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At the time of its construction, the Great Stone dam on the Merrimack River was the largest dam in world. Upon completion in 1848, Lawrence Massachusetts was well on its way to becoming a remarkable textile manufacturing city. Beginning in 1905, Lawrence experienced ‘a mill building boom larger than any ever seen in a textile city before’ (Images Of America). At the time, the man-made dams and canals along the Merrimack and Spicket River provided the enormous amount of hydropower to the largest mills in the world.

As its nickname states, the Immigrant City, was home to over 54 different nationalities. To this day, this Immigrant City is home to over 70% foreign-born citizens. The natural features of this particular region has transformed the flat floodplains along these rivers into the densely populated, Immigrant City.

The map to the right shows the drastic urbanization of the City of Lawrence. The yellow represents built, impervious and urbanized areas, while the green is highlighting vegetation. As you can see, the Merrimack River runs east-west and cuts through the center of the Lawrence (outlined in red). Because of the great opportunities The Essex Company saw in this region and the great buildings that followed. Today the Merrimack River is the state’s second largest drinking water source for over 300,000 people in Lowell, Lawrence, and Methuen (2009 Lawrence Open Space Plan).

Ecological habitat in Lawrence is virtually nonexistent. Opportunities arise alongside the Merrimack and Spicket River corridors, as well as the abandoned railway that runs north-south towards Methuen and New Hampshire. With the introduction of a greenway network, we hope to increase the amount of pervious surface, provide vital flood control/water infiltration, provide the citizens of Lawrence opportunities for outdoor interaction with not only other community members but also with native ecological habitat that is vital to a thriving ecosystem.

Facing issues such as lack of water infiltration, major flooding, lack of natural habitat, and possible heat island effect were created by the massive amount of infrastructure; roads, buildings, parking lots, dams, river retaining walls, etc. This region has been immensely disrupted by urbanization, to a point where the health and safety of this young and densely populated region is in danger.

The maps that follow will highlight important hydrological features, including floodplains, aquifers, rivers, major ponds and streams, current vital aquatic habitat, and dams, as well as an analysis of the important topographic features that prompted industrial growth over 100 years ago.
Courtesy of Mass Wildlife: Massachusetts List of Endangered, Threatened and Special Concern Species
Natural Resources

Living Waters Watershed

Courtesy of Mass Wildlife: Massachusetts List of Endangered, Threatened and Special Concern Species

Sourced from MassGIS data layers & Groundworks Lawrence

Phil Cassidy
Verde Vision: A Greener Lawrence

Images courtesy of flickr.com

Sourced from: MassGIS datalayers

DAMS

Images courtesy of Professor Robert Ryan

Phil Cassidy
Natural Resources

Sourced from MassGIS data layers
Images courtesy of The Valley Patriot May 2006 edition
Verde Vision: A Greener Lawrence

Elevation (ft)
- 112 - 126
- 98 - 112
- 84 - 98
- 70 - 84
- 56 - 70
- 42 - 56
- 28 - 42
- 14 - 28
- 0 - 14

Sourced from MassGIS data layers & Groundworks Lawrence
Natural Resources

Aquifers

Sourced from MassGIS datalayers

Courtesy of www.oldsaybrookct.org

Sourced from MassGIS data layers & Groundworks Lawrence

Phil Cassidy
The majority of the current land use in the town center of Lawrence, MA is dictated by the historical footprint of the success of the mill industry that flourished during the greater part of the 19th century. As to be expected in a historic mill town such as Lawrence, much of the Merrimack River is lined with industrial use that now stands as many abandoned or under-used buildings. In addition, old rail lines and current transportation corridors are also lined by industrial use, as they represent the main thoroughfares of industrial transportation. Many of these Mill Buildings are now undergoing large-scale redevelopment, with Lawrence is home to many government agencies, transportation facilities, and a mix of commercial and industrial use.

Continuing out radially from the town center, both low to medium density residential characterize essentially an inner ring of housing development, bordered on the outskirts by a higher density residential area largely to the southwest.

The town of Lawrence already has many open space resources, from established parks to institutional open land, and much of the open spaces are located in the downtown area. Bellevue Cemetery in the northeastern corner of Lawrence also stands as a large historical feature, as it’s the burial ground of many workers who perished in the Great Pemberton Mill Fire of 1860.

In addition to available open space, there is great value in the large forested area at the southeast corner of the town. Although highway 495 runs north-south through the area, an effort should be made to capitalize upon the preservation and incorporation of this area into a greater greenway system.
Land Use

0 0.5 10.25
±
1:35,000

0 0.25 0.5 1 Mile

Commercial
Recreation
High Density Residential
Low Medium Density Residential
Transportation
Wetland

Forest
Cemetery
Urban Public/Institutional
Open Land
Water
Industrial

Sourced from MassGIS data layers & Groundworks Lawrence

Eliza Rodrigs 13
Regarding transportation, Lawrence is very well connected internally as well as to the surrounding region and New Hampshire.

The most obvious and prominent connection lies in the north-south corridor of Interstate 495, connecting Andover to Methuen and providing two entrance/exit ramps to the town of Lawrence. (Figure 1) This is a key transportation corridor to those traveling to Boston, and also proves advantageous for use in shipment of material manufactured along the Merrimack.

Route 495 continues north, crossing into Haverhill and then continuing northeast until it merges with I-95. It begins to the south in Wareham, MA, making a broad half-loop around the greater Boston area.

Route 28 runs north-south almost bisecting the town, and runs parallel to Route 114. This major route essentially connects southern New Hampshire all the way down Cape Cod, providing a major north-south route through the eastern part of Massachusetts. (Figure 2)

Route 110 crosses east-west through the northern part of the town, connecting Lawrence to Methuen and on a broader scale linking central Massachusetts to the northern coast. (Figure 3)

Route 114 begins at the south side of the O’Leary Bridge and continues out of Lawrence to the south, connecting central Lawrence all the way down to Salem in the southeast. (Figure 4)

In addition to vehicular traffic, an active MBTA line runs north-south veering to the east at the south side of the Merrimack, outlined in purple on the map to the right.

In regards to public transportation, the Merrimack Valley Regional Transit Authority has established lines throughout Lawrence and the surrounding towns, although only 6.3 percent of the population use this resource (U.S. Census). Although Lawrence is well connected to its surroundings in regards to vehicular transportation, there is potential for much improvement in terms of pedestrian and bicycle transport.

The historic rail trail holds much potential for development as a pedestrian way and a greater link to a greenway network would prove extremely advantageous for the residents of the area.
Transportation

1:35,000

All data sourced from Bing Maps

Eliza Rodrigs
In regards to the demographic makeup of Lawrence, immigrants began arriving in Lawrence in the late 1800’s attracted by the job opportunities available presented by the industrial development of the canal island. By 1912, people from over 40 countries around the world settle down in the city.

According to the 2010 Census, the city’s population is 76,377. One of the most striking things about Lawrence is that the population of Hispanic or Latinos is at 73.8%. In addition, 32.8 percent of the population is under the age of 18, with a median age of 30.5 years. The median income for the average household in the city was $31,457, well below the United States average of $64,081. Furthermore, about 21 percent of families fall below the poverty line, compared to the 9 percent on a national level.

The map on the right outlines many of these characteristics, displayed by a version of a map originally produced by Groundworks Lawrence to illustrate and draw attention to areas of Environmental Justice in relation to demographics and location of schools around the city. It has been altered to reflect a sliding scale of criteria to describe the demographic population, outlined by the 2009 Open Space Plan.

The lightest pink area represents the population of Laurentians who meet the criteria of minority population, defined by Groundworks Lawrence and meaning that 25 percent or more of residents in this category belong to a minority group. The shades of pink become darker as the population areas meet more criteria, and many of the criteria occur in various combinations throughout the town. The rest of the criteria are as follows:

- **Income** - Households earn 65% or less of statewide median household income.
- **Minority Population** - 25% or more of residents belong to a minority group.
- **Foreign-Born** - 25% or more of residents are foreign born.
- **English Proficiency** - 25% or more of residents lack English language proficiency.
Originally a simple New England farm town, Lawrence Massachusetts became the world’s leading manufacturer of textiles in the world.

Appealed by the land surrounding the Merrimack River and the Bodell falls (now the great stone dam), Daniel Saunders bought the first property to manufacture and develop textile, gaining control of the water-power rights of that specific site on the Merrimack.

Industrial building began in 1844 with the designs of the engineer: Charles S. Storrow (who later became the first mayor of Lawrence). Migrants from New England as well as new European immigrants flocked to the city to partake in the construction of Lawrence. The people built the textile mills and the boarding houses but the most important of the construction was in 1845 of the Great Stone Dam and the canal, which was vital for controlling the water to power the mills. The Canal runs parallel to the Merrimack and creates what is known as the industrial island. Across the Canal were a series of boarding houses, which no longer exist today; the Visitors Center of Lawrence Heritage State Park is the only remaining boarding house.
The demand for work in Lawrence peaked in the late 1800s early 1900s and immigrants flocked there for the entry-level opportunities. Lawrence was home to fifty-four nationalities. In 1847 Lawrence officially became a town of Massachusetts and six years later received its city charter. The rapid growth of Lawrence caused many pressures among the citizens; the stresses of WWI caused inner-city conflicts. Lawrence was home to fifty-four nationalities and their culture issues became more stressed because of the tight tenement living situations (similar to other American cities).

In 1912 the mill workers had had enough. The people of Lawrence would work around forty or more hours a week with only a total pay of $8.76. The mill workers were starving and dying due to horrible work and living conditions. In 1912 the workers stopped production, gathered together and walked out of the mills to begin a strike. For nine weeks 20,000 mill workers forgot their differences and joined together to protest the mill owners. This strike is known as the Bread and Roses Strike. The strike got its name because the women of the mills carried signs proclaiming, “We want bread and Roses too!” symbolizing the want for subsistence and dignity. On March 14, 1912 ten thousand strikers gathered on the Lawrence Common and voted to end the strike. The Bread and Roses Strike gained national attention, starting the idea of the worker’s right and the formation of the first worker unions.

Unfortunately after WWII the industrial life in Lawrence plummeted. Buildings were abandoned and there was a constant pressure for an increase in wages. Eventually most of the textile industry moved to the southern regions and over twenty thousand jobs in Lawrence were lost.

In the 1960s the population of Lawrence hit an all time low of 63,175 people. The majority of the population was new refugee immigrants from Cuba and the Dominican Republic. In the late 70s Immigrant City Archives was established and the history of Lawrence began to make an impact on the city. By the 1990s the population had increased to 70,000 all due to the new immigration.

Today there is an active community in Lawrence that recognizes the town’s historic value and future land use. In 2009 an open space plan was established to recreate the abandoned space in Lawrence highlighting the Merrimack River. Each year the town has a Bread & Roses Festival to remember the strike, but also to celebrate the diverse community culture that is still present today.
1. Man made industrial Island. Once controlled by the Textile industry. Now reinvented as apartments and Cambridge College.

2. Lawrence Heritage State Park and Visitors Center: The only remaining boarding house north of the Canal.

3. Everett Mill: The most historic building in Lawrence, re-renovated to become offices. The main office of Groundworks Lawrence.


5. Town Hall built in 1849 primarily used as a public hall, reconstructed in 1923 to support more offices.

6. Town Common: The main gathering space in the heart of Lawrence. Many historic events took place here for example: The Bread and Roses Strike.

7. Bellevue Cemetery: Historic cemetery/open space, located in the north-west corner of Lawrence.

8. High Service Water Tower: Built in 1896 to accommodate the water needs of Lawrence, ornamental brick tower constructed for aesthetics around the water pillar.

9. Lawrence Great Stone Dam: Constructed in 1845 to control the water on the Merrimack for energy to power the Textile Mills.
The City of Lawrence is striving to improve the quality of life for its residents through open space renovation and greenway installation. With a population of over 70,000, most of which are at an average age of 30, 43% of which are under the age of 24. Compare this to the state average age which is around 43, there is a need for more active recreational spaces. With Lawrence's rich industrial era in the past there are opportunities to retake vacant lots, old industrial parks, vacant corridors and use them towards the open space and recreational goal of creating a network of green spaces and trails. With these opportunities in mind combined with an the objective to also rejuvenate the natural lands which border the Merrimack and Spicket River, a productive greenway can be designed to better the health and connectivity of lawrence. The town has organized its wishes

Highlighted in the 2009 open space plan conscribed by Groundwork Lawrence the community's development department, is a list of open space and recreational goals for the town. First there is a wish to increase the maintenance of parks and open spaces as well as improve the safety in these greenspaces. Second is to encourage programed activities, along with passive park elements to increase community involvement and attendance in these greenspaces. Third is to activate community recreation through the creation of bikeways and walkways, safely connecting neighborhoods, schools, and parks. This will be done by reclaiming vacant lots, and other unused spaces and corridors. Finally Lawrence has expressed the need to access the water edges of the Spicket and Merrimack which penetrate the towns center. By giving the community the availability of the rivers and natural landscapes which Lawrence possesses, the community can once again connect with the old and rehabilitated natural landscapes.

Groundwork Lawrence in accordance with the city of Lawrence held a number of community meetings, presentations, individual interviews with city officials, and distributed bilingual surveys to residents and students of the town to collect informative data, which eventually contributed to the goals and vision for Lawrences Greenway initiative. As a community Lawrence citizens over the age over 16, a majority (86%) drive to school while 6 percent take public transit, 3 percent walk and 2 percent work at home. With this information in mind the goal is to increase the amount of pedestrian travel within Lawrence as well as other non vehiculare modes of transportation, to and from school, work and other forms of daily business.

This objective becomes easier with Lawrence due to its unique design and planned layout. The city exists off of the trational grid formation with dense connected streets with sidewalks connecting central points of interest. Making it easy in some areas to get around on foot which is good but needs to be improved for a city who is below average for most health concerns. Lawrence has a higher average obesity rate than the rest of the state of Massachusetts.

Mentioned earlier is the high potential for redevelopment in the old industrial sector of Lawrence. If redeveloped into a high use, residential, commercial and recreational space it promotes the construction of additional greenspaces and trails connecting to this newly redeveloped area.

Cities and towns are found to have a higher quality of life when they exhibit more green spaces. This means greenways not only perform well in the aspect of sustainability but also in the social realm. When these spaces successfully link neighborhoods and other recreational spaces, creating a greenway the community finds themselves more active, walking and exercising. Greenways must also cater to the existing animal and plant life. Thus not only creating opportunities for human interaction but also for the surrounding environment, animals, and healthy plant life. The open land in Lawrence consists of cropland, pasture, meadows, grasses, herbs, and shrubs which are habitats for some birds like the mourning dove and the field sparrow. Fox, rabbit, and the occasional woodchuck are also familiar with these open space habitats. Parks and greenways can also help with a cities air pollution and increased temperatures. Large quantities of trees means a larger area of canopy cover which can reduce the air temperature within this microclimate by 5 – 10 degrees. A study from the University of Washington's Center for Urban Horticulture, showed Atlanta's forests remove 19 million pounds of pollutants every year, a service which is worth 47 million dollars otherwise.

The community of Lawrence has a vision or set goals for these open spaces which overall include, safe spaces, and a consistently maintained park and trail system. The community feels strongly about the visual and physical health of the town which means more clean spaces. This calls for trash removal, lawn and planting care, brush repair, and more equipment. The citizens of Lawrence expressed this issue and explained that if people had more safe and clean spaces then they would feel more comfortable and excited about bringing their children, pets, and bikes to the nearest trail or park.
With this in mind the goal is to improve the already existing green spaces in Lawrence first, and then second to create and design new spaces as this will be harder to do and more expensive. State wide and nation wide there has been a desire for more connected green spaces and trails allowing people to travel freely without a motorized vehicle. In the northeast area there is a high level of success with historic and cultural sites than anywhere else in the U.S. There is a great amount of resources in and around Lawrence MA, for designed sites containing a reminder of the rich industrial history.

Lawrence has a total of 41 public parks which adds up to 270 acres of open space. Half of these parks are less than 2 acres. Excluding the Lawrence Heritage State Park, Visitors Center, the Riverfront State Park, Abe Bashara Boathouse, and Pemerton park, which are owned and managed by the State Department of Conservation, the rest of the parks are owned and managed by the city. With this in mind there is an opportunity for connections between these green spaces. Existing already is the Spicket River Greenway, which has trails bordering the Shawsheen and Merrimack Rivers, vacant lots and corridors. This grants pathways and potential pathways for people to walk and bike to school, home, work and other neighborhoods. Possible extensions to these trails can connect Lawrence to the Bay Circuit trail to the West (Andover) and the rail trail to Salem and Methuen to the north.

There are also a few historical open spaces including the north and south commons. Charles Storrow planned the city originally including the north common which holds, recreational facilities, walking path, performance spaces, play equipment, a baseball field, a few historic monuments. The South Common grants most of these amenities however with more space dedicated for recreational facilities. Other historic spaces include the three cemeteries which all together make up 130 acres of land. Located on Tower Hill these cemeteries give a beautiful environment for people to walk its path and enjoy its many trees. Even though they are not parks they are still used like parks for walking and running for residents nearby.

Another open space which acts like a park is the Reservoir on Tower Hill. The reservoir is used for quiet reflection and walking, and is also part of the local history of Lawrence. Connecting Lawrence to the greater context as well as within the city is a large goal for the community. By doing this the city will experience an improvement of green spaces as well as a rise in overall health. In the larger scale this greenway intervention in Lawrence will connect the city to the larger realm of Massachusetts benefitting the overall initiative to connect the northeastern states using non-motorized vehicles.
Partnered with the Methuen rail trail group there is a mutual goal to connect the rail trail extending out of Lawrence with the Methuen rail trail which leads into New Hampshire. The connection requires an engineering assessment before implementing design for the almost 3 mile gap between either trails. If the connection is made it will not only connect Methuens rail trail to Lawrence but also connect to the MSPCA at Nevins Farm, and the Mass Audubon Bird Sanctuary, and private commercial property. Beyond these plans the Methuen rail trail also connects to New Hampshires Windham (5.4 mi) and Rockingham Rail trail (12 mi) which extends northeast across four new hampshire counties, (Derry, Hampstead, Sandown, Brentwood) connecting to other regional New Hampshire trails.

Located to the West of the Lawrence in Andover are opportunities to connect to Andovers Deer Jump Reservation which holds part of the regional bay circuit trail system. Which extends south an eventually southwest into the Boston area. This connection would unite the Andover trail system with the existing Lawrence Merrimack trail system. This can be possible with cooperation of the private landowners bordering the river. However bridges and boardwalks closer to the river can be created to allow business owners still retain most of their property. The goal is to incorporate local business owners, the boathouse which lies on the river and the community to converge on ideas to create a connection between Lawrence and Andover to benefit all public investors.

In the most south eastern corner of Lawrence is Den Rock Park consisting of existing trails and the Shawsheen River. Where the Shawsheen river exits Den Rock Park there is the Market Basket Plaza and a hotel. Proposing a trail which continues through Den Rock Park connecting Lawrence and Andover would grant access to these two amenities. In addition if the trail continues, following the Shawsheens river corridor it would eventually connect to the Bay Circuit Trail.

To the East where Merrimack Street exits Lawrence there is an opportunity to redesign route 125 to accommodate roadside pedestrians and bicyclists. People from Lawrence and North Andover commute to Osgood Landing along route 125, with improvements to this high transportation corridor it will be encouraged to use this non vehicular route instead of public trasportation and private transportation.

Sprouting from the intersection of Sutton Street and 495 is an abandoned rail corridor. This potential rail trail could connect Lawrence to Middleton on a larger scale.
Nuestro Vision
Our Vision

- Connect the people of Lawrence back to the water through access, recreation, and activation of open space.

- Prioritize walkability and connect to Surrounding Schools.

- Stabilize and revitalize ecologically fragile areas.
1-2 Year Plan

One of the Greenway’s main arteries is the vacant rail line which has high potential to become a wide rail trail corridor for the greenway. This plan could take place within the next 1-2 years which includes, plant rejuvenation and recreation installment along the corridor. These visual and physical amenities will usher in the community of Lawrence to re-activate the abandoned rail line for recreational use. People using the rail trail for transportation and exercise will increase the overall health of Lawrence.

5 Year Plan

Vital is the reconnection between the citizens of Lawrence and the river corridors. The intervention of bringing the people of Lawrence back to the river edges will educate the community on the natural ecology as well as bring awareness, and recreation to the waters edge, thus binding the people with the natural lands of Lawrence. Through completing the spicket river greenway and adding trails along the Merrimack river, the goal of bringing people back to the rivers can be achieved.

5-10 Year Plan

Transforming the city center into a close, well knit, sustainable community will also educate and rejuvenate Lawrence’s inner city. Improved city streets will bring up property values, and more vegetation within a dense city has proved to help mitigate air pollution and increase the overall health of the city. Wider streets with less traffic will be targeted for renovation, due to the possibility of replacing portions of side parking spots with rain gardens and swales.

10+ Year Plan

Finally connecting to the outer portions of Lawrence through secondary trails and street improvements will unite the inner city with the connections outside of the Lawrence boundary. These connections will run from the inner city sector through neighborhoods around Lawrence and connect with important trails, potential trails, and high potential non-motorized corridors outside of the city.
City-Center Greenway Plan

Campagnone Common

O'Neill Park

Reviviendo Playground

Misserville Park

Dr. Nina Scariano Park

Storrow Park

Sourced from MassGIS data layers & Groundworks Lawrence

Phil Cassidy
Verde Vision: A Greener Lawrence

- Building Footprints
- Rivers & Dams
- Historic Districts
- Living Waters
- Main Roads
- Flood Plain
- Rail Lines
- Aquifers
- Vegetation
- Habitat for Rare Species
Aquifers:
The aquifers of Lawrence are located underneath the most developed areas of the city. A good portion of the city center is impervious surface limiting the recharge of the main aquifer in Lawrence.

Flood Zones:
The flood zone covers much of the industrial and commercial district. This makes water quality more of a problem from runoff during rain events.

Rail Corridor:
The rail lines from Boston to New Hampshire and Haverhill were first built in the 1840s with the dam and island. The rail lines transported goods to and from the mill district to surrounding city centers. Today the only rail line still in operation is used by the MTBA to provide transportation to and from Boston. The old rail corridor that heads Southeast of Lawrence is proposed to be the Essex Rail trail.

Land Use:
The majority of the city center is commercial and industrial, lining the banks of the Merrimack. The area with the most wetlands and forest spaces is located along the Shawsheen river in the South-eastern portion of the city.
**Merrimack River:**
The Merrimack River is a fifth order stream that is approximately 127 miles long. It begins at the convergence of the Pemigewasset and Winnipesaukee Rivers in New Hampshire and continues through northern Massachusetts until it empties into the Atlantic Ocean in the town of Newburyport. It travels through four highly urbanized cities including Manchester and Nashua in New Hampshire along with Lowell and Lawrence in Massachusetts. The water quality of the Merrimack in Lawrence is classified as class B despite the fact; the river passes through three densely populated cities before reaching Lawrence. Class B water provides good habitat for aquatic species, suitable for primary and secondary recreation, and can be used for drinking water with proper treatment. Anadromous fish or fish that spend their lives in salt water but swim up freshwater streams to spawn represent a significant portion of the aquatic species present in the Merrimack. Several species of anadromous fish are present including Alewife, Blueback, American Shad, Smelt, White Perch, Lamprey, and Gizzard shad. Migration of these fish is impeded by several dams along the river, the first of which is located in Lawrence called the Essex Dam or the Great Stone Dam. The Great Stone built in the 1840s represents the beginning of development along the Merrimack River in Lawrence. It was built along with the canal to provide water power to the industrial island and surrounding mills. By 1850 development spread northward in between the Merri- mack and Spicket Rivers.

![A view of the Merrimack looking downstream at the Joseph W. Casey Bridge from Pemberton Park.](image)

**Shawsheen River:**
The Shawsheen River is a second order stream and is about 25 miles in length. It begins in Bedford and travels through Billerica, Wilminton, Andover, and North Andover until it empties into the Merrimack in Lawrence. It has two species of anadromous fish present, River Herring and American Shad but because of obstructions in the waterway they are kept to the lower reaches of the river. Within Lawrence the Shawsheen has four parks along it, Den Rock Park, Shawsheen Park, Costello Park, and Coyne Park. This park system makes up the largest forested patch in the city but it is interrupted by Interstate 495.
Rivers of Lawrence

Spicket River:
The Spicket River is a second order stream and is about 13 miles in length. It begins in Salem, New Hampshire, flows through Methuen and empties into the Merrimack in Lawrence, downstream of the Stone Dam. Anadromous fish like American Shad have been observed at the mouth of the river but because of the Spicket River Dam and many other obstructions their development is hindered. Development along the Spicket began around the same time that the Stone Dam was built. By 1905 the Spicket had been straightened to make more room for development along both sides of the river.

Combined Sewer Overflows:
There are five CSO outfall locations around the city center of Lawrence along the Merrimack and Spicket Rivers with more upstream. Prior to wastewater treatment improvements in the 2000s there were a total of 190 overflow events per a year, totaling at 900 million gallons of tainted water. Upgrades to the existing wastewater treatment complex across the river have lowered CSO events but they will continue to be an issue as long as the storm water system is combined with the sewer system.
Rail Trail Corridor:
The section of track from Methuen that heads to New Hampshire is also proposed to be a rail trail. Parts of this section of rail have a 100 foot right of way providing opportunity for a wide greenway through the city.

Great Stone Dam:
The Essex or Great Stone Dam is over 150 years old and is still in good condition. It is used to produce electricity for the city of Lawrence however at a great cost to riparian aquatic life even with its fish ladder system.

North Canal Corridor:
The canal corridor has the potential to be a vibrant space by celebrating the history of Lawrence. The canal walls need to be repaired or replaced because sections are starting to fail.
Combined Sewer Overflow Outfall
Bourgoin Park

- Soccer and Baseball field need improvement.
- Both kinds of field are in high demand in the city.
- Opportunity for a more durable multi-functional turf playing surface.

- 100 foot right of way
- Opportunity for a wide Rail Trail.
- Rail trail meets Haverhill Street at the same grade
- Opportunity for connection to Campagnone Common through a side walk trail
Paving part of the old rail line, using recycled material found in the city of Lawrence, creates access for bikes and a new form of recreation. The planting of native plants provides privacy to the residents surrounding the trail. New plantings also create long views down the corridor making the pedestrians feel safe.
We propose a wide trail corridor to accommodate for separated pathways to minimize conflicts between bikes and pedestrians. Native vegetation will frame the view corridor down the trail while the sloped pathway will shed rain water to bio swales to encourage infiltration onsite minimizing Combined Sewer Overflows into water bodies.
The beauty of the abandoned rail line in the successional landscape needed little improvement. The proposal calls for more recreation along the corridor with little pull off areas for children to play. Wildflower meadows will enhance the color palette of the rail corridor while attracting desirable wildlife such as butterflies.
At important junctions such as where the rail trail meets a street or the canal we propose to have designated areas for foot traffic and vehicular traffic. Also at these junctions the visitor can find maps, bike racks and places of rest. We also encourage new stores to open at these junctions and provide the users of the trail a place to shop.
Industrial Island & City Center

Pedestrian Bridge

Cambridge College

CSO Outflow

Sourced from MassGIS data layers & Groundworks Lawrence

Katie Haas 49
As access to water stands as one of the main goals of our proposal, we seek to reactivate the canal front, reconnecting Laurentians with the water resources of the area. Stepped boardwalks bringing visitors down to the water’s edge and the highlighting of historical features adds contextual charm to the canalfront and installed bike and pedestrian paths facilitate east-west movement along the island.
Activation of the Industrial Island

The area under the O’Leary Bridge next to the Great Stone Dam presents enormous opportunity for becoming a node of activity at the western edge of the industrial island. Opportunities include temporary use, performance space, and ecological education, while acting as an extension from Pemberton Park directly to the east.
After observing the amount of impermeable surfaces in Lawrence, the opportunity arose to soften the landscape within the city center by relocating parking. Existing are side parking spaces within the city center of Lawrence. However if a new parking garage is built and parking is relocated to another central area along the greenway, people will be encouraged to use non-vehicular transportation to the town center. By carefully selecting patches along the main streets to transform into rain gardens and vegetative swales, permeable surface area will become apparent to the public and improve the aesthetic quality of the city center making it visibly greener.
Verde Visión: A Greener Lawrence

Trash in the river

Stevens Pond

Hayden Schofield Playstead

Buildings over the river

Bank Erosion

Photos courtesy of Milone & MacBroom
The Spicket River is a place for an intervention. We want to bring people back to the water and provide trails in certain locations along the river. We propose to reintroduce native plants back to the Spicket River’s edges as buffers and places for habitats. Where current retaining walls are failing, we propose to replace them with gabion walls to provide habitats and allow plant growth.
Works Cited:
(Tom’s Information)


Milone & MacBroom, Inc. “Spicket River Natural Resources Assessment”. 1-106. PDF

LawrenceHistoryCenter.org. Lawrence History Center. Website. 25 Feb. 2013

(Eliza’s Images)

FIGURE 1

FIGURE 4

FIGURE 3

FIGURE 2

(Katie’s Images)

FIGURE 5, 6,10, 13, 16, 17, 20, 21

FIGURE 7 and 8
LawrenceHistoryCenter.org. Lawrence History Center. Website. 25 Feb. 2013

FIGURE 9

FIGURE 12

FIGURE 15
FIGURE 16

FIGURE 19

FIGURE XX
Photo credit Eliza Rodrigs

FIGURE YY
Photo credit Robert Ryan

Phil C. Photo Credits

Courtesy of Mass Wildlife: Massachusetts List of Endangered, Threatened and Special Concern Species
Courtesy of flickr.com
Courtesy of Professor Robert Ryan
Courtesy of The Valley Patriot May 2006 edition
Courtesy of www.oldsaybrookct.org
Courtesy of Groundworks Lawrence