugatuck River Greenway Trail Progress

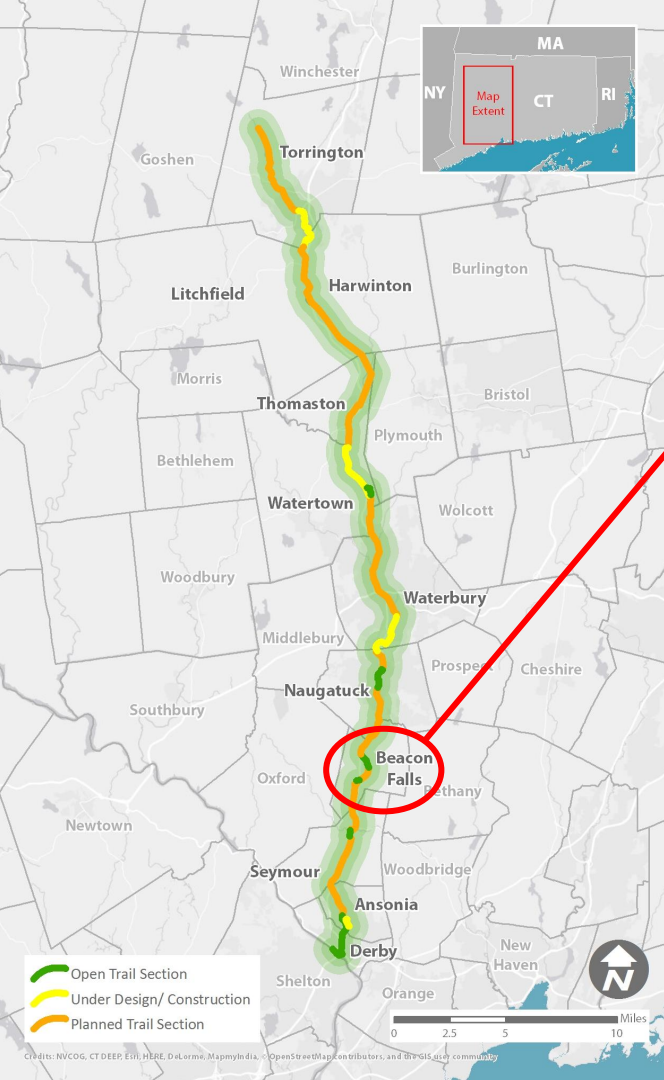
Seymour

- ➔ 1,400ft section opened 2018
- ➔ Bank Street to Tingue Dam Bypass Park



Open Trail Section
Under Design/ Construction
Planned Trail Section

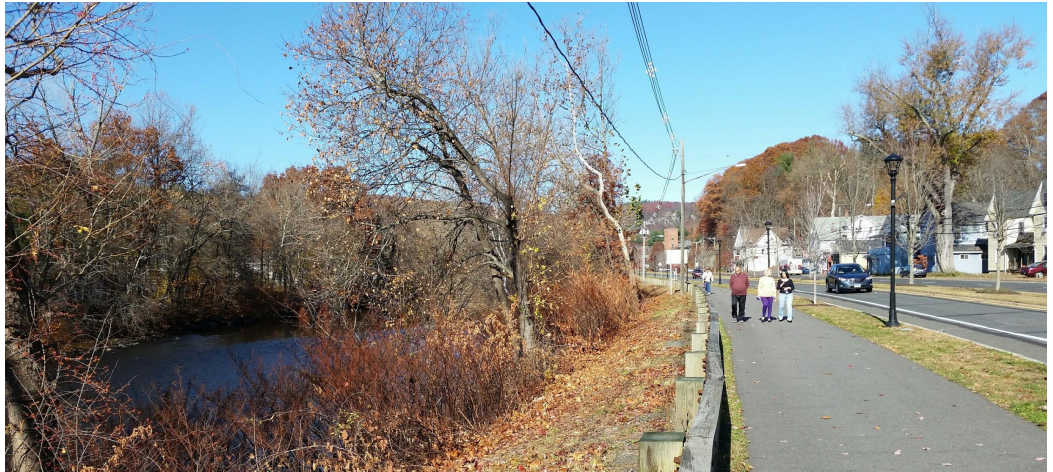
Credits: NVCOG, CT DEEP, Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

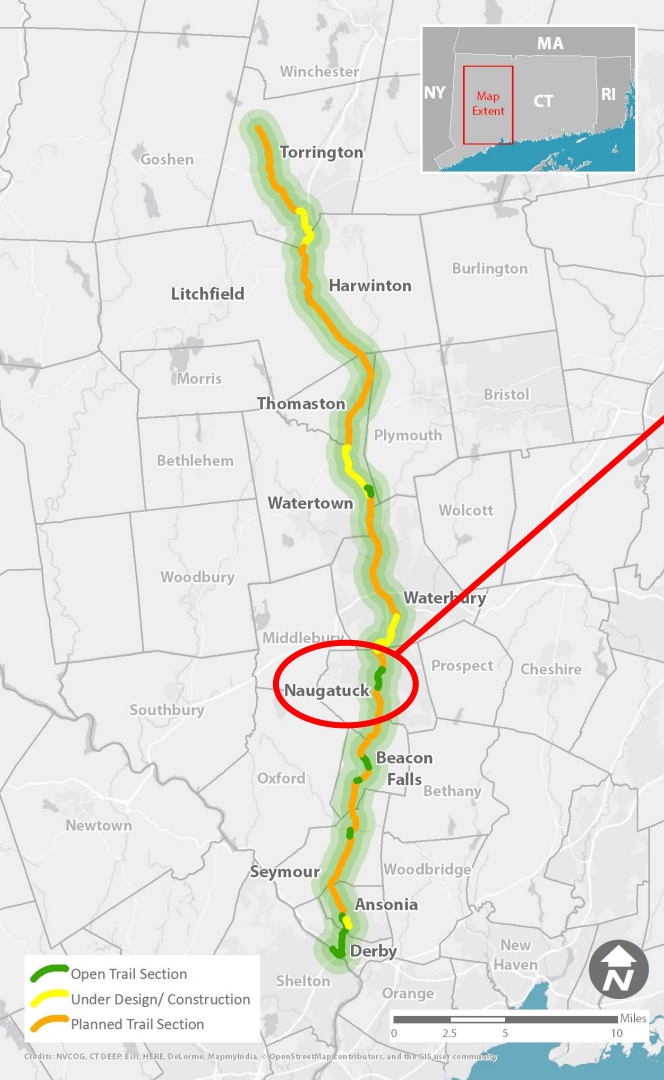


Naugatuck River Greenway Trail Progress

Beacon Falls

- ➔ 1800 ft road diet from Veterans Park to Rte. 42
- ➔ Riverbend Park
- ➔ Plans to connect them



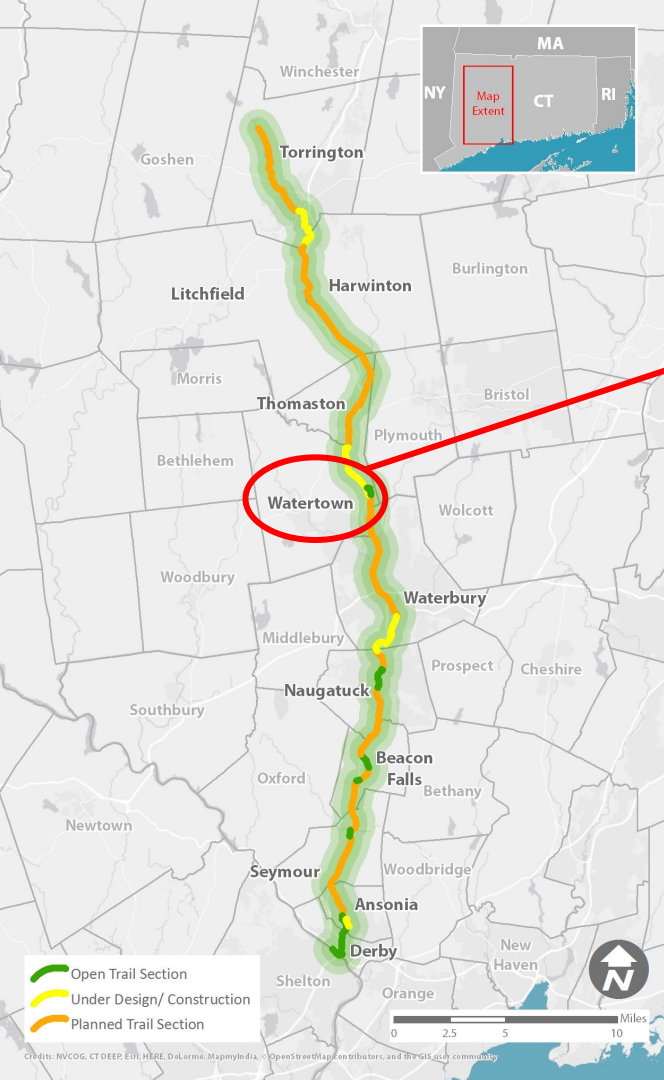


Naugatuck River Greenway Trail Progress

Naugatuck

- ➔ 1 mile from Maple St. to Bridge St.
- ➔ Linden Park
- ➔ 50,000+ trips annually



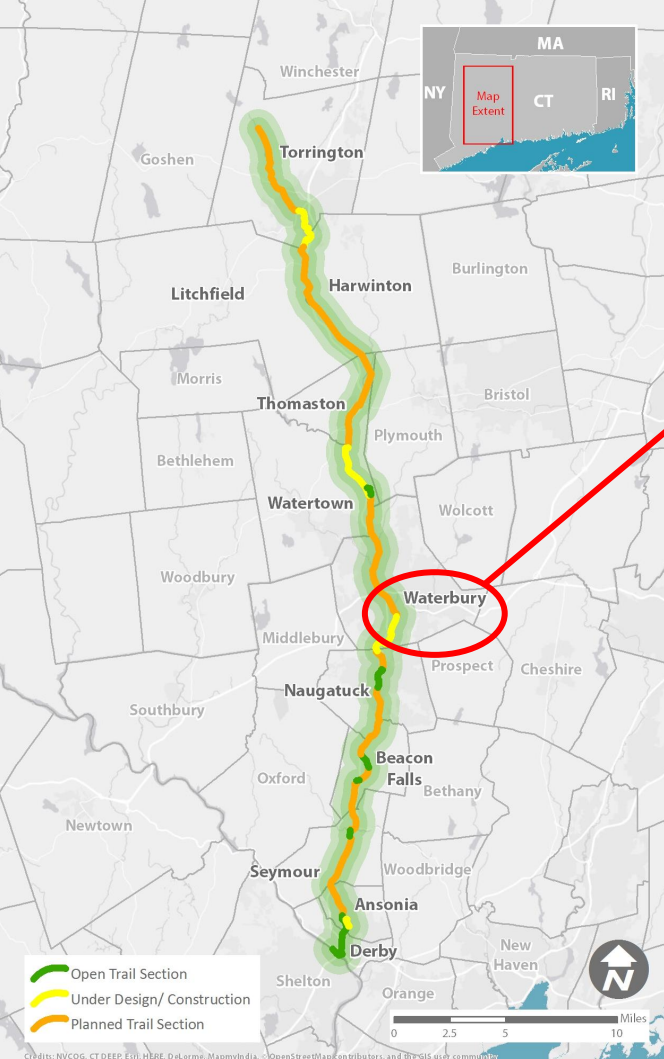


Naugatuck River Greenway Trail Progress

Watertown

- ➔ ½ mile from Echo Lake Road to Rail
- ➔ DOT Bus Maintenance Facility

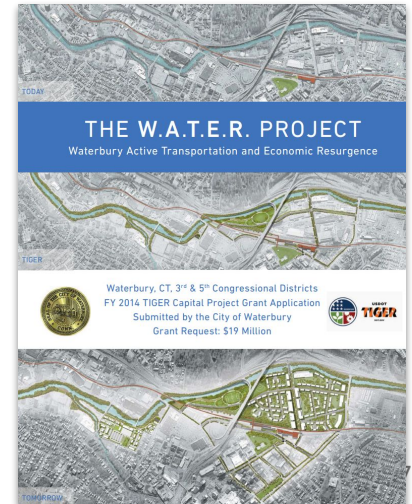




Naugatuck River Greenway Trail Progress

Waterbury

- ➔ Freight Street
- ➔ Complete Street Treatment
- ➔ TIGER Federal Grant





Naugatuck River Greenway Coming Soon

Torrington

- 2 miles Franklin Street to Bogue Road
- Beginning 2019 - awaiting USACE approval

Thomaston/Watertown

- ¼ mile trail with trailhead - Spring 2019
- Bridge over Branch Br. to Watertown NRG and Mattatuck Trail

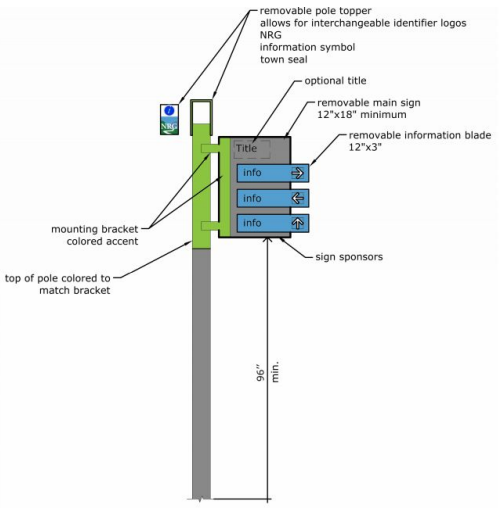
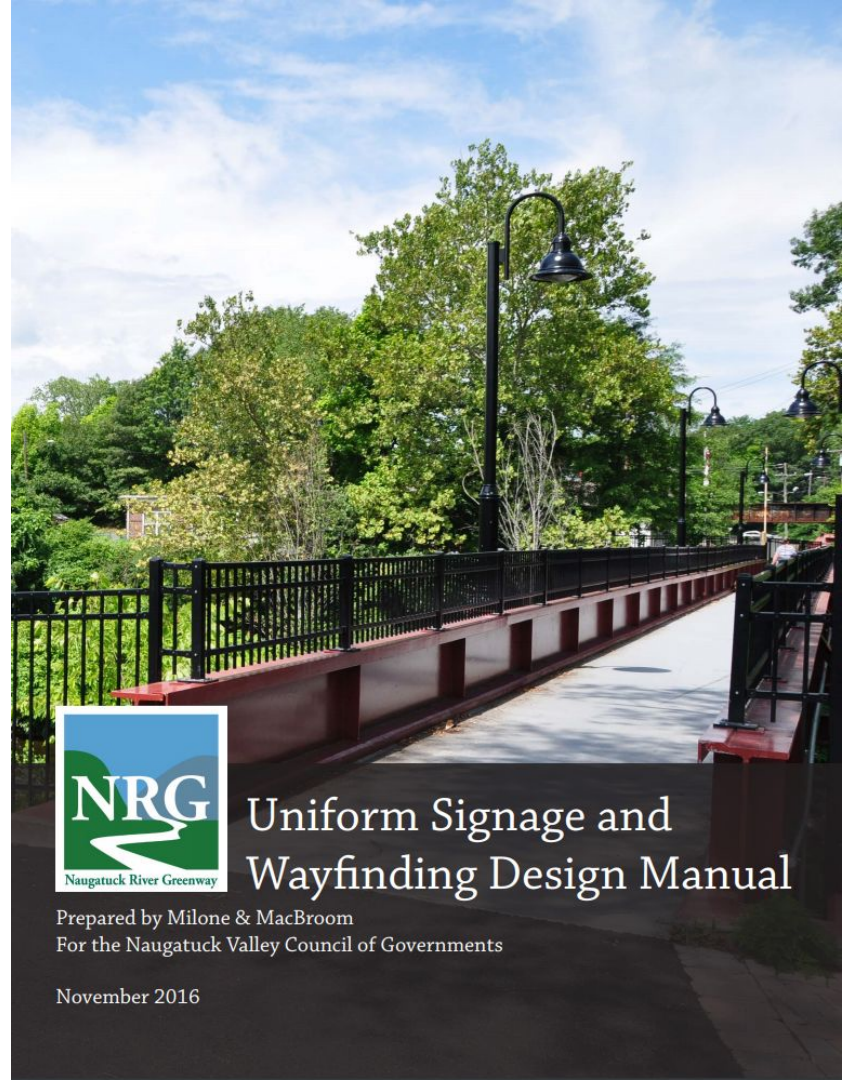
Waterbury

- 2.2 miles from Eagle Street to Platts Mill
- Spring 2019

Uniform Signage and Wayfinding Design

Logo and Branding Policy

Get people to and from the trail

Uniform Signage and Wayfinding Design Manual

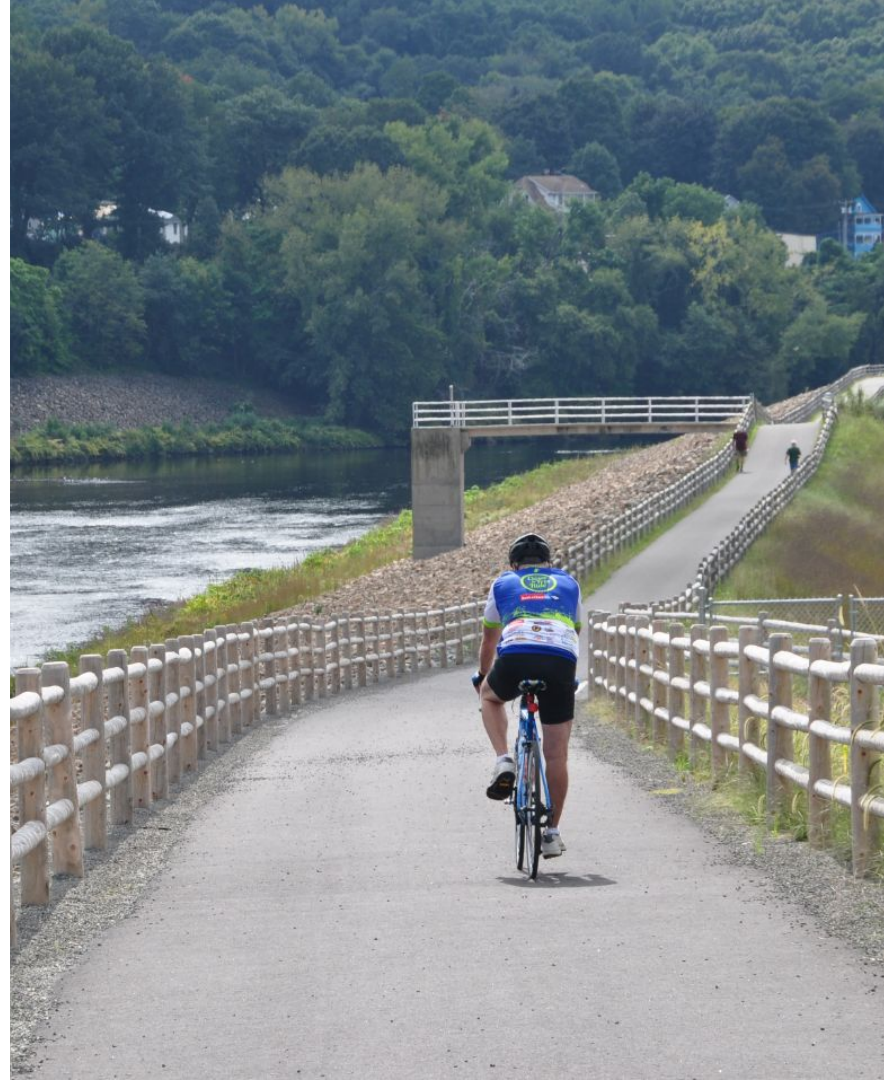
Prepared by Milone & MacBroom
For the Naugatuck Valley Council of Governments

November 2016

So, Are We Capitalizing?

Popular with local users, but...

- Sections are short and disconnected
- “Easy” sections not necessarily most impactful
- Difficult geography makes for expensive trails
- Expense can be a really hard sell to a municipality



Investment To Date for Construction

Federal	\$15.8 Million
State	\$1.6 Million
Local	\$3.0 Million
Private	\$0.0 Million
Total:	+\$20.4 Million



2015-2016 Naugatuck River Greenway Economic Impact Study

Provide municipal officials with data about economic and health benefits of continued construction of the NRG

Partnered with UConn Extension and the CT Center for Economic Analysis to conduct the Study

Report published March 2017

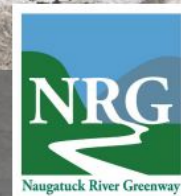
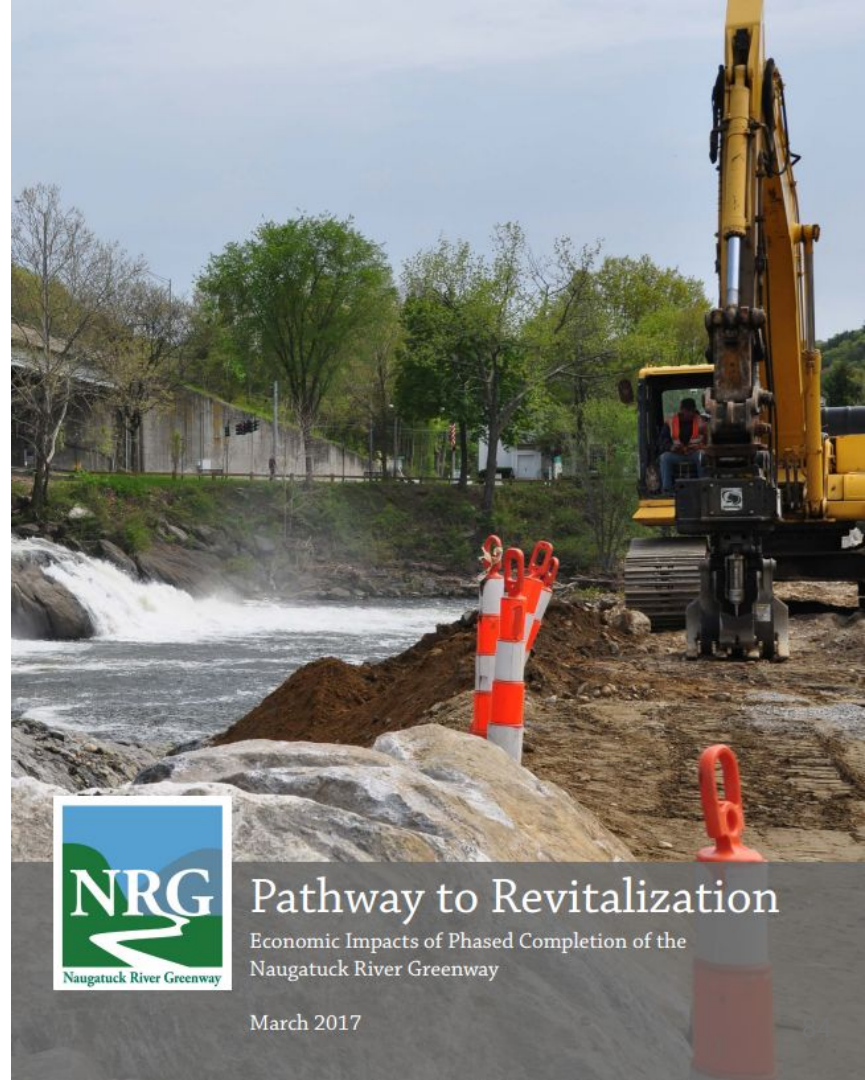
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UConn
COLLEGE OF AGRICULTURE,
HEALTH AND NATURAL
RESOURCES

EXTENSION



Pathway to Revitalization

Economic Impacts of Phased Completion of the
Naugatuck River Greenway

March 2017

2015-2016 Naugatuck River Greenway Economic Impact Study

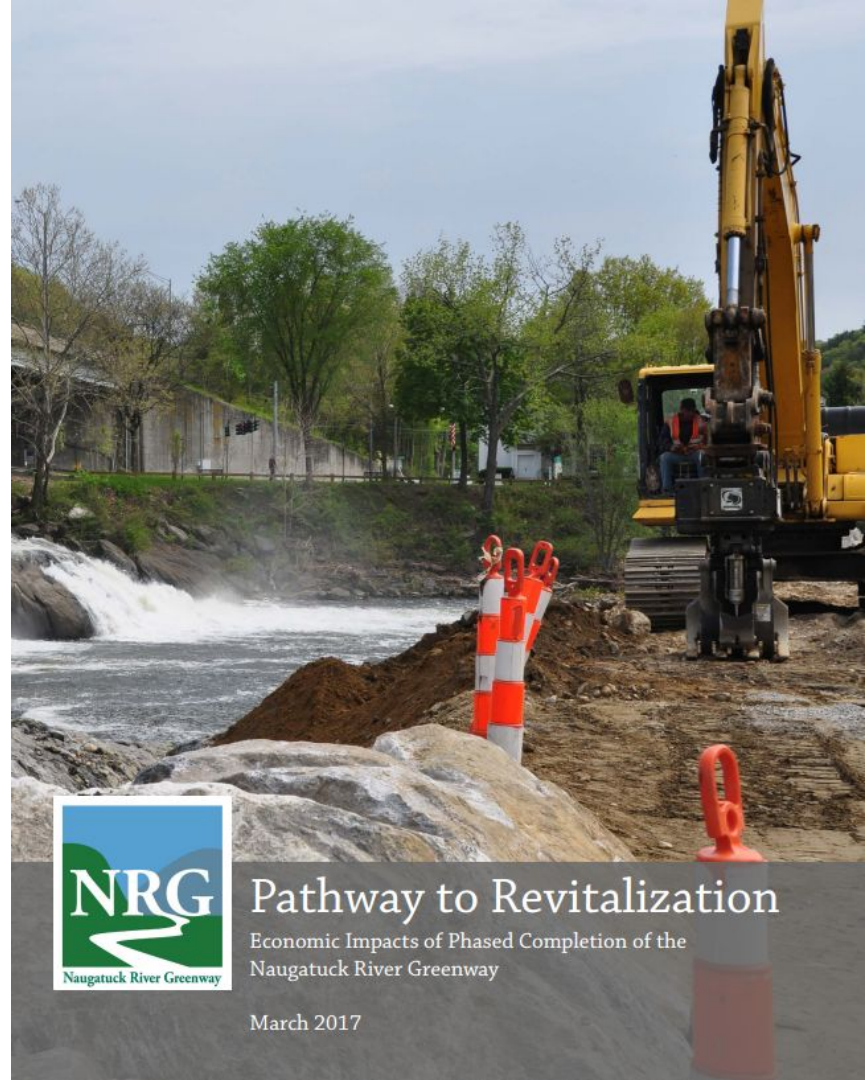
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Methods unclear, and data was sometimes misrepresented

In order to conduct the economic study, we needed to collect specific user data on open NRG sections and similar trails:

- IR Trail Counters
- Intercept Surveys
- Focus Groups
 - Business Owners
 - Trail Administrators
 - Health Professionals

“Wouldn't it be great if we could collect this information statewide on a regular basis?”



Pathway to Revitalization

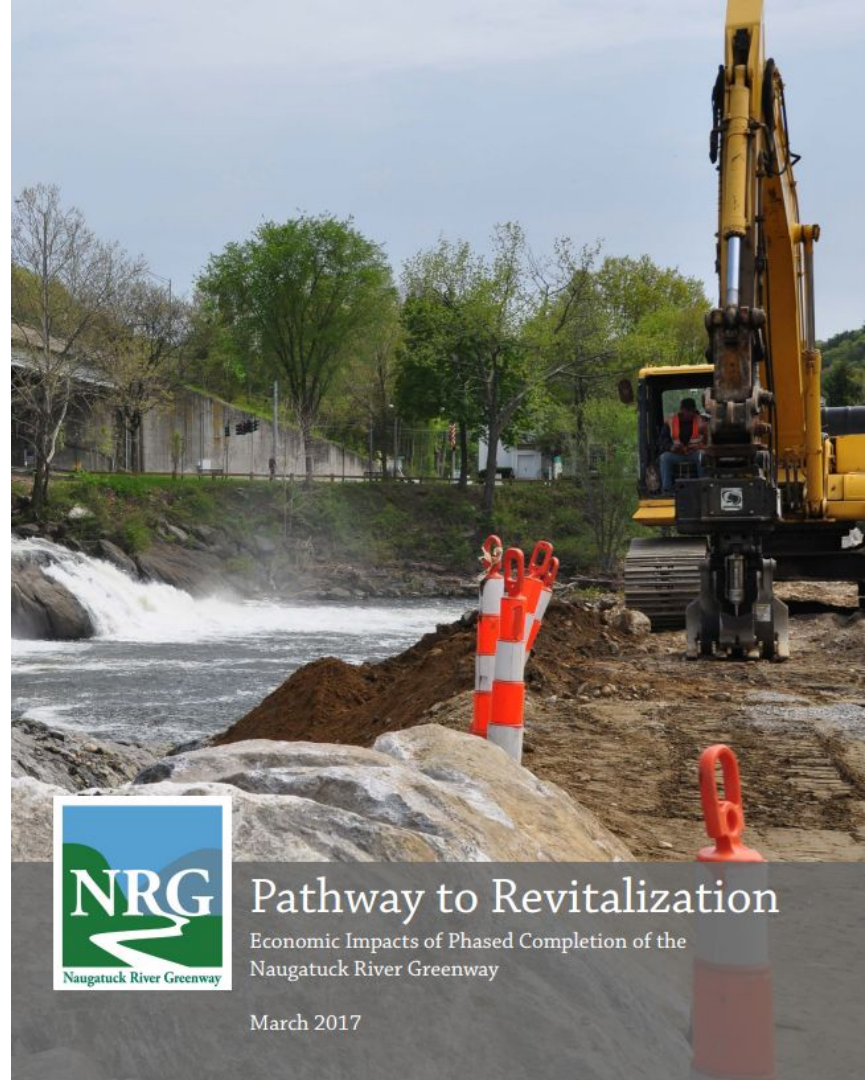
Economic Impacts of Phased Completion of the
Naugatuck River Greenway

March 2017

2015-2016 Naugatuck River Greenway Economic Impact Study

- 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



Pathway to Revitalization

Economic Impacts of Phased Completion of the
Naugatuck River Greenway

March 2017

2015-2016 Naugatuck River Greenway Economic Impact Study

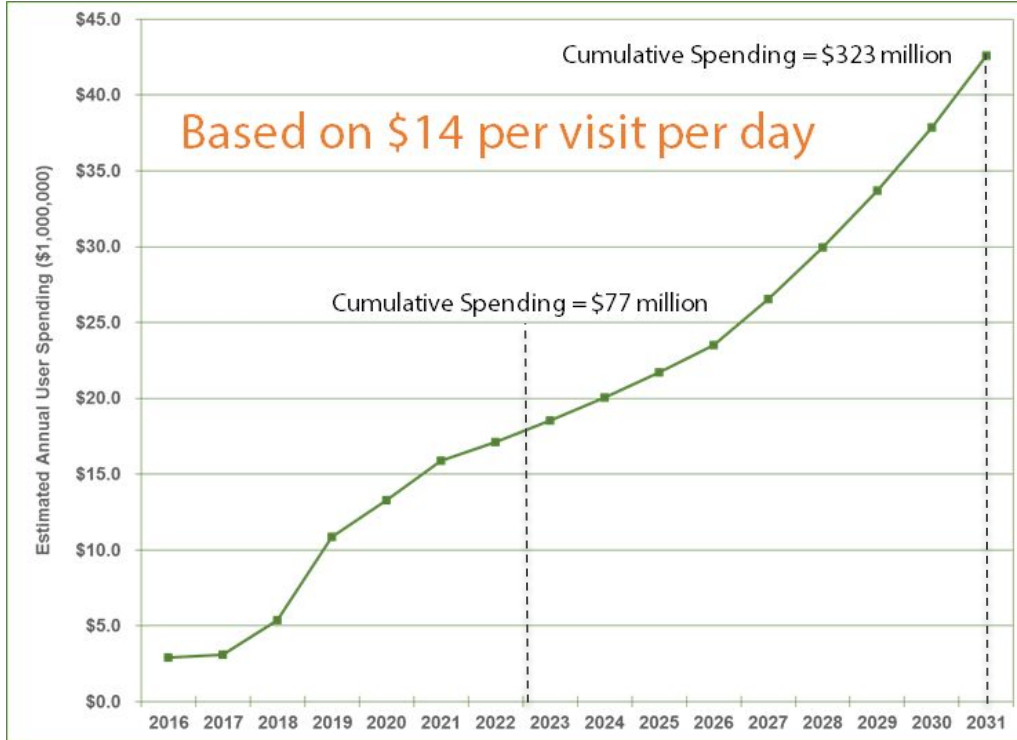
<i>Community</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>Annually (2021– 2025)</i>	<i>Annually (2026– 2030)</i>	<i>Total</i>
Litchfield County Total	\$0	\$0	\$2,347	\$0	\$6,029	\$900	\$2,190	\$24,021
Torrington	\$0	\$0	\$500	\$0	\$0	\$900	\$0	\$5,000
Litchfield/ Harwinton	\$0	\$0	\$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

Anticipated Construction Costs

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

\$77.2 Million

2015-2016 Naugatuck River Greenway Economic Impact Study

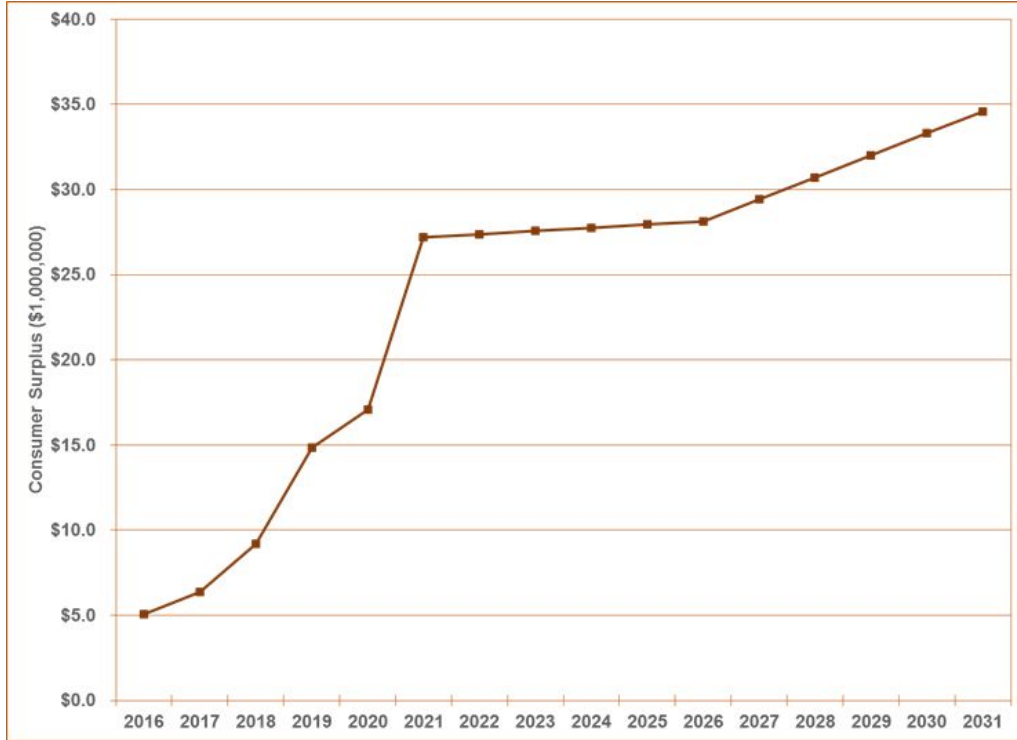


Anticipated Direct User Spending

- Travel
- Meals
- Refreshments
- Gear and Equipment
- Retail
- Activities

\$42.6 Million
Annually (2031)

2015-2016 Naugatuck River Greenway Economic Impact Study

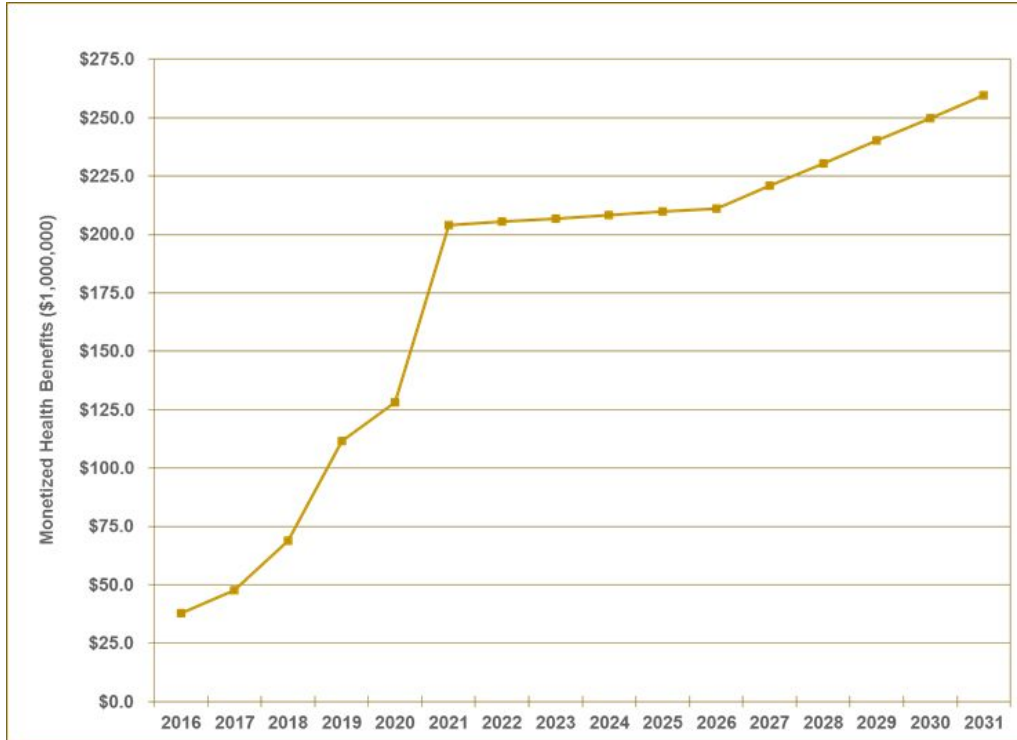


Anticipated Monetized Consumer Surplus

- **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
Annually (2031)

2015-2016 Naugatuck River Greenway Economic Impact Study



Anticipated Monetized Health Benefits

- 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

Incremental(2031)

2015-2016 Naugatuck River Greenway Economic Impact Study

Regional Economic Model Inc. (REMI)

Simulates county level & state economies

Estimates change in economy from base conditions

Based on Direct Expenditures & Construction Costs

+2,500

New & Retained Population

+1,400

New Jobs

+\$128m

Real GDP

+\$206m

Personal Income

+\$166m

Disposable Personal Income

+\$40m

Income Tax Revenue

2015-2016 Naugatuck River Greenway Economic Impact Study

Community Outreach

Naugatuck River Corridor Impacts

If completed by 2031, the construction of the Naugatuck River Greenway Trail is estimated to have the following impacts on the area's economy:

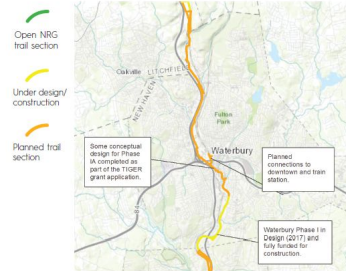


City of Waterbury Impacts

Based on completion of the total NRG trail, the portion of total trail economic impacts attributable to Waterbury's trail section are estimated to be as follows:



CITY OF WATERBURY TRAIL PLANNING



Overview and Definitions

The Naugatuck River Greenway (NRG) trail is a planned 44-mile multipurpose trail following the Naugatuck River from Torrington to Derby. When complete, the NRG trail will link 11 municipalities, help reclaim the Naugatuck River for recreation, provide an alternate mode of transportation, support tourism and economic development in the region, and improve residents' quality of life.

Overseen by the Naugatuck River Greenway Steering Committee, the Naugatuck Valley Council of Governments (NVCOG) and the Connecticut Center for Economic Analysis (CCEA) at UConn, with support from UConn Extension, conducted an economic impact study of the development of the NRG. The study addresses the primary question: "How will communities and residents along the Naugatuck River benefit from their investment in building the proposed trail?" The study involved a literature review, collection of new quantitative and qualitative primary data through trail counts, a trail user intercept survey and three focus groups, as well as deployment of the Regional Economic Impact Model (REM1) to estimate total economic impacts of the proposed trail.

All figures presented assume complete trail buildout in 2030 following an aggressive construction schedule. The local community impacts presented herein were disaggregated from the total trail figures based on an estimated completed trail use.

Construction Cost: Estimated financial cost of construction of the planned trail (in 2016 dollars).



Photo: City of Waterbury, RBA Group, 2015

The Naugatuck River Greenway Economic Impact Study was made possible by funding and support from the following organizations. Thank you.

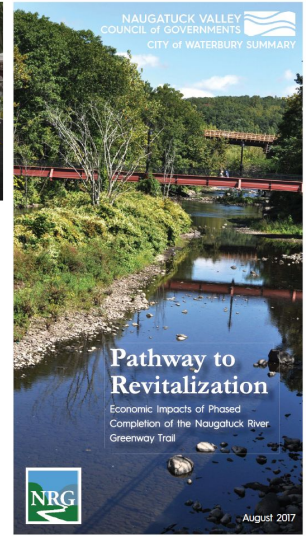


ed to trail use, estimated survey data, current trail use data converted to a per-mile

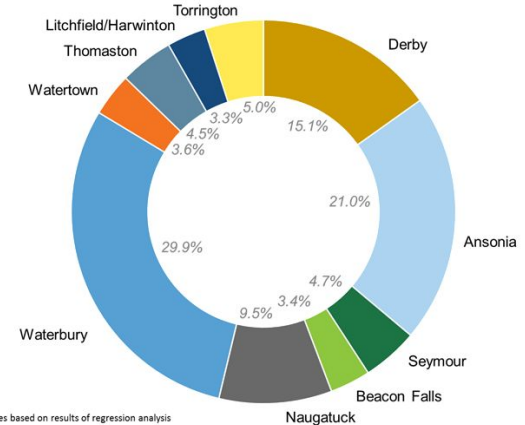
Issues attributable to resulting from increased

consumers are willing to pay for consumption utility, calculated based on base surpluses are often

Measure of impact economic impacts will Economic Impact Model the economy in 2031 with a base scenario without

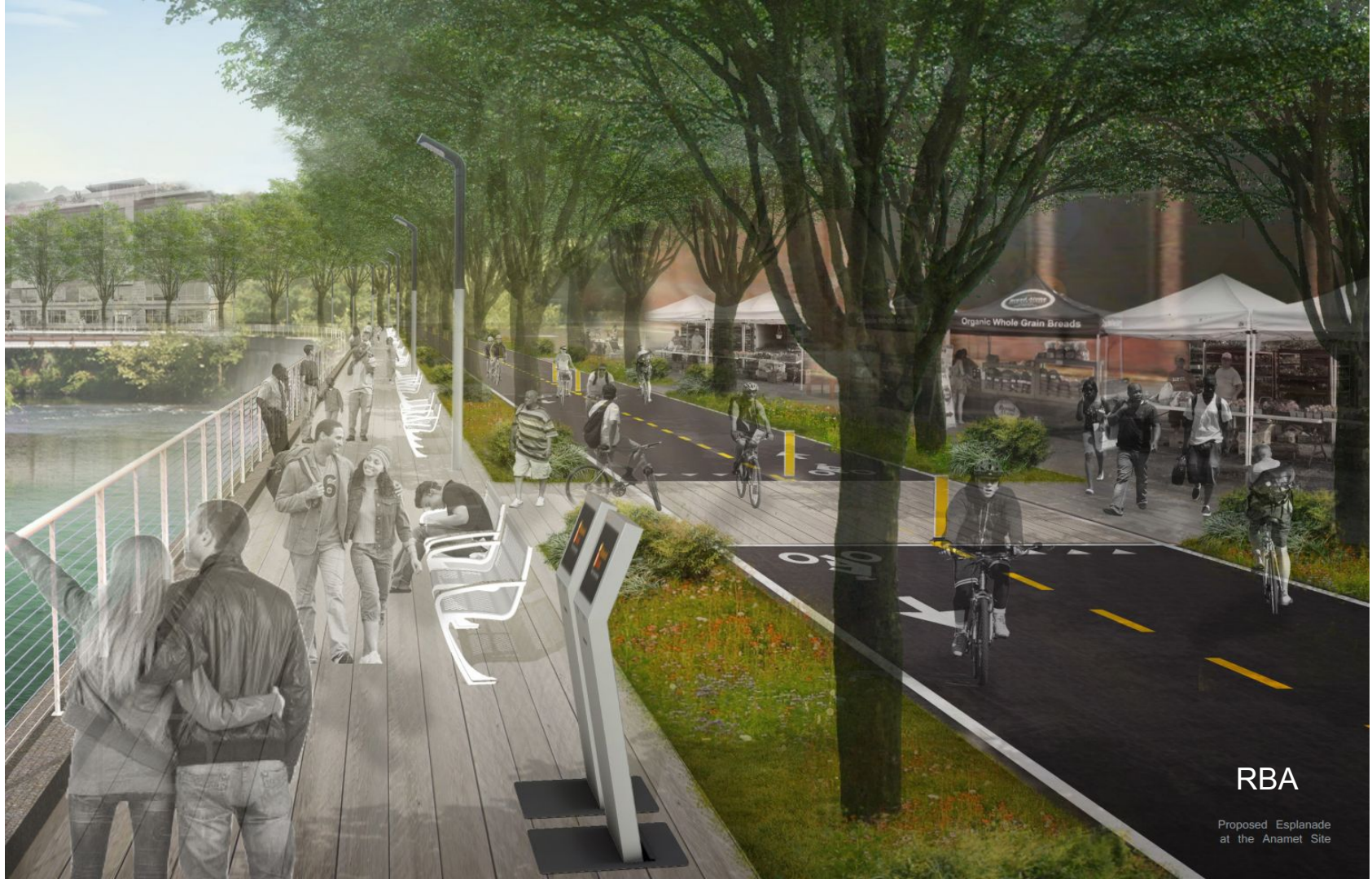


Percentage* Breakdowns by Community





RBA



RBA

Proposed Esplanade
at the Anamet Site

Making the Most of a Trail

How do we balance the the needs and interests of local residents with interest in outside investment and economic impact?

Learning from the 2018 Downtowns and Trails Multistate Grant Supported by the Northeast Regional Center for Rural Development



Portions of this presentation and photos from some slides are the result of a multistate grant supported by the Northeast Regional Center for Rural Development.

Making the Most of a Trail

Does your community CRV BIKERS?

CONNECTIVITY - Connectivity of the trail to the downtown

REGIONAL - Work across municipal borders

VALIDATION - Pursuing certification and validation programs (trails towns) may be useful

BUSINESSES - Engage a diverse range of businesses and create ways to connect them to the trail

INSTITUTIONS - Partners Coalition building, institutional relationships and public engagement

KNOW YOUR ASSETS - Understand economic impacts and users (counts, user and business surveys)

ENGAGE LEADERS - Engaged leadership who can navigate local and regional politics

REGISTERS - You must have places to spend If spending is your measure of success

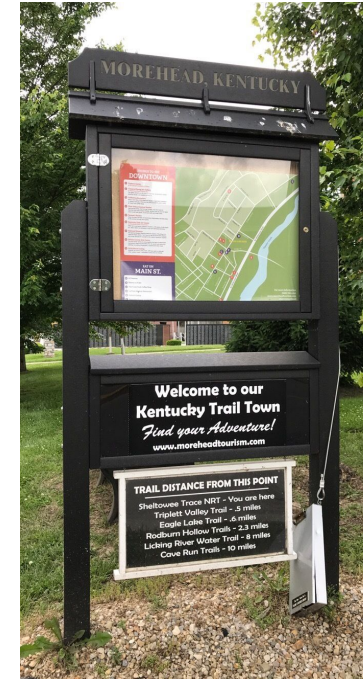
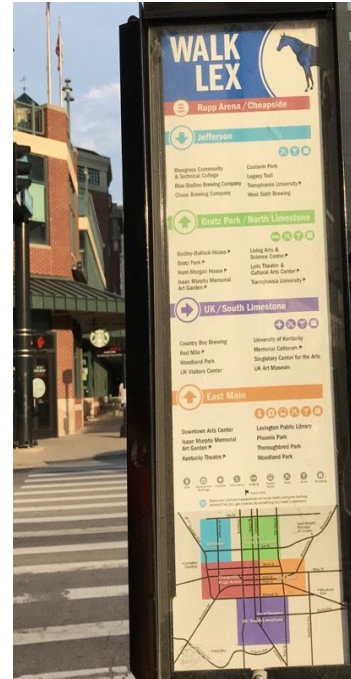
SYSTEMS VIEW - Holistic and systemic view of trails as a piece of the economic development pie

Making the Most of a Trail

Critical elements

Signage

Three B's: Bike
Racks, Benches
& Bathrooms



Photos courtesy of University of New Hampshire Extension from the 2018 Kentucky Trail Towns visit - part of a multistate grant supported by the Northeast Regional Center for Rural Development.

Making the Most of a Trail

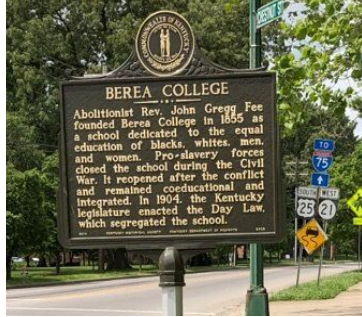
Critical elements



Photos courtesy of University of New Hampshire Extension from the 2018 Kentucky Trail Towns visit - part of a multistate grant supported by the Northeast Regional Center for Rural Development.

Making the Most of a Trail

Critical elements



Not just tourism
or economic dev
but cultural
projects

Use public art
to share stories
& community
history

Photos courtesy of University of New Hampshire Extension from the 2018 Kentucky Trail Towns visit - part of a multistate grant supported by the Northeast Regional Center for Rural Development.

Making the Most of a Trail


Critical elements



Start at the heart of downtown



Photos courtesy of University of New Hampshire Extension from the 2018 Kentucky Trail Towns visit - part of a multistate grant supported by the Northeast Regional Center for Rural Development.

A person wearing a helmet and a light-colored shirt is riding a bicycle on a paved path. The path is bordered by a wooden fence in the foreground. The background shows trees and a building with a sign that reads "NO BICYCLES". The entire image has a green tint.

“... set up a committee, start learning what it really takes to become a bike friendly community, and start assembling a collection of people who have very diverse skill sets. For instance, real estate, public works engineer, someone in marketing, someone that’s tied into the economic development commission so that you start getting all of these brains working in the same direction. The police, the board of education, businesses.”

Can't Get Enough?

Curated Resources

Naugatuck River Greenway 2016 Focus Group Summary

<https://nvcogct.org/content/naugatuck-river-greenway-economic-impact-study>

American Trails. (Producer). (2018). *Leveraging People and Places: Trails as Economic Development*.

<https://www.americantrails.org/training/leveraging-people-and-places-trails-as-economic-development>

The Progress Fund. (2018). The Trail Town Program Trail Town Guide Request online at

<https://www.trailtowns.org/guide/>

UConn Extension Community & Economic Development Trail Resources

<https://communities.extension.uconn.edu/trails/multi-use-trail-resources-and-links/>

Connecticut Trail Census <https://cttrailcensus.uconn.edu/> Sign up for the newsletter!

Making the Most of a Trail





Thank You!

Aaron Budris

Co-Project Manager
Connecticut Trail Census
Senior Regional Planner
Naugatuck Valley Council of
Governments

T: 203.489.0362

E: abudris@nvcogct.org

W: www.nvcogct.org

Jack Walsh

Former President and CEO,
Valley United Way
Co-Chair
NRG Steering Committee
Derby, CT

T: (203) 734-3142

E: johnwalshderby@comcast.net

Laura Brown

Co-Project Manager
Connecticut Trail Census
Community & Economic Development
Educator
University of Connecticut - Extension

T: 203.207.0063

E: laura.brown@uconn.edu

W: www.communities.extension.uconn.edu

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Gambale, G. (2018). 32nd Annual Corporate Survey & the 14th Annual Consultants Survey. *Area Development Magazine*. Accessed online November 26, 2018 at <http://www.areadevelopment.com/Corporate-Consultants-Survey-Results/Q1-2018/32nd-annual-corporate-survey-14th-annual-consultants-survey.shtml>

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Headwaters Economics. (2016). Measuring Trails Benefits: Property Value. Accessed online at <http://headwaterseconomics.org>

Institute for Transportation Research and Education. (2018). Evaluating the Economic Impact of Shared Use Paths in North Carolina. Accessed online at <https://itre.ncsu.edu/focus/bike-ped/sup-economic-impacts/>

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Milone & MacBroom. (2018). "Freight Street Redevelopment Strategy" Accessed at https://freightstreetdistrict.files.wordpress.com/2018/06/online_freight_street_redevelopment_strategy.pdf

Nadel, R. (2005). Economic impacts of parks, rivers, trails and greenways. University of Michigan. Retrieved from <http://erb.umich.edu/Research/Student-Research/Nadel.pdf>

National Association of Homebuilders. March, 2016. "Three community amenities that top all home buyers wish-lists" Accessed online <http://nahbnow.com/2016/02/3-community-amenities-that-top-all-home-buyers-wish-lists/>

Naugatuck Valley Council of Governments. (2017). Pathway to Revitalization Economic Impacts of Phased Completion of the Naugatuck River Greenway. Accessed online at <http://nvcogct.org/sites/default/files/NRG-EconomicReport-Spreads.pdf>

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The Progress Fund. (2018). The Trail Town Program Trail Town Guide Request online at <https://www.trailtowns.org/guide/>

Rails to Trails Conservancy. (Producer) (2018). *Making the Value Case for Trails*. [Video Webinar].

Rails to Trails Conservancy. (Producer). (2018) *Trail Towns: Proven Steps to Boost Your Trail Town Growth*. [Video Webinar].

Rails to Trails Conservancy. From trail Towns to TrOD Trails and Economic Development. (2007) <https://www.railstotrails.org/resourcehandler.ashx?id=4620>

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University of Cambridge. (2018). Integrated Transport and Health Monitoring Tool ITHIM. Accessed online at <http://www.cedar.iph.cam.ac.uk/research/modelling/ithim/>

Victoria Transport Policy Institute. (2015). Evaluating Active Transport Benefits and Costs” Accessed online at <http://www.vtpi.org/nmt-tdm.pdf>

White, Eric M.; Bowker, J.M.; Askew, Ashley E.; Langner, Linda L.; Arnold, J. Ross; English, Donald B.K. 2016. Federal outdoor recreation trends: effects on economic opportunities. Gen. Tech. Rep. PNW-GTR-945. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Station. 46 p.

World Health Organization. (2018). Health Economic Assessment Tool HEAT. Accessed online at <https://www.heatwalkingcycling.org/HEAT>

CORPORATE SURVEY 2017

Site Selection Factors	2017	2016
Ranking		
1. Highway accessibility	91.3	94.4 (1)**
2. Labor costs	91.1	89.6 (3)
3. Availability of skilled labor	88.8	89.8 (2)
4. Quality of life	87.2	76.4 (10)
5. Tax exemptions	85.9	79.7 (7)
5I. Occupancy or construction costs	85.9	86.0 (4)
7. Proximity to major markets	84.6	78.1 (9)
8. Corporate tax rate	83.2	82.3 (6)
9. State and local incentives	81.3	84.0 (5)
10. Available land	76.9	75.3 (12)
11. Expedited or "fast-track" permitting	76.7	71.7 (13)
12. Proximity to suppliers	76.4	66.0 (20)
13. Energy availability and costs	76.0	78.5 (8)
14. Available buildings	75.9	75.5 (11)
15. Right-to-work state	74.7	70.1 (16)
16. Training programs/technical colleges	72.8	66.7 (18)
17. Inbound/outbound shipping costs	71.8	69.1 (17)
18. Low union profile	71.4	70.8 (14)
19. Environmental regulations	70.2	70.8 (14)
20. Availability of long-term financing	64.6	66.7 (18)
21. Accessibility to major airport	56.4	52.4 (22)
22. Raw materials availability	56.0	53.7 (21)
23. Water availability	55.3	46.3 (24)
24. Availability of unskilled labor	52.0	51.9 (23)
25. Proximity to innovation/commercialization R&D centers	44.7	39.2 (26)
26. Availability of advanced ICT services	42.7	40.9 (25)
27. Waterway or oceanport accessibility	31.2	18.1 (28)
28. Railroad service	29.9	33.7 (27)

*All figures are percentages and are the total of the "very important" and "important" ratings of the Area Development Corporate Survey and are rounded to the nearest tenth of a percent.

** 2016 ranking

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Quality of life cor

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UNUSED SLIDES BELOW



Regional Planning Organization for a 19
Town Region in West Central Connecticut

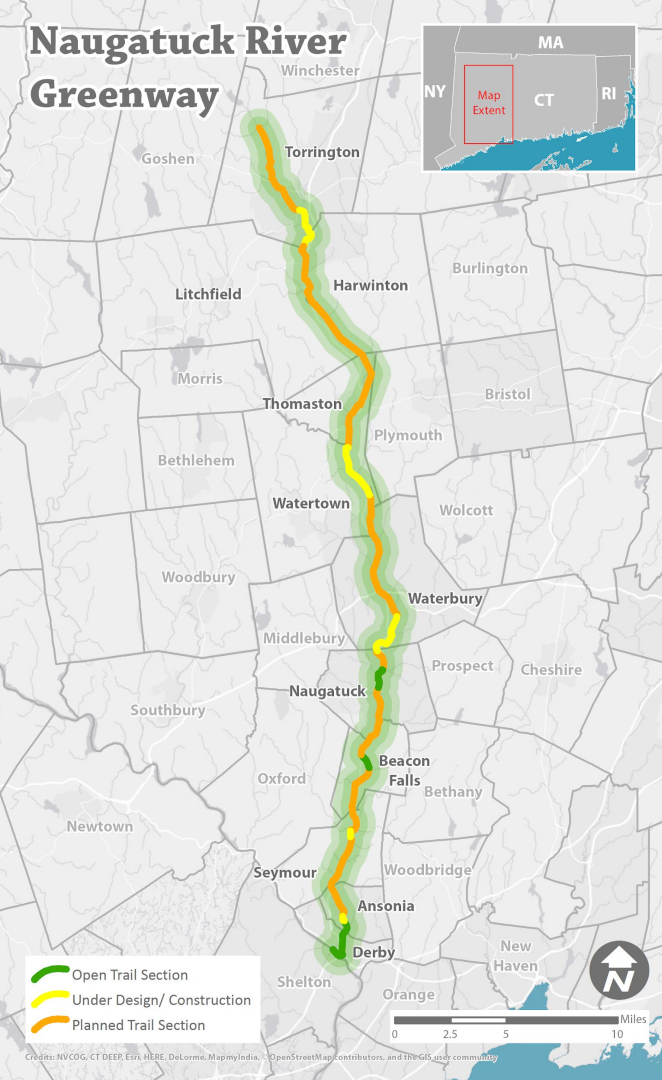
MPO for the Waterbury Area-
Transportation Planning

Long industrial past - famous for brass,
clocks, and rubber.

Compact walkable multiuse downtowns,
but little or no connectivity

www.nvcogct.org

Naugatuck River Greenway



Naugatuck River Greenway (NRG)

44 mile multi-use trail connecting 11 communities
Restore river access
Viable transportation option
Economic driver
Improved health and quality of life
DOI 101 "Great Outdoors Initiatives"

- No ROW to follow
- Tight Geographies
- Industrial Legacy
- \$\$\$\$\$



NRG Steering Committee

2015-2016 Naugatuck River Greenway Economic Impact Study

Provide municipal officials with data about economic and health benefits of continued construction of the NRG

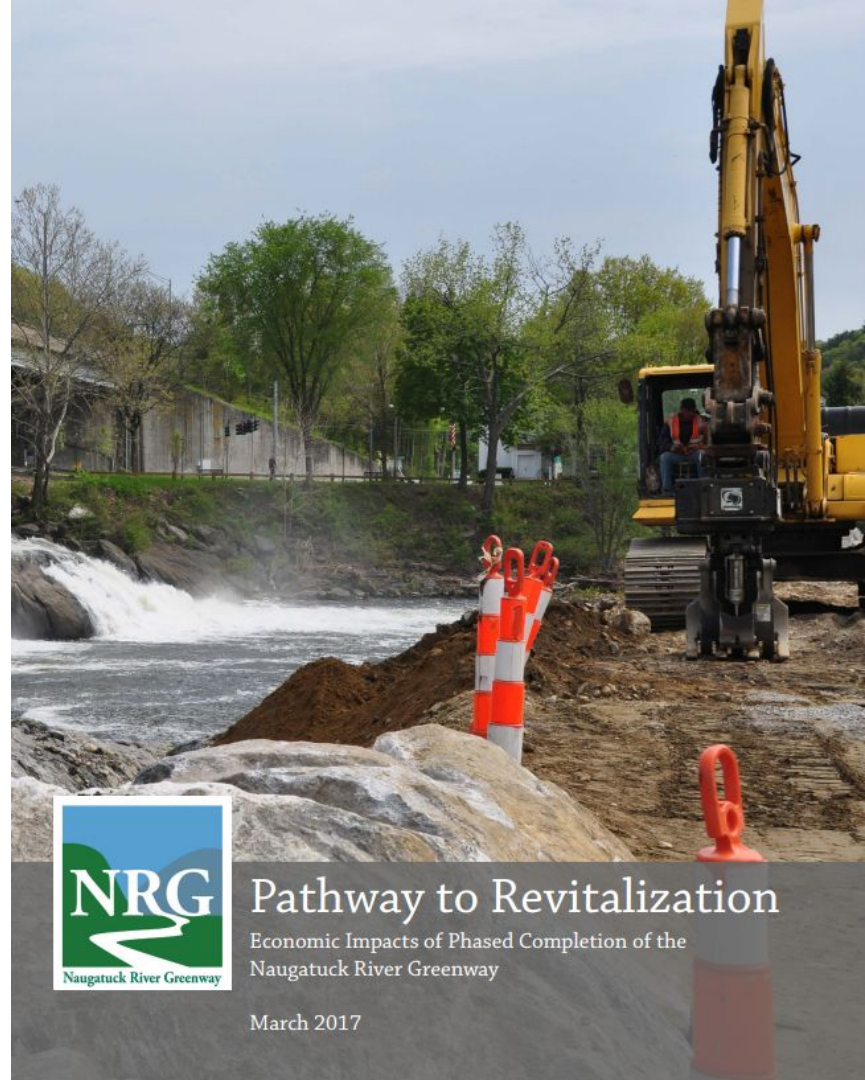
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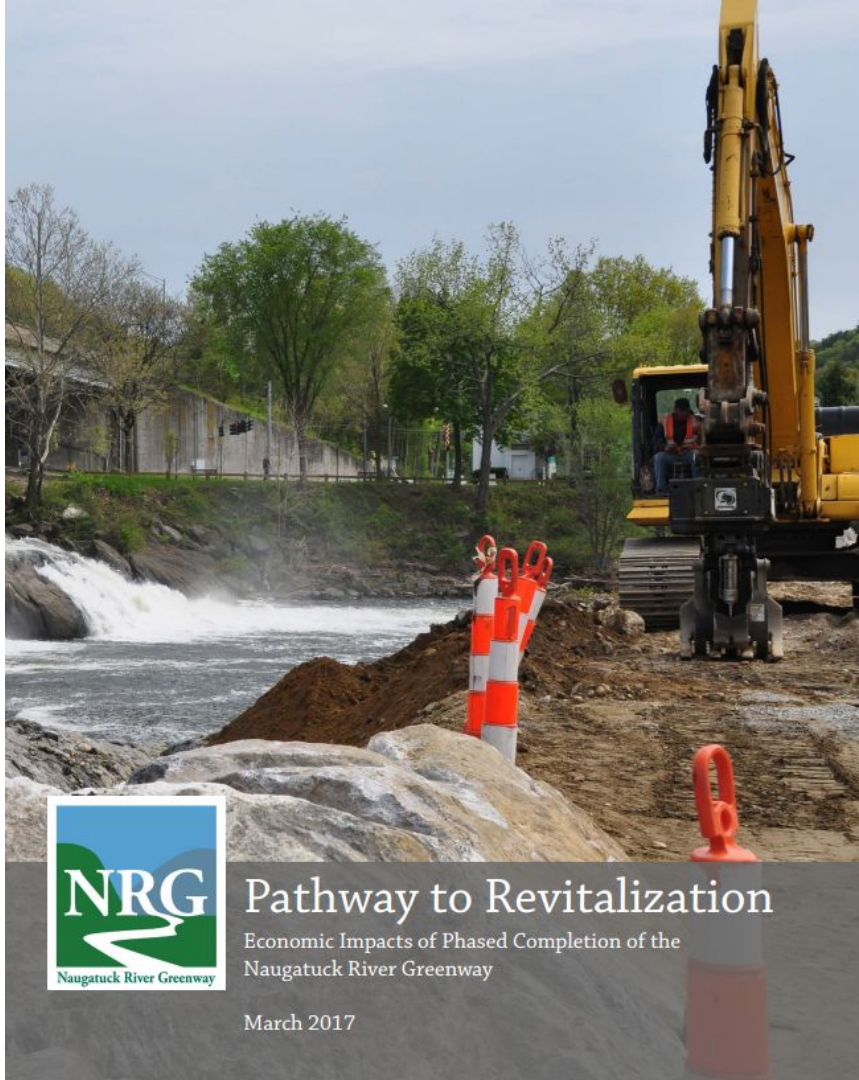
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Methods unclear, and data was sometimes misrepresented

In order to conduct the economic study, we needed to collect specific user data on open NRG sections and similar trails:

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- Intercept Surveys
- Focus Groups
 - Business Owners
 - Trail Administrators
 - Health Professionals

“Wouldn't it be great if we could collect this information statewide on a regular basis?”



Pathway to Revitalization

Economic Impacts of Phased Completion of the Naugatuck River Greenway

March 2017

The Connecticut Recreational Trails Plan...

Connecticut National Recreational Trails Program Recreational Trails Plan

Last Updated September 2011



“Little research has been done regarding the number and types of trail users around the state, potential conflicts, and safety concerns...Working with some of the academic institutions in the state, the DEEP should develop a protocol for surveying trail users so that the present and future needs of these constituents can be met.”



Connecticut Trail Census

A statewide multi-use trail user study and volunteer data collection program

Developed a concept based on experience with the NRG Economic Study:

- Volunteer Based
- Community Guided / Focused
- Open Data
- Useable and Actionable Outputs

CT Department of Energy and Environmental Protection (DEEP) State Recreational Trails Program Grant.

Summer 2016





MISSION:

DEVELOP A BETTER UNDERSTANDING OF MULTI-USE TRAIL USE IN THE STATE AND MAKE THIS IMPORTANT INFORMATION AVAILABLE TO TRAIL USER GROUPS, ADMINISTRATORS, GOVERNMENT AGENCIES, AND THE GENERAL PUBLIC.



STATEWIDE

Understand **When, Who, How** and **Why** people are using non-motorized multi-use trails across CT



MULTI-YEAR

Obtain long term information about trail use, user demographics, economic impacts, and trail attributes for identification of patterns and trends.



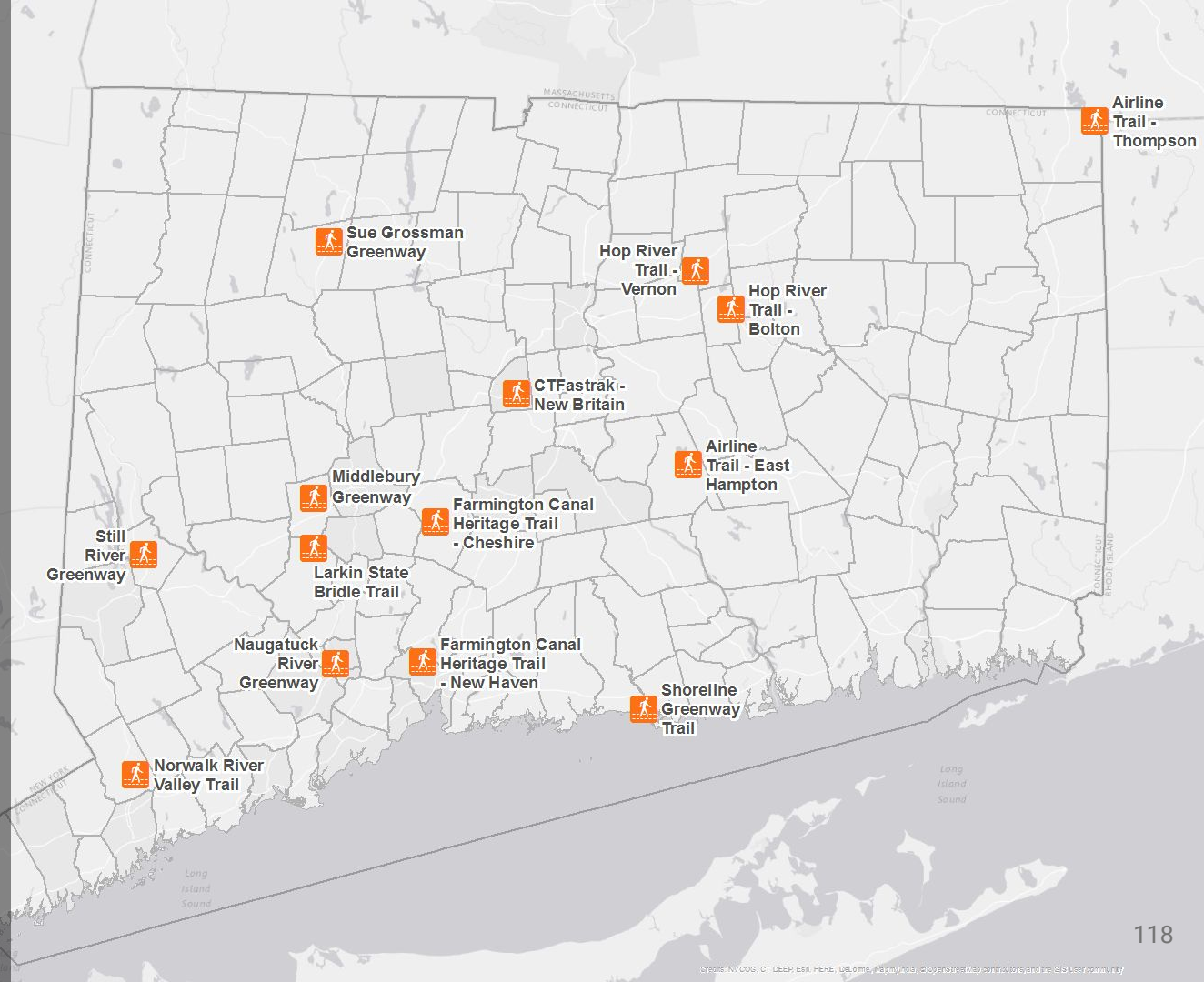
VOLUNTEER - BASED

Promote active community participation in monitoring trails and encourage data informed trail development and maintenance programs.

14 Trail Locations

Trail Groups/ Munis Applied and Were Selected:

- Identified Trail Coordinator
- Volunteer Capacity
- Location
- Need
- Trail Type



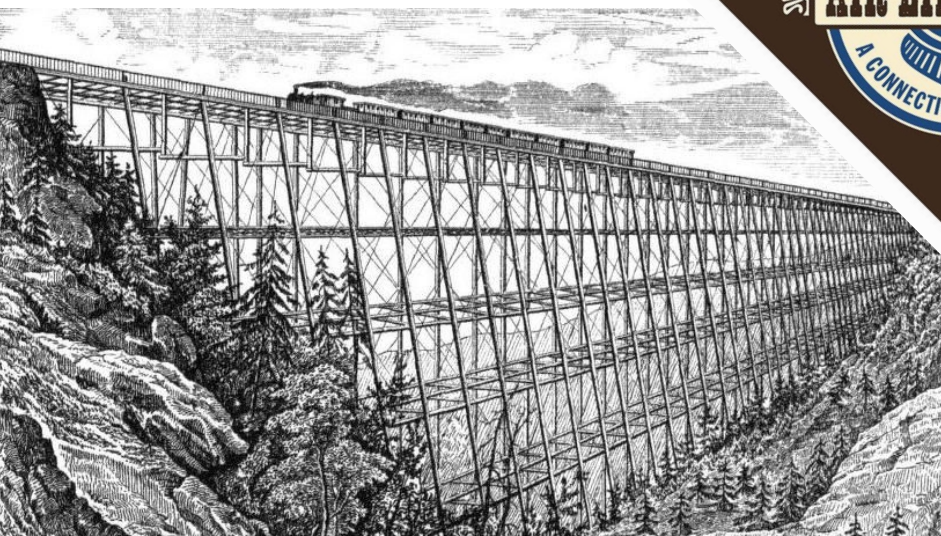


Photo: Leslie Lindeman



(X14)



CT Greenways Council

- Provided input to project development
- Selected Trails

Project Co-Managers

Aaron Budris & Laura Brown

- Develop materials
- Conduct trainings
- Purchasing

Trail Coordinators

- Assist with site selection
- Monitor IR counters
- Manage volunteers

Volunteers

- Conduct intercepts

CLEAR

- Present data to the public

Infrared Trail Counts

Details:

17 Trafx passive infrared counters

Selected for low cost, durability, portability, and familiarity.

Installed in a locked electrical junction boxes

Sign post, fence post or tree

Collecting hourly use totals 24/7

Quantitative



Infrared Trail Counts

Trail Coordinator Responsibilities:

- Received permissions and assisted siting of counters
- Counter monitoring
- Manual counts for calibration

CTTC Staff Responsibilities:

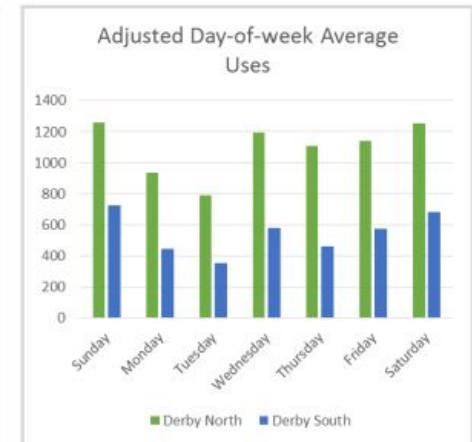
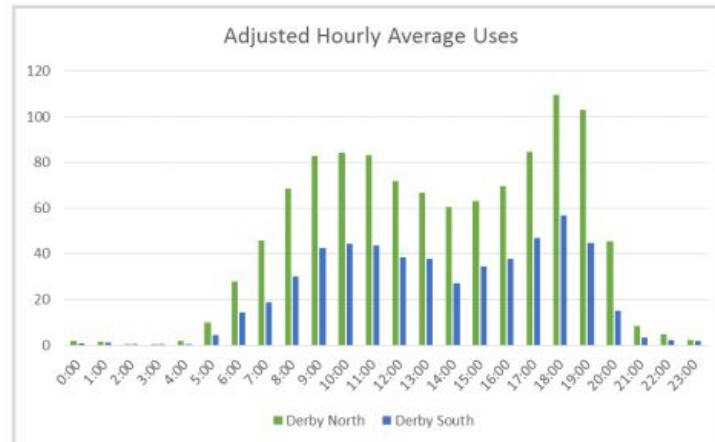
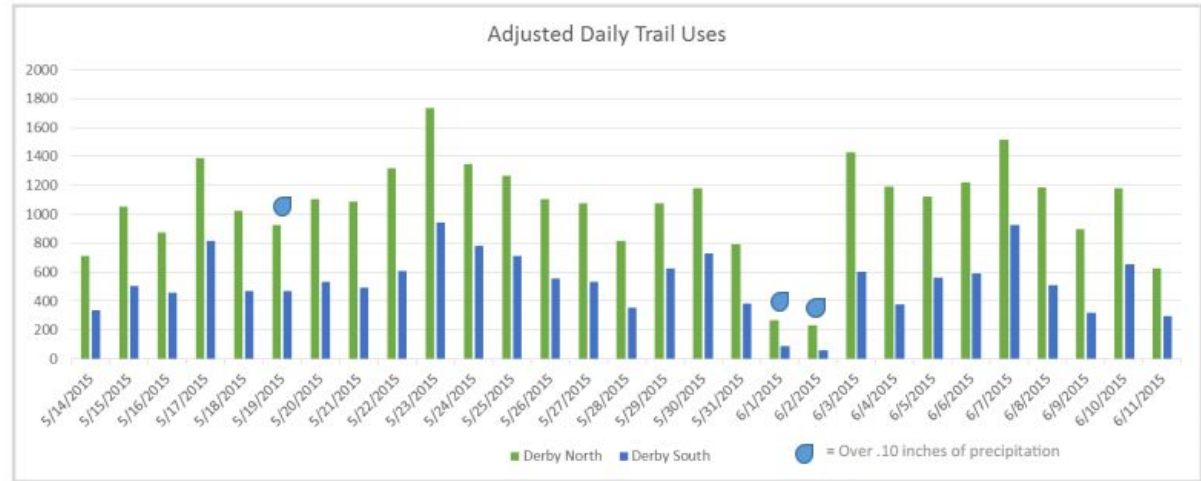
- Download and process data quarterly
- Maintain Counters
- Train Coordinators
- Respond to issues

Quantitative





Quantitative



Infrared Trail Counts

Limitations/ Issues:

Records uses, not users or visits

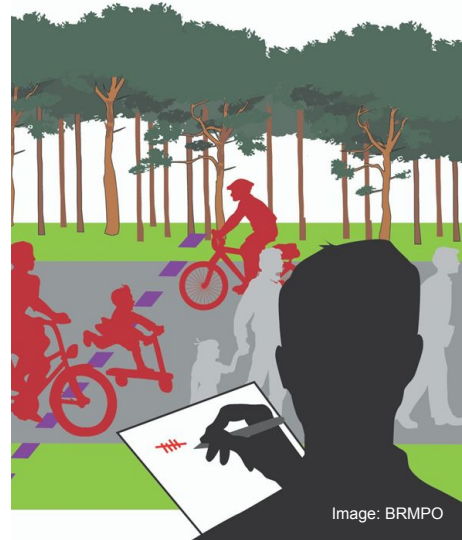
Does not distinguish mode or direction of travel

Overcounts/ undercounts

So...requires on-going calibration

A lot of data!

Quantitative





Intercept Surveys

Survey Details:

In person intercept of trail users

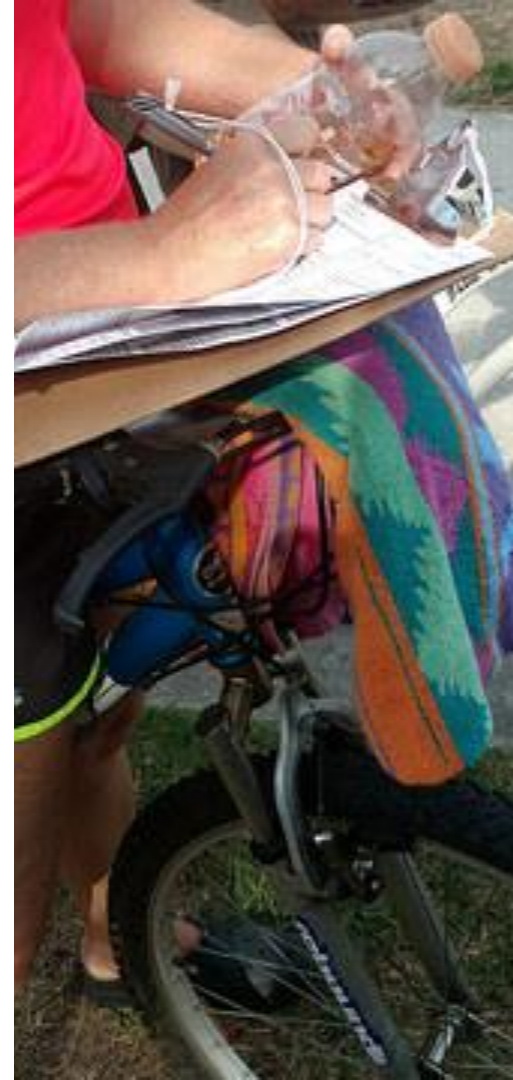
Assessed by trained volunteers

1 page survey - 14 questions

Using NBPD dates

- 4 hours in May
- 4 hours in September
- Weekend and Weekday

Qualitative





Intercept Surveys

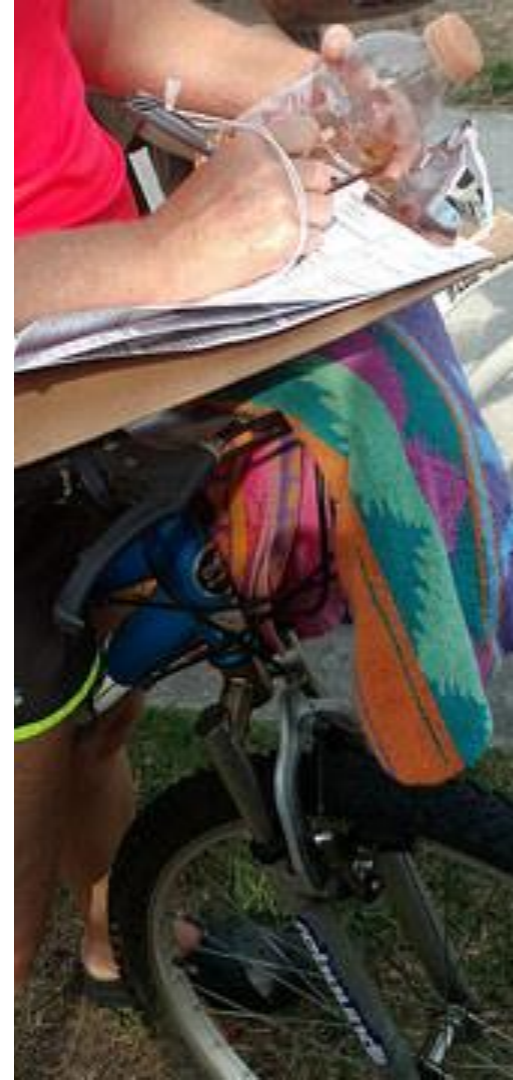
Trail Coordinator Responsibilities:

- Recruit volunteers
- Schedule survey times
- Manage volunteers (track it forward)
- Return completed surveys

CTTC Staff Responsibilities:

- Training Coordinators and Volunteers
- Develop and test survey
- Data input

Qualitative



Intercept Surveys

Trail User Survey

None of the information gathered in this survey will be used to identify you individually. All data will be kept confidential and will be aggregated for analysis.

1. What is your home ZIP code? _____
2. How did you get to the trail today?
 - Car/Motorcycle (alone)
 - Car/Motorcycle (with someone else)
 - Public Transit (bus/train)
 - Bicycle
 - Walked
 - Run/Jog
 - Other _____
3. How often, on average, do you use this trail?
 - First time
 - Daily
 - 3-5 times / week
 - 1-2 times / week
 - 2-4 times / month
 - 1-2 times / year
4. During which seasons do you generally use the trail? (select all that apply)
 - Summer
 - Fall
 - Winter
 - Spring

5. What is your primary purpose on the trail today? (select all that apply)
 - Exercise
 - Recreation
 - Relaxation
 - Dog walking
 - Other _____
 - Travel to school
 - Travel to shopping
 - Travel to work
 - Tourism/sightseeing

6. How much do you spend *each year* on goods or services related to trail use? Include gear, clothing, equipment rental, repairs, auto accessories, etc.
\$ _____

7. On this trip to the trail, have you spent or do you plan to spend any money?

- Yes
- No

If yes, how much will you spend on the following in whole dollars *during this trip to the trail* (if nothing write "0"):

- Beverages \$ _____
- Snacks (energy bars, etc) \$ _____
- Meals at a restaurant \$ _____
- Gas \$ _____
- Retail (gifts, clothing, etc) \$ _____
- Equipment rental \$ _____
- Lodging \$ _____
- Nearby activities (recreation/ amusements) \$ _____
- Other _____ \$ _____

8. What is your favorite thing about this trail?

9. What could be improved about this trail?

10. In a typical week, how many days do you do activity which causes an increase in breathing or heart rate continuously for at least 10 minutes? _____ # days

11. What is your age range?

- 19 or under
- 20-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65-74
- 75 or over

12. What interval best represents your household income?

- Under \$24,999
- \$25,000 - \$49,999
- \$50,000 - \$99,999
- \$100,000 - \$199,999
- Over \$200,000

13. What is your race?

- White
- Black or African American
- American Indian
- Asian
- Pacific Islander
- Other

14. Are you Spanish, Hispanic or Latino?

- Yes
- No

Qualitative

Connecticut Trail Census

A statewide multi-use trail user study and volunteer data collection program

Intercept Surveys



Qualitative

This page to be completed by surveyor:

Hi! My name is _____ I'm a volunteer conducting a survey on behalf of the Connecticut Trail Census to better understand how people use this trail. It will take about 5 minutes. You don't have to answer all of the questions and you can stop at any time. Would you like to take the survey?

Date: _____ Site (community & location): _____ Initials: _____

Primary activity (circle one):

Walk
Run/Jog
Bike
Equestrian
Other _____

Secondary activity (circle one, if applicable)

With dog
With stroller/child seat

Gender of respondent (circle one):

Male Female

Number males in group:

Number females in group:

Number in group > 16 years:

Intercept Surveys

Limitations:

Data entry is time consuming

Lots of volunteer hours

Uniform methods critical

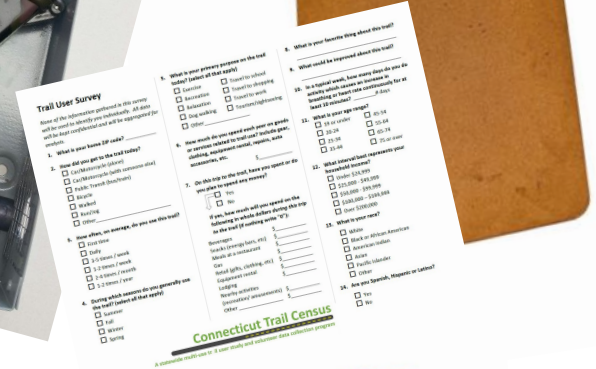
Qualitative



Materials for Data Collection

Provided by CTTC:

- Trafx IR Counter
- Manual Count Forms
- Paper Surveys
- Stamped Return Envelope
- Instructions
- Branded Vests
- Informational Handouts
- Clipboards
- Pens



Training Provided

Webinars:

- Welcome - coordinator responsibilities
- Manual counts for counter calibration

In Person:

- IR counter monitoring
- Intercept survey training

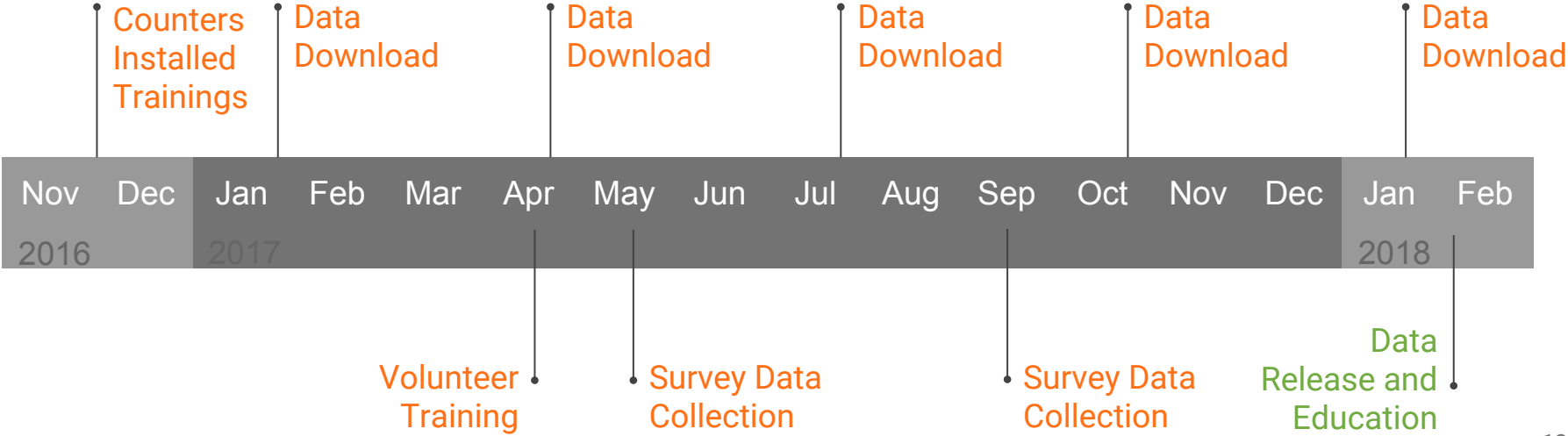
Planned:

- How to use and communicate the data





Timeline



Website

Project Information

Calendar

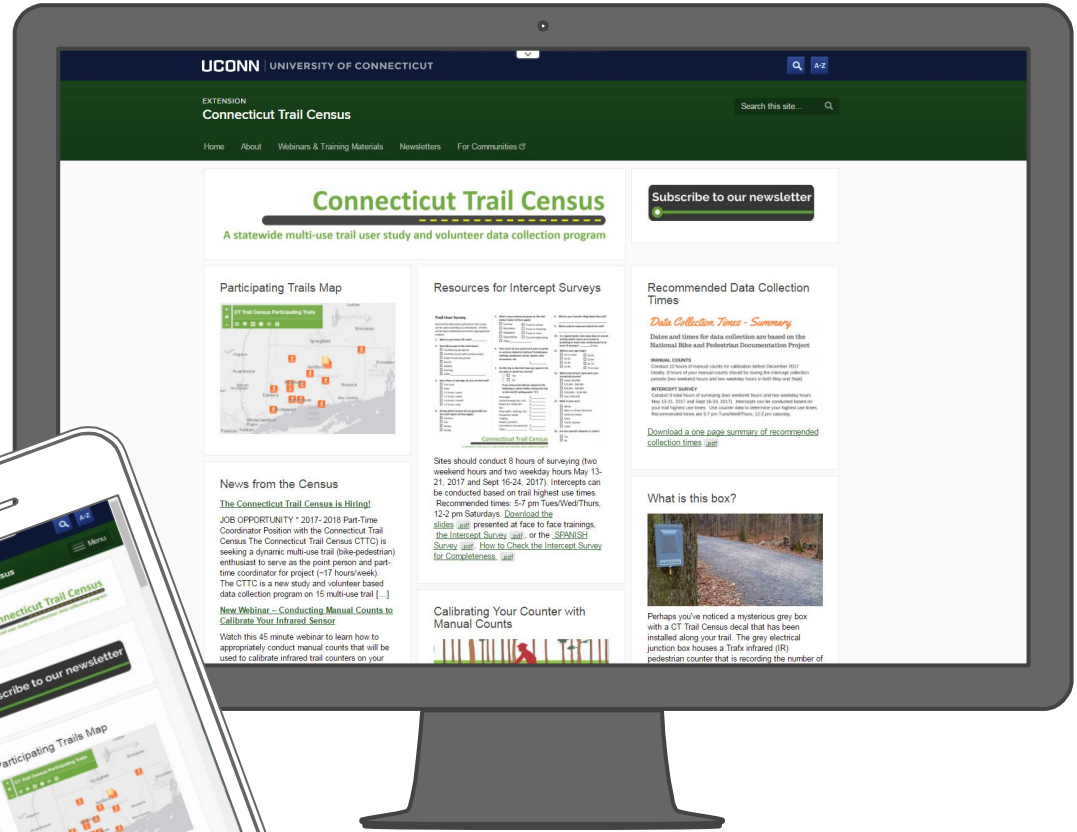
News

Volunteer Resources

Webinar Recordings

Interactive Map

...Data Portal



www.cttrailcensus.uconn.edu

Data Dissemination

UConn CLEAR:

Provide land use and geospatial support to municipalities

CT Eco - Data portal for statewide data

Interested in adding different types of data to their repertoire

A screenshot of the CT ECO website homepage. The browser address bar shows "www.cteco.uconn.edu/index.htm". The header includes the UConn logo and "UNIVERSITY OF CONNECTICUT", followed by "CONNECTICUT DEPARTMENT of ENERGY and ENVIRONMENTAL PROTECTION". The main heading is "Connecticut Environmental Conditions Online" with the tagline "Maps and Geospatial Data for Everyone". Navigation links for "Home", "Maps", "Data", "Info", and "Featured" are present. A large map background features the text "Natural Resource Information and Imagery for Planning, Management, Education and Research". Below the map, a list of data types is shown: "water soils aerials geology elevation habitat open space contours natural resources watersheds".

www.cteco.uconn.edu/index.htm

A screenshot of the "CT DEEP Fish Community Data - Inland Waters" page. The browser address bar shows "www.cteco.uconn.edu/projects/fish/viewer/index.html". The page features a map of Waterbury, CT, with red dots indicating fish count locations. A sidebar on the right contains filters for "Filter Sample Locations", "Site Detail", and "Freshwater Fish Counts" (checked). Below the filters is a "Download Results" table with columns for "Sample Year" (1991, 1999, 2011) and "Sample ID". The table lists various fish species and their counts for the year 2011. At the bottom, there are navigation links for "Fish Home", "Info/Help", and "CT ECO Home".

Sample Year	2011
Sample ID	142842011
American Eel	5
Bluegill Sunfish	10
Blacknose Dace	2
Longnose Dace	11
Rock Bass	2
Redbreast Sunfish	26
Smallmouth Bass	6
Tessellated Darter	4
White Sucker	12
Yellow Bullhead	1

Data Dissemination

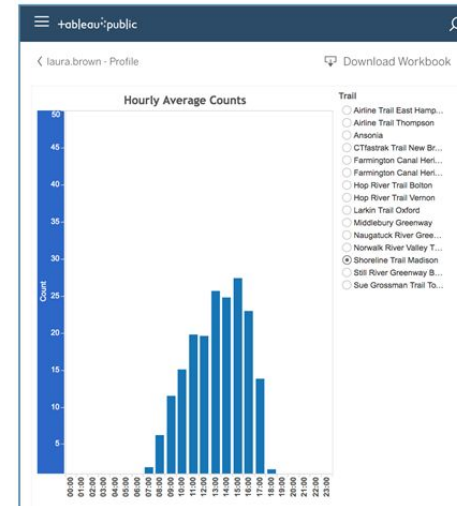
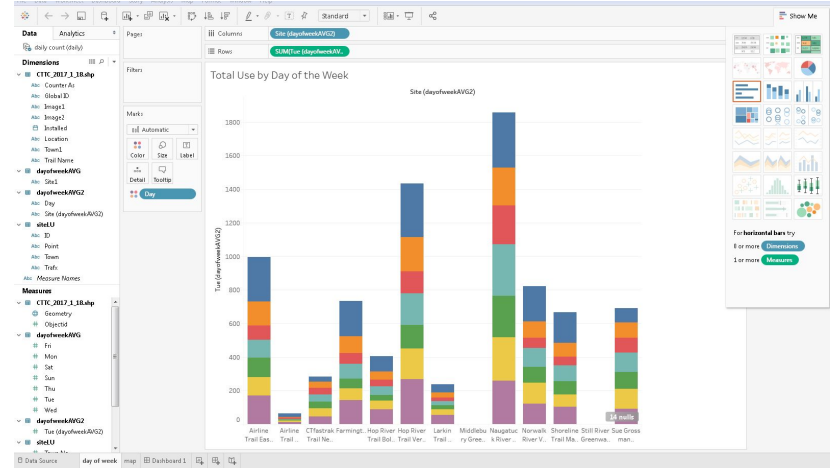
UConn CLEAR Responsibilities:

Web site development assistance

Data display and dissemination

Interactive maps and data display

Data download portal



Reflections

What's working:

- Lots of interest, support and engagement from trail advocacy groups
- Emerging opportunities for partnership with unusual suspects - public health, arts, sustainability, economic development & business communities
- Trail groups can't get enough data about their trails



Reflections

Challenges:

- Need for ongoing management of continuously collected data
- Travel Time
- Some slackers
- Potential variations in data collection
- Need for a project coordinator to handle communications & logistics
- Technology and Volunteers





What's Next?

Hiring for Project Coordinator

First round of intercepts

Collecting trail attributes

Developing workshops on data interpretation and use

More trails?

\$\$\$\$\$\$ - Funding - \$\$\$\$\$

CT Trail Census



Long Term Vision

Self Sufficient Volunteer Data Collection

Annual Benchmarking - Longitudinal Changes

Statewide Economic Analysis

More Efficient Use of Resources

Research Opportunities

Better Integration of Trail Systems

Improved Economic Opportunities and Improved Public Health

CT Trail Census



Trail	# Manual Counts	Calibration Factor
CT FasTrack New Britain	9	2.653846154
Hop River Trail Bolton	10	2.363057325
Larkin Trail Oxford	8	1.847457627
Naugatuck River Greenway Derby	8	1.839464883
Shoreline Trail Madison	8	1.81372549
Hop River Trail Vernon	10	1.614973262
Still River Greenway Brookfield	5	1.55
Sue Grossman Trail Torrington	10	1.544354839
Norwalk River Valley Trail Wilton	5	1.291262136
Middlebury Greenway	0	1.291262136
Farmington Canal Heritage Trail Cheshire	0	1.291262136
Farmington Canal Heritage Trail Hamden	0	1.291262136
Farmington Canal Heritage Trail New Haven	0	1.291262136
Air Line Trail East Hampton	1	1.291262136
Air Line Trail Thompson	0	1.291262136

Federal Investment

Derby	\$2,460,000
Ansonia	2,768,000
Seymour	955,000
Beacon Falls	776,000
Naugatuck	1,397,000
Waterbury	7,223,000
Watertown/ Thomaston	235,000

Total: +\$15.8 million



Naugatuck River Trail

A PROJECT OF

AMERICA'S GREAT OUTDOORS

The Naugatuck River Trail Project in Connecticut is designated a keystone conservation and outdoor recreation project under President Obama's America's Great Outdoors program. Here, we celebrate the partnerships and collaboration that resulted in a new era of public access and use of the Naugatuck River.

2012

National Park Service

UNITED STATES DEPARTMENT OF THE INTERIOR

Waterbury Freight Street

Underutilized Area

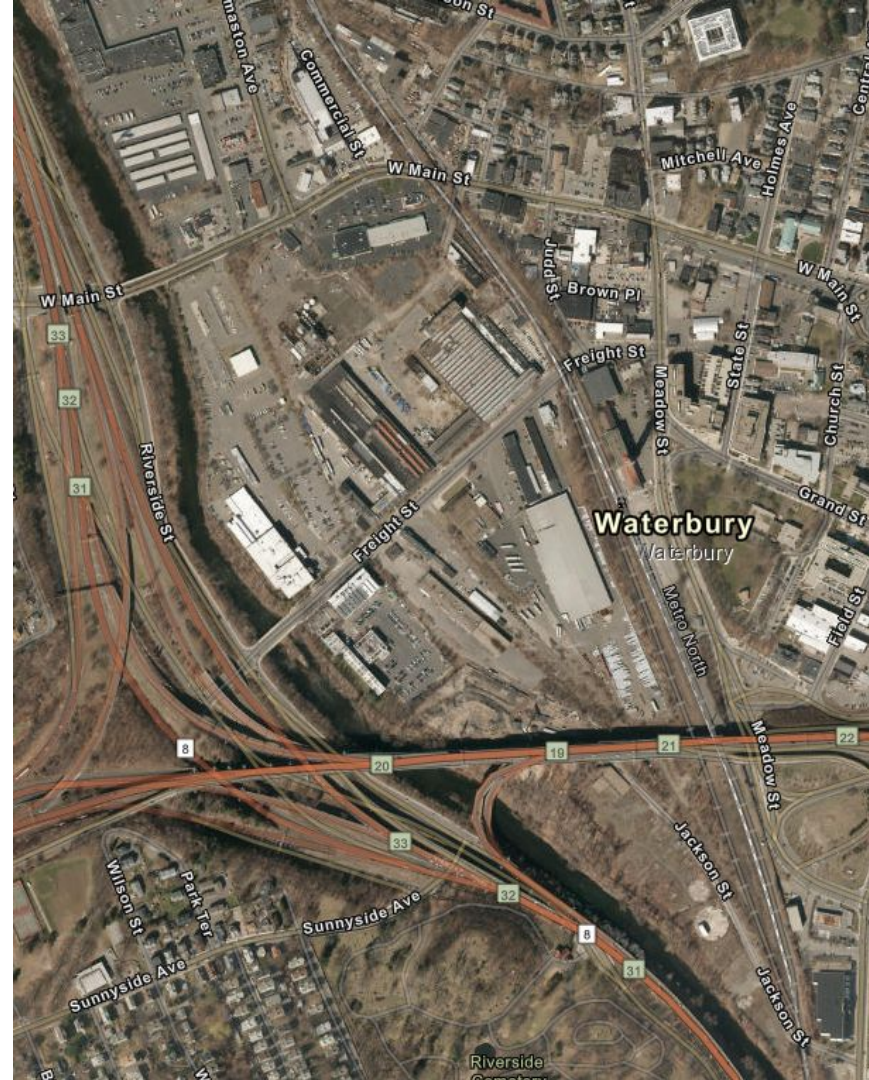
Brass Mills/ Rail Yard - Industrial Legacy

Adjacent to Train Station

Focus of a 2014 Federal TIGER Grant Application

NRG and Active Transportation

Redevelopment City Priority





D
Freight Street to West Main Street
(Freight Street Connector Project)

C
Jackson Street to Freight Street
(Waterbury Greenway Riverfront Park)

B
Washington Avenue to Jackson Street
(Anamet Connector Project)

A
Eagle Street to Washington Avenue
(Naugatuck River / Mad River Connector)

Note: 1. Trail continues to Waterbury City Line at Platts Mill Road
2. Future phase of Greenway

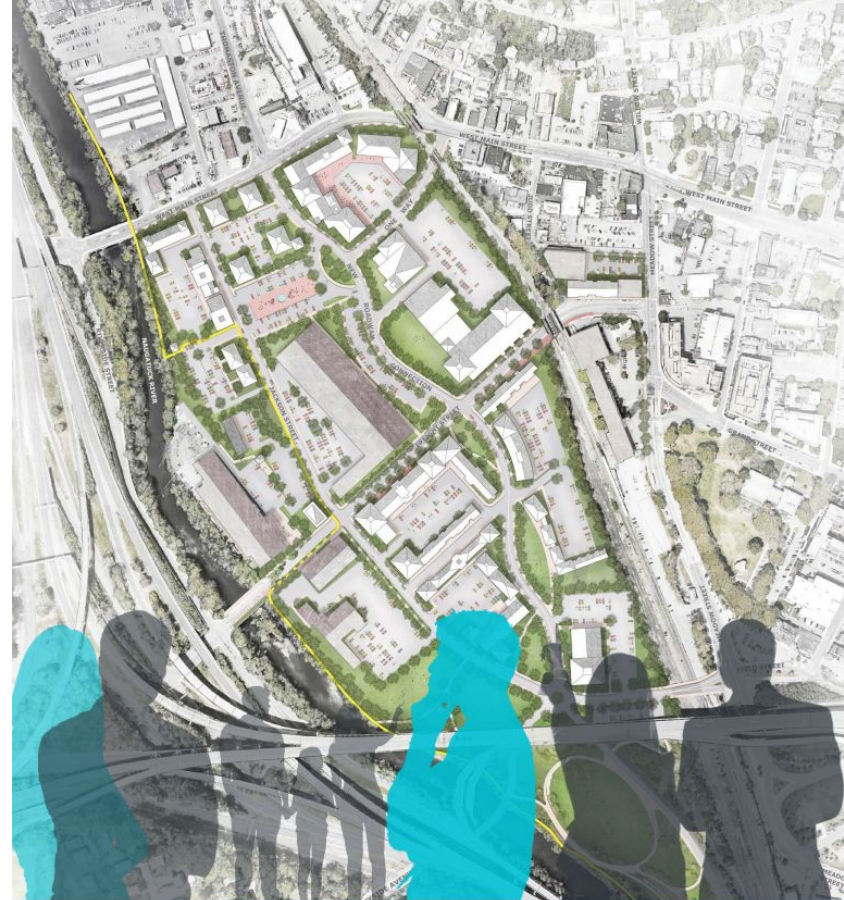




Waterbury Freight Street Redevelopment Plan 2018

Milone & MacBroom

Several Public Workshops



FREIGHT STREET REDEVELOPMENT STRATEGY

Prepared for the Waterbury Development Corporation

June 4, 2018





FREIGHT STREET DISTRICT MASTERPLAN
WATERBURY, CONNECTICUT
MAY, 2018



Waterbury Freight Street

W.A.T.E.R. Project (RBA)

2014 Federal TIGER Grant Application

Reconstruct Street Grid, Improve
Infrastructure, Attract Redevelopment

NRG and Active Transportation



TODAY

THE W.A.T.E.R. PROJECT

Waterbury Active Transportation and Economic Resurgence



TIGER



Waterbury, CT, 3rd & 5th Congressional Districts
FY 2014 TIGER Capital Project Grant Application
Submitted by the City of Waterbury
Grant Request: \$19 Million



TOMORROW

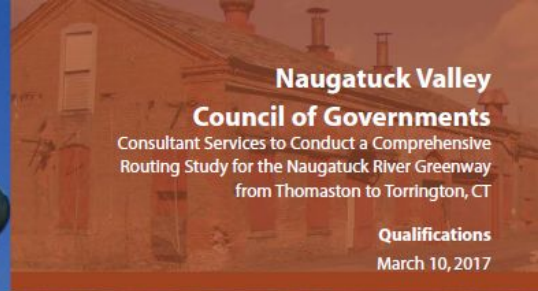
Thomaston to Torrington Comprehensive Routing Study

Currently underway with BSC Group

Funded by CT OPM Responsible Growth
Grant and CT DOT/ FHWA

Looking at all potential routing options

GOAL: to establish a preferred route that
is acceptable to all stakeholders and the
public.





Naugatuck River Greenway Overview

Officially Designated CT Greenway
2001, 2006, 2007

“Greenway” is a corridor of open space that:

(1) may protect natural resources, preserve scenic landscapes and historical resources or offer opportunities for recreation or nonmotorized transportation, (2) may connect existing protected areas and provide access to the outdoors, (3) may be located along a defining natural feature, such as a waterway, along a man-made corridor, including an unused right-of-way, traditional trail routes or historic barge canals or (4) may be a greenspace along a highway or around a village. (CGS section 23-100)