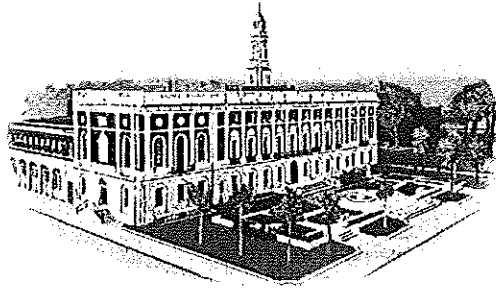


NEIL M. O'LEARY  
MAYOR



JOSEPH A. GEARY  
CHIEF OF STAFF

OFFICE OF THE MAYOR  
**THE CITY OF WATERBURY**  
CONNECTICUT

April 21, 2014

The Honorable Anthony Foxx, Secretary  
United States Department of Transportation  
1200 New Jersey Avenue, SE  
Washington, DC 20590

Dear Secretary Foxx:

As Mayor of Waterbury, Connecticut, I am proud to submit the **Waterbury Active Transportation and Economic Resurgence Project (WATER)** for FY 2014 National Infrastructure Investments funding. Rebuilding the economy here in Connecticut's Central Naugatuck River Valley starts with Waterbury, the region's core. The requested \$19 million, combined with the \$10 million contribution that the City of Waterbury has authorized, will reposition Waterbury and the region at a time when a large investment in the right project will make all the difference.

The City of Waterbury is challenged. The U.S. Department of Labor ranks the Waterbury metropolitan area 345 out of 372 in employment. In Connecticut, the Waterbury Labor Market Area has had the highest unemployment rate for twelve straight years. With 20.9 % of our 110,336 residents living below the Federal Poverty Level, Waterbury is now Connecticut's most distressed city.

We all know that transportation is about connecting people to each other, their jobs, services, schools and play. It's also about defining growth - how businesses grow and flourish. The requested funding will provide transportation options to people who have few. It will build the infrastructure needed to catalyze transit-oriented redevelopment of an underutilized industrial neighborhood adjacent to the Train Station and downtown, attracting jobs and new investment. It will support ongoing Train Station improvements and expanding transit services. Lastly, it will reconnect our City to its riverfront and bring historically blighted river corridor neighborhoods back to life once again. Understanding **WATER** is easy - it's about giving people access to the ladder of opportunity, making the climb a little easier and making Waterbury their City of Choice.

Thank you for the opportunity to apply for TIGER funding. If you have any questions, please do not hesitate to contact me directly.

Sincerely,

Neil M. O'Leary  
Mayor





TODAY

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

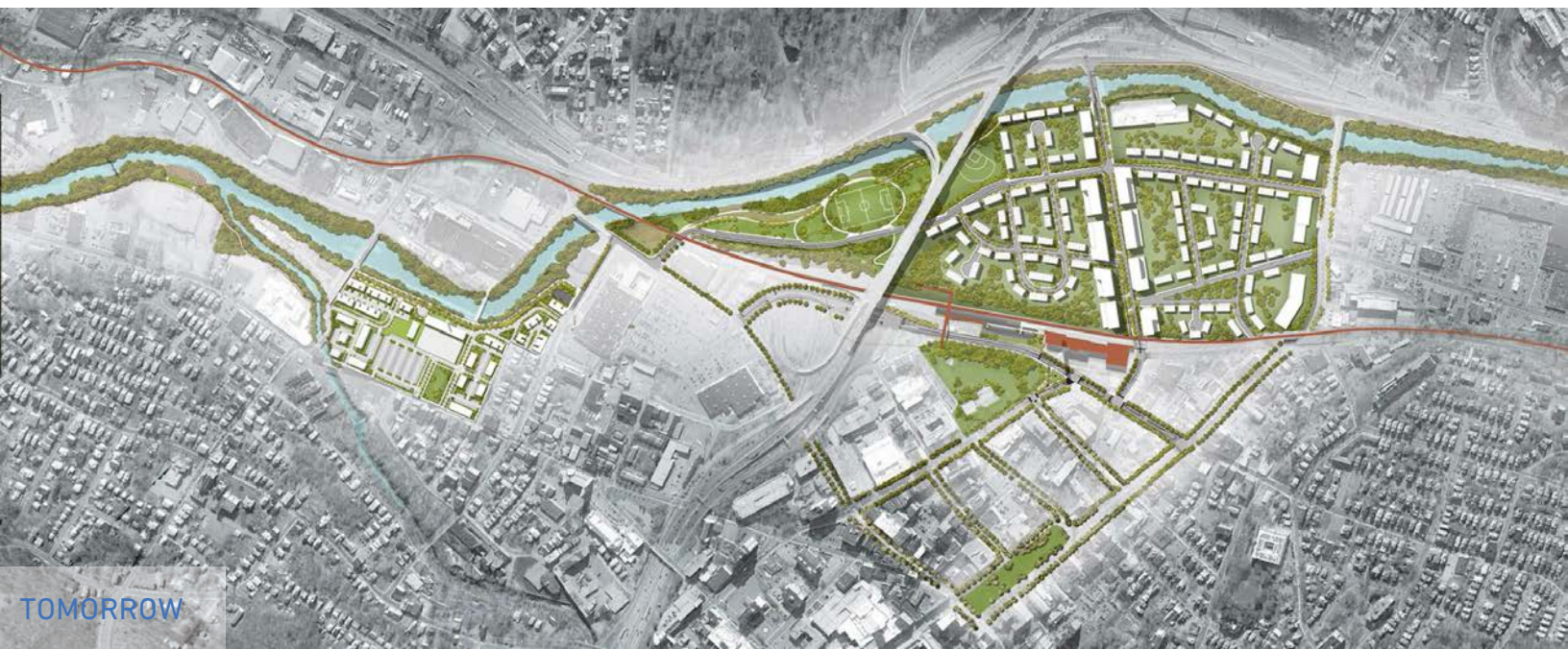
Waterbury Active Transportation and Economic Resurgence



TIGER



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



TOMORROW



# TABLE OF CONTENTS

<b>I. PROJECT DESCRIPTION</b>	<b>1</b>
Overview	1
Related Projects	3
Project Components	4
1 Waterbury Naugatuck River Greenway, Phase Two	5
2 Freight Street Reconstruction	8
3 Jackson Street Reconstruction and Extension	9
4 Library-Station-Riverfront Connector	10
5 Meadow Street Station-Area Improvements	11
<b>II. PROJECT PARTIES</b>	<b>12</b>
<b>III. GRANT FUNDS, SOURCES AND USES</b>	<b>13</b>
<b>IV. SELECTION CRITERIA</b>	<b>14</b>
State Of Good Repair	14
Economic Competitiveness	15
Quality Of Life	16
Environmental Sustainability	17
Safety	19
Innovation	20
Partnership	21
Benefit Cost Analysis Results	23
<b>V. PROJECT READINESS</b>	<b>24</b>
Legislative Approvals	24
State And Local Planning	24
Technical Feasibility	25
Financial Feasibility	26
Project Schedule	27
NEPA Status	28
<b>VI. FEDERAL WAGE RATE CERTIFICATION</b>	<b>29</b>
<b>APPENDICES</b>	<b>UPLOADED</b>
1. Preliminary Conceptual Plan, December 2013	
2. Preliminary Design Plans, April 2014	
3. Preliminary Property Easement Maps, April 2014	
4. Preliminary Estimate of Probable Construction Cost, April 2014	
5a. Benefit Cost Analysis Report, April 2014	
5b. Benefit Cost Analysis Model, April 2014	
6. Project Schedule, April 2014	
7. Categorical Exclusion (Preliminary Screening, NEPA Compliance), April 2014	
8. Waterbury Board of Aldermen Resolution in Support of Local Match Funding	
9. Letters of Support	
10. Market Analysis and Development Plan	

## TABLE OF CONTENTS (CONT'D)

SUPPORTING DOCUMENTS \_\_\_\_\_ [WWW.WATERBURYCT.ORG/TIGER](http://WWW.WATERBURYCT.ORG/TIGER)

The City of Waterbury has put together a website dedicated to the **WATER** project to keep the government officials, project partners, and the general public informed about this transformative endeavor. This project narrative, all of its appendices, and the following supporting documents are included therein.

- COGCNV Naugatuck River Greenway Proposed Route Map, 2010
- Waterbury Naugatuck River Greenway Phase 1 (Naugatuck Line to Eagle Street), Preliminary Contract Plans, November, 2013
- Illustrative Map Overview: T.I.G.E.R. Grant Project Components, 03/31/2014
- Illustrative Map Overview: Conceptual Master Plan, 03/31/2014
- WATER Project Detailed Illustrative Master Plan Drawing – Hi Resolution
- WATER Project Public Meeting - Slide Presentation (held at WAMS 04.10.14)
- WATER Project Public Meeting - Recorded Event (held at WAMS 04.10.14)
- Waterbury Board of Aldermen Resolution of Support for CTDOT Complete Streets Policy
- Waterbury Public Works Department Environmental Justice Policy
- Waterbury Development Corporation (WDC) Brownfields Reinvestment Program
- WDC Brownfields Reinvestment Program - Map
- WDC Brownfields Reinvestment Program - Individual Case Studies
- COGCNV Pedestrian and Bicycle Traffic Safety Report, 2010
- COGCNV Naugatuck River Greenway Routing Study Final Reports, 2010
- US Department of the Interior, America's Great Outdoors, Fifty State Report
- Audio of CTDOT Commissioner Redeker Radio Interview
- CCM Public Policy Report – A Tale of Disproportionate Burden
- Report - Meeting the Challenge: The Dynamics of Poverty in Connecticut, January 2013
- Connecticut Department of Economic and Community Development (DECD) - Economically Distressed Area Designation
- Greater Waterbury Health Improvement Partnership Community Health Needs Assessment Focus Groups Reports, February, 2013
- 2013 Community Health Needs Assessment Behavioral Risk Factor Surveillance Survey, June 25, 2013
- Central Naugatuck Valley Economic Profile: 2013, February 2014

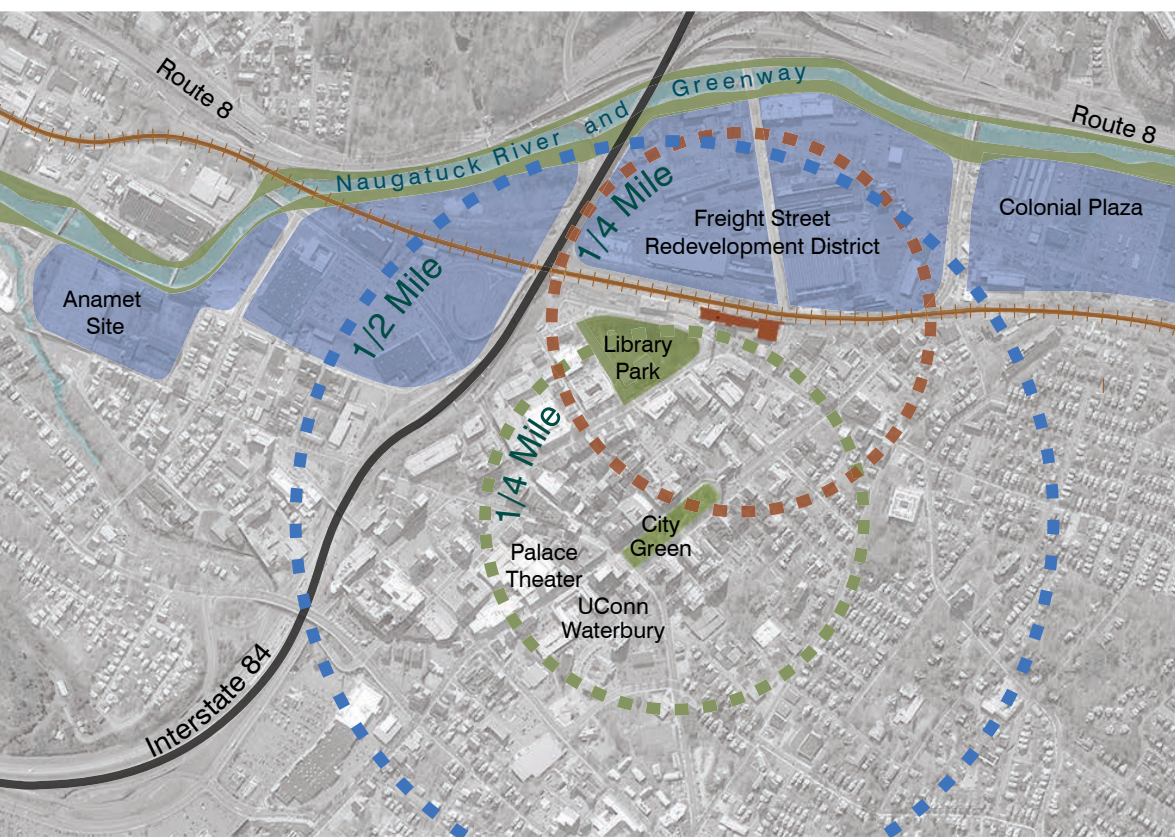
## OVERVIEW

The Waterbury Active Transportation and Economic Resurgence (WATER) project is potentially the biggest catalytic project to be undertaken by the City of Waterbury in the past 50 years. WATER is a multi-faceted mobility enhancement project that will revitalize Waterbury’s river/rail corridor neighborhoods and downtown center and drive the economic resurgence of the City and region.

This bold project proposes to construct an integrated system of “active transportation” improvements including: a downtown riverfront trail, a reconstructed and expanded network of local streets, and a comprehensive array of pedestrian/bicycle safety improvements and linkages, all designed to better connect downtown to the historic McKim, Mead & White designed train station and riverfront. These improvements will serve to complement on-going City and State investments in downtown revitalization, brownfield reclamation and provision of expanded transit options at the train station. WATER will benefit all of Waterbury’s 110,000 residents by improving connections between neighborhoods, jobs, schools and green spaces.

WATER, in combination with other on-going City and State funded civic betterment projects, will aid in the transformation of over 60 acres of underutilized formerly industrial real estate, strategically positioned directly adjacent to the train station, between the river and downtown, into a new transit-oriented mixed-use redevelopment district. The City Plan of Conservation and Development deems these lands “the last major redevelopment opportunity with the potential for a transformative impact on the city economy,” thereby positioning Waterbury to capture a greater proportion of the region’s future economic growth.

In spring 2015, the City of Waterbury and CTDOT will start construction on the southernmost 2.2-mile long portion of Waterbury’s 7.5-mile section of the 44-mile regional Naugatuck River Greenway. TIGER funding will enable WATER to construct the 2.3-mile Downtown Waterbury portion of the trail, the most critical and technically challenging piece. More than a recreational asset, this trail will enable thousands of people in predominantly minority and low-income Environmental Justice neighborhoods located to the north and south along the river to reach mass transit and employment opportunities.



Waterbury’s City Green and Train Station are a five minute walk apart. The River is within five minutes of the station and only ten from the Green. Strategic infrastructure investment can take advantage of this proximity and trigger the redevelopment of the Freight Street District and other formerly industrial areas as mixed-use extensions of the City’s historic downtown.

 Underutilized former industrial land

**WATER** satisfies the primary objective of the TIGER program, to stimulate economic recovery through strategic investment in the construction of transportation improvements. In the case of **WATER**, this includes new and rehabilitated streets, pedestrian safety improvements and bicycle transportation infrastructure. Demonstrated within this application is complete satisfaction of all of the strict selection criteria described in the NOFA (most readily witnessed by a Benefit Cost ratio between 1.2 and 1.8).

**WATER** is already well underway and a local match of about 35% of total project cost has been pledged. The City of Waterbury and its principal project partners are experienced in successfully developing and implementing large capital projects. Detailed design plans are in development and environmental reviews have begun. Most importantly, the City, its partners and stakeholders, and the public want to see this happen and stand ready to provide the support and resources to make it happen. TIGER funding for **WATER** will help enable Waterbury to build itself back into a strong, sustainable and livable city that provides economic opportunities for all its residents – a city that will serve as an economic engine of the entire Naugatuck River Valley region.

With the submission of this application, the City of Waterbury, with broad based support from a long list of partners and supporters, formally requests the financial assistance of the U.S. Department of Transportation in helping address and turn-around the economic decline that has plagued the City for the past half-century. The City of Waterbury is requesting \$19 Million in TIGER VI funding, which will be matched by \$10 Million in local funds to cover the total projected project cost of \$29 Million.

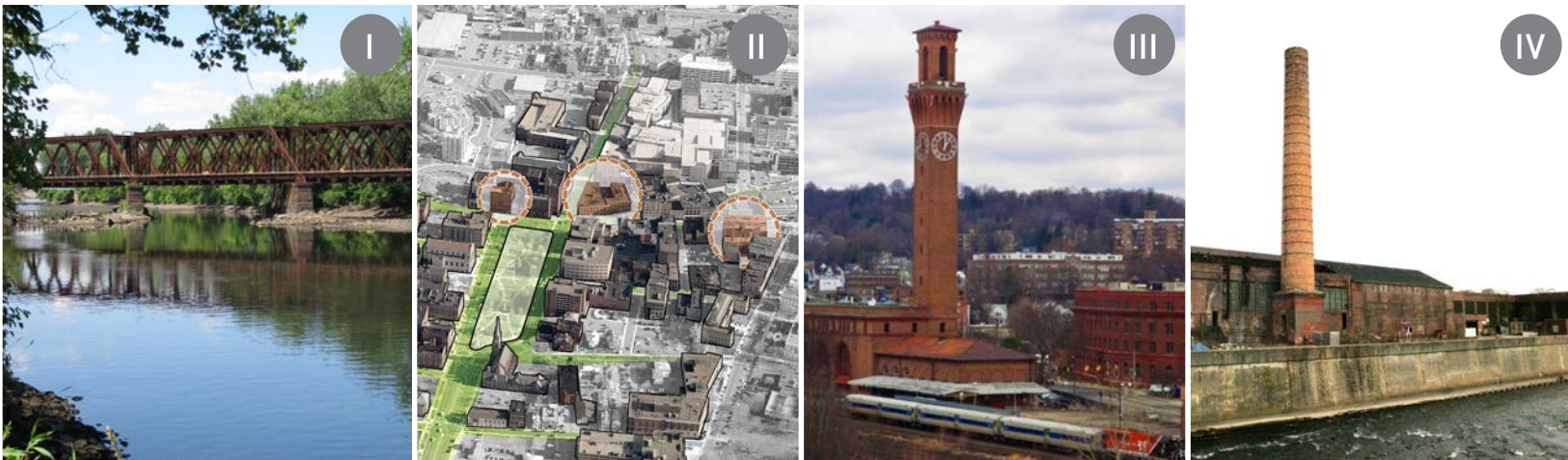
**An Historical Challenge:** Waterbury was once a wealthy economic powerhouse. More than a third of the brass manufactured in the United States was made in the Naugatuck River Valley, and Waterbury, as the region's center for manufacturing, trade, and commerce, was known as the "Brass Capital of the World." All of this was made possible early on by the power of the Naugatuck River and its tributaries and Waterbury's industrial and economic success led to the growth of a prosperous City that boasted all the usual benefits - well-paying jobs, modern transportation infrastructure, beautiful neighborhoods, good schools, in short, the highest possible quality of urban life. That was sixty years ago. Since then, Waterbury has seen the departure of manufacturing and industrial jobs, population loss to the suburbs, devastating floods on the Naugatuck River and man-made environmental degradation of the river and industrial lands that border it. Lastly, the expansion of the rail freight network in the early 1900s and later expansion of the National Highway System physically dissected the City, separating downtown from the river and adjacent neighborhoods.

**A Contemporary Response:** Waterbury is not, however, without its champions. Many have remained and are working very hard to turn things around, and they are having measurable success. Much has been accomplished in Connecticut's fifth largest city (but arguably its most economically distressed) in the past two decades by both the public and private sectors. The historic Palace Theater has been restored, an Arts Magnet School has opened, and the University of Connecticut now operates a downtown Waterbury campus. Today there are many new reasons for continued hope and optimism. UConn is planning to expand its downtown campus. Saint Mary's Hospital has expressed a need to expand its facilities and add jobs, and Webster Bank, which calls Waterbury home, is expanding its operation and becoming more of a presence downtown.

By the same token, the Principal Parties allied in support of **WATER**: The City of Waterbury (Applicant), the Waterbury Development Corporation (WDC), the Connecticut Department of Transportation (CTDOT) and the Council of Governments of the Central Naugatuck Valley (COGCNV) are working hard and in close partnership to implement a host of public benefit projects aimed at repositioning Waterbury as an attractive and competitive location to live and work. The benefits associated with each of these discreet initiatives will be amplified by **WATER** which seeks to connect them all.



## RELATED PROJECTS



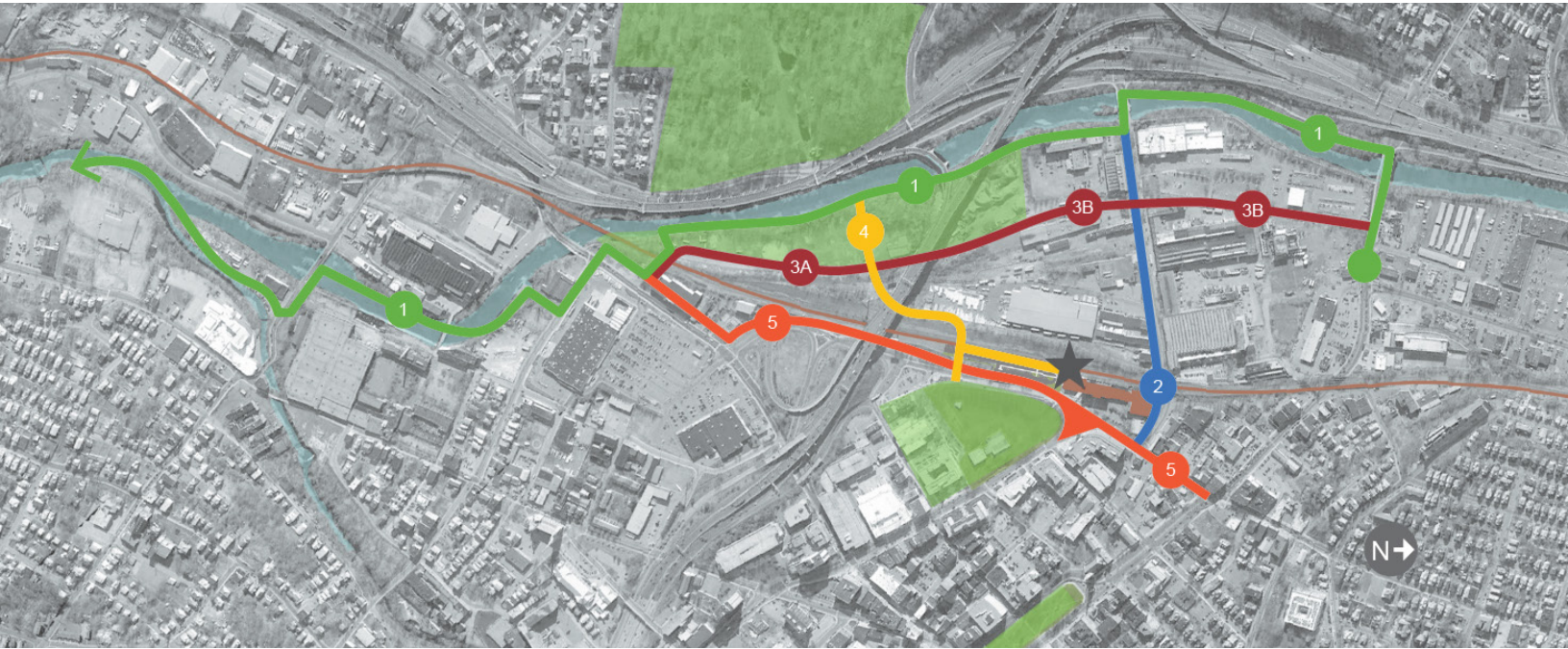
**I. Naugatuck River Greenway** - In 2011, Secretary of the Interior Ken Salazar identified the Greenway as one of the 101 best outdoor projects in the Nation. Once so polluted by the thriving industries that lined its banks that it registered not a single living species by the 1950s, the Naugatuck River has, with enormous effort by the EPA, Connecticut DEEP, local municipalities and organizations, been restored to support fishing, boating and swimming. A Routing Study for a 44-mile long greenway trail was commissioned by COGCNV and completed in 2010 and today municipalities all along the river are working with COGCNV to build the regional greenway. The WATER project began as a simple City of Waterbury trail implementation project, but when the potential to connect the trail to the train station and downtown and revitalize fallow industrial land in-between became apparent, the expanded WATER project was born with the TIGER program in mind.

**II. Downtown Reinvestment** - The City of Waterbury and the State of Connecticut are preparing to launch a **\$20 Million** initiative called DowntownNEXT that will redevelop strategic properties located generally around the central Green in the City's downtown and enhance surrounding public space through streetscape and park improvements. In addition, the City was awarded **\$3 Million** in Federal CMAQ funds to upgrade downtown traffic signals that will connect to proposed WATER improvements. Together, this will enable the expansion of downtown to embrace the train station and connect both to the river and industrial lands that border it.

**III. Passenger Rail and Transit Improvements at the Waterbury Train Station** - MetroNorth Railroad operates a branch line with eight daily trains between Waterbury and Bridgeport, with connections to the Connecticut coast and New York City. The City has begun a **\$2.2 Million** project, utilizing State and Federal funds, to double parking capacity and restore a passenger waiting area in the historic station. A 2010 CTDOT study called for implementation of sidings to allow for expanded passenger service, and the Department has recently committed **\$6.7 Million** to signal improvements. Finally, introduction of CTfastrak service in 2015, funded by FTA and the State of Connecticut, will provide twenty daily express buses from Waterbury to New Britain and Hartford, positioning the station as a multi-modal center.

**IV. Brownfields Reclamation and Redevelopment** - The City of Waterbury and the Waterbury Development Corporation have a well-documented and very successful brownfields reclamation and redevelopment program. Now in its third generation, 27 mitigation projects are listed in the program at various stages of completion representing over **\$26 Million** invested in cleaning up contaminated sites across the City.

## PROJECT COMPONENTS



**WATER** comprises five active transportation components. Each is designed to connect Downtown Waterbury and its train station to the riverfront, shift the core of the city to include the station, and reinforce each other to facilitate redevelopment of a vibrant district.

- 1 Waterbury Naugatuck River Greenway Phase 2:** Construction of the City of Waterbury's second phase of its 7.5-mile contribution to a 44-mile regional system, including several neighborhood connections to the river and preparation for a new riverfront park.
- 2 Freight Street Reconstruction:** Reconstruction of this deteriorated street of a former industrial corridor as a complete street that includes green infrastructure, new utilities, and a bicycle sidepath connecting the riverfront to the downtown.
- 3 Jackson Street Reconstruction & Extension:** Reconstruction (3A) and extension (3B) of a deteriorated dead-end street through Freight Street to West Main Street to create a new north-south connection and begin a block network for the redevelopment of the district.
- 4 Library-Station-Riverfront Connector:** Construction of a bridge from Library Park over Meadow Street and railroad tracks with ramps to the train station and riverfront park to improve access from the riverfront to the station and the downtown.
- 5 Meadow Street Station-Area Improvements:** Extending the Freight Street bicycle sidepath to the newly improved train station plaza and waiting room and enhancing bicycle and pedestrian connections to the downtown by adding bike lanes, narrowing roadways, expanding sidewalks, and implementing cutting-edge pedestrian safety technology at key intersections.





1

### Waterbury Naugatuck River Greenway Phase 2

\$8,600,000



Left: Proposed trail and 'get-down' to the river at Roller Magic

The Waterbury Naugatuck River Greenway Phase 2 is the largest single component of the **WATER** project. The scope of work includes construction of a riverfront trail from the intersection of Eagle Street and South Main Street in the south to the intersection of West Main Street and Thomaston Avenue in the north, a distance of approximately 2.3 miles along the river, running through a challenging industrial and post-industrial landscape. Phase 2 of the trail continues work begun in Phase 1, an approximately 2.2 mile long section from the Naugatuck/Waterbury boundary in the south, running alongside the river on Platts Mills Road and South Main Street, to Eagle Street. Phase 1 is currently in Final Design with construction scheduled to break ground in Spring 2015 (the Preliminary Plans may be viewed on the **WATER** project website). When Phases 1 and 2 of the trail are complete, they will comprise approximately 4.5 of Waterbury's 7.5 miles of the 44-mile long regional Naugatuck River Greenway. Eventually, the completed 7.5-mile Waterbury section of trail will connect to additional sections in the neighboring Borough of Naugatuck to the south and Watertown and Thomaston to the north, where trail development is also underway. To learn more about the status of implementation of the entire proposed 44-mile long regional Naugatuck River Greenway, go to: <http://www.cogcnv.org/greenway>.

**WATER** proposes to build Waterbury's second phase of its 7.5-mile contribution to a 44-mile regional greenway system.



The greenway will serve as a valuable piece of transportation infrastructure for pedestrians and cyclists. Lower income workers who do not drive will have a safe route along which to bicycle to their jobs in the manufacturing and commercial districts located along the river and in downtown. The trail will serve as a recreational amenity for Waterbury and neighboring towns to which it







connects, improving quality of life and economic competitiveness for the communities it serves. Building the trail will also serve as a vehicle for cleaning up and stabilizing disturbed sites along the river and improving the overall ecological health of the river and associated uplands.

As part of this component, nine acres of vacant land along the riverfront south of I-84 will be prepared for future construction of the proposed riverfront park, through which the trail will pass, and whose final development and improvement, the trail will help catalyze.

The primary trail will be asphalt and designated with pavement markings and signage as a bi-directional shared-use (pedestrians and cyclists together) path. In some locations, where opportunity presents, separate pedestrian-only sidepaths are included for walking and jogging (examples include the Anamet redevelopment site (shown above) and the proposed riverfront park (shown on the following page). Following is a detailed description of the route traveling south to north:

- Beginning at Eagle Street, the trail is built in the right of way of South Main Street between the edge of the southbound travel lane and the top of the river bank. It quickly bends west away from the road, following the elevated river bank, between the top of bank and the backs of adjacent businesses fronting South Main Street. Here the trail will be 12-feet wide and separated from adjacent private property with a fence.
- Moving north, at the site of the Roller Magic roller rink, the elevation drops, the river widens and a broad gravel bar affords convenient trailside access to the water for kayakers and swimmers (see rendering on previous page).
- Continuing north, the trail follows an old railroad right of way across the Mad River on a new pre-fabricated bridge (see rendering at right) and enters the Anamet redevelopment site on the north side of Washington Street. The Anamet site is vacant and has been targeted by the City for mixed-use redevelopment. The City has secured \$2.09 Million in grant funding to clean up contamination on the site and is working with the owner to do so. In return, the owner has given

Clockwise from top-left:  
Proposed esplanade and trail at the Anamet site; existing condition at the Anamet site; existing condition of the Mad River at Washington Avenue; proposed trail and bridge over the Mad River at Washington Avenue





the City a 30-foot wide easement along the river to allow for the continuation of the trail all the way through the site to West Liberty Street to the north. A pedestrian esplanade is proposed along the river with the shared-use trail just behind. A trailhead with parking is proposed on the Anamet site at West Liberty Street.

- Leaving the Anamet Site, the trail travels west a short distance along the south side of West Liberty Street and north a short distance along the west side of Bank Street, before turning left (west) onto Jackson Street.

- It is here, with the Naugatuck River to the west and Jackson Street to the east, Bank Street to the south and the looming I-84/Route 8 interchange to the north that the **WATER** project proposes to prepare these nine acres of open vacant land along the river for eventual development into the new Downtown Waterbury riverfront park. Waterbury does not have a municipal park on the Naugatuck River. This broad site, located along a particularly scenic stretch of the river, is only ½ mile from the historic City Green at the center of Downtown Waterbury (see also the description of [Component 4, Library-Station-Riverfront Park Connector](#)). The proposed scope of work for this section includes the asphalt shared-use trail, a separate pedestrian path at the water's edge, establishment of turf and meadow grasses throughout the nine-acre site, planted trees along the trail and restoration of the native riparian habitat along the river banks. The City is committed to pursuing implementation of additional park improvements in the future, such as playground, sports courts and athletic fields, performance venue and other amenities.

- From the riverfront park area, the trail follows the east side of the river north of I-84 to Freight Street, then crosses to the west side of the river via the Freight Street bridge. It then continues north on the west side of the river along Riverside Street (see rendering at right), overlooking the river, to West Main Street. Here, the trail turns east and crosses the river again via the West Main Street Bridge, hugging the south side of West Main Street to Thomaston Avenue.



Clockwise from top-left: Proposed trail, pedestrian path, and restored riverbank in proposed new riverfront park; existing condition at site of future riverfront park; existing condition of Riverside Avenue; proposed new trail along Riverside Avenue



2

## Freight Street Reconstruction

\$5,000,000



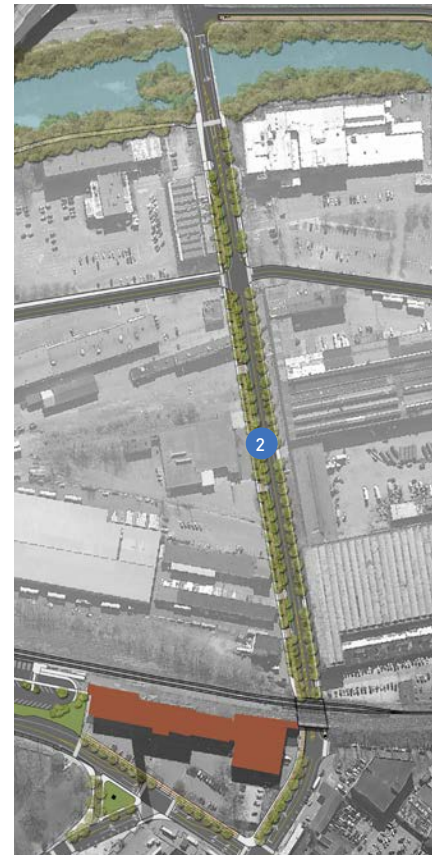
Above: Freight Street as proposed; Top-Right: Freight Street today

Freight Street is excessively wide and over-capacity with very little traffic using it. The south side has no curb or sidewalk and no formalized parking. The parcels surrounding Freight Street are generally underutilized, consisting of vacant land, warehouses, manufacturing, and light industrial. The reconstruction of Freight Street as a complete street achieves two important project objectives:

1. Freight Street is a conduit connecting the river and adjacent underutilized industrial land to Downtown Waterbury and the City's emerging new intermodal transportation center at the historic train station. The station is undergoing renovation and in addition to a planned increase in passenger rail service, ½ hourly express bus service to Hartford is scheduled to begin operating from the station within the year. Rebuilt with a continuous two-way shared-use path on the south side of the street, Freight Street will connect pedestrians and cyclists using the riverfront trail and park to the train station and downtown.

2. Freight Street is the centerpiece of a proposed mixed-use redevelopment district located within a five-minute walk to both the river and downtown. Market research and analysis indicates that over the next 10 years suitable demand exists for residential, commercial and retail to support the redevelopment of the currently underutilized formerly industrial lands surrounding Freight Street, between downtown and the river (see also [Section III: Selection Criteria, Economic Competitiveness](#)). Rebuilding Freight Street as a bicycle and pedestrian-friendly complete street, coupled with new mixed-use zoning, will incentivize modern redevelopment.

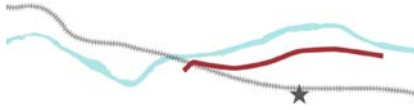
Freight Street will be fully rebuilt with all new curbs, sidewalks, roadway and a bi-directional asphalt shared-use path on the south side of the street. The path is separated from motor vehicle traffic by landscaped bio-swales that offer sustainable storm water management, catching storm runoff and pre-treating it before it enters the Naugatuck River.



“... the Freight Street Corridor is underutilized and abandoned because it lacks basic connections to the transportation infrastructures that surround it...”

Council of Governments of the Central Naugatuck Valley





### 3 Jackson Street Reconstruction & Extension

\$5,300,000



Left and Above: Reconstruction of Jackson Street in vicinity of proposed new park and Jackson Street today

Rebuilding and extending Jackson Street is the implementation of recommendations in a 2001 study by the City and CTDOT's I-84/Route 8 Interchange Major Investment Study. This component includes reconstructing the short, deteriorated section of Jackson Street between Bank Street and the I-84 viaduct, and extending it north through Freight Street to West Main, along the route of an abandoned rail right of way. It is proposed as a two-way street with one lane in each direction, curbs, sidewalks and on-street parking. New intersections will be built at Freight Street and West Main Street. Documented benefits include:

- **Improved Mobility:** As a through route, Jackson Street adds options for motorists seeking access to I-84 ramps north of Bank Street on Meadow Street. Jackson Street would offer an outlet for traffic on West Main Street which experiences congestion at peak periods. It would offer a parallel north-south alternative to Meadow Street, alleviating potential future congestion at the train station.
- **Park Access:** Rebuilding Jackson Street as a two-way road from Bank Street to Freight Street with access at both ends makes the proposed site of the new riverfront park feasible from an access (both vehicular and pedestrian) perspective.
- **Redevelopment Potential/Economic Competitiveness:** Like the reconstruction of Freight Street, the building of Jackson Street as a through street from Bank Street to West Main Street, complete with new water and sewer utilities, will render all of the private parcels that it touches more valuable for redevelopment as a result of the additional frontage each will enjoy. This new access and frontage helps set the stage for redevelopment of the district.

Reconstruction and extension of Jackson Street, from Bank Street to West Main, to improve mobility and stimulate development







4

### Library-Station-Riverfront Connector

\$2,600,000



Left and above: view (proposed and existing), looking south from train station clock tower. Library Park at left and I-84 in the distance

The City Green, at the historic center of Downtown Waterbury, lies only ½ mile from the Naugatuck River, where the new riverfront park is proposed to be built. If a direct pedestrian route existed, one could walk to the park, the river, and the trail running beside it, in a matter of 10-15 minutes from the Green. Access to the river is blocked by rail and highway infrastructure and the presence of large parcels of privately-owned industrial land. It is, however, possible to stand at the southern end of Library Park, perched at about 20 feet above Meadow Street, and look out over the street and the railroad tracks at the highway and river beyond.

A new pedestrian/bicycle bridge over Meadow Street and the railroad tracks connects at-grade to the southern end of Library Park, providing direct pedestrian and bicycle access to the train station and the river via north and southbound ramps. It is anticipated that the bridge and ramp structures will be pre-fabricated and craned into place. Benefits include:

- More direct and safer (traffic-free) pedestrian access to the train station and riverfront from central downtown and government center via historic and scenic Library Park.
- In the future, the same structure could be used to provide access up and over the MetroNorth tracks to a new southbound train platform (MetroNorth currently operates on only one track for both north and south travel).

Build a bridge from Library Park over Meadow Street and railroad tracks with ramps to the train station and riverfront park to connect downtown.







5

## Meadow Street Station-Area Improvements

\$1,500,000



Left and above: Proposed and existing intersection of Meadow and Grand Streets, as seen from the train station clock tower

Meadow Street is the western boundary of downtown and home to the City's train station. Today, the design of the street heavily favors automobile throughput at the expense of pedestrian safety and intuitive access to the train station. Without the addition of pedestrian and bicycle facilities at this critical gateway, the station will remain difficult to approach and be perceived as the city's "edge" instead of part of its center. The following infrastructure and safety upgrades are proposed:

- Neck-downs, hi-visibility crosswalks, and countdown pedestrian signal heads at all intersections serving the train station: West Main Street, Freight Street and Grand Street.
- Continue the Freight Street sidepath around the corner onto Meadow Street and south to the new train station waiting room area and entry plaza. Stripe colored curb-side bicycle lanes with painted buffers (where feasible) on Meadow Street from West Main Street to Bank Street.
- Reconstruct the intersections of Meadow Street with Freight and Grand Streets to widen sidewalks, narrow roadways, shorten crosswalks, and tighten turn radii to slow motor vehicles to safe speeds for an urban environment. The triangular island at the intersection of Grand and Meadow Streets will be enlarged to create a new placemaking opportunity at the train station. Landscaping will be added to buffer walkways from the street and benches will be added, affording views of the Statue of Father McGivney (founder of the Knights of Columbus) at the center, Library Park to the south, the historic courthouse to the north, and the impressive train station. These iconic landmarks make for a memorable transition when walking from transit to downtown or the riverfront.

Extending the Freight Street bicycle sidepath to the newly improved train station entry plaza and waiting room, enhancing connectivity to downtown with bike lanes, neck-downs, and enhanced crosswalks.



## PROJECT PARTIES

### City of Waterbury

#### Grant Applicant

The City of Waterbury is a municipal corporation established under the laws of the State of Connecticut and will be the grant recipient responsible for planning and executing the implementation of the **WATER** project in partnership with other public organizations, including operating departments of the City of Waterbury. The City of Waterbury is a CDBG entitlement community and has professional staff experienced in federal grant management.



#### Primary Project Contact

Salvatore Porzio, Project Manager  
 City of Waterbury Department of Public Works  
 185 South Main Street  
 Waterbury, CT 06706  
 t 203.574.6851 x7188  
 e sporzio@waterburyct.org

### Waterbury Development Corporation (WDC)

#### Project Partner

WDC is the City of Waterbury's designated economic and community development agency. Governed by a 23-member Board of Directors representing the private and public sectors, the WDC manages brownfield assessment, remediation and redevelopment; housing rehabilitation; community development projects; and, urban blight initiatives. As a project partner, WDC will provide technical guidance on various economic redevelopment components and the integration of project components with ongoing community development projects.



### Connecticut Department of Transportation (CTDOT)

#### Project Partner

CTDOT has been the administrative agency for approximately \$5 million in Federal and State funding for construction of the Waterbury Naugatuck River Greenway Phase I project. CTDOT has been providing technical guidance on the development of the **WATER** project. CTDOT currently owns the land where the train station is located, the rail line, Meadow Street and West Main Street. As a project partner, CTDOT will provide access to state-owned assets and assist in project reviews.



### Council of Governments of the Central Naugatuck Valley (COGCNV)

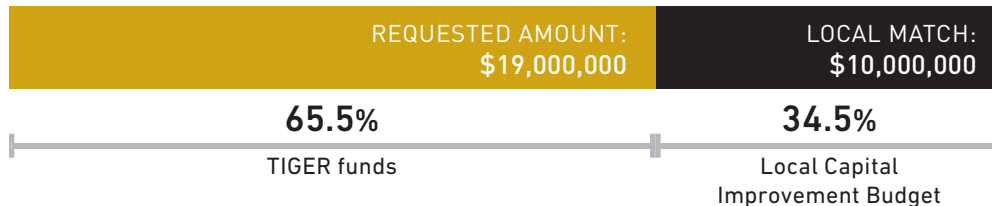
#### Project Partner

The COGCNV is the region's Metropolitan Planning Organization (MPO) and is composed of the chief elected officials of its thirteen municipalities. The COGCNV maintains the TIP and the Long-Range Transportation Plan. As a partner, the COGCNV will provide technical and administrative assistance and ensure the coordination of the project with local, regional, state and federal transportation planning and projects.





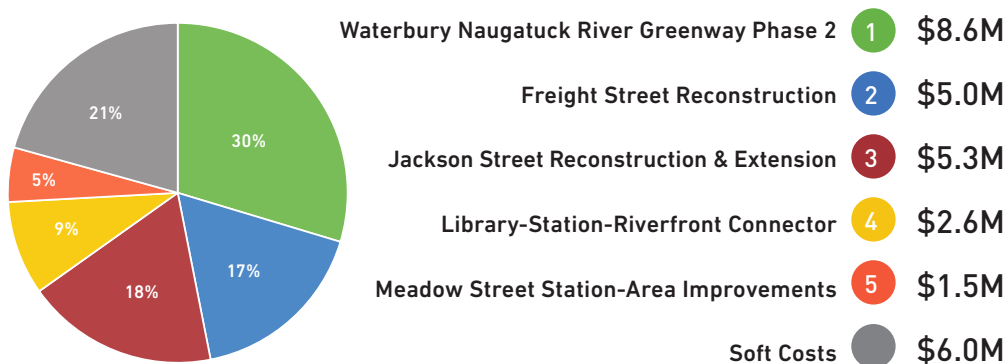
## GRANT FUNDS, SOURCES AND USES



### Demonstration of Funding Commitment

On 14 April 2014, Waterbury’s Board of Aldermen resolved to secure \$10,000,000 of bond funding for capital improvements related to the WATER project. See [Appendix 8](#) for a copy of this resolution.

### TOTAL PROJECT COST: \$29,000,000



The City of Waterbury anticipates that each project component will be funded at the same ratio of TIGER (65.5%) and local (34.5%) funding.

### Direct and Linked Investments to The WATER Project

(expenditures not tied to or included in the local match identified above)

**Direct Investment - WATER Project Professional Consulting Fees to Date:** The City has invested approximately **\$1.3 Million** in professional consulting fees to develop, coordinate and present the WATER project including concept development; production of illustrative graphics; preparation of preliminary design plans and cost estimate; presentations to agencies, stakeholders and the public; and preparation of this TIGER application.

**Direct Investment – Anamet Site Remediation:** The City is investing **\$2.1 Million** in remediation of contamination on the Anamet Site in exchange for an easement to build a key section of the proposed Waterbury Naugatuck River Greenway.

**Linked Investment – Waterbury Train Station Improvements:** A total of **\$2.2 Million** in combined City, State and Federal funds are being spent on capital improvements to the Waterbury Train Station including new passenger waiting room, drop-off and plaza area, bus lay-by and parking.

**Linked Investment – Naugatuck River Greenway Phase 1:** A grand total of approximately **\$7 Million** in City and Federal funds is being spent to plan, design and construct Phase 1 of the Waterbury Naugatuck River Greenway from the Naugatuck Town Line to Eagle Street, to which the WATER project connects.

## STATE OF GOOD REPAIR



Improvement of existing conditions will be accomplished by the upgrading of existing infrastructure and the development of new infrastructure with the goal of ultimately converting this underutilized, industrial area of Waterbury into a new, mixed-use, transit-oriented community. When complete, the **WATER** project will have successfully constructed 3.6 miles of new or rehabilitated roadways, 185,000 square feet of asphalt-paved shared-use path, 54,000 square feet of concrete sidewalk, 20,000 linear feet of utility infrastructure, 375 linear feet of pedestrian bridges, and 8 new or reconstructed traffic signal systems.

Proposed improvements are consistent with State, local and regional efforts to maintain transportation facilities in a state of good repair. The project is designed to CTDOT’s material and design specifications.

A constrained street network, current roadway conditions, and general lack of adequate utilities threaten future economic growth and stability in the greater area. New and upgraded streets will connect downtown and the river. New infrastructure includes repair of dilapidated storm and sanitary sewers, electrical infrastructure, and utility infrastructure, much of which ranges between 50 and 90 years old.

The new roadway, utility, and trail infrastructure to be constructed as part of the **WATER** project will significantly reduce life-cycle costs for operation and maintenance of rebuilt roadways by extending their service life due to expected decrease in motorized travel and increase in travel by bicyclists and pedestrians. This project will create a network which can be utilized by non-motorists to safely and efficiently access their intended destinations, including the train station and new riverfront park.



Above: Existing condition and rendered reconstruction of Freight Street.

Below: Existing condition and rendered reconstruction of West Liberty Street.



## ECONOMIC COMPETITIVENESS



The US Department of Labor ranks the Waterbury metropolitan area 345<sup>th</sup> of 372 in national employment, and in Connecticut the Waterbury Labor Market has had the highest unemployment rate for 12 straight years. The **WATER** project prepares to bring jobs back in a number of ways.

The **WATER** Project will *improve access to existing jobs* in the City and along the Waterbury Branch of the MetroNorth Railroad. This is especially important to the economic health of the community as 20% of Waterbury households do not own a car. These households are more common in the economically distressed South End neighborhood where the **WATER** project greenway will bring greatly improved access to downtown and regional transit. In addition, many people that do drive will value the convenience and health benefits of walking, biking, and transit options that are made possible by the project.

Implementation of the project will also help *reposition and re-purpose post-industrial land* along the Naugatuck River for compact walkable development, which will function more efficiently and competitively, and provide the quality of life capable of attracting 21st-century talent, families, and businesses. On Freight Street, alone, there are approximately 60 acres of riverside properties that are either vacant or underutilized. The project is being coordinated with a comprehensive development plan for the district. Key to the transformation will be early development of mixed-use residential and live-work housing.

The **WATER** project will *create new employment opportunities*. The plan anticipates that most development will accommodate rising affluence and an increase in non-family households, empty nesters, and young workforce/grads. **This will translate to a market for smaller units in high-amenity places (See Appendix 10). Assuming only 10% to 20% residential capture of regional demand for housing, over the next 10 years we anticipate 1,900 to 3,800 new residential units downtown and along the river, with most in new construction in the Freight Street District. Fully implemented, the value of new buildings and site improvements constructed over the next 10 years improvements would top \$150,000,000, generating more than 4,000 job-years.\***

\* Estimated construction cost and number of job-years is based on 100,00,00sf of new development within the area bounded by West Main Street, the railroad, I-84, and the River

In 2013, the United States Department of Commerce designated the Naugatuck Valley Corridor as an Economic Development District. The **WATER** project is central to the development strategy of this District.



Top of Page: Illustration of full build-out of Freight Street District  
Right: Simulation of Trail and future development on West Main Street

## QUALITY OF LIFE



A core objective of the **WATER** project is to increase livability of the City by creating bikable and walkable neighborhoods; providing a range of mobility options; connecting people to parks and public spaces that will give them the opportunities to improve their health and well-being; and, catalyzing the remediation of neighborhood brownfields, thereby eliminating blight, reducing crime and setting the stage for sustainable redevelopment.

**WATER** will do just that, by constructing a high-quality multi-use greenway trail through disadvantaged South End neighborhoods linking to downtown transit, services and destinations; opening up the City's riverfront to a 9-acre downtown riverfront park; connecting downtown workers and residents to the train station and the riverfront through a pedestrian / bicycle bridge over Meadow Street and the train tracks; and building complete streets in the downtown for safe bicycle and pedestrian travel. In addition, the reconstruction of Freight Street will, over time, result in a new, walkable, mixed-use district - a landmark high-amenity place that will attract new residents and businesses.

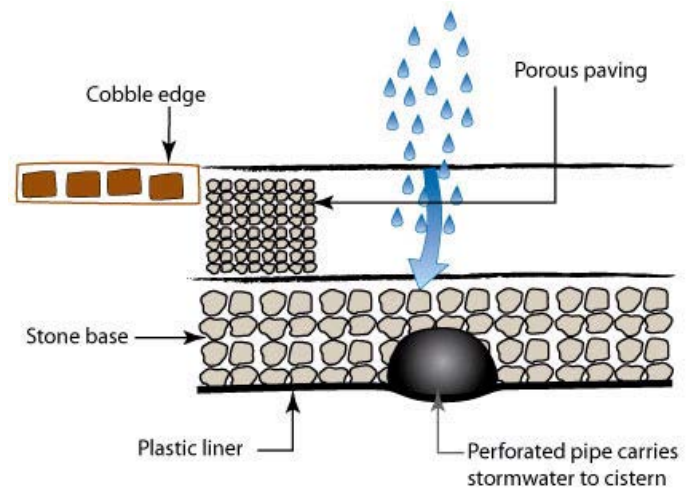
A 2013 Community Health Needs Assessment and Survey paints a sobering picture of residents' health conditions, particularly amongst low-income and minority populations – asthma in over 20% of the City's population and obesity rates at 35.5%, with an additional 30.6% of residents overweight. In interviews with residents, insufficient access to public recreation opportunities and lack of connectivity to pedestrian and bicycle facilities were often cited as community needs. **The WATER project would directly address these identified health concerns while improving local neighborhoods in which poor public health is a serious impediment to community vitality.**

The **WATER** project will complement years of collaborative community planning aimed at revitalizing traditional corridor neighborhoods through targeted community investment in housing, infrastructure and recreation. The City feels strongly that the residents of these Environmental Justice communities deserve the opportunity to live, work and play in neighborhoods with a high quality of life and the needed infrastructure tools to both access and climb the ladder of opportunity. Residents have overwhelmingly supported this project because it will make a real difference in how they live.

The City of Waterbury has adopted a Complete Streets policy and a rigorous environmental justice policy.



## ENVIRONMENTAL SUSTAINABILITY



This project will directly implement, and/or indirectly result in the implementation of, a number of environmental sustainability objectives shared by the Federal Government (USDOT), the City of Waterbury, its Project Partners.

**Cleaner Air:** The US Environmental Protection Agency has designated New Haven County and Waterbury area as non-attainment for ozone and particulate matter (PM-2.5), with Waterbury being the center for particulate matter concerns due to heavy car and truck traffic emissions from the I-84 and Route 8 convergence in the City. **WATER** proposes to build multi-use trails, bike paths, and walkable streets and sidewalks in a downtown de-industrialized area that is targeted for redevelopment and job growth, and presently lacks options for non-motorized travel and adequate transit connections. The project thereby promotes non-motorized and non-polluting travel in an area that will likely impact a growing number of individuals, shape public walking habits, reduce travel by car and result in decreased emissions and cleaner air. In addition, the implementation of a riverfront corridor greenway trail will afford residents in southern river corridor neighborhoods the choice of using alternatives to car for travel.

**Contamination and Brownfield Remediation:** Many **WATER** components, particularly the construction of the high-quality shared-use trail along abandoned rail beds (behind Waterbury Buckle building), through riverfront brownfield sites (17.6-acre riverfront Anamet site), or through a new downtown 9-acre riverfront park (Northeast Utilities properties) will result in the capping, or in some cases cleanup (Anamet), of contaminated land. It should be noted that the City has been awarded \$2.09 Million in State funding to demolish and clean the Anamet property, because of the intended use of that site for the greenway trail. **WATER** will therefore reduce public exposure to brownfield soils and catalyze private redevelopment of parcels adjacent to it.

The City of Waterbury, in partnership with WDC, leads the State in brownfields reclamation projects with a highly successful **Brownfields Reinvestment Program**. Over \$26 Million dollars have been committed to cleaning up both publicly and privately owned parcels, particularly along the riverfront corridor. In addition, the Northwest Regional Workforce Investment Board (NRWIB) has been the recipient of multiple rounds of EPA Brownfields Job Training grants, providing local, unemployed residents the training necessary to be part of Waterbury's cleaner future. The City

Top Right: Anamet property along the Naugatuck River  
Top Left: Sketch of typical green stormwater infrastructure

In 2010, The US Department of the Interior, in its "America's Great Outdoors Fifty State Report" identified the Naugatuck River Greenway as one of the nation's 101 best outdoor projects.

The US Environmental Protection Agency has designated the project area as an Ozone and Particulate Matter (PM-2.5) Non-Attainment Area.

## ENVIRONMENTAL SUSTAINABILITY (CONT'D)

and WDC will continue to target resources toward the riverfront corridor WATER project area and implement sustainable redevelopment policies set forth within the brownfields program. To read about Waterbury's brownfields successes and the projects currently underway, go to the City of Waterbury project website.

**Environmental Justice:** The City of Waterbury is working to address and reverse the disproportionate effects reaped upon its poorer communities by the concentration of heavy industry in riverfront corridor neighborhoods, little understanding of the cumulative effects of that concentrated industry and poor transportation decisions made during the building of Route 8 and I-84 in the mid-20th century that chopped and divided Waterbury's neighborhoods and promoted car centrality. These historical wrongs have resulted in record-high asthma rates in Waterbury's low-income, minority communities, as evidenced by asthma statistics released by the Connecticut Department of Public Health. In light of this injustice, the City's Public Works Department has adopted a stringent Environmental Justice Policy.

**Building Ladders of Opportunity:** The WATER project builds a Ladder of Opportunity for Waterbury's downtown residents and South End riverfront communities, which are among the poorest in Connecticut and are recognized Environmental Justice communities. Building of the riverfront corridor greenway will provide expanded and active transportation choices to disadvantaged residents with poor access to transit, jobs and civic amenities. It will open up the riverfront that was inaccessible to and unable to be used by these residents for the past century, due to industrial over-development and transportation barriers. It has started to catalyze (Anamet site) and will continue to catalyze remediation and redevelopment of the South End and downtown riverfront brownfields, thereby making these neighborhoods healthier, safer and more attractive to reinvestment. In addition, it will foster the rebuilding of a post-industrial downtown area into a livable, walkable neighborhood with new opportunities for Waterbury's residents.

In 2011, The United States Department of Housing and Urban Development granted The Naugatuck Valley region (including the City of Waterbury) "Preferred Sustainability Status", entitling the region to preference in HUD / USDOT / EPA grants.

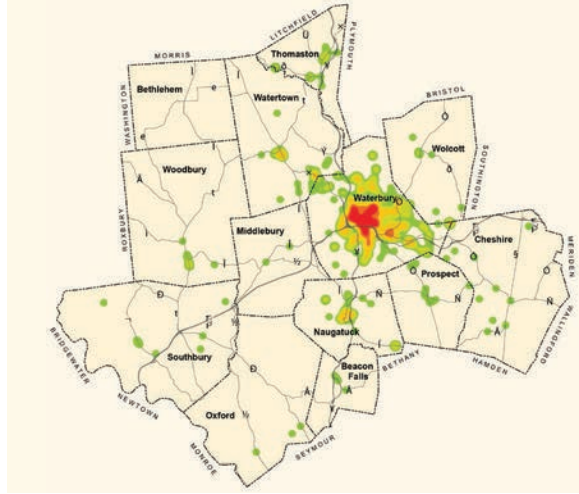


Above: Sidewalk bioswale  
Below-Left: Storm-water tree pit  
Below-Right: Permeable paving





## SAFETY



A 2010 study completed by the Council of Governments of the Central Naugatuck Valley (COGCNV) titled "Pedestrian and Bicycle Safety in the CNV Region: An Assessment of Existing Conditions" indicates that an astounding 458 pedestrian accidents and 185 bicycle-related accidents occurred within the City of Waterbury between 2003 and 2007. These figures accounted for the overwhelming majority of pedestrian (81%) and bicyclist (68%) accidents in the COGCNV study area, a geographic compilation of 13 municipalities accounting for approximately 10% of the population within the State of Connecticut. More specifically, the study identifies the following high hazard locations that are located partially or wholly within the project study area: Meadow Street, Freight Street, West Main Street, and Grand Street. These corridors represent locations with heavy vehicle traffic, as they each average 10,000-20,000 vehicle trips per day each.

The study goes on to recommend that the Federal Highway Administration (FHWA) countermeasures identified in their PedSafe and BikeSafe manuals should be used as guidelines in improving the high hazard locations. Countermeasures listed in the manuals include providing sidewalks on both sides of the road, improving lighting, installing medians or pedestrian crossing islands, implementing traffic calming measures, installing warning signs to alert drivers of upcoming crosswalks, enhancing pavement markings, signal optimization, as well as enforcement and education.

The **WATER** project will provide the infrastructure resources necessary to improve safety for bicyclists, pedestrians, and motorists as well as reduce accident frequency and severity. Proposed pedestrian/bicycle enhancements and traffic calming measures to be constructed on project roadways include: new bike lanes, shared-use sidepaths, sidewalks, ADA-compliant sidewalk ramps, curb bulbouts, pedestrian refuge medians, roadway narrowing, high visibility crosswalks, pedestrian warning signs, pedestrian-scale lighting, LED street lighting, street trees, countdown pedestrian signals, traffic signal timing and phasing modifications, pedestrian bridges, and enhanced pavement markings.

*Left:* Existing conditions at the intersection of Meadow and West Main Streets pose challenges for pedestrians and cyclists. Proposed improvements will shorten crosswalks and create dedicated bicycle facilities so that destinations like the train station (seen in the distance) can be more safely accessed from downtown and the riverfront.

*Right:* Naugatuck Valley Pedestrian Accident Density, 2003-2007.

Waterbury is a 'hot-spot' for pedestrian and bicycle crashes in the region.

## INNOVATION

The design for the **WATER** project includes several innovative amenities which enhance the sustainability of the project. These amenities include:

- **Solar Powered LED Street and Trail Lighting along Freight Street:** The City studied emerging technology and evaluated and compared capital, operating and maintenance costs of traditional high pressure sodium (HPS) street lighting systems versus a solar powered street lighting system and the use of LED luminaires. LED luminaires have a longer life than HPS, require less maintenance, and have reduced operating costs. A number of new studies also show that the clean white light of an LED is perceived by the eye as brighter than is measured by a standard light meter. The cost benefit analysis indicated that while the initial capital costs for an LED system are slightly greater, the life expectancy of the fixture is much greater. Overall, the capital costs associated with the traditional system were found to be higher.

- **Solar-powered LED Pedestrian Crossing Warning/Flashing signs at various locations along the Greenway Trail:** Solar powered lighting is a relatively simple concept, where photovoltaic solar panels convert sunlight to direct-current (DC) electricity that charges the battery pack attached to each light. Though the technology itself is not new, this unique application of solar power represents its first street lighting and road sign application in the City of Waterbury.

- **Bioretention Swales on Freight Street and along the Greenway Trail:** Bioretention provides stormwater treatment that enhances the quality of downstream water bodies. Runoff is temporarily stored in the bioretention swale and is naturally filtered to remove pollutants and released to the adjacent soils. The bioretention swale also provides shade and wind breaks, absorbs noise and improves the area landscape. These systems will reduce the volume of runoff from a drainage area, reducing the required size and cost of downstream stormwater management facilities, by promoting at-source infiltration.

- **Fiberglass Pedestrian Bridge over the Mad River:** The City has studied the benefits of using fiberglass composites in lieu of conventional steel construction and is proposing this type of structure for the Greenway Trail pedestrian bridge as part of the **WATER** project. Following the example set by MaineDOT and most recently CTDOT, who have been leading the charge with implementing and approving innovative composite solutions for transportation infrastructure applications, the City's preferred alternative for the 70-foot span over the Mad River is a prefabricated, high-strength, fiberglass reinforced polymer bridge system as a signature feature of the greenway trail. These composite technologies and applications have a significant benefit in transportation applications across the nation and the world. Composites will not corrode, serve as a stay-in-place form in certain applications, are more durable, lighter and are easier to install than traditional materials.



Top: Fiberglass pre-fabricated bridge  
 Middle: LED trail lighting  
 Bottom: Solar-Powered LED  
 Pedestrian Crossing Warning/  
 Flashing Sign



## PARTNERSHIP

The vision of a resurgent Waterbury driving regional economic recovery is shared by a host of local, regional and state-wide partners and stakeholders who have guided this project to where it is today. Starting as a grass-roots collaborative over a decade ago, the project has evolved from a riverfront greenway to a system of trails, parks, roads and “complete streets” improvements designed to build an infrastructure framework for Waterbury’s future growth. In addition to partners previously listed as Project Parties (City of Waterbury, CTDOT, WDC and COGCNV), the following organizations have played and will continue to play a key role in this project:

- Waterbury’s **Greenway Advisory Committee** has been the voice of the Greenway project since 2008, guiding the development of studies and plans and providing public education and outreach on behalf of the City. In 2010, a member donated 7.1 acres of riverfront land to the City
- **The United Way of Greater Waterbury**, a regional nonprofit, was instrumental in providing private funding of \$235,000 for the Greenway’s Routing and Feasibility Study in 2008 and an additional \$500,000 in 2013 for **WATER** project preliminary design and engineering plans.
- The **Waterbury Neighborhood Council**, a 20-neighborhood organization, has been a lead advocate for livable neighborhoods and environmental justice issues for over 15 years.
- The **National Park Service** has provided staff assistance to Naugatuck River Valley municipalities in planning and constructing the 44-mile Naugatuck River Greenway.
- The **Washington Avenue Business Park** is partnering with the City, WDC and the Connecticut Department of Economic and Community Development (DECD) to demolish and remediate the 17.6-acre Anamet brownfield in the heart of the **WATER** project with over \$2 Million in state funding. The City will construct the greenway trail through the property.
- **Waterbury residents** have been steadfastly supportive of the **WATER** project, providing grass-roots support and driving the political momentum behind the project.

The **WATER** project has been presented to the Governor of the State of Connecticut and both the Congressional and Senate Delegation to the U.S. Capitol and all have voiced their overwhelming support for the project.



Left: Community members and stakeholders discussing WATER project components and design at a public meeting held on April 10, 2014 at Waterbury Arts Magnet School. To view the presentation slideshow and video, go to [www.waterburyct.org/tiger](http://www.waterburyct.org/tiger)

## PARTNERSHIP (CONT'D)

### ENTHUSIASTIC BROAD SUPPORT FOR WATER

To date, the City of Waterbury has received letters of support for the **WATER** project from the following elected officials, governmental and quasi-governmental agencies, organizations and civic groups, advocacy organizations, and individuals, many of whom own property directly impacted by the proposed project, and more letters come in every day. Letters are in Appendix 9.

Connecticut Department of Transportation - Project Partner	Greater Waterbury YMCA
Council of Governments of the Central Naugatuck Valley - Project Partner	Donald Heye, Washington Avenue Business Park
Waterbury Development Corporation - Project Partner	Hispanic Coalition of Greater Waterbury
United States Senator Richard Blumenthal	Illinois Tool Works, Inc.
United States Senator Christopher Murphy	King Industries, Inc.
United States Representative Elizabeth Esty	Loyola Development Corporation
United States Representative Rosa DeLauro	Main Street Waterbury
Connecticut Senator Joan V. Hartley	National Park Service
Connecticut Senator Joe Markley	Naugatuck River Watershed Association, Inc.
Connecticut Representative Jeffrey Berger	Naugatuck Valley Corridor Economic Development District
Connecticut Representative Larry B. Butler	NeighborWorks New Horizons
Connecticut Representative Victor Cuevas	Northeast Utilities System
Connecticut Representative Anthony D'Amelio	Northwest Hills Council of Governments (NHCOCG)
Connecticut Representative Selim G. Noujaim	Northwest Regional Workforce Investment Board
AFJ ROTC – CT 941	Platform Specialty Products Corporation
Richard Bozzuto, Property Owner	Police Activity League of Waterbury, Inc.
Brass City Lumber	Riverbank Christian Worship Center
Clifford Burrell, Property Owner	StayWell Health Center
Calli Family	United Way of Greater Waterbury
Connecticut Bicycle and Pedestrian Advisory Board	University of Connecticut, Waterbury Campus
Connecticut Community Foundation	Waterbury Board of Health
Connecticut Department of Economic and Community Development	Waterbury Board of Park Commissioners
Connecticut Department of Energy and Environmental Protection	Waterbury City Plan Commission
Connecticut Greenways Council	Waterbury Neighborhood Council
Fascia's Chocolates	Waterbury Regional Chamber
Friends of the Naugatuck River Greenway and The Greenway Advisory Committee	Webster Bank
	Wesson Energy



## BENEFIT COST ANALYSIS RESULTS

**Table 1: Benefit Cost Summary**

Metric	Nominal Sum	Present Value (3%)	Present Value (7%)
Present Value of Benefits	\$87,415,817	\$47,652,644	\$24,564,222
Present Value of Costs	\$32,410,000	\$26,002,333	\$21,359,517
Net Present Value	\$55,005,817	\$20,650,311	\$3,204,705
Benefit / Cost Ratio	2.7	1.8	1.2

The Benefit-Cost Analysis indicates that quantifiable benefits are 1.2 to 1.8 times the total costs of the project, as shown in Table 1.

### Costs

The total project costs from a benefit cost perspective, after adjusting for the opportunity cost of the resources used to build the project, are approximately \$23.3 Million. On-going annual maintenance costs, estimate to be 1% of the total capital costs, or approximately \$228,000 per year.

### Benefits

**State of Good Repair.** The project brings two benefits related to the state of good repair. The reduction in automobile maintenance expenses and the reduction in property damage caused by auto accidents, both of which are due to the reduction in VMT. The reduction in maintenance costs arises from less wear and tear on automobiles, reduced insurance and less need for servicing.

**Economic Competitiveness.** Travelers switching from automobile to train and bus travel because of pedestrian and bicycle safety improvements in the station area use less fuel and reduce oil imports.

**Quality of Life.** Trails generate a number of amenity benefits.

- People are willing to pay more to live near a trail entrance, which will increase house prices within a half-mile of an entrance.
- To a lesser extent, local residents will value the existence of the trail, whether or not they live near it.
- The trail will generate recreational and health benefits for walkers, runners, and bikers.
- The trail will further open the Naugatuck River for recreation, including fishing, kayaking and canoeing.

**Environmental Sustainability.** The reduction in gasoline consumption and automobile travel has air quality benefits, including fewer operational emissions and less particulate matter generated by tire and brake wear. The reconstruction of Freight Street will include green stormwater infrastructure to manage stormwater, and the bio-retention swales will improve water quality by both reducing the volume of stormwater and also removing pollutants from the runoff before it reaches the Naugatuck River.

**Safety.** The reduction in VMT will result in fewer car crashes, and hence fewer injuries and deaths from car crashes. Also, the station area intersection improvements will decrease the number of car/car, car/pedestrian, and car/bike accidents in the local station area.

Full Benefit Cost Analysis, including an editable model, is included in the Appendix 5.

# LEGISLATIVE APPROVALS

No legislative approvals are required for components of this project.

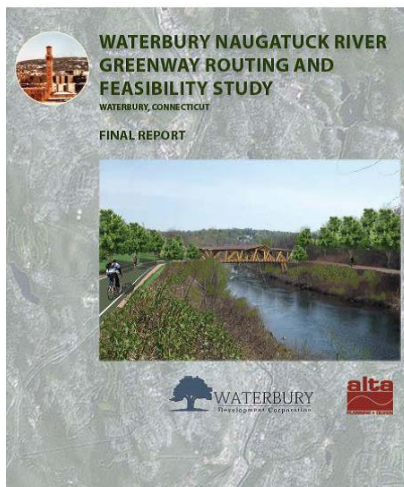
# STATE AND LOCAL PLANNING

The WATER project is in conformance with City, Regional and Statewide plans and policies.

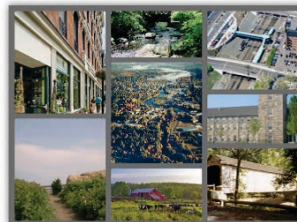
At the local level, the WATER project is serving as a catalyst for the updating of the City's Plan of Conservation and Development (POCD), and has met a number of the goals identified in the City's previous 2005 POCD which included "promoting safe and convenient pedestrian and bicycle facilities in appropriate locations to meet existing and future demand," and "providing every neighborhood with access to open space and recreation."

Regionally, the WATER project furthers the goals and objectives of the 2008 Regional Plan of Conservation and Development for the Central Naugatuck Valley Region and the Naugatuck River Greenway Master Plan (COGCNV, 2010) and is in conformity with the COGCNV Regional Long Range Transportation Plan 2011-2040. In addition, the first phase of the Naugatuck River Greenway is on COGCNV's transportation improvement program (TIP), funded, in part, by the MPO's entire allocation of MAP-21 Transportation Alternatives funds. If Waterbury's TIGER application is success, the project will be added to the COGCNV TIP.

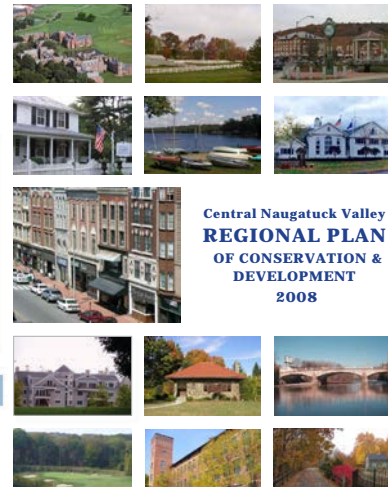
Finally, from a statewide perspective, the WATER project meets Growth Management Principle #2 under the Connecticut Conservation and Development Policies Plan (2013-2018) which encourages development of "a network of pedestrian and bicycle paths and greenways that provide convenient access between and with towns, including access to the regional public transportation network." The project is also consistent with the 2009 Connecticut Statewide Bicycle and Pedestrian Transportation Plan ([www.ct.gov/dot/cwp/view.asp?a=1390&q=459962](http://www.ct.gov/dot/cwp/view.asp?a=1390&q=459962)) and Bicycle Map Update; the State Recreational Trails Plan, and the latest plans under consideration by CTDOT for the eventual rehabilitation and/or reconstruction of the I-84/ Route 8 intersection.



CONSERVATION & DEVELOPMENT POLICIES: THE PLAN FOR CONNECTICUT



Prepared by the Office of Policy and Management  
In accordance with Connecticut General Statutes Section 16a-29





## TECHNICAL FEASIBILITY

### Engineering and design studies

A number of studies and plans prepared by the City relate to the project area and have informed existing conditions analyses, needs assessment, preliminary design, and budgetary costs for the **WATER** project. These include: Naugatuck River Greenway Routing Study (2010), Waterbury Naugatuck River Greenway: Phase 1 Extension Preliminary Concept Plan (2013 - See Appendix 1), Preliminary Property Easement Maps (April 2014 - See Appendix 3), Waterbury Naugatuck River Greenway Phase 1, Naugatuck Town Line to Eagle Street: Contract Plans (April 2014 - See Appendix 2), and Waterbury's Jackson Street Extension Feasibility Study.

All preliminary engineering and environmental analysis/permitting required for the development of the project has been started and is in progress. Upon notification of award, final design will be initiated immediately and construction bidding can follow in 18 months.

### Design criteria or basis of design

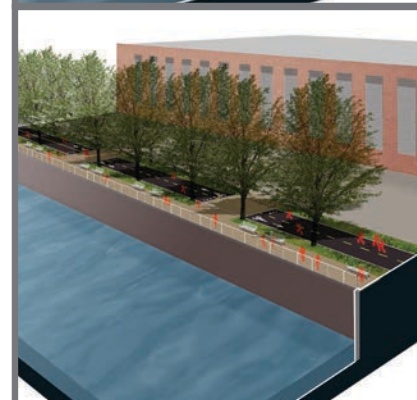
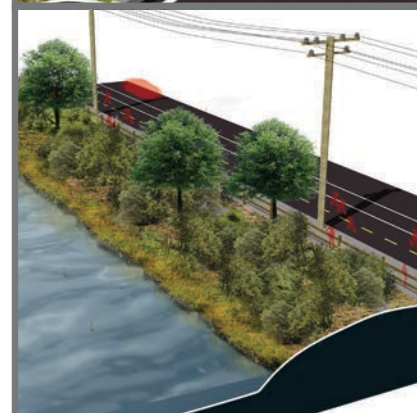
The criteria utilized in the design of the project includes: the Connecticut Department of Transportation (CTDOT) Highway Design Manual; CTDOT standard details and specifications; AASHTO Green Book and Guide for the Development of Bicycle Facilities, NACTO Urban Bikeway Design Guide, and the Federal Manual on Uniform Traffic Control Devices (MUTCD) among other industry-standard publications acceptable to the FHWA.

The greenway trail is proposed to be paved with asphalt and striped and marked consistent with current AASHTO and MUTCD design guidance. It is always designated as a bi-directional shared-use path with pedestrians and cyclists allowed to share the two travel lanes, one north and one south. This simple and straightforward design is chosen for a variety of reasons, including: economy of cost, ease of on-going maintenance, and clarity as to how the trail is to be used and shared. In some locations, where opportunity presents, supplemental pedestrian-only side paths are included for walking and jogging.

New and reconstructed roadways, Jackson Street and Freight Street, are local roads. Their design is based on City of Waterbury design standards regarding right-of-way width, pavement section, and utilities but overall will conform to CTDOT Highway Design Manual requirements. Meadow Street, a State facility, will comply with CTDOT standards.

### Basis of cost estimate and contingency

A detailed Preliminary Construction Cost Estimate (See Appendix 4) was prepared for the **WATER** project, which is based upon CTDOT's 2014 Cost Estimating Guidelines. The project cost estimate utilizes CTDOT contract pay items and associated unit costs based on bid history using CTDOT 2014 Bid Item List. The estimate identifies the cost of both major and minor construction items, including asphalt pavement and pavement marking, traffic signals, curbing, sidewalk, excavation and disposal, landscaping, utilities, guiderail, pedestrian railing, maintenance of traffic, structures, etc. Contingency is the estimated cost associated with risk and uncertainty. Per CTDOT guidelines, the contingency element of contract cost is computed by applying the selected contingency percentage to the base estimate based on a range per CTDOT guidelines. Item quantities were derived from detailed takeoffs from Autocad-based construction drawings associated with the **WATER** Project's Preliminary Design Plans, April 2014 (see Appendix 2).



## FINANCIAL FEASIBILITY

The City of Waterbury is a municipal corporation with a proposed FY2015 capital budget of \$24.6 Million and an operating budget of \$392 Million, which includes a contingency fund of \$2.25 Million. In 2013, Standard & Poor's upgraded the city's bond rating from A to AA- citing its stable tax base, financial stability, and strong financial management policies and practices. Moody's, Fitch, and Kroll reaffirmed the City's prior ratings of A1, A+, and A, respectively, reporting a stable financial outlook. The Board of Aldermen has approved legislation authorizing the City to apply for TIGER funding and committed to secure a \$10 Million local match.

The City has the capacity to administer federal grants. The City manages about \$2.7 Million of CDBG funds annually and has managed several Federally-funded capital projects, including:

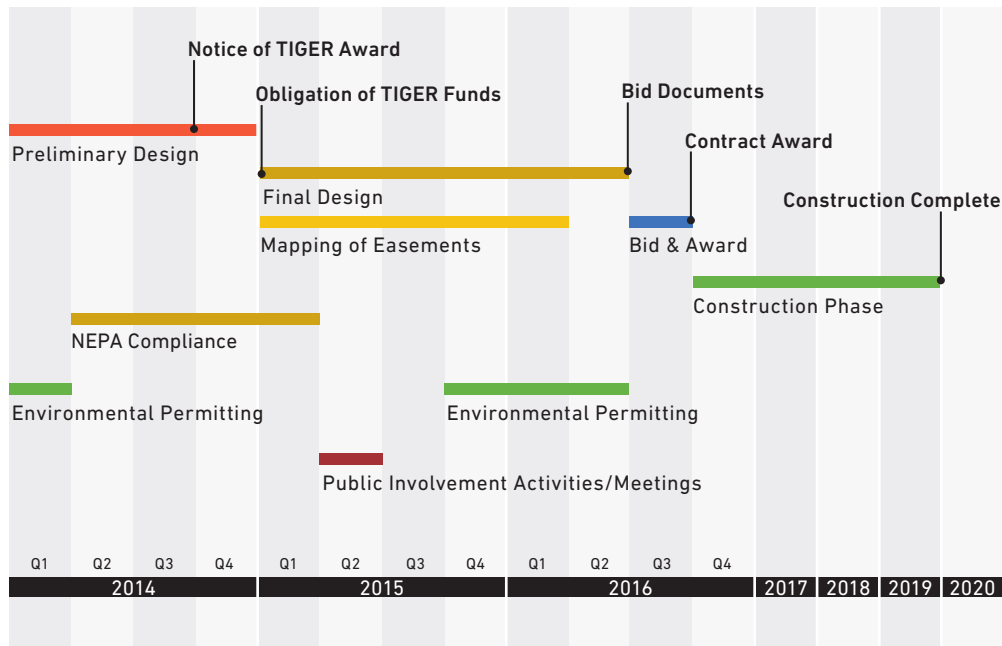
- **Cooke Street Sidewalks:** \$3 Million ARRA-funded project. Completed in Spring 2013.
- **Waterbury Industrial Commons:** \$40 Million, multiple-contract site remediation project and redevelopment, including \$15 Million of Department of Defense Funding. To be completed in 2015.

### Project budget by activity

	Component	Estimated Cost
1	<b>Waterbury Naugatuck River Greenway Phase 2</b>	<b>\$8,600,000</b>
	Path and Appurtenances	\$6,300,000
	Landscaping	\$650,000
	Drainage Improvements	\$150,000
	Utility Recommendations	\$100,000
	Site Remediation and Restoration	\$1,150,000
	Pedestrian Bridge over the Mad River	\$250,000
2	<b>Freight Street Reconstruction</b>	<b>\$5,000,000</b>
	Roadway Construction	\$3,000,000
	Sidewalk	\$300,000
	Utility Improvements	\$1,400,000
	Traffic Signals	\$300,000
3	<b>Jackson Street Reconstruction &amp; Extension</b>	<b>\$5,300,000</b>
	Roadway Construction	\$3,400,000
	Sidewalk	\$200,000
	Utility Improvements	\$1,300,000
	Drainage Improvements	\$400,000
4	<b>Library-Station-Riverfront Connector</b>	<b>\$2,600,000</b>
	Pedestrian Bridge over Meadow Street	\$2,250,000
	Site Improvements	\$350,000
5	<b>Meadow Street Station-Area Improvements</b>	<b>\$1,500,000</b>
	Roadway and Sidewalk Improvements	\$1,500,000
	<b>Construction Cost</b>	<b>\$23,000,000</b>
	<b>Soft Costs</b>	<b>\$6,000,000</b>
	Final Design & Construction Administration Services	\$1,300,000
	Construction Inspection Services	\$2,300,000
	City of Waterbury Grant Administrative	\$1,000,000
	Right-Of-Way Costs	\$1,400,000
	<b>TOTAL COST</b>	<b>\$29,000,000</b>



## PROJECT SCHEDULE



The proposed project schedule is designed to meet TIGER requirements. For a more detailed project schedule that includes proposed obligation dates and individual milestone completion dates please refer to Appendix 6.

We assume notification of award in September, 2014 and partial obligation of funds 3 months later at the start of 2015, thus enabling the start of final design and preparation of contract documents, acquisition of right-of-way (ROW) easements and finalization of environmental reviews and approvals. With 18 months budgeted to complete these activities, the project will be put out to bid at the end of the second quarter of 2016. Three months is budgeted for bidding and award of contract enabling start of construction in the third quarter of 2016, at which time funding for construction and resident engineering inspection (REI) will be obligated, a total of 21 months after the initial obligation of funds. This leaves an available construction duration of 3.25 years within which to complete all work. It is believed 2 – 2.5 years will be sufficient to build the improvements described herein.

Between submission of this application and the start of Final Design in January, 2015 (assumed), the City, its consultant team, and key Project Partners including WDC and CTDOT, will continue to work diligently to advance the Preliminary Design Drawings and Construction Estimate appended to this application (see Appendices 2 and 4, respectively) to a state of 'Design Development.' The City has allocated and is currently spending down approximately \$1.3 Million of its own money to develop these plans, conduct community and stakeholder outreach activities and begin ROW negotiations and environmental reviews for the WATER project. As evidence of this committed effort, the City and its consultants have already met with all property owners on whose property an easement is sought (See Appendix 3 for maps of proposed easements) and secured preliminary approval from nearly all. Seen by nearly all as a win-win for everybody, most have expressed enthusiastic support for the project and written letters to that effect which are included in Appendix 9.

## NEPA STATUS

The **WATER** project will be submitted through the Federal Highway Administration (FHWA) to complete National Environmental Policy Act (NEPA) review and processing. Phase 1 of the Waterbury Naugatuck River Greenway project, which runs from Platts Mill Road and Eagle Street, was Categorically Excluded by the FHWA without the need for further documentation. However, **WATER** is comprised of more components than the Phase 1 Waterbury Naugatuck River Greenway. Components of **WATER** project include, in addition to bicycle and pedestrian pathways: new roadway segments, a roadway extension, and preparation of a park. Due to the nature of potential resource impacts, such as to archaeological resources, the number of proposed property acquisitions, easements, and/or land displacements, it is expected the FHWA will require a Documented CATEX for **WATER**. There are also numerous hazardous materials sites within the greenway alignment, some of which present a high risk to human health.

In anticipation of the need for NEPA documentation, a Preliminary Draft CATEX has been completed (see Appendix 7) to this TIGER grant application. Physical and natural resource evaluations were conducted using Geographic Information Systems (GIS) mapping, Google Earth mapping, and base mapping and design plans included in previous studies regarding the planning and routing of the proposed greenway. The natural resource screening identified very limited natural resources within the footprint of the proposed project. For much of its length, the proposed greenway alignment is bordered by heavy industrial and mixed-commercial land uses, as well as large expanses of paved surfaces. Overall, the proposed greenway and related project components, including the park and roadway extension, are expected to have a beneficial effect on business vitality and quality of life by enhancing access by alternate modes and encouraging improvement in the surrounding human-scale environment.

Preliminary design work is already underway and NEPA coordination with the FHWA is expected to be complete by December 2014. The NEPA process, from start to finish, is expected to be completed within approximately 9 months. The Section 106 and Section 4(f) process, inclusive of coordination with the State Historic Preservation Office, is expected to run concurrently with the NEPA process and be completed within approximately the same timeframe.

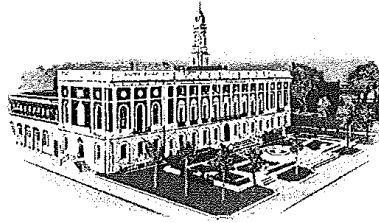
Although additional, more detailed analyses are required as the design progresses, the following natural resource permits are anticipated to be required for the proposed project:

- CTDEEP Inland Water Resources Division, Flood Management Certification
- CTDEEP General Permit for Stormwater and Dewatering Wastewaters from Construction Activities
- CTDEEP Natural Diversity Database Review

The process for obtaining these permits will begin after the NEPA process is complete and as the preliminary design is advanced. Receipt of the CTDEEP Inland Water Resources Division Flood Management Certification is anticipated by the end of March 2016. The CTDEEP General Permit for Stormwater and Dewatering Wastewaters from Construction Activities by the end of June 2016.



NEIL M. O'LEARY  
MAYOR



JOSEPH A. GEARY  
CHIEF OF STAFF

OFFICE OF THE MAYOR  
**THE CITY OF WATERBURY**  
CONNECTICUT

**FY 2014 TIGER DISCRETIONARY GRANT PROGRAM**  
**FEDERAL WAGE RATE CERTIFICATION**

**DATE: APRIL 21, 2014**

**PROJECT NAME: THE WATERBURY ACTIVE TRANSPORTATION AND ECONOMIC  
RESURGENCE PROJECT**

I hereby certify that the City of Waterbury will comply with the requirements of subchapter IV of chapter 31 of title 40, United States Code (Federal wage rate requirements), in the utilization of any funds granted to the City of Waterbury under the FY 2014 TIGER Discretionary Grant Program, as required by the FY 2014 Continuing Appropriations Act.

A handwritten signature in black ink, appearing to read "Neil M. O'Leary". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Neil M. O'Leary  
Mayor