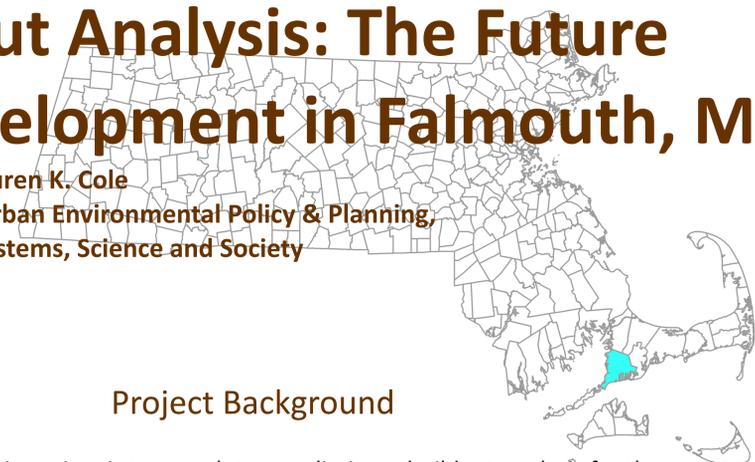


# Buildout Analysis: The Future Of Development in Falmouth, MA

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## Project Background

The goal of this project is to complete a preliminary buildout analysis for the Town of Falmouth, MA. This analysis will help planners and community members visualize where development is likely to occur, and how it may impact local resources and utilities in the future if local zoning codes are “built out” to maximum capacity. Currently, Falmouth is predominantly zoned for single family residential properties, and septic systems are the primary means of disposing of wastewater. Because Falmouth is currently experiencing water pollution from nutrient leaching through septic systems, it is especially important to understand how future development might either exacerbate or improve current wastewater issues. Due to the aforementioned pollution issues, a significant percentage of the Town of Falmouth is environmentally monitored and regulated. While this is a preliminary buildout analysis, it is an important step in planning future development in consideration of recently enacted environmental regulations. By identifying areas of concerns such as vernal ponds, wetlands, flood zones, and mandated open space in terms of their proximities to future development, Falmouth will be better equipped to make comprehensive decisions related to the ecological stability of the town, particularly regarding its wastewater and water pollution issues.

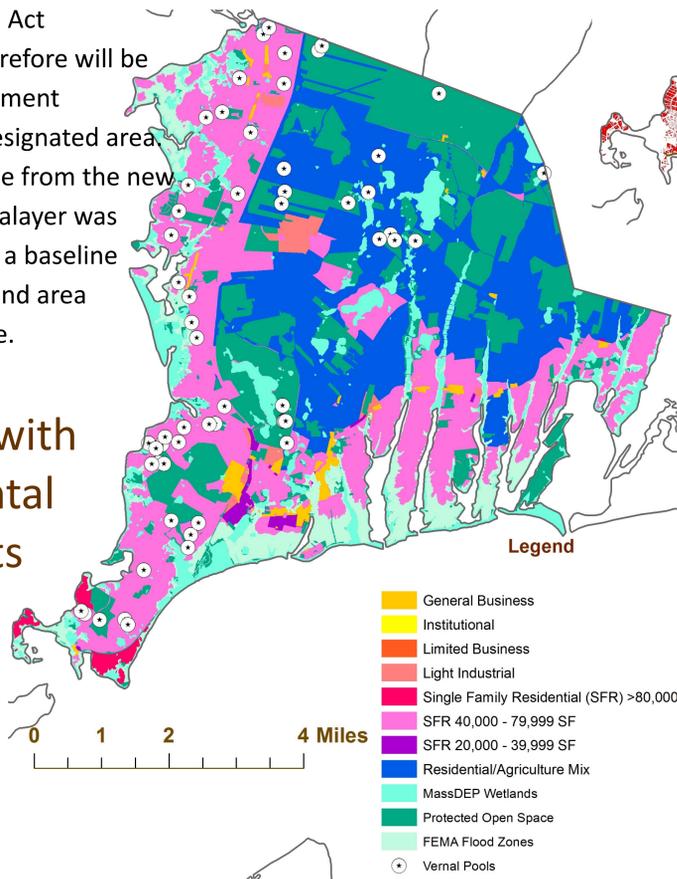
## Methodology

### Key Questions

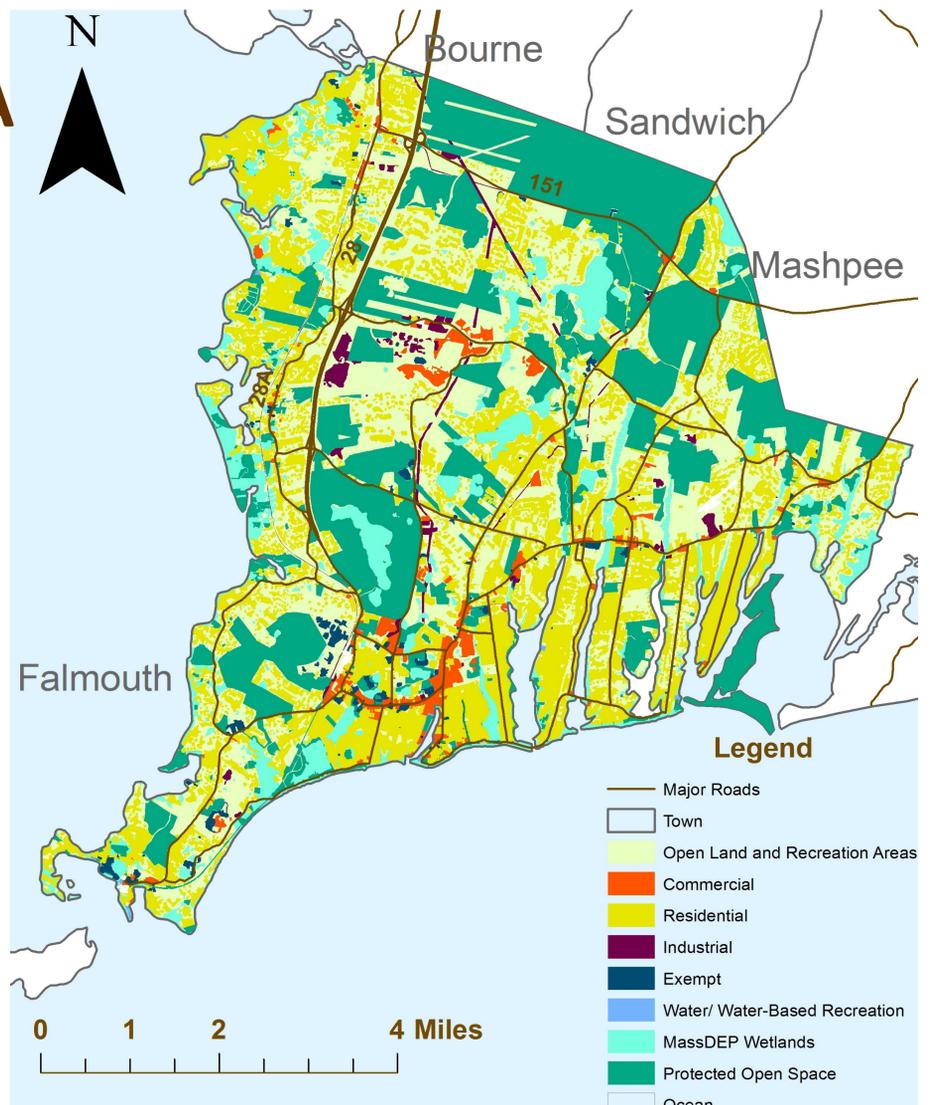
1. How much land area can be developed under existing zoning regulations?
2. What type of development can occur on the available buildable land?

There are many things one can infer from a buildout analysis. However, given the introductory nature of the project, this analysis was limited to the two questions above. By gathering several different GIS datalayers through MassGIS, we first produced a current Land Use Map (top right). This map depicts the inland regions of Falmouth as mostly protected and agricultural lands, while the coastal areas are predominantly occupied by single family residences. In order to address Question 1, we first produced a current Zoning Map of Falmouth (bottom left), with several environmental overlays such as FEMA Flood Zones, Vernal Pools, Protected Open Space, and MassDEP Wetlands. These datalayers, along with building footprints, were “erased” from the zoning map using the Spatial Analyst Erase Tool. It should be noted that a 100 foot buffer was added to the Vernal Pool datalayer because it is assumed that these areas will likely fall into the MA Wetlands Protection Act regulated areas, and therefore will be prohibited from development within 100 feet of the designated area. Finally, the attribute table from the new “Developable Land” datalayer was exported to Excel where a baseline analysis revealed total land area (in acres) by Zoning Code.

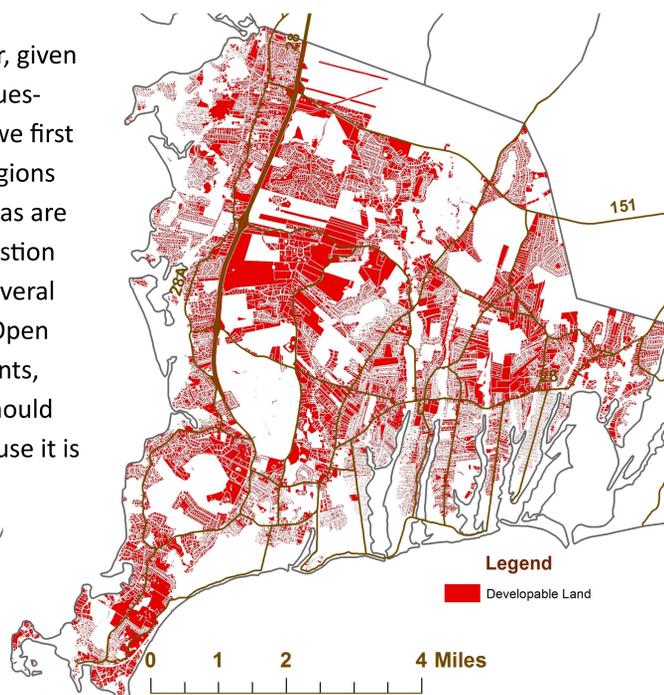
## Zoning Map with Environmental Constraints



## Land Use Map



## Map of Developable Land



## Conclusion

This analysis showed that approximately 15,530 acres can be developed in Falmouth according to existing zoning codes. The majority of development is likely to occur in the inland areas of Falmouth considering that it is currently the least densely populated region. However, much of the inland areas are heavily regulated, and therefore it is crucial that Falmouth find alternative ways of managing wastewater, and conserving freshwater usage if changes to the current zoning laws do not occur. In addition, it may be useful for Falmouth to adopt some Mixed-Use and Smart Growth planning strategies in order to better concentrate future development, and create more efficient ways of managing utilities. Further analysis is needed in order to make more substantial projections regarding water usages and wastewater disposal

## Developable Land Summary

Developable Land	Acres
Light Industrial	319
Residential/Agriculture	6797
General Business	329
Residential	8080
<b>Total Developable Land</b>	<b>15527</b>