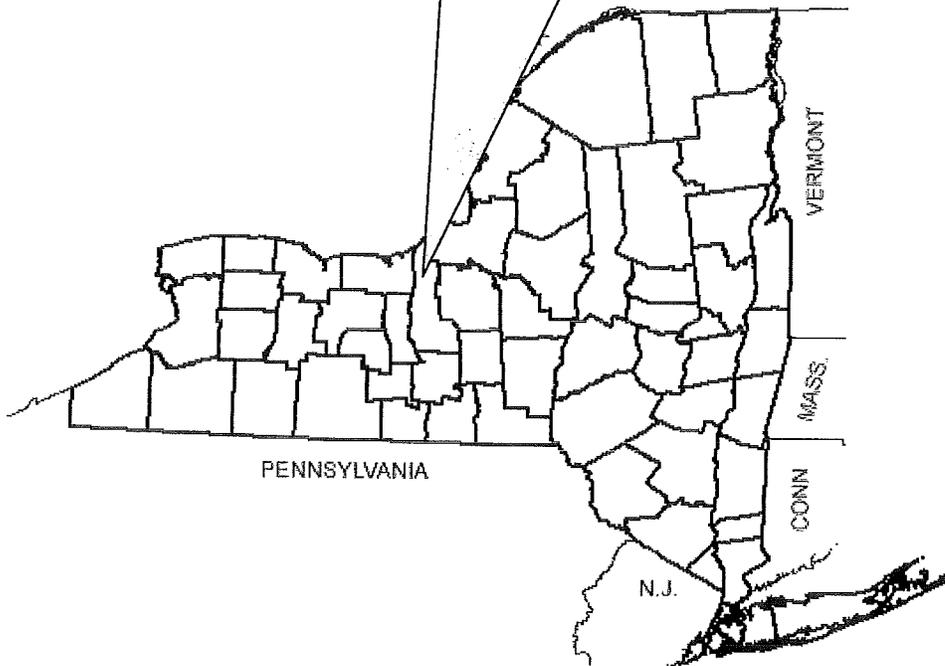


TRANSPORTATION

DRAFT *PROJECT SCOPING REPORT/ FINAL DESIGN REPORT*

November 2012

Owasco River Greenway Trail
P.I.N. 3755.57
Cayuga County
City of Auburn



U.S. Department of Transportation Federal Highway Administration

NEW YORK STATE DEPARTMENT OF TRANSPORTATION
ANDREW M. CUOMO, Governor JOAN MCDONALD, Commissioner

PROPOSED PROJECT



LIST OF PREPARERS

Group Director Responsible for Production of the Design Approval Document:

Frank DeSignore, P.E., Principal, CHA Consulting Inc.

Description of Work Performed by Firm: Directed Mary Burgoon AICP and Tim Faulkner P.E. in the preparation of the Design Approval Document in accordance with established standards, policies, regulations and procedures, except as otherwise explained in this document.

Note: *It is a violation of law for any person, unless they are acting under the direction of a licensed professional engineer, architect, landscape architect, or land surveyor, to alter an item in any way. If an item bearing the stamp of a licensed professional is altered, the altering engineer, architect, landscape architect, or land surveyor shall stamp the document and include the notation "altered by" followed by their signature, the date of such alteration, and a specific description of the alteration.*

PROJECT APPROVAL SHEET

(Pursuant to SAFETEA-LU Matrix)

A. IPP Approval:

The project cost and schedule are consistent with the Regional Capital Program.
The IPP was signed by:

Regional Director

B. Recommendation for Scoping & Design Approval:

The project cost and schedule are consistent with the Regional Capital Program.

Regional Program Manager

C. Recommendation for Scoping, Design, & Nonstandard Feature Approval:

All requirements requisite to these actions and approvals have been met, the required independent quality control reviews separate from the functional group reviews have been accomplished, and the work is consistent with established standards, policies, regulations and procedures, except as otherwise noted and explained.

Regional Design Engineer or Regional Maintenance Engineer or
Regional Director of Operations

D. Nonstandard Feature Approval:

The nonstandard features have been adequately justified and it is not prudent to eliminate them as part of this project.
OR, No nonstandard features have been identified, created, or retained.

Regional Director, FHWA or Deputy Chief Engineer

E. Scoping & Design Approval:

The required environmental determinations have been made and the preferred alternative for this project is ready for final design.

Regional Director, FHWA or Deputy Chief Engineer

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CHAPTER 1 - EXECUTIVE SUMMARY

1.1. Introduction

This project referred to as the Owasco River Greenway Trail Project is a twelve-mile shared use trail extending through the City of Auburn linking Wadsworth Park on the northwest to Emerson Park on the southeast.

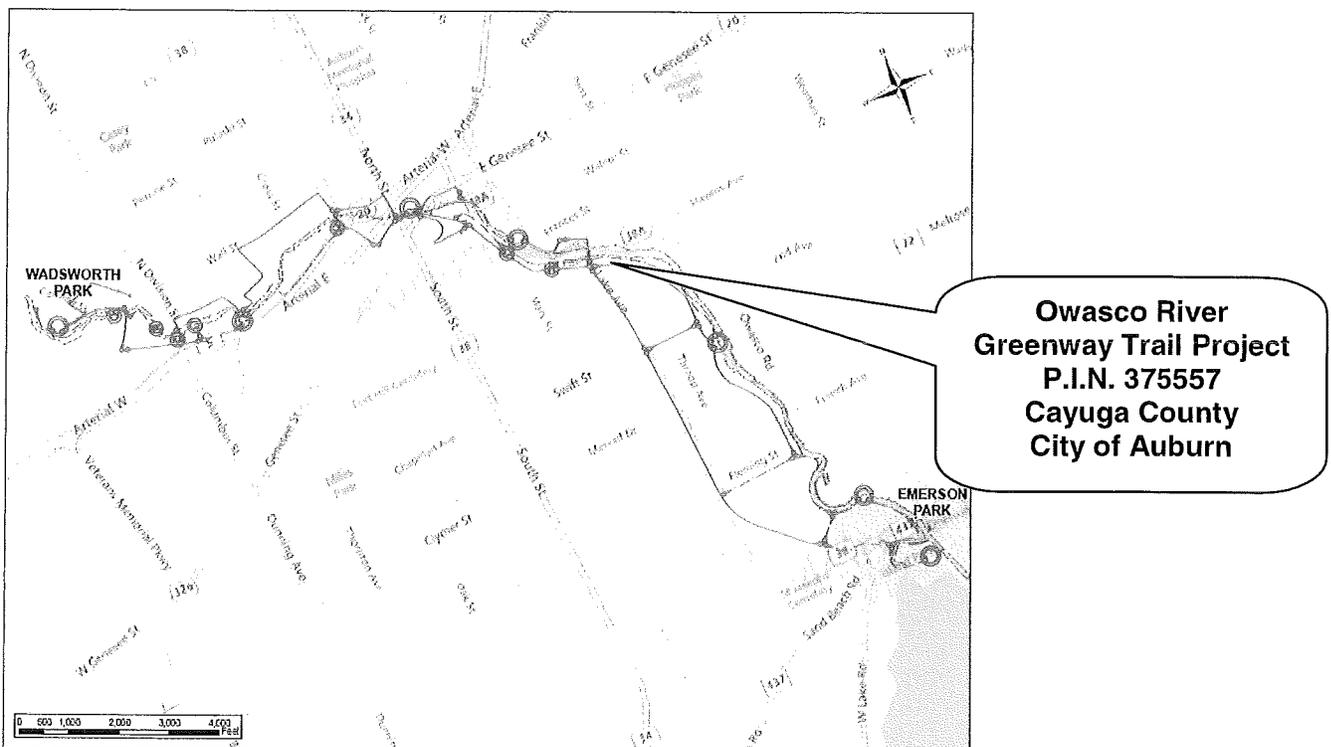
This report was prepared in accordance with the NYSDOT Project Development Manual, 17 NYCRR Part 15, and 23 CFR 771.

1.2 Purpose and Need

This project is needed to augment the City of Auburn's existing transportation system by providing a non-motorized multi-modal corridor to help reduce the City's carbon footprint. The project will further the City's efforts to link transportation, housing and environmental policies to improve the City's and regions economic development.

1.2.1 Where is the Project Located?

The project is located in the City of Auburn, NY. It begins in the northwestern quadrant of the City within Wadsworth Park; extends through the City's Central Business District and terminates at the southeastern side of the City to Emerson Park located the Town of Fleming.



1.2.2 Why is the Project Needed?

This project is needed to improve the City of Auburn's existing transportation system by providing a non-motorized multi-modal corridor to help reduce the City's carbon footprint. The project will also allow the city to advance transportation, housing and environmental policies that will improve the City's and region's economic development.

1.2.3. What are the Objectives/Purposes of the Project?

The overall purpose of the project is to create a non-motorized transportation system focused on the Owasco River and connecting the City's residential neighborhoods to the City's Central Business District, employment centers and passive and active recreational opportunities. The Owasco River Greenway Trail will increase mobility, improve safety, provide accessibility, create economic opportunities and improve visibility of the Owasco River. To fulfill the project's purpose, the following objectives will be achieved:

1. Transport non-motorized travelers along an aesthetically pleasing trail with views of the Owasco River in an efficient, cost effective, and safe manner.
2. Create a non-motorized transportation corridor extending from Wadsworth Park south to Emerson Park providing opportunities for scenic views, recreational use of the river and the potential for linkages to other regional trail systems.
3. Create opportunities for the trail to act as a catalyst for economic development by facilitating access to undeveloped/underutilized parcels within the City.
4. Locate the trail on publicly-owned property and within existing street right-of-ways.
5. Create trail loops to provide residents with a closed transportation system to use for exercise purposes.
6. Select a trail route that will not impact existing environmental conditions such as the occurrence of wetlands, endangered species and historic/cultural resources.

1.3. What Alternative is Being Considered?

The following alternatives were considered for this project:

Alternative 1: No Build "Null" Alternative

Alternative 2: Construct the Owasco River Greenway Trail

Alternative 1: No Action (Null) Alternative

This alternative does not address any of the needs of the project or the project objectives. Therefore, it was rejected as a feasible alternative. It is used in this report for comparison of costs and impacts only.

Alternative 2: Construct the Owasco River Greenway Trail System

This alternative consist of the construction of a shared use trail beginning at Wadsworth Park on the northwestern side of the City of Auburn to Emerson Park on the southeastern edge in the Town of Fleming. The trail consists of both an on-road and off-road trail. Preliminary trail route plans are provided in Appendix A.

Fourteen major and minor trail nodes are sited along the trail route for locating parking, seating, overlooks of the river, picnic facilities, interpretive and directional signage, trash receptacles etc. A major node generally provides more parking and amenities in comparison to a minor node. Character sketches of a major and a minor node, as well as conceptual plans of six nodes including Wadsworth Park are provided in Appendix A as examples of major and minor nodes. A table listing design considerations and amenities for each node is also in Appendix A.

The off-road trail portion of the trail, located only on publically owned property will be constructed for continued connectivity and to allow trail users to get closer to the Owasco River. The off-road trail will be 10 feet wide with 2-foot wide graded shoulders on either side. Fixed objects within 3 feet from the edge of the trail will be cleared for safety, where possible. The off road trail will be constructed of a crushed stone sub-base and an asphalt top course.

The on-road portion of the trail will be located within city streets' right-of way as a shared use lane, a wide curb lane or exclusive bike lane for bicycles with sidewalks used for pedestrians. Road widening will not be required for any of the on-road sections. Signage and on-road markings following AASHTO's standards will be provided to indicate the location of the trail route.

On-road treatments were selected using the following guidance prepared based on the consultant's engineering judgment and *AASHTO's Guide to Bicycle Facilities, 4th Edition, Chapter 2 Bicycle Planning*.

Exhibit 1.3-1 On-Road Treatment Guidelines				
Treatment	Traffic Volume AADT (Year)	Functional Classification	Adjacent Land Use*	Existing Pavement Width
Shared Use Lane	Up to 3500	Local or Collector	Low Intensity	varies
Wide Curb Lane	Less than 10,000	Collector or Arterial	Low to Medium Intensity	24 feet minimum
Exclusive Bike Lane	Greater than 4500	Collector or Arterial	High Intensity	30 feet minimum

*Intensity of Land Use is generally defined where the primary land use is as follows:

- Low: Suburban-style single family residential use, large-lot commercial or industrial use
- Medium: Urban single family residential use, medium-sized lot commercial or industrial use
- High: Dense residential downtown commercial/industrial uses with multiple driveway cuts onto street

The trail route, nodes and optional trail routes are described below in terms of five segments extending from Wadsworth Park to Emerson Park. Maps showing the location of trail routes and nodes, as well as on-road cross sections and a summary of roadway infrastructure and trail lengths are provided in Appendix A.

The physical and environmental impacts of the route and options as well as their ability to meet the project goals and objectives have been investigated, assessed and then reviewed by the community.

Segment 1 – Wadsworth Park to Washington Street

The trail begins at the western edge of a vacant City-owned property referred to as Wadsworth Park. This Project includes the development of the site as Wadsworth Park (Node #1) and as a destination point for the trail. The park will consist of hardscape paving surrounding the remaining foundations of some historic structures, interpretative panels, commemorating the history of the site and its former use, seasonal restroom facilities, benches, site lighting and a pedestrian overlook offering spectacular views of the river. Parking is located offsite to limit the disturbance of the park's historic and natural character. The parking lot will be located at 40 Canoga Street, a city-owned parcel. It will accommodate approximately 20 cars and on-site stormwater management. Park visitors will be able to drive to the park, and drop off picnic supplies before parking.

Vehicular traffic is limited on Wadsworth Street. Currently, Wadsworth Street accommodates two lanes from Wadsworth Park to Canoga Street. Wadsworth Street is limited to one lane between Canoga Street and Aurelius Avenue due to physical constraints. Traffic currently enters Wadsworth Street from Canoga Street and exit onto Aurelius Avenue. Reversing the direction of traffic on Wadsworth Street for park patrons to enter the park from Aurelius Avenue was discussed with the City's traffic officer who agreed that the change was an improvement to current conditions in particular, at the intersection of Wadsworth Street and Aurelius Avenue.

The off-road trail extends approximately 2400 feet easterly from the west side of Wadsworth Park, adjacent to the Owasco River ending at Aurelius Avenue. In the future, the Owasco River Greenway Trail has the potential to join with future trails located along County-owned land north of the park connecting eventually to the Erie Canal trail. Before reaching Aurelius Avenue, the trail will connect to the City-owned

combined-sewer overflow (CSO) facility driveway located south of Wadsworth Street, approximately 200 feet from the intersection with Aurelius Avenue. Node #2 located adjacent to the CSO facility will be a minor node that will feature interpretative signage, benches, bicycle racks, trash receptacles and a pedestrian overlook of the river and remains of the dam located north of Aurelius Avenue.

The trail continues approximately 825 feet southerly on Aurelius Avenue as a shared use lane for bicycles and existing sidewalks for pedestrians. It then turns easterly and continues 1250 feet along Clark Street as shared use lane for bicycles and existing sidewalks for pedestrians. The trail crosses over North Division Street, continuing along Clark Street (1145 feet) as a shared use lane with a new sidewalk located on the north side, crossing into the New York State Electric and Gas (NYSEG) Property located at the end of Clark Street. It continues 1046 feet using the NYSEG driveway to access the Owasco River. NYSEG will be abandoning the substation located at this site within the next two years. They will remediate the site in 2015 and have expressed willingness to sell the property to the City or negotiate an easement for use of the driveway. From this point, the trail continues and crosses over the Owasco River on a newly constructed pedestrian bridge to a City-owned parcel referred to as the Dunn & McCarthy Site. It then parallels the north side of the Owasco River to Washington Street.

Node #4 located at the intersection of North Division Street and Clark Street is a minor node that will be constructed as part of the North Division Street Bridge (Pin #375548) reconstruction project scheduled for completion in 2016. This node will include an overlook of the North Division Street dam with interpretative signage.

Node #5 is a minor node accessed from Clark Street Road through City-owned property that extends to the Owasco River. This node will include an overlook of the Owasco River with four parking spaces, benches and trash receptacles.

Node #6 is a major node located on Dunn & McCarthy Site. Parking associated with this node is located at the end of Venice Street near the Owasco River. (A conceptual plan of this node is in Appendix A.)

Option A. Aurelius Avenue to North Division Street: Under this option, the trail would continue as an on-road trail after it leaves Wadsworth Park, crossing over Aurelius Avenue. It continues as an off-road trail onto property owned by the City of Auburn adjacent to property currently owned by RPM Properties LLC. The trail runs parallel to the Owasco River then crosses over the river via a new pedestrian bridge at Node #3 onto property currently owned by Spectrum Microwave then parallels the Owasco River to North Division Street. Node #3 is a minor node that will consist of trail signage, benches and an overlook of the river.

This option is desirable because it provides for a more scenic trail adjacent to the river. Its construction would require the City to obtain an easement from the owners of Spectrum Microwave who at this time, are unwilling to do so. If this changes, this section of the trail should be constructed as part of the preferred route.

Option B. North Division Street to Washington Street: Under this option, the trail would proceed north on North Division Street from the Clark Street intersection as a shared use lane for bicycles and sidewalks for pedestrians. Currently, odd/even parking is allowed on North Division Street as is the case on all City streets unless otherwise noted. Parking would be eliminated from this street to provide room for the trail. Plenty of onsite parking is available on parcels along North Division Street.

The trail turns east from North Division Street onto West Street, and proceeds east to Venice Street, north to Tehan Avenue, east to Washington Street and north to Wall Street as a shared use lane and sidewalks. This option would be selected if at the time of construction of this segment, the off-road trail extending along Clark Street east of North Division Street crossing the river to the Dunn & McCarthy site is determined too costly or impracticable.

Segment 2 – Washington Street to Lincoln Street

The trail extends south on Washington Street as a shared use lane for bicycles and existing sidewalks for pedestrians. It then continues 1840 feet easterly as an off-road trail located between the Westbound Arterial and the Finger Lakes Railroad owned by the Cayuga County Industrial Development Agency (CCIDA). Trail users will cross the railroad tracks at the Washington Street/Westbound Arterial intersection. The CCIDA is in full support of the project. (Appendix D) The trail continues until it intersects with State Street. There is approximately 60 feet between the Arterial and the edge of the railroad track. The trail will be located 30 feet from the centerline of the railroad tracks. Fencing will be installed along the northern edge of the trail to further separate trail users from the railroad tracks.

The trail extends south for 800 feet along State Street to Dill Street as a wide curb lane for bicycles and existing sidewalks for pedestrians. This section of State Street is 41 feet wide with four lanes of traffic. As part of this project, State Street will be restriped with two wide curb lanes for through traffic and one, two-way center turning lane. This action will not change the Level of Service (LOS) at either intersection of State with Westbound Arterial or Eastbound Arterial; both will remain at LOS B during the AM and PM peak hours. Due to concerns regarding queuing on State Street between the Eastbound Arterial and Dill Street as expressed by the City of Auburn traffic officer, it is proposed to fully signalize the intersection of State Street and Dill Street.

The trail continues 1200 feet north on Dill Street as exclusive bike lanes and existing sidewalks. Currently, Dill Street is 48 feet of pavement with two 9 foot parking lanes and two 15 foot driving lanes. Bike lanes are proposed for Dill Street and Loop Road because of the intensity of land uses and excessive number of driveway cuts along both streets. The bike lanes will be added to Dill Street by reducing the travel lanes to 10 feet, leaving room for two 5 foot bike lanes. The on-road trail continues east on Loop Road to the intersection of Loop Road and East Genesee Street. Loop Road is currently 48 feet of pavement with four 12 foot travel lanes. Bike lanes will be added to this section of Loop Road by reducing the four lanes to two 12 foot travel lanes, a 14 foot wide two-way center turn lane and two 5 foot bicycle lanes. It was determined that this action will reduce the level of service at adjoining intersections. The City's traffic officer agreed with all proposed revisions to the current street configuration.

Eastbound cyclists will travel on Lincoln Street to reach Osborne Street since Loop Road only allows westbound traffic from the Osborne Street/Lincoln Street intersection to the Genesee Street/Loop Road intersection. Lincoln Street will become a shared use lane for bicyclists. Pedestrians will be able to utilize existing sidewalks in both directions on Loop Road, Osborne Street and Lincoln Street.

Once on Osborne Street, the preferred route continues along Osborne Street as a shared used lane and on Canal Street, an unimproved City street, as an off-road trail. (Discussed further as part of Segment 3.)

A pedestrian-only route (existing sidewalks) starts at the intersection of Loop Road and East Genesee Street, proceeds northeasterly along East Genesee Street to Owasco Road. The pedestrian route (a new sidewalk) then turns southeast on Owasco Street to Miller Street to the Mill Street Dam.

Currently, two-way traffic is allowed on Miller Street. As part of this project, Miller Street would be available for southbound traffic only to create room for a new sidewalk and to eliminate right-hand turns on to Owasco Street. Auburn's traffic officer reviewed and approved this recommendation.

Node #7 is located within the western section of Curley's Parking lot located at the corner of State Street and the Westbound Arterial. The owner of Curley's Restaurant has agreed to work with the City to designate parking spaces for trail users as long as concerns regarding liability and vehicle turnover are addressed as part of the final design process.

Node #8 is Market Street Park, a City-owned park constructed in 2009. This project includes park amenities not included in the 2009 park construction budget. They include relocating walk surfaces, and the addition of street trees and a powder coated steel deck between the river and Loop Road.

Option A. Wall Street - Westbound Arterial: This option would continue from Option B of Segment 2 described above, as a shared use lane for bicycles and the existing sidewalk for pedestrians along Wall Street. The trail then intersects State Street as a wide curbed lane and goes south to the corner of State Street and the Westbound Arterial.

Option B. West Garden Street: A pedestrian-only route (new sidewalk) is proposed to start at the corner of State Street and the Westbound Arterial, precede north on State Street and east on West Garden Street. At the end of West Garden Street, it skirts by the corner of the Central High Medical Building and meets the sidewalk along the north side of the Westbound Arterial. This pedestrian only route continues south on North Street and meets up with the Owasco River Greenway Trail at the intersection of North Street and Loop Road.

Segment 3 – Canal Street to Swift Street

The preferred route takes two separate paths, an on-road and off-road route as it extends along the west side of the Owasco River. The off-road preferred route extends south from the Lincoln Street/Osborne Street approximately 1800 feet along the unimproved street referred to as Canal Street, to the Mill Street Dam (Node #9) and back up to Osborne Street. Node #9 is a minor node with no parking, but pedestrian amenities include benches and directional signage.

The on-road section of the preferred route extends along Osborne Street beginning at the Lincoln/Osborne Street intersection and continues to Lake Avenue. This section of Osborne Street is slated for reconstruction (PIN #375375) between October 1, 2014 and September 30, 2015 and will include a wide curb lane for bicycles and sidewalks for pedestrians.

At Node #11, the preferred route extends along a City-owned sewer easement that runs parallel to the Owasco River, advancing up to the street level at the Lake Avenue Bridge where it crosses Lake Avenue and then extends 4400 feet back down along the sewer easement south to Node #12 located at the State Dam, south of Swift Street. The sewer easement is currently used for maintenance vehicles as well as an informal trail route. The grade change up to the residences located between Osborne Street and the sewer easement is significant. The majority of the property owners currently have fencing or no physical means of accessing the River. This existing condition significantly reduces the potential for conflicts between trail users and property owners. An open house was conducted on June 19, 2012 for property owners located on Osborne Street to discuss the City's proposed use of the sewer easement for the trail. No one expressed opposition at this meeting, although, correspondence from an Osborne Street resident was received about the project. A copy of this letter can be found in Appendix D: Correspondence.

On the east side of the Owasco River, an off-road trail starts at Node #10 and extends northwest approximately 1400 feet west along the northern side of the former Auburn Woolen Co. site. This off-road trail will parallel Miller Street continuing adjacent to the river to the bend of the river. It will follow existing informal trails.

Access to Node #10 from Miller Street is provided using the current driveway to the CSO facility. (A conceptual plan of this node is in Appendix A.) The node will provide parking for people to view the River from their cars or sit on benches provided at the overlook constructed near the dam. Development of the trail to this node will improve access to the CSO facility. The trail continues easterly along Miller and Lizette Streets from the Mill Street Dam as a shared use lane for bicycles and a new sidewalk built on the River side of the street for pedestrians. It then turns east on Owasco Street to Lake Avenue as a wide curb lane for bicycles and sidewalks for pedestrians and joins the off-road trail along the sewer easement.

Option A. Osborne Street, Lake Avenue to Node #12: Instead of continuing south of Lake Avenue as an off-road trail along the sewer easement, the trail becomes a shared use roadway along Osborne Street for bicycles and sidewalks constructed on both sides for pedestrians to the State Dam. This option is offered if funding is not available or permissions are not granted for construction of the trail along the sewer easement.

Option B. – Lake Avenue, Osborne Street to Swift Street. From the Osborne Street/Lake Avenue intersection, the trail continues south on Lake Avenue as a wide curb lane for bicycles and existing sidewalks for pedestrians. This option is offered for the more experienced bicyclist to travel through this area.

Option C. – Swift Street - From the Lake Avenue/Swift Street intersection, the trail continues easterly on Swift Street as a shared use lane for bicycles and sidewalks for pedestrians to its intersection with Osborne Street. A new sidewalk would be added to Swift Street extending from Throop Avenue to Pulsifer Drive on the north side. This option is offered to provide connection from Lake Avenue to the preferred trail located adjacent to the Owasco River.

Segment 4 – Swift Street to Fleming Street

Within this segment, the preferred route extends from the State Dam to Pulsifer Drive following the existing driveway used by city-owned maintenance vehicles traveling to the State Dam and Node #12. This node will consist of an overlook extending over the spillway to allow for views of the River. Parking, benches, bicycle racks, interpretive signage and site lighting are some of the amenities provided at this node. The City will work with the dam design consultants to incorporate the features of the node into the State Dam Improvement Project. (A conceptual plan of this node is in Appendix A.)

From Node #12, the preferred route extends approximately 2900 feet along Pulsifer Drive to the north side of Auburn High School as a shared use lane for bicycles and a new sidewalk. The sidewalk will be constructed on the east side of the street for better visibility of the Owasco River. The option of locating the trail along the riverfront within this segment was discussed with property owners but, was rejected because of property owner concerns regarding limited or removed access to the River. A sidewalk was determined to be a compromise in particular, if it was constructed as part of the project and not at the property owners' expense. Construction of the sidewalk will potentially impact the current location of utilities on Pulsifer Drive.

Option A. Lake Avenue -The trail continues on Lake Avenue as a wide curb lane for bicycles and existing sidewalks for pedestrians. This option is offered for the more experienced bicyclist to travel through this area.

Segment 5 – Fleming Street to Emerson Park

The preferred route of the trail continues approximately 5200 feet as an off-road trail along the banks of the Owasco River on Auburn Enlarged City School District property until it joins with the existing off-road trail on Cayuga County Park owned property at Node #13. This node will feature an overlook of the river with benches and picnic tables. Parking will not be provided at this node. Cayuga County Parks will be constructing a dog park at the southern corner of the park directly adjacent to the trail. The trail continues under the White Bridge Road Bridge into Node #14, Emerson Park. The Auburn Enlarged City Schools Superintendent of Schools and the Cayuga County Director of Parks and Trails have provided a letter of support for the project and its location on high school and county property respectively.

Option A. – The trail continues along Lake Avenue as a shared use lane for bicycles and existing sidewalks for pedestrians to Fleming Street. At this point, the trail will leave Lake Avenue and extend as an off-road trail located along the front of the Auburn Enlarged City School District property where it crosses onto Cayuga County Park owned property as an off-road trail then crosses White Bridge Road, at-grade, north of the traffic circle, into Emerson Park. This crossing is a mid-block crossing with a crosswalk and appropriate signage. There are also connections between the Lake Avenue trail and the preferred trail at the northern and southern ends of the Auburn Enlarged City School District property. These connections are off-road trails either using existing facilities or new facilities.

For a more in-depth discussion of the design criteria see Section 2.3.3.1 of this report.

1.4 Environmental Review

NEPA (National Environmental Policy Act):

This project is classified as a Class II Automatic Categorical Exclusion under the United States Department of Transportation (USDOT) National Environmental Policy Act (NEPA) Regulations, 23 CFR 771.117. A NEPA Checklist was prepared for the project and is included in Appendix B. The project complies with the requirements of 23 CFR 771.117(d) as a Categorical Exclusion; construction of bicycle and pedestrian lanes, paths, and facilities. The Federal Highway Administration (FHWA) will serve as Lead agency under NEPA. It is noted that coordination with SHPO and NYSDEC is necessary for this project for impacts to historical/cultural resources and wetlands.

SEQRA (State Environmental Quality Review Act): This project is classified as a Type 1 Action in accordance with 6NYCRR Part 617, State Environmental Quality Review (SEQR) Act due to the fact that it passes directly adjacent to the NRHP-listed South Street Area Historic District. A Phase 1A Cultural Resources Survey was completed for this project and as noted in 3.3.3.10 Historic and Archeological Resources, construction of the Project will not require demolition or physical alteration of any buildings or properties listed on or previously determined eligible for listing on the NRHP. Therefore, no direct physical impacts to historic-architectural resources will occur as a result of the Project.

1.5 How will the Alternatives Affect the Environment?

Exhibit 1.5-1 Comparison of Alternatives		
Category	Alternatives	
	Null	2
Wetland impacts	None	None
100 year floodplain impact	None	None ¹
Archeological Sites Impacted	None	None ²
Section 106/Section 4(f) impacts	None	No Adverse ³ Impacts
Noise	None	None
Impact to forested areas	None	1.75 acres
Noise Impacts	None	None
Property impacts	None	None
Construction Cost	None	\$8,115,000 ⁴

¹ Trail and/nodes located within the floodplain will be constructed of hard surfaces and therefore will not impact the floodplain.

² Potential archeological sensitive areas will be avoided or fill will be used to protect sensitive areas.

³ A No Adverse Effect from SHPO is anticipated.

⁴ Total Cost of Preferred Trail without the optional routes as described in this report.

Anticipated Permits/Certifications/Coordination:

New York State Department of Environmental Conservation (NYSDEC):

- State Pollutant Discharge Elimination System (SPDES) General Permit
- Section 401 Water Quality Certification
- Article 15 Stream Disturbance Permit

Army Corps of Engineers (USACE):

- Section 404 Nationwide Permit

United States Environmental Protection Agency

- Executive Order 11988 Flood Plain Management
- Executive Order 11990 Wetlands

Coordination

- Federal Highway Administration (Section 4f & Section 106)
- U.S. Fish & Wildlife Service (Threatened and Endangered Species)
- U.S. Army Corps of Engineers (Section 404 Wetlands)
- NYS Office of Parks, Recreation and Historic Preservation (Section 4f & Section 106)
- City of Auburn Floodplain Development Permit
- City of Auburn Highway Work Permit

Others

- Local Permits

1.6 What are the Costs & Schedules?

Design Approval is scheduled for September of 2013 with Construction scheduled to last 15 months beginning in June of 2015.

Exhibit 1.6 -1 Project Schedule	
Activity	Date Occurred/Tentative
Scope & Design Approval	September 2013
Construction Start	June 2015
Construction Complete	September 2016

Exhibit 1.6-2 Owasco River Greenway Trail Segment Cost Estimates					
	Segment 1 Wadsworth Pk.- Washington St.	Segment 2 Washington St.- Lincoln St.	Segment 3 Canal St.-Swift St.	Segment 4 Swift St.-Fleming St.	Segment 5 Fleming St.- Emerson Park
<i>Cost Estimate Boundaries</i>	<i>Same</i>	<i>Dunn/McCarthy Site (a Wash. St.) to Mill St Dam</i>	<i>Mill St. Dam to State Dam</i>	<i>State Dam to North border of Auburn HS</i>	<i>North border of Auburn HS to Emerson Park</i>
Construction Costs	\$2,330,000	\$1,410,000	\$870,000	\$200,000	\$550,000
Incidentals 10%	\$233,000	\$141,000	\$87,000	\$20,000	\$55,000
Subtotal 1	\$2,563,000	\$1,551,000	\$957,000	\$220,000	\$605,000
Contingency (15% Design Approval)	\$385,000	\$233,000	\$145,000	\$33,000	\$91,000
Subtotal 2	\$2,948,000	\$1,784,000	\$1,102,000	\$253,000	\$696,000
Field Order Change (5%)	\$148,000	\$90,000	\$56,000	\$13,000	\$35,000
Subtotal 3	\$3,096,000	\$1,874,000	\$1,158,000	\$266,000	\$731,000
Mobilization (4%)	\$124,000	\$75,000	\$47,000	\$11,000	\$30,000
Construction Inspection (9%)	\$279,000	\$169,000	\$105,000	\$24,000	\$66,000
Total Alternative Cost	\$3,499,000	\$2,118,000	\$1,310,000	\$301,000	\$827,000
Project Total: \$8,055,000					

Exhibit 1.6-3 Owasco River Greenway Trail Segment Options Cost Estimates									
	Segment 1		Segment 2		Segment 3			Segment 4	Segment 5
	Option A	Option B	Option A	Option B	Option A	Option B	Option C	Option A	Option A
Construction Costs	\$725,000	\$40,000	\$150,000	\$35,000	\$175,000	\$15,000	\$35,000	\$15,000	\$300,000
Incidentals 10%	\$73,000	\$4,000	\$15,000	\$4,000	\$18,000	\$2,000	\$4,000	\$2,000	\$30,000
Subtotal 1	\$798,000	\$44,000	\$165,000	\$39,000	\$193,000	\$17,000	\$39,000	\$17,000	\$330,000
Contingency (15% Design Approval)	\$120,000	\$7,000	\$25,000	\$6,000	\$29,000	\$3,000	\$6,000	\$3,000	\$50,000
Subtotal 2	\$918,000	\$51,000	\$190,000	\$45,000	\$222,000	\$20,000	\$45,000	\$20,000	\$380,000
Field Order Change 5%	\$46,000	\$3,000	\$10,000	\$3,000	\$12,000	\$1,000	\$3,000	\$1,000	\$19,000
Subtotal 3	\$964,000	\$54,000	\$200,000	\$48,000	\$234,000	\$21,000	\$48,000	\$21,000	\$399,000
Mobilization (4%)	\$39,000	\$3,000	\$8,000	\$2,000	\$10,000	\$1,000	\$2,000	\$1,000	\$16,000
Construction Inspect (9%)	\$87,000	\$5,000	\$18,000	\$5,000	\$22,000	\$2,000	\$5,000	\$2,000	\$36,000
Option Total Cost	\$1,090,000	\$62,000	\$226,000	\$55,000	\$266,000	\$24,000	\$55,000	\$24,000	\$451,000

1.7 Which Alternative is Preferred?

Only one feasible build alternative has been identified that meets the project objectives. The selection of the preferred alternative was based on a collective decision of the community through input provided at the public meetings and steering committee meetings conducted throughout the planning process. A decision to enter final design will not be made until after the environmental determination and evaluation of the comments on the draft design approval document.

1.8 Who will decide Which Alternative is Chosen And How Can I Be Involved In This Decision?

The City of Auburn applied for and obtained a Federal Highway TIGER II Planning Grant to plan, design and prepare construction documents for the Owasco River Greenway Trail. Project coordination with the public, involved stakeholders and stakeholder agencies has continued throughout the project to identify potential trail routes, environmental concerns and the selection of a preferred route. Discussions with the City have continued to obtain information needed for the preparation of this report.

Exhibit 1.8-1 Public Involvement Plan Schedule of Milestone Dates	
Activity	Date Occurred/Tentative
Initiation of Project	October, 2011
Steering Committee	Active though Project
Public Informational Meeting #1 (Open House)	November, 2011
Public Informational Meeting #2 (Two Community Workshops)	April 2012
Public Informational Meeting #3 (Property Owners Open House)	June 2012
Stakeholder Agency Coordination	Active though Project
Utility Coordination	Ongoing through Project Design
Current Project Letting date	May 2015

Refer to Appendix C for information regarding public involvement and stakeholder input and Appendix D for project correspondence.

- You can contact:

Stephen Selvek, Project Manager
City of Auburn
Memorial City Hall
24 South Street
Auburn, NY 13021
sselvek@auburnny.gov
(315) 255-4115

You can visit the Project's website:

(http://www.auburnny.gov/Public_Documents/AuburnNY_Planning/Greenway/index).

The remainder of this report is a detailed technical evaluation of the existing conditions, the proposed alternatives, the impacts of the alternatives, copies of technical reports and plans and other supporting information.

CHAPTER 2– PROJECT INFORMATION

2.1 Local Plans for the Project Area

The project is consistent with the City of Auburn’s 2010 Comprehensive Plan and is intended to fulfill the policies of the New York State Department of Transportation (NYSDOT) and Central New York Regional Planning and Development Board (CNYRPDB) regarding bicycle and pedestrian concerns. The proposed Owasco River Greenway Trail Plan was introduced in the City’s Comprehensive Plan and is intended to set the framework and be a catalyst for the rebirth of the City.

There are no approved developments planned within the project area that will impact traffic operations.

2.2 Abutting Highway Segments and Future Plans for Abutting Highway Segments

According to the New York Statewide Transportation Improvement Program approved on September 30, 2011 for the Federal fiscal years of 2011-2014, there are four future projects directly adjacent to Owasco River Greenway Trail Project. They include:

- Osborne Street: Loop Road to Lake Avenue Reconstruction PIN: 375375 is scheduled for construction in 2015. This project will complete a portion of the Owasco River Greenway Trail with the inclusion of a bicycle shared use lane and ne sidewalks on Osborne Street.
- Traffic Signal Upgrades at various locations within the City. PIN 375443 is scheduled for design in 2013.
- North Division Bridge Street Replacement PIN: 475548 is scheduled for preliminary design in 2013. The reconstruction of this bridge will allow for the development of a trail node proposed to be located adjacent to the bridge.
- South Street Repaving PIN: 375458 is scheduled for 2014. This project will not affect the Owasco River Greenway Trail Project.

2.3 Transportation Conditions, Deficiencies and Engineering Considerations

2.3.1 Traffic and Safety and Maintenance Operations

2.3.1.1 Functional Classification and National Highway System (NHS) –

The Owasco River Greenway Trail is not part of the New York State’s functional highway system and not on the National Highway System. The trail system will be established for the use of non-motorized recreational activities. Refer to the tables below for the classification of adjacent streets:

Exhibit - 2.3.1.1-1 Classification Data						
Route(s)	Pulsifer Drive	Osborne Street	Lake Ave.	Loop Road	Dill Street	Washington St.
Functional Classification	Urban Collector	Urban Collector	Minor Art.	Minor Art.	Urban Collector	Urban Collector
National Highway System (NHS)	No	No	No	No	No	No
Designated Truck Access Route	No	Yes	No	No	No	No
Qualifying Highway	No	No	Yes	Yes	No	No
Within 1.6 km of a Qualifying Highway	No	Yes	Yes	Yes	Yes	Yes
Within the 4.9 m vertical clearance network	No	No	No	No	No	No

Exhibit - 2.3.1.1-2 Classification Data						
Route(s)	North Division	State Street	Routes 5&20 WB	Routes 5&20 EB	North St	White Bridge Road
Functional Classification	Minor Arterial	Urban Collector	Principal Arterial	Principal Arterial	Principal Arterial	Major Collector
National Highway System (NHS)	No	No	Yes	Yes	Yes	No
Designated Truck Access Route	No	No	Yes	Yes	Yes	Yes
Qualifying Highway	Yes	No	Yes	Yes	Yes	No
Within 1.6 km of a Qualifying Highway	Yes	Yes	Yes	Yes	Yes	No
Within the 4.9 m vertical clearance network	No	No	No	No	No	No

Exhibit - 2.3.1.1-3 Classification Data						
Route(s)	Swift Street	Owasco Street	Lizette Street	Miller Street	Lincoln Street	Genesee Street
Functional Classification	Local btwn Lake & Osborne	Major Collector	Local	Local	Local	Principal Arterial
National Highway System (NHS)	No	No	No	No	No	Yes
Designated Truck Access Route	Yes	No	No	No	No	Yes
Qualifying Highway	No	No	No	No	No	Yes
Within 1.6 km of a Qualifying Highway	No	Yes	Yes	Yes	Yes	Yes
Within the 4.9 m vertical clearance network	No	No	No	No	No	No

Exhibit - 2.3.1.1-4 Classification Data						
Route(s)	West Street	Tehan Street	Clark Street	Aurelius Avenue	Wadsworth Street	
Functional Classification	Local	Local	Local	Local	Local	
National Highway System (NHS)	No	No	No	No	No	
Designated Truck Access Route	No	No	No	No	No	
Qualifying Highway	No	No	No	No	No	
Within 1.6 km of a Qualifying Highway	Yes	Yes	Yes	Yes	Yes	
Within the 4.9 m vertical clearance network	No	No	No	No	No	

2.3.1.2 Control of Access –

Off-road trail sections within the City of Auburn are considered park facilities and will be subject to the City Park hours of operation – open at dawn and close at dusk. On-road facilities will not restrict access at any time.

Where appropriate, barriers will be provided to prevent motorized vehicular access to the off-road trail sections.

2.3.1.3 Traffic Control Devices

There is a number of existing traffic control devices encountered by the proposed trail. Locations that the proposed trail crosses a roadway are shown in Exhibit 2.3.1.5

Exhibit - 2.3.1.3-1 Traffic Control Devices					
Intersection	Type	Marked Crosswalk	Pedestrian Signal	Accessible Ramps	Comments
Wadsworth /Aurelius	Unsignalized	No	No	No	
Aurelius/Clark	Unsignalized	No	No	Partial	Ramp on NE corner
Clark/Brookfield	Unsignalized	Yes	No	Yes	
Clark/Auburn	Unsignalized	No	No	Yes	
Clark/North Division	Unsignalized	No	No	Partial	None on SE Corner
Washington/Arterial WB	Signalized	Yes	Yes	Yes	
McMaster/Arterial WB	Unsignalized	Yes	No	Partial	None on North Side
State/Arterial WB	Signalized	Yes	Yes	Yes	
State/Arterial EB	Signalized	Yes	Yes	Yes	
State/Dill	Unsignalized	Yes	No	Yes	
Dill/North	Signalized	Yes	Yes	Yes	
Loop/East Genesee	Signalized	Yes	Yes	Yes	
Canal/Osborne	Unsignalized	No	No	No	
Osborne/Lake	Signalized	Yes	No	Yes	
Pulsifer/Crescent	Unsignalized	No	No	No	
Pulsifer/Roberts	Unsignalized	No	No	No	
Pulsifer/Lakehurst	Unsignalized	No	No	No	
Pulsifer/Wilbur	Unsignalized	No	No	No	
Pulsifer/Copley	Unsignalized	No	No	No	
Pulsifer/Jarvis	Unsignalized	No	No	No	
Pulsifer/Locust	Unsignalized	No	No	No	
Pulsifer/Fleming	Unsignalized	No	No	No	

Existing crosswalk markings are in varying condition and will be updated as part of this project. Vehicular and pedestrian crosswalk warning signs will be installed as required by the City of Auburn and the MUTCD.

Off-road trail sections will be signed according to the standards of the MUTCD.

2.3.1.4 Traffic Volumes

Existing traffic volumes for the area roadways are shown in the table below. Forecasted traffic volumes are not provided because it is anticipated that the trail improvements will not affect traffic volumes within the City.

Exhibit - 2.3.1.4-1 Traffic Data		
Road	Section	AADT (Year)
White Bridge Road	Lake to Owasco	5300 (2010)
Pulsifer Drive	Fleming to Swift	571 (2010)
Osborne Street	Swift to Lake	829 (2010)
Osborne Street	Lake to Loop	3,980 (2010)
Lake Avenue	White Bridge to Swift	6,125 (2010)
Lake Avenue	Swift to Osborne	5,908 (2010)
Lake Avenue	Osborne to Owasco	9,144 (2010)
Owasco Street	Lake to Walnut	9,675 (2010)
Loop Road	Lincoln to North	4,525 (2010)
Genesee Street	Green to Market	8,147 (2010)
Dill Street	State to North	4,230 (2010)
Arterial Eastbound	State to North	10,470 (2010)
Arterial Westbound	State to North	11,315 (2010)
North Street	EB Arterial to WB Arterial	13,990 (2010)
State Street	EB Arterial to WB Arterial	5,469 (2010)
State Street	WB Arterial to Wall	7,033 (2010)
Washington Street	Arterial WB to West	3,374 (2010)
North Division Street	Clark to West	5,784 (2010)
Clark Street	Aurelius to North Division	3,177 (2009)
Aurelius Avenue	Wadsworth to Clark	3000 (2009)

2.3.1.5 Level of Service

It is anticipated that the Owasco River Greenway Trail will not adversely affect the level of service of any adjacent streets and will not be evaluated as part of this project.

2.3.1.6 Work Zone Safety & Mobility

Improvements for the on-road trail segments include striping along certain streets and installation of trail signage. Temporary, short-term lane closures will be required for implementation of these improvements. Such lane closures will be implemented in accordance with the Manual of Uniform Traffic Control Devices. Flaggers will be utilized as necessary to properly direct traffic.

Routes for emergency vehicles will be maintained and open during construction. The details for the work zone traffic control will be prepared and evaluated during final design.

Construction of off-road trail segments will not require any closures of travel lanes since they are not located along existing streets.

As defined in 23 CFR 630.1010, this is not considered significant. Nevertheless, a transportation management plan consisting of a temporary work zone traffic control plan as well as a public information plan will be prepared during final design.

2.3.1.7 Safety Considerations, Accident History and Analysis

An accident screening was performed for the portions of the trail that will be on-road and crossing roadways at signalized and unsignalized intersections. Accident data was provided by the City of Auburn Police Department for the three year time period between November 7, 2009 and November 7, 2012. Exhibit 2.3.1.7-1 below presents a summary of that data.

Exhibit 2.3.1.7-1 Accident Summary From 11/7/09 to 11/7/2012			
Location	Fatal	Injury	Property Damage Only
Clark Street/N. Division Street	0	0	6
Dill Street/State Street	0	1	7
Genesee Street/Loop Road	0	6	22
Owasco Street/Lake Avenue	0	0	7
Washington Street/Arterial Westbound	0	1	9
State Street/Arterial Westbound	0	1	7
State Street/Arterial Eastbound	0	2	18
Loop Road/Osborne Street	0	0	2
Total	0	11	78

Most of these intersections are controlled by traffic signals with the exception of Dill Street/State Street (which is proposed to be signalized as part of this Project) and Loop Road/Osborne Street. Where the intersections are signalized, pedestrian signals are currently provided. As this summary shows, the highest accident locations are located in areas that are the most heavily trafficked and the majority of accidents are property damage only. There was no information provided as to whether any of these accidents involved pedestrians or bicyclists.

The following safety improvements are included in the proposed Project:

- A stable, firm and slip resistant trail surface that is continuously graded for drainage away from the trail surface.
- A clear zone adjacent to the trail.
- Ramps, grades and slopes meeting current ADA accessibility standards.
- Advanced signage in accordance with MUTCD guidelines along the trail.
- Where the trail is on-road, sidewalks will be constructed where none exist and where sidewalks are in disrepair, maintenance will be performed so that there is a smooth walking surface.

2.3.1.8 Ownership and Maintenance Jurisdiction

All highways within the City of Auburn are owned and maintained by the City of Auburn with the exceptions of the following streets:

- NYS Routes 5 and 20 (Eastbound and Westbound Arterials)
- North Street – From Dill Street/Loop Road to North City Line
- John Street – From Arterial Eastbound to Genesee Street

These streets are owned and maintained by the New York State Department of Transportation.

Neither John Street nor North Fulton Street will be impacted by this project. The City will own and maintain the on-road and off-road sections of the trail.

2.3.2 Multimodal

2.3.2.1 Pedestrians

This project will enhance pedestrians' mobility and accessibility while traveling throughout the City. The off-road trail will typically be 10 feet wide connecting to existing sidewalks as well as those constructed as part of this project. There currently are on-road pedestrian accommodations throughout the entire project area with the exception of Pulsifer Drive, a section of Osborne Street and intermittent locations along the route.

2.3.2.2 Bicyclists

There currently are no separate, designated, provisions for bicyclists except in the area of Canal Street and the County-owned property located along the Owasco River at the southern end of the trail route. This project is an enhancement and alternative transportation project developed to improve the mobility and accessibility both locally and regionally for bicyclists. The proposed project will accommodate bicyclists as part of a shared lane, a wide curb lane, an exclusive bike lane or a 10 foot wide multi-use trail. Appropriate signage and road striping will be provided notifying motorists to share the road with bicyclists for the on-road segments of the trail system. The entire project will be accessible for use by bicycles.

2.3.3 Infrastructure

2.3.3.1 Design Standards

The following design criteria have been developed based upon the following:

- AASHTO Guide for Development of Bicycle Facilities 4th Edition 2012
- Americans with Disabilities Act Accessibility Guidelines for Building and Facilities (ADAAG)
- NYSDOT, Highway Design Manual, Chapter 17 Bicycle Facility Design, March 30, 2006 and Chapter 18 Pedestrian Facility Design, March 30, 2006
- United States Access Board. (2009). Draft Final Accessibility Guidelines for Outdoor Developed Areas. Retrieved from: <http://www.access-board.gov/outdoor/draft-final.pdf>.

2.3.3.2 Critical Design Elements

Exhibit 2.3.3.2-1 Critical Design Elements for Off-Road Trail Facilities			
PIN:	375557	NHS (Y/N):	No
Route No. & Name:	Owasco River Greenway Trail	Functional Classification:	Shared Use Trail
Project Type:	Shared Use Trail	Design Classification:	Shared Use Trail
% Trucks:	NA	Terrain:	Level/Rolling
ADT:	NA	Truck Access/Qualifying Hwy.	Neither
Element	Standard	Existing Condition	Proposed Condition
Design Speed	18 mph for level terrain 20- 30 mph for hilly terrain AASHTO 2012	NA	18 mph for level terrain 20- 30 mph for hilly terrain
Width ¹	10.0 feet minimum AASHTO 2012	NA	10 feet
Shoulder Width/Horizontal Clearance	2.0 feet minimum from lateral obstructions 1.0 foot min. from railings ("smooth" features) AASHTO 2012	NA	2 feet
Maximum Grade	5% maximum for any distance 8.3% maximum for up to 200 feet 10% maximum for up to 30 feet 12.5% for up to 10 feet	NA	5% maximum for any distance 8.3% maximum up to 200 feet 10% maximum for up to 30 feet 12.5% for up to 10 feet AASHTO 2012
Horizontal Curvature ²	60 ft. @ 18 mph design speed AASHTO 2012	NA	60 ft.
Stopping Sight Distance ³	135 feet minimum @ 18 mph design speed AASHTO 2012	NA	135 ft. min.
Vertical Clearance	8.0 feet minimum 10.0 feet desirable AASHTO 2012	NA	10 feet
Cross Slope ⁴	1.0% recommended; 2.0% maximum AASHTO 2012	NA	2% max.
Shoulder Cross Slope	1:6 maximum AASHTO 2012	NA	1:6 max.
Pedestrian Accommodations	ADA Accessibility Guidelines and Public Right of Way Accessibility Guidelines	NA	ADA Compliant
Railing Height ⁵	42 inch minimum AASHTO 2012	NA	42 in.
Bridge Structural Capacity	90 psf Pedestrian Loading AASHTO Design of Pedestrian Bridges 2009	NA	Pedestrian
Element	Standard	Existing	Proposed
Shared Lane (Wide Curb)	14.0 feet desirable 13.0 feet minimum AASHTO 2012	Varies	14.0 feet minimum
Bicycle Lane	5.0 feet desirable 4.0 minimum AASHTO 2012	NA	4.0 feet minimum
Pedestrian Accommodations	ADA Accessibility Guidelines and Public Right of Way Accessibility Guidelines	Varies bet. 4'&5"	ADA Compliant

¹A reduced width 8 ft. path may be used in rare circumstances such as: bicycle traffic is expected to be low, even on peak days or during peak hours, pedestrian use of the facility is not expected to be more than occasional, horizontal and vertical alignments provide frequent, well-designed passing and resting opportunities, the path will not be regularly subjected to maintenance vehicle loading conditions that would cause pavement edge damage, and for a short distance due to a physical constraint. 11 ft. path width is needed for passing in the same direction.

²Radii at approaches to road crossings may be reduced to discourage high speed crossings.

³Refer to AASHTO Guide for the Development of Bicycle Facilities 2012 - 4th Edition, for additional stopping sight distances based on grade and design speed.

⁴Transition Rate 1% in 5 feet

⁵A 48 in. railing should be considered at locations such as bridge approaches where high-speed, steep angle impacts may occur between bicyclists and the railing, and on bridges.

2.3.3.3 Other Design Parameters

Careful design of trail/roadway interfaces is of paramount importance to the safety of trail users and motorists. The AASHTO Guide for the Development of Bicycle Facilities provides guidance, but emphasizes that each intersection is unique and that sound engineering judgment will be required. Each interface should be designed according to the following guiding principles:

- Trail/roadway interfaces should have features that alert higher speed bicyclists that they are approaching a road crossing.
- Trail/roadway interfaces should have features that prevent out-of-control bicyclists from riding out into a high volume road crossing.
- Trail/roadway interfaces should be designed to allow platooning of bicycle and pedestrian traffic.

2.3.3.4 Existing and Proposed Highway/Bridge Plan and Section

See "Roadway Infrastructure Summary" (Appendix A) for information about existing City street's proposed for the on-road portions of the trail. See "On-Road Cross Sections" (Appendix A) for an illustration of streets that will be impacted by the addition of a wide curb lane or an exclusive bike lane. A cross section is not included for those streets identified for a shared-use lane.

2.3.3.5 Non Standard/Non-Conforming Features

There are no existing or proposed nonstandard or nonconforming features identified as part of the on-road trail sections. Existing street features exceed the project's design criteria in most places.

A review of the project area's existing topography for the proposed off-road trail sections was conducted through field visits and the use of Federal Emergency Management Agency (FEMA) two-foot contours overlaid on aerials of the project area. It was determined that the trail will meet the design criteria for the off-road trail and will be verified with ground survey conducted at final design.

2.3.3.6 Pavement and Shoulder Conditions

The surface of the existing sidewalks and roads utilized as part of this trail, range from poor to excellent condition. The majority of sidewalks are concrete with some asphalt sections interspersed. All the roadways are asphalt paved.

The existing concrete sidewalks will be maintained where possible and any sections that are deemed unsafe or in poor condition will be replaced.

2.3.3.7 Drainage Systems

Generally, the proposed trail will not affect drainage patterns. Surface sheet flow and on-site infiltration will be maintained throughout the trail both on-road and off-road.

2.3.3.8 Geotechnical

There are no special geotechnical concerns with the soils or rock slopes within the project area.

2.3.3.9 Structures

The proposed trail will not impact existing bridges within the study area.

2.3.3.10 Hydraulics of Bridges and Culverts

The proposed trail will not address the existing culverts.

2.3.3.11 Utilities

There are various utilities within the proposed trail corridor. It is not anticipated that the construction of the trail will significantly alter any utilities. The City of Auburn will coordinate with the utility owners throughout the design process.

2.3.3.12 Right of Way

The trail project will be located within City-owned property and easements.

2.3.3.13 Landscaping/Environmental Enhancement

Selective clearing of existing vegetation along the project corridor will be required to provide adequate shared use lane width, clear zone width and sight distances. Selective clearing may also be employed to eliminate dead, dying, unsafe or invasive plants and to enhance the unique special visual resources along the various trail lengths, especially at the Owasco River overlooks.

2.4 Miscellaneous

The Finger Lakes Railway extends adjacent to the Westbound Arterial from Clark Street to State Street and then heads through the northern section of the City. The trail is proposed to cross at-grade at the intersection of Washington Street and Westbound Arterial. It will not impact the traffic conditions at this intersection. The trail also extends along the railway approximately 30 feet from the centerline of the tracks between Washington Street and State Street. Fencing will be added adjacent on the side of the trail closest to the tracks to provide separation of the trail and railroad.

Alternate-side parking is allowed on most streets in the City of Auburn. The only exceptions within the project limits are as follows:

- Lake Avenue (Owasco Street to Osborne Street) – No parking allowed
- State Street (Dill Street to Arterial Westbound) – No parking allowed
- State Street (Arterial Westbound to W. Garden Street) - East side only
- Wall Street (Washington Street to State Street) North side only
- W. Garden Street (State Street to end) - North side only
- Arterial Westbound and Arterial Eastbound – No parking allowed

Parking on Interstate highways within the project limits is prohibited by law.

Trail users will be able to access the proposed trail at the following CENTRO bus stops located along the route:

- Loop Rd. westbound, nearside of the parking lot driveway to Wegmans
- Loop Rd. eastbound, nearside of the entrance ramp to Stryker Homes
- Loop Rd. eastbound (northbound?) nearside of E. Genesee St.
- Genesee St. eastbound, opposite intersection with Seminary Ave.
- Genesee St. westbound, nearside of Owasco St. (Home Commercial Industrial Brokers)
- Dill Street westbound, nearside of North Street
- State St. northbound, nearside of Arterial East (Citizens Newspaper office)
- State St. northbound, nearside of Water St. (Chinese Restaurant)
- State St. northbound, nearside of W. Garden St.

- Aurelius Ave. westbound, nearside of Myrtle Ave.
- Aurelius Ave. westbound, nearside of Clark St.
- Clark St. eastbound, nearside of Aurelius Ave.
- Aurelius Ave. northbound, nearside of Wall St.
- State St. southbound, nearside of the RR tracks opposite W. Garden St. near the prison
- State St. southbound, nearside of Water St.
- State St. southbound, nearside of Arterial East
- State St. southbound, nearside of Dill St.
- White Bridge Rd. (Rt. 437) eastbound, nearside of entrance to Doeville Island (Sunoco Station)
- White Bridge Rd. eastbound, nearside of entrance to Emerson Park Boat Launch
- Emerson Park, westbound on the main entrance roadway near the Pay Booth

Chapter 3 – Social, Economic and Environmental Considerations

3.1 National Environmental Policy Act (NEPA):

The Department has determined that this project is a NEPA Class II, Automatic Categorical Exclusion in accordance with 23 CFR 771.117. The lead agency for NEPA is the Federal Highway Administration (FHWA). The NEPA Checklist is provided in Appendix B. There are historical and cultural resources present that will require a determination of effect.

3.2 State Environmental Quality Review Act (SEQRA)

This project is classified as a Type 1 Action in accordance with 6NYCRR Part 617, State Environmental Quality Review (SEQR) Act. A Long Environmental Assessment Form (EAF) was completed for the project and is included in Appendix B. The City of Auburn will be the SEQR Lead Agency.

Specifically, the project **does not** include or result in:

1. The acquisition of an occupied dwelling or business structure;
2. Significant changes in passenger or vehicle traffic volumes, vehicle mix, local travel patterns or access;
3. More than minor social, economic or environmental effects upon occupied dwelling units, businesses, abutting properties or other established human activities;
4. Significant inconsistency with current plans or goals that have been adopted by local government bodies;
5. Physical alteration of more than 1 ha (2.5 ac) of publicly owned or operated park land, recreational area or designated open space;
6. An effect on a district, building, structure or site eligible for, or listed on, the National Register of Historic Places;
7. More than minor alteration of, or adverse effect upon, any property, protected area, or natural or man-made resource of national, State or local significance, including but not limited to:
 - (i) Wetlands and associated areas;
 - (ii) Floodplains;
 - (iii) Prime or unique agricultural land;
 - (iv) Agricultural districts, when more than one acre may be affected;
 - (v) Water resources, including lakes, reservoirs, rivers and streams;
 - (vi) Water supply sources;
 - (vii) Designated wild, scenic and recreational rivers;
 - (viii) Unique ecological, natural wooded or scenic areas;
 - (ix) Rare, threatened or endangered species;
 - (x) Any area designated as a critical environmental area;
8. Requirement for an indirect air source quality permit.

Refer to the Environmental Scoping Checklist found in Appendix B for information on all environmental issues for which the project was screened.

3.3 Additional Environmental Information

3.3.1 Social Consequences

During the development of the scope of the project, it was determined that potential social consequences of the Project would be studied. A summary of research and findings is provided below for the following topics:

3.3.1.1 Land Use

The City of Auburn Comprehensive Plan (2009) identifies the Owasco River Greenway Trail as a primary strategy to reconnect Auburn residents with the Owasco River. The Comprehensive Plan describes a preliminary greenway trail route, as well as node locations along the riverfront. Previous City planning documents, including the Owasco-Osborne Neighborhood Plan, have likewise identified the greenway trail system as a priority project. A riverfront trail system has long been proposed as an amenity to improve the City of Auburn – the 1971 Owasco River Plan advocates the creation of an urban trail system along the river.

The Comprehensive Plan identifies several node locations, based on property ownership, vehicular access, pedestrian access, water access, lake access, topography, adjacent land use, and river flow conditions. According to the plan, “future private and public developments along the Riverfront should allow for the extension of the Owasco River Greenway between the nodes”, and ...“the Greenway will eventually connect both banks of the riverfront from the Owasco River to Wadsworth Park with revitalized development and pedestrian access”.

As conceived in this report, the Owasco River Greenway Trail will serve the needs and functions identified in the City of Auburn Comprehensive Plan. It will reconnect the City to the river, establish a set of nodes along its length, and it will provide non-motorized connectivity to locations throughout the trail system.

In terms of zoning, the proposed Owasco River Greenway Trail passes through various public use, residential, and commercial zoning districts. The northwestern portion of the trail system, including Wadsworth Park, is zoned for residential use with single-, two-, and multi-family residential uses permitted in the area surrounding the trail system. East of Canoga Street, zoning is General Commercial (C), and this designation transitions to Central Commercial (C-2) in the heart of the Central Business District. East of the Central Business district, residential zoning (single, two-, and multi-family) covers the areas surrounding the trail system. The southernmost part of the Owasco River Greenway Trail system, including Auburn High School and Emerson Park, is zoned for public and institutional use (P).

No zoning changes are required for the project, and it will not change land use patterns in a manner that would conflict with existing zoning districts. The project will complement and connect existing districts, and will have no negative impacts to zoning or land use patterns.

3.3.1.2 Demographics and Affected Population

The City of Auburn is located in the Finger Lakes Region of Upstate New York at the northern end of Owasco Lake along the Owasco River. Serving as the major business center and seat of local government within Cayuga County, the City consists of 27,687 residents with a population density of approximately 3,292 residents per square mile. The City of Auburn is considered a distressed community: 18.0% of individuals in the City live below the poverty level, compared to 14.2% in New York State and 13.8% nationally. Auburn residents have a per capita income (PCI) of \$20,874, which is 67% of the statewide PCI and 76% of the nationwide PCI (Census 2010).

3.3.1.3 Neighborhoods and Community Cohesion

The project will positively impact community cohesion and quality of life for the residents of Auburn by better utilizing the local Owasco River waterfront as an urban amenity and attraction. The project will improve neighborhood cohesion by physically and socially linking areas within the City, and by facilitating safer pedestrian activity and non-motorized transportation in locations where such facilities do not currently exist. The proposed alignment will connect residential neighborhoods to nearby business and commercial areas, as well as institutional areas that include schools, parks and other locations that provide social and recreational opportunities.

3.3.1.4 Home and Business Relocations

This project does not require the acquisition and/or relocation of occupied dwellings/businesses.

3.3.1.5 Social Groups Benefited or Harmed

The Owasco River Greenway Trail will introduce new options for non-motorized transportation, recreational activities (walking, running, biking, fishing, etc.), and waterfront access in the City of Auburn. The trail system and amenities along the greenway will be enjoyed by a diverse set of users, including, but not limited to seniors, individuals of low and moderate incomes, and the disabled. We note that lower-income residents will likely benefit from the expanded opportunities for safe, inexpensive non-motorized travel along the trail. The project will be constructed in compliance with the Americans with Disabilities Act (ADA) requirements and local public safety codes.

3.3.1.6 Transit Dependent, Pedestrians, and Bicyclists

A primary function of the project is to introduce facilities for non-motorized transportation throughout much of the City of Auburn, where no such facilities currently exist. The Owasco River Greenway Trail will allow pedestrians and bicyclists to access key residential neighborhoods, commercial, recreational, and natural locations; the Owasco River Greenway Trail will increase the volume of pedestrian and bicyclist traffic in the City of Auburn.

The trail system will provide connections with the public transportation system operated by Centro/Central New York Regional Transportation Authority.

3.3.1.7 Low Income, Minority and Ethnic Groups (Environmental Justice)

Areas within the City's southwestern quadrant primarily west of South Street and south of the U.S. Route 20 Arterial contain neighborhoods that are identified as Potential Environmental Justice Areas by the NYSDEC. The trail corridor includes some neighborhoods identified as Potential Environmental Justice Areas in and around the Central Business District, primarily south of the Owasco River. The identification of these Potential Environmental Justice areas is based on 2000 U.S. Census data and do not reflect more current socioeconomic conditions along the proposed trail corridor. More recent Potential Environmental Justice Areas have not yet been identified by the NYSDEC using 2010 census data.

The project will not adversely impact areas considered to be Potential Environmental Justice neighborhoods. Trail construction may create the possibility of temporary localized disruption to vehicular traffic, and possibly to pedestrian activity and bicycle use, in areas where trail work is occurring. However, construction impacts, which may include some increased noise, dust and visual changes, will be controlled through the use of best management practices as stated elsewhere in this document. It is not anticipated that construction will adversely affect public access to residences, public areas and businesses. Neighborhoods will be informed of upcoming trail work and schedules through various community outreach venues including meetings and media releases. Up-to-date information on construction activity will be provided via a project website and telephone numbers to a project liaison that will serve to resolve any complaints that may arise during construction.

Once complete, the trail system will benefit residents of the City of Auburn, including the residents of Potential Environmental Justice Areas located along the Owasco River Greenway Trail.

3.3.1.8 School Districts, Recreational Areas, and Places of Worship

The proposed project is located in the Auburn Enlarged City School District. An off-road segment of the proposed Owasco River Greenway Trail would pass along the western bank of the Owasco River on the Auburn High School property, which is located on Lake Avenue south of Fleming Street and north of Owasco Lake. The trail system will provide connections to White Bridge Road and Emerson Park south from the high school, with optional connections to Lake Avenue from the high school property.

Minor impacts such as noise and dust may occur on school grounds during project construction, but these impacts would be temporary and minor. No long-term negative impacts are expected to result to the school as a result of the project. To the contrary, the trail system will potentially provide students a safe means to walk or bike to the high school. The trail will physically link school facilities, such as athletic fields with the trail system and to other types of neighborhood parks, recreational areas and institutional uses. Additionally, the trail improves waterfront access and may provide a means to incorporate study of the Owasco River or other natural features along the greenway into lesson plans.

Wadsworth Park an undeveloped site, is owned by the City of Auburn, and represents the northernmost node along the trail system; Emerson Park is a Cayuga County park that represents the southernmost node along the trail system. Additionally, the trail passes near the athletic fields and outdoor recreation areas at Auburn High School.

Wadsworth Park will offer limited recreational amenities and upgrades to the park would be coordinated with the Owasco River Greenway Trail project in order to integrate it among the accessible destinations along the trail system.

Emerson Park is a Cayuga County park on the northern shore of Owasco Lake. The park offers a variety of recreational facilities, including a boat launch, baseball field, disc golf course, and walking paths along the Owasco River outlet. Other facilities at Emerson Park include the Merry-Go-Round Playhouse, Ward O'Hara Agricultural Museum, and Emerson Park Pavilion.

The Owasco River Greenway Trail project will enhance access to these parks by connecting them with neighborhoods and other attractions located elsewhere in the City of Auburn. Trail users such as pedestrians, runners, and bicyclists are more likely to visit these parks if they are provided a continuous route leading to the parks and their amenities than under existing conditions in which non-motorized access facilities are limited or non-existent.

Some minor impact to these parks may be experienced during project construction due to the use of equipment and vehicles, but the trail project represents a long-term benefit to their utilization and accessibility.

The trail itself expands waterfront access along much of the Owasco River where none is currently provided. Recreational activities such as walking, running, cycling, fishing, kayaking/canoeing, and wildlife observation (i.e. birdwatching, etc.) are among those enabled by the trail system. Overall, the project's recreational benefits are substantial.

St. Francis Church, located at 299 Clark Street, is the only place of worship located within the project limits established for the project. This church will not be impacted by the project.

3.3.2 Economic Consequences

During the development of the scope of the project, it was determined that potential economic consequences of the Project would be studied. A summary of findings is provided below for the following topics:

3.3.2.1 Regional and Local Economies

The Owasco River Greenway Trail is an amenity that will deliver economic benefits to the City of Auburn by improving connections between businesses and residential neighborhoods, drawing visitors to the area, and by stimulating new investment along its length.

Successful cities realize the importance of waterfront development and the benefits to local and regional economies that are critical to healthy neighborhoods. Cities are often identified by their waterfront amenities and Auburn will be looked upon no differently. Improved public access to the Owasco riverfront will enhance local business opportunities, particularly in the Central Business District, by routing the trail along neighborhood attractions and visitor destinations. Business opportunities will be expanded in locations along the trail system or near proposed nodes, as businesses take advantage of the additional pedestrian and bicyclist traffic resulting from the project. It is worth noting that pedestrians and bicyclists can be more readily drawn into some types of establishments on a casual or spontaneous basis, as these consumers have more time to take in storefront offerings, are often more flexible in routing than automotive travelers, and are not constrained by parking issues.

Local and regional tourism organizations will market the corridor as an added attraction to visitors coming to enjoy Auburn's history, social events, natural resources and businesses. Each dollar spent by outside visitors using the Owasco River Greenway Trail represents tourism spending that would not have occurred without the project.

The expectation is that, as the trail system improves the quality of life for residents of Auburn; its presence will encourage new investment in development along its length. The project will improve waterfront access on the Owasco River – waterfront access is highly sought after in real estate markets, and homes and businesses located near this amenity may be viewed with enhanced desirability. Infill development opportunities exist near the trail corridor. Additionally, property values are expected to increase incrementally in locations near the trail system and waterfront.

Increases in property values, and potential infill development, serve to expand the City's tax base, in turn generating revenues for public services.

3.3.2.2 Business Districts

Two significant business districts are located along or near the proposed trail system: The city's Central Business District (CBD) and an adjacent business district just west of the CBD. Although these districts are contiguous, they are separated physically and in character by the Arterial Westbound (Route 5 & 20) roadway. The Central Business District is zoned Central Commercial (C-2), and the adjacent business district is zoned General Commercial (C).

The Central Business District is traditional in character, consisting primarily of multi-story buildings with mixed uses including retail storefronts, business and professional offices, hotels, and some upper-floor residential uses. Internally, the CBD provides sidewalks and is walkable.

The adjacent business district consists of more modern buildings, is more automobile-oriented, and includes some retail, wholesale, and automotive uses. This district extends west from the CBD to approximately Wheeler Street, covering a band of properties on either side of the Owasco River. This area is intended for automobile-based transportation, and can be accessed by pedestrians although non-motorized travel is not accommodated by facilities such as sidewalks or trails.

Neither of the city's existing business districts would be negatively impacted by the preferred trail alignment. Interruptions due to construction will be minor and temporary; automobile access will be unchanged from existing conditions, and non-motorized access to these areas will be improved.

The preferred alignment is intended to bring trail users into the downtown Central Business District (CBD), thus providing increased exposure to businesses in the district. The trail will be located approximately 500 feet to the north and east of the intersection of South Street and Genesee Street and cross both roadways within the CBD. The project has received the support of the Auburn business community and is anticipated to have a positive effect on local business activity by drawing additional customers to the area.

3.3.2.3 Specific Business Impacts

The Project will provide linkages to the CBD at State Street, North Street and Dill Street, and East Genesee Street and Osborne Street/Loop Road. These connections will provide pedestrians and bicyclists access to the Central Business District, where existing sidewalks will allow non-motorized travelers to continue movement throughout the CBD without interruption.

Non-motorized transportation is limited in the business district just west of the CBD, as this area is more vehicle-oriented in character. The trail system will open this area up to pedestrians and bicyclists.

The project will have no adverse impacts on existing businesses. During construction of the trail, there may be some temporary alteration of travel patterns along streets and sidewalks. However, every effort will be made to limit the duration and scale of any necessary detours to avoid and minimize disruption to local businesses. Local business owners will be informed about construction schedules and potential temporary changes in local traffic and parking patterns.

In the long term, businesses are likely to benefit from increased pedestrian and bicyclist traffic generated by the Owasco River Greenway Trail system. The Auburn business community is supportive of the project.

The project will not contribute to parking shortages or traffic congestion within the existing business districts, as sufficient parking will be provided at designated nodes for park-and-walk/bike travelers. Pedestrians or bicyclists who use the trail system to commute to and from work or other destinations will reduce the number of automobile trips and parking spaces occupied in City's business districts.

3.3.3 Environmental Consequences

During the development of the scope of the project, it was determined that potential environmental consequences of the Project would be studied. A summary of the research and findings is provided below for the following topics:

3.3.3.1 Wetlands

Based on a review of the NYSDEC Freshwater Wetlands map (Auburn Quadrangle) and as verified by a field investigation by CHA on December 14, 2011, there are no NYSDEC regulated freshwater wetlands or 100 foot wetland buffer areas in or adjacent to the study area. Therefore, the project will not require a NYSDEC Article 24 Freshwater Wetlands Permit.

A review of the NYSDEC GIS wetland data files indicates that there are no NYSDEC jurisdictional tidal wetlands or regulated adjacent areas within or near the project limits, and ECL Article 24 does not apply.

According to Executive Order 11990, the evaluation included primarily visual inspection of the project area by qualified wetland ecologists. The process for identifying potential federal wetlands was influenced by the methodology provided in the USACE Wetland Delineation Manual (1987) and the U.S.

Army Corps of Engineers North central/Northeast Regional Supplement to the 1987 Wetland Delineation Manual.

Prior to visiting the project limits, various maps and other sources of background information were reviewed. This information included the following:

- USGS 7.5 minute topographic map,
- NYSDEC New York State Freshwater Wetlands map,
- USFWS National Wetlands Inventory (NWI) map,
- U. S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) web soil survey (<http://websoilsurvey.nrcs.usda.gov/app/>) for Cayuga County.

Based on review of the NWI map, there are NWI mapped wetlands within the project limits. However, as a result of the field investigation and background research, various wetland areas within the project limits were identified and sketched on the Vegetative Communities Sketch Map (Appendix B). The common species found in each of the wetland community types identified within the project limits are discussed in Section 1 of the ecological assessment (Appendix B).

Section 5 of the Vegetative Communities Sketch Map (Appendix B) shows two points in which proposed trail segments may cross forested wetland areas that were observed during the site visit. An existing path extends through these wetland areas, located on property owned by Cayuga County. The project will utilize the footprint of this existing path, thereby avoiding impacts to the forested wetland areas observed to the east and west.

Once plans are advanced to final design, a wetland delineation will be conducted in accordance with the 1987 Wetland Delineation Manual methodology to clearly define wetland boundaries in the project limits. Wetland boundaries will be surveyed and overlaid onto project plans to identify potential impacts and evaluate opportunities for avoidance and minimization of the impacts through design modification.

Based on review of the current USACE Nationwide Permits (March 2007), if wetland impacts are identified, permitting will be required. It is anticipated that Nationwide Permit No. 42- *Recreational Facilities*, will be used because the discharge will not cause loss of greater than ½ acre of non-tidal waters of the United States, including the loss of no more than 300 linear feet of stream bed. Section 401 Water Quality Certification would also be required from the NYSDEC. If impacts cause the loss of greater than 1/10 acre of wetland, then wetland mitigation may also be required.

3.3.3.2 Surface Waterbodies and Watercourses

Project activities that impact the Owasco River within the project limits may require permits from the United States Army Corps of Engineers (USACE) and the NYSDEC.

New bridges will be constructed at proposed Nodes #3 and 6, located in Segment 1 of the Owasco River Greenway Trail (Appendix A). The proposed bridge at Node #3 is on an optional off-road segment of the trail system, and the bridge proposed at Node 6 is on a preferred off-road portion of the trail. Construction of these bridges will require stream disturbance permits from NYSDEC.

Avoidance and minimization measure will be incorporated into the design of the project, and provisions to maintain water quality during construction will be made. Erosion control measures such as silt fence and straw bales will be used to prevent sedimentation.

The Owasco River has been classified as a Class C/ Standard C stream by the New York State Department of Environmental Conservation (NYSDEC) and therefore, is regulated by this agency. In addition, the NYSDEC considers the Owasco River a navigable river, so the project will require an Article 15 Protection of Waters permit from the NYSDEC if impacts to the stream banks or stream bed are identified.

Construction of the trail will disturb more than one acre of land. Therefore, a SPDES General Construction Permit GP-02-01 will be required. A Stormwater Pollution Prevention Plan (SWPPP) with the appropriate sediment and erosion control measures will be developed as required. Based on the SWPPP, permanent stormwater management practices may be required depending on the total amount of disturbance and changes to the total impervious area.

3.3.3.3 Wild, Scenic, and Recreational Rivers

There are no NYSDEC Designated, Wild, Scenic or Recreational Rivers within or adjacent to the proposed project site. No further review is required.

3.3.3.4 Office of General Services Lands and Navigable Waters

There is no Office of General Services Lands and Navigable Waters underwater holdings located within the project's area of potential effect that will be impacted by the work.

The Owasco River is not considered a navigable water of the United States, based on the federal definition. Section 9 of the Rivers and Harbors Act is not applicable.

Because the project does not involve the creation of any obstruction to the navigable capacity of any of the waters of the United States, or in any manner alter or modify the course, location, condition, or capacity of any navigable water of the United States, Section 10 of the Rivers and Harbors Act is not applicable.

3.3.3.5 Floodplains

According to the State Flood Insurance Compliance Program, the Federal Emergency Management Agency (FEMA) floodplain map was reviewed for the project limits. Three locations have been identified where floodplain impacts may occur. These are at Wadsworth Park, the Dunn & McCarthy Site at the northern end of the trail and within Emerson Park at the southern end. During detailed design, impacts to the 100 year floodplain will be evaluated and mitigated in accordance with NYSDEC Flood Plain Management Criteria for State projects 6 NYCRR Part 502 and Federal Highway Administration FAPG 23 CFR 650A.

3.3.3.6 Coastal Resources

The proposed project is not located in a State Coastal Zone Management (CZM) area, according to the Coastal Zone Area Map from the NYS Department of State's Coastal Zone Management Unit, in or near a Coastal Erosion Hazard Area. In addition the proposed project is not located in, or near a coastal area under the jurisdiction of the Coastal Barrier Resources Act (CBRA) or the Coastal Barrier Improvement Act (CBIA).

3.3.3.7 Groundwater Resources, Aquifers, and Reservoirs

NYSDEC aquifer GIS data files have been reviewed and it has been determined that the proposed project is not located in an identified Primary Water Supply or Principal Aquifer Area. No further investigation for NYSDEC designated aquifers is required.

There are no municipal drinking water wells, wellhead influence zones, or reservoirs within or near the project area, according to the *NYS Atlas of Community Water System Sources*, dated 1982, issued by the NYS Department of Health.

3.3.3.8 Stormwater Management

A SPDES General Permit GP-02-01 will be required because the project will create more than one acre of soil disturbance. A Stormwater Pollution Prevention Plan (SWPPP) with the appropriate sediment and erosion control measures will be developed. Based on the SWPPP, permanent stormwater management practices may be required depending on the total amount of disturbance and changes in total impervious area.

3.3.3.9 General Ecology and Wildlife Resources

Fish, Wildlife, and Waterfowl

A field investigation was conducted to document the ecology of the study area (Appendix B). The study area consists of a combination of residentially developed areas with maintained lawn (some with scattered trees and shrubs), mowed lawn (some with scattered trees and shrubs), commercial and institutional developed areas, roadway, the Owasco River and back water channels, mowed and gravel paths, successional old fields, forested upland, emergent wetland, scrub shrub wetland, forested wetland, gravel/fill/debris areas, and power line and railroad rights-of-way.

The attached ecological report summarizes the species observed or presumed to be present in the study area (Appendix B).

Habitat Areas, Wildlife Refuges, and Wildfowl Refuges

The NYSDEC Natural Heritage Program has provided a letter dated December 22, 2011 (Appendix D) indicating that there is an unlisted Waterfowl Winter Concentration Area at Owasco Lake which is located just south of the study area. The letter indicates that the general quality and habitat is a long, narrow inland lake, with a mean depth of 96 feet and a maximum depth of 177 feet. The lake does freeze over in some years. This concentration area is outside of the project limits; therefore, no impacts are anticipated.

Endangered and Threatened Species

The United States Fish and Wildlife Service (USFWS) website was reviewed for federally listed threatened and endangered species for Cayuga County (Appendix D). The following species are listed for Cayuga County:

- Bald eagle (*Haliaeetus leucocephalus*), delisted
- Bog turtle (*Clemmys [=Glyptemys] muhlenbergii*), threatened
- Indiana bat (*Myotis sodalis*), endangered

Descriptions of these species and their habitat are provided in Appendix B.

Bald Eagle: The study area contains forested areas along the river that have the potential to serve as bald eagle habitat notably the county-owned portion of the Emerson Park property located north of White Bridge Road. The project will pass through upland forest and forested wetland areas near the bank of the Owasco River. This section of the project will follow the footprint of an existing path on the County-owned property, and is unlikely to require the taking of trees that could potentially be used by bald eagles.

Bog turtle: No habitat suitable for bog turtles was identified within the areas of the project site where habitat was evaluated. According to the Cayuga County Soil Survey, there are no mapped mucky soils within the study area. The project will not impact bog turtles because no suitable habitat is located in the study area.

Indiana Bat: There are forested upland areas within areas where the off-road trail (Appendix B) is located that could be potential Indiana bat habitat. Clearing of some of these forested areas is proposed. One technique that will be considered to avoid potential impacts to Indiana bats will be to restrict tree cutting to

the time period between November 15th and March 31st, when bats are hibernating off-site. Another mitigation technique considered is to avoid tree species known to provide habitat.

Once more definitive plans have been developed; an evaluation of the project impacts on the habitat for each of the species identified above will be prepared and submitted to the USFWS for review.

Invasive Species

A review of the existing corridor did not indicate any significant presence of known invasive species within the right-of-way. Precautions will be taken to prevent the introduction of invasive species during project construction.

Critical Environmental Areas

According to information obtained from NYSDEC, the proposed project does not involve work in or near a Critical Environmental Area.

State Forest Preserve Lands

According to information obtained from NYSDEC, the proposed project does not involve work in or near state forest preserve lands.

3.3.3.10 Historic and Archeological Resources

A review of the State Preservation Historical Information Network Exchange (SPHINX) database maintained by NYSOPRHP was conducted to identify buildings, districts, objects, structures, and/or sites listed, or that have been formally determined eligible for listing on the State and/or National Register of Historic Places (NRHP) located within one mile of the Project. No architectural survey fieldwork was undertaken as part of the Phase 1A cultural resources survey.

There are 19 NRHP-listed properties and 45 properties that have been formally determined eligible for listing on the NRHP located within one mile of the Project. These are identified in Appendix B.

The Project route is adjacent to the NRHP-listed South Street Area Historic District, which extends from Lincoln Street at the north end to Metcalf Drive at the south, and from just west of NYS Route 34 to Burt Avenue on the east. In addition, there are five NRHP-eligible buildings in close proximity to the Project route, which include:

- The Dunn & McCarthy building (Structure #3), which is located north of the Owasco River on the west side of Washington Street. The building burned in 1993 and the site has subsequently been razed.
- The Waleene Building (Structure #5), which is located south of the Owasco River, on the east side of Washington Street and north of a mill race.
- The Auburn Floor Covering Company, which is located at 10-12 Genesee Street, just southwest of Seminary Avenue.
- The PVR Coventry Building (now Piccirillo's Restaurant), which is located in Auburn at 14-16 Genesee Street, near Market Street and just southwest of the Auburn Floor Covering Company.
- Nolan's Family Shoe Store, which is located at 51-57 Genesee Street in Auburn's Loop Road triangle.

Construction of the Project will not require the demolition or physical alteration of any buildings or properties listed on or previously determined eligible for listing on the NRHP. No direct physical impacts to

historic-architectural resources will occur as a result of the Project. No additional cultural resources investigation related to historic-architectural resources should be required in association with the Project.

The presence of numerous historic buildings and remnant industrial features along the Project route, particularly those associated with the nineteenth-century industrial development of Auburn, provides an opportunity to engage the recreational users of the proposed trail and interpret the complex and significant history of the Owasco Outlet and City of Auburn.

The project's activities do not have the potential to adversely affect the historic properties located along the trail route. The undertaking will not alter, directly or indirectly, any of the characteristics that qualify the properties for inclusion in the National Register, in a manner that would diminish the integrity of their location, design, setting, materials, workmanship, feeling, or association. The Department has prepared a No Adverse Effect Finding Document and sent it to SHPO, with a copy to FHWA.

Archaeological Resources

Proposed construction of the Project will include ground disturbing activities that have the potential to impact archaeological resources. The area of potential effect (APE) for archeological resources includes all areas within the limits of disturbance for proposed construction activities. These areas could include off-road trail segments as well as major and minor nodes, depending on the extent of construction activities proposed at node sites.

Relative to the potential for archeological sites to be located within or along the Project route, the results of the Phase 1A cultural resources survey (see Appendix B) for the Project can be summarized as follows:

- Most portions of the proposed trail system will consist of on-road trail segments. There is no potential effect on archeological resources for these portions of the Project route.
- Approximately 4.3 miles of the overall trail system is proposed to be sited off-road. These portions of the proposed trail system are anticipated to be approximately 10 feet wide and will be located on publicly-owned property and/or easements granted to the City, such as the right-of-way for the City's sewer interceptor. The trail surfacing material will be asphalt. In many instances the trail route is located on existing paved areas. It is anticipated that only limited clearing and grubbing may be required in a few areas. In general, ground disturbance associated with the proposed off-rad trail segments is expected to be minimal.
- The western and central portions of the Project route are located in areas that have been extensively reconfigured and landscaped in association with nineteenth- and twentieth-century industrial and infrastructure development. Numerous previous archeological surveys have been conducted in these areas. Due to the extent of previous disturbance in these areas, there is relatively little likelihood for intact Native American archeological sites to be present.
- Historic maps depict numerous map-documented structures (or MDS), primarily associated with nineteenth century industrial uses, along the Project route. A site reconnaissance suggests that foundation remains associated with these MDS are extant in various areas along the Project route. Prior to final Project design, a detailed topographic survey will be prepared for the Project route. The Project will avoid impacts to all extant foundation remains that are identified on the survey maps of the Project route.
- The southernmost portion of the Project route, between Fleming Street and Emerson Park, is located in an area where Native American artifacts have previously been found (i.e., NYSM Sites 6888 and 8174). This area has a relatively high likelihood for intact Native American archeological sites to be present. The proposed trail segment in this area that runs along the southwestern bank of the Owasco Outlet is located on County-owned property and/or the High School property and follows an existing path that has been previously paved with crushed-stone gravel.

- Emerson Park is the former location of a Native American village site. However, previous (recent) archeological investigations in the park have determined that the park is built on fill and that the land is previously disturbed.

The presence of foundation and structural remains associated with the nineteenth-century industrial development of Auburn along most portions of the Project route provides an opportunity to engage the recreational users of the proposed trail and use the archeological remains as tangible features to interpret the complex and significant history of the Owasco Outlet and the City of Auburn.

Historic Bridges

The Aurelius Avenue Bridge (NYSDOT Bridge ID #2207130) is listed on the NYSDOT's Historic Bridge Inventory as eligible for the National Register of Historic Places. No alterations to the bridge will occur as part of the project.

Section 4(f) Involvement

A historic property that is listed on, or eligible for, inclusion in the National Register of Historic Places is located within the project's area of potential effect.

The Aurelius Avenue Bridge (NYSDOT Bridge ID #2207130) is listed on the NYSDOT's Historic Bridge Inventory as eligible for the National Register. This stone arch bridge over the Owasco Outlet (approximate latitude +42.93444, longitude -76.58722) was built in 1886. The preferred trail route along Aurelius Avenue crosses the bridge. The project is not anticipated to adversely affect the site.

The proposed project is located within Emerson Park a Cayuga County park, and considered as a significant publicly owned park. It is anticipated that the project will have only *de minimis* impacts on the park. Written concurrence from the park director is provided in Appendix D.

The proposed project is located adjacent to Auburn High School, a significant publicly owned park. However, it is anticipated that the project will have only *de minimis* impacts on the park. Written concurrence from the Superintendent of Schools is provided in Appendix D.

State Heritage Area Program

The proposed project will not impact areas identified as State Heritage Areas or those identified as National Heritage Areas. In addition, there are no nationally significant natural areas within, or adjacent to the project area.

Section 6(f) and Section 1010 Involvement

The project does not impact parklands or facilities that have been partially or fully federally funded through the Land and Water Conservation Act. No further consideration under Section 6(f) is required.

This project does not involve the use of land from a park to which Urban Park and Recreation Recovery Program funds have been applied.

3.3.3.11 Visual Resources

The project will consist of on-road and off-road trail segments, nodes, and associated signage. No negative impacts to visual resources are expected. During construction some areas of vegetation will be cleared for trail construction and equipment access. However, the removal of most vegetation is considered to be beneficial and will primarily include shrub and brush debris that will be cleared in certain riverbank areas to enhance trail landscaping and views of the trail corridor. Areas of mature woodland that provide significant wildlife habitat and vegetative buffers will be preserved as part of trailside amenities to the greatest degree possible.

3.3.3.12 Farmlands

Based on a review of the NYS Agricultural District Maps for Cayuga County, the proposed project is not located in or adjacent to an Agricultural District.

The proposed project activities will not convert any prime or unique farmland, or farmland of state or local importance, as defined by the USDA Natural Resources Conservation Service, to a nonagricultural use.

3.3.3.13 Air Quality

The project will not result in any increase in air emissions. Conversely, it will encourage and expand non-motorized means of transportation in the City of Auburn. Air quality regulations do not apply.

The project will not create permanent or long-term adverse impacts to existing air quality, noise levels or energy use. Temporary changes in air quality, noise levels and energy use will result in some localized impacts during trail construction. These changes are not considered significant and best management construction practices will be utilized to mitigate any adverse impacts on nearby neighborhoods during the construction process. The trail will be used by pedestrians and bicyclists as a multi-modal trail with connections to other trail and pathways as well as public transit with the downtown area of the City. These uses will result in less dependence on personal modes of motorized transportation and therefore some reduction in energy use as well as noise and adverse air emissions.

An air quality analysis for CO is not required since this project will not increase traffic volumes, reduce source-receptor distances by 10% or more, or change other existing conditions to such a degree as to jeopardize attainment of the National Ambient Air Quality Standards. The project does not require a project-level conformity determination.

A Mesoscale Analysis is not required for this project since it does not significantly affect air quality conditions over a large area and is not a regionally significant project.

The MSAT Analysis is not necessary because the project will not involve any increases in emissions.

The project will not involve any increases in PM emissions nor does it involve any increases in greenhouse gas emissions.

3.3.3.14 Energy

An energy assessment is not required for the proposed project since it is not expected to:

- a. Increase or decrease VMT;
- b. Generate additional vehicle trips;
- c. Significantly affect land use development patterns;
- d. Result in a shift in travel patterns; or
- e. Significantly increase or decrease vehicle operating speeds.

Therefore, the project will not significantly affect energy consumption.

3.3.3.15 Noise

The project will not significantly change either the horizontal or vertical alignment, or increase the number of through-traffic lanes. Therefore, this project is not a Type I project and does not require a traffic noise analysis as per 23 CFR 772.

3.3.3.16 Hazardous Waste and Contaminated Materials

A Hazardous Waste/Contaminated Materials Site Screening (HW/CM) was completed for the project corridor. This preliminary screening is a general review conducted to identify properties within the right-of-way or which are in close proximity that could contain or is a source of hazardous wastes or contaminated materials. In addition, the City of Auburn conducted the Downtown Brownfield Assessment Program funded by the Environmental Protection Agency (EPA) for the purpose of inventorying known and suspected brownfields within the area primarily along the Owasco River. The following sites were identified as having potential sources of hazardous wastes or contaminated materials:

Segment 1: Wadsworth Park to Washington Street

- Wadsworth Park and off-site parking location (corner of Canoga Street and Wadsworth Street);
- Dunn and McCarthy Site (South of Tehan Avenue)

Segment 2: Washington Street to Lincoln Street

- Former Auburn Woolen Co.

Phase 1 Environmental Site Assessments (ESA) for these sites were completed. Subsequently, site specific sampling plans were created based on recognized environmental conditions. Sampling plans are currently being created by the City's environmental consultant. Once completed, Phase 2 ESAs will be prepared to determine mitigation measures to be implemented if needed.

3.3.3.17 Construction Effects

The project will not create permanent or long-term adverse impacts to existing air quality, noise levels or energy use. Temporary changes in air quality, noise levels and energy use will result in some localized impacts during trail construction. These changes are not considered significant and best management construction practices will be utilized to mitigate any adverse impacts on nearby neighborhoods during the construction process. The trail will be used by pedestrians and bicyclists as a multi-modal trail with connections to other trails and pathways as well as public transit within the downtown area of the City. These uses will result in less dependence on personal modes of motorized transportation and therefore some reduction in energy use as well as noise and adverse air emissions.

Best management practices (BMPs) will be implemented during construction to comply with State and federal stormwater and erosion and sediment control regulations. Pollution control measures will be implemented and incorporated into project plans and specifications to avoid adverse water quality impacts due to stormwater runoff during construction and post-construction periods. The project will also implement fugitive dust and noise control measures during construction activity. Measures will be implemented to limit noise generation generated during construction including work schedules limited to normal daytime hours.

3.3.3.18 Anticipated Permits, Approvals and Coordination

The following permits, approvals are anticipated for the proposed project:

New York State Department of Environmental Conservation (NYSDEC):

- State Pollutant Discharge Elimination System (SPDES) General Permit
- Section 401 Water Quality Certification
- Article 15 Stream Disturbance Permit

Army Corps of Engineers (USACE):

- Section 404 Nationwide Permit

United States Environmental Protection Agency

- Executive Order 11988 Flood Plain Management
- Executive Order 11990 Wetlands

Coordination

- Federal Highway Administration (Section 4f & Section 106)
- U.S. Fish & Wildlife Service (Threatened and Endangered Species)
- U.S. Army Corps of Engineers (Section 404 Wetlands)
- NYS Office of Parks, Recreation and Historic Preservation (Section 4f & Section 106)
- City of Auburn Floodplain Development Permit
- City of Auburn Highway Work Permit

Others

- Local Permits

3.3.4 Indirect and Secondary/Cumulative Impacts

The proposed project has the potential to indirectly affect social conditions, by introducing non-motorized transportation facilities to the City of Auburn. The project will offer an alternative to automobile travel, provides health and recreational benefits, and will improve quality of life for residents.

The project's effects will be beneficial: Access to non-motorized transportation facilities, reduced greenhouse gas and other air emissions, waterfront access and revitalization, enhanced recreational opportunities and corresponding public health benefits, potential community investment and infill development, tourism spending, and potentially increased tax base are among the positive impacts the project will have in the City of Auburn.

The project will have no negative impacts.

3.3.5 Public Participation and Outreach

Public informational meetings consisting of open houses and community workshops were conducted throughout the project to identify concerns and ideas for the location of the trail and nodes. In addition, a project steering committee met on several locations to review the community comments, environmental concerns and potential property issues. A project website was also created to provide project information about the trail project to the community. More information about public participation can be found in Appendix C.