

## 1

**AUTOMOBILES:**

The primary mode in Wellesley is ripe for a sustainability makeover.

**TRENDS:**

- > Parking apps reduce excess driving time spent searching for available parking spaces.

- > New and improved parking apps provide navigation, price comparisons and notifications.

- > The Unified Plan calls for increasing charging stations. Innovators are also creating charging services.

- > Tolling and a miles-driven assessment are both fees to replace the gas tax.

- > Ridehailing has a large carbon footprint from displacing sustainable modes and cruising for passengers.

- > Cities will need extensive digital infrastructure to support connected and autonomous vehicles.

**OWNED CARS:**

Wellesley experiences both local and regional congestion. The Town has a high level of transit and pedestrian share of work trips compared to similar communities. Schoolrelated trips comprise around 30% of local congestion. Car ownership is 2 cars per household.

**ELECTRIC VEHICLE:**

Vehicle (cars and trucks) electrification is seen as a major strategy for reducing greenhouse gas emissions. The Municipal Light Plant (WMLP) has a Bring Your Own Charger® Program. According to the state, there have been 292 EV rebate registrations since 2014. In December 2020, the Governor signed a requirement that all new cars and passenger trucks sold in Massachusetts be zero-emission vehicles starting in 2035.

**RIDE-HAILING:**

In 2019, there were 297,449 ridehail origins in the Town, a 50% increase from 2017. The average trip was approximately 6 miles and 17 minutes. In 2018, the Town collected almost \$25,000 in fees from a 20 cent per ride surcharge. Although subject of a 2020 veto, lawmakers are resubmitting legislation for rideshare fee increases.

## 2

**DELIVERY:**

With growing e-commerce, deliveries and returns have hidden transportation impacts.

**TRENDS:**

- > Expect growth in fulfillment centers that sort deliveries for local dispatch to customers and retailers.

- > Microwarehouses store popular goods closer to consumer for faster fulfillment and delivery times.

- > Delivery robots are making 750 deliveries a week at Bridgewater State University.

- > Stores and restaurants are adopting new designs so one building can fulfill orders through shopping, pick-up, and deliveries.

**DELIVERY TRUCKS:**

Delivery trucks are larger vehicles carrying large payloads. They typically have six or more wheels and are roughly 40 feet length (unrestricted). Larger vehicles are generally restricted within city limits.

**DELIVERY VANS:**

Delivery vans are used to distribute goods from regional warehouses to local retail, food and other establishments. The Commonwealth has set a goal for medium-and heavy-duty vehicles of at least 30 percent zero-emission vehicle sales by 2030, and 100 percent by 2050.

**AUTONOMOUS DELIVERY:**

Autonomous delivery vehicles include air drones and ground delivery vehicles (deliverybots). Smaller deliverybots travel on sidewalks, while larger models are designed to travel on city streets.

**SMALL ELECTRIC DELIVERY:**

Grocers, restaurants, retailers, and (to a lesser degree) logistics companies are turning to smaller electric cars, mopeds and cargo bikes. Innovators are developing models that are slightly larger.

## 3

**TRANSIT:**

Sustainability for moving more passengers in fewer vehicles.

**TRENDS:**

- > Bus Rapid Transit features higher speed service in dedicated (or semi-dedicated) lanes.

- > Cities are experimenting with microtransit to determine success factors for on-demand curb-to-curb service.

- > Transit providers are creating "Mobility as a Service"- mobile apps for easy trip planning and payment.

- > Connecticut will test an autonomous bus service in 2022.

**PARATRANSIT:**

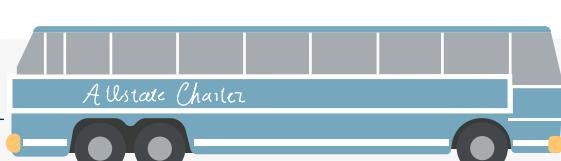
MWRTA operates demand-response service for qualifying riders. In addition, the Council on Aging provides "Request a Ride" and other services for residents over age 60.

**SCHOOL TRANSPORTATION:**

Massachusetts Safe Routes to Schools and Walk Boston provide resources on student travel.

**LOCAL BUS:**

MWRTA operates 17 fixed routes. Buses can be tracked and flagged anywhere along a route. MWRTA also coordinates bus services with several localities and employers.

**MICROTRANSIT:**

CATCH Connect replaced MWRTA Route 8 with curb-to-curb service anywhere within and select, key destinations outside of Wellesley. e Council on Aging provides "Request a Ride" and other services for residents over age 60.

**COMMUTER RAIL:**

Three MBTA stations with service to Boston are located in Wellesley.



## 4

**PERSONAL MOBILITY:**

The most sustainable of all modes. Suitable for short trips depending on mode.

**TRENDS:**

- > New apps and digital wayfinding can help find the shortest, safest routes.

- > Post COVID-19, work from home is a trend likely to endure, shifting commute patterns.

- > The "15 minute city" seeks to locate everyday destinations within a 15 minute walk, bike, or transit trip.

- > A 15% increase in e-bike trips could reduce an estimated 11% of transportation-related CO2 emission in the US, fueling demand for e-bike rebates.

- > "Quick Build" is a new term for low cost street and parking infrastructure intended to last 2-5 years.

**BICYCLE:**

The most supportive infrastructure includes separated bikeways, trail connections, and parking.

**WALKING:**

Supportive infrastructure for pedestrians includes well maintained and safe sidewalks and crossings. In addition, pedestrians benefit from direct connections to a concentrated mix of destinations.

**ROLLING:**

Supportive infrastructure for travelers in wheelchairs and strollers includes well maintained sidewalks, designated parking, and safe ramps.

**ELECTRIC BIKES:**

E-bikes come with pedal assist (riders must be pedaling to engage the motor) and/or throttles. Top speeds of 20 mph (Class 1 and 2) and 28 mph (Class 3). In Massachusetts, e-bikes are currently prohibited in bikeways and on trails.

**MICROMOBILITY:**

Owned and shared micromobility typically refers to small electric scooters, though includes electric skateboards and one-wheels.

**BIKESHARE:**

In docked bikeshare systems, users rent and return bikes to distributed stations. The dockless model allows users to pick up and drop off within a defined area. Both require sidewalk space for parking.



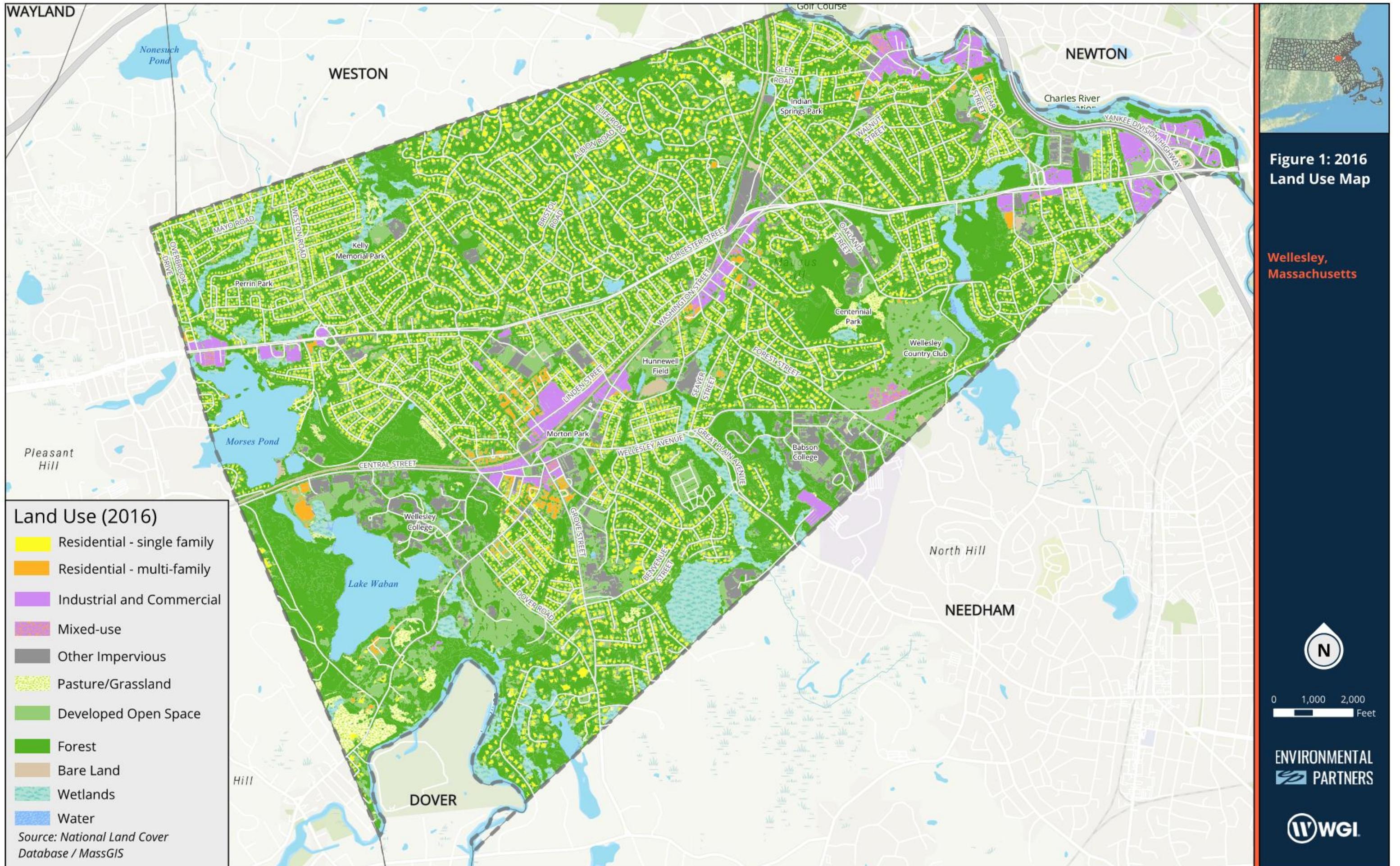


Figure 1: 2016  
Land Use Map

Wellesley,  
Massachusetts



0 1,000 2,000  
Feet

ENVIRONMENTAL  
 PARTNERS

WGI

