Williamstown Build-out Analysis

Erica Chang, Maggie Peard, Jamie Ruggiero
What is a Build-out Analysis?

<table>
<thead>
<tr>
<th>Guiding question:</th>
<th>What would the town look like after being fully developed under the current bylaws?</th>
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</thead>
<tbody>
<tr>
<td>Short-term use:</td>
<td>Used by town boards when making development decisions</td>
</tr>
<tr>
<td>Long-term use:</td>
<td>Prompts the question: what are the town development goals?</td>
</tr>
</tbody>
</table>
Methods

1. Used map layers provided by Andrew Groff and MassGIS
2. Used GIS tools to modify layers to be constraints
3. Layered constraints
4. Made map of net usable land area
5. Overlayed zoning
Community Profile

- 2010: Population of 7,754
  - Down 7.95% from 2000
- Homogenous racial backgrounds
- Williams College, The Clark Art Institute
- 39% employed in educational services
- People work in Williamstown who cannot afford to live there
- Stratification of income levels
Interviewees

- Tammy Andrews, Williamstown Housing Authority, Executive Director
- Henry Art, Williamstown Conservation Commission, Chair
- William Barkin, Town of Williamstown, Principal Assessor
- Leslie Reed Evans, Williamstown Rural Land Foundation, Executive Director
- Laura King, Williamstown Housing Authority, Administrative Assistant
- Zafi Levy, Williamstown landlord
- Scott Lewis, Williams Outing Club, Director
- Al Marden, Alton & Westall Real Estate Agent
Background Research

- Williamstown, MA Build-Out Analysis (2000)
- Final Report and Recommendations of the Master Plan Steering Committee (2002)
- A Cost of Community Services Study for Williamstown, MA (2005)
- Open Space and Recreation Report (2016)
- Town of Williamstown Zoning Bylaws (Ch. 70)
Constraints
Absolute Constraint Maps

- Sections of land that won’t be developed due to legislation and/or Zoning Bylaws.
  - Roads
  - Hydrology
  - Steep Slopes
  - Developed Land
  - Solid Waste Facilities
  - Permanently Protected Open Space
  - Upland Conservation District

- Unlike old analysis, these constraints are truly absolute, not just “unlikely”
Roads

- Minor roads given 30’ buffer
- Route 2 and Route 7 given a 40’ buffer
  - Old analysis and U.S. Department of Transportation

Hydrology

- Rivers Protection Act
  - "Riverfront Area"
- Wetlands, ponds, streams, culverts, ditches themselves
- 100-year Flood Zone
Steep Slopes

- Zoning Bylaws: 0% maximum impervious coverage on slopes 24% and greater
Developed Land

- Zoning Bylaws and GIS Findings
  - Buildings on parcel
  - Land Base in parcels of Developed Land not large enough to support more development
  - Developable is parcel big enough to split into two
Solid Waste Facilities

- Landfills and dumping grounds regulated by MassDEP solid waste regulations
Permanently Protected Open Space

- Restricted: APR and CR
- Non-profit: land trusts
- State-owned
- Town-owned
Upland Conservation District

- Restricts development above 1,300’
- Limits residential development beyond Rural Residence District 1 regulations
All Absolute Constraints

- Constraints: 19,639 acres
  - 65.4% of Williamstown land
- 10,366 available acres
- (Old analysis: NULA=5,798 acres)
Partial Constraints

- Areas that have some restrictions for development but with enough time and capital could be developed
  - Hydrology
  - Steep Slopes
  - Wellhead Protection Zones
  - Partially Protected Open Spaces
  - Confined Aquifer District

- We offer two scenarios; reality is somewhere in between
Hydrology

- Wetlands Protection Act: limited development, 100’
- Rivers Protection Act: limited development, 100-200’
- Ponds Over 10,000 ft²: 100’
Steep Slopes

- 20-24%
- 20% = 20% max impervious coverage
- 22% = 10% coverage
- Over 20% difficult to build on
Wellhead Protection Zones

- Zone I: 100-foot minimum protective radii around public water supply
Partially Protected Open Space

- Chapter 61 land: tax breaks in exchange for important public town benefits
  - 61: forestry
  - 61A: agricultural
  - 61B: open space or recreational
- Incentives for keeping land within the program
Confined Aquifer District

- Restricts the amount of impervious cover over aquifers used for public water supply
- Prohibits excavation, boring, and drilling
Partial and Absolute Constraints

- A far more conservative estimate of land unavailable for development
- Constraints: 27,061 acres (90.2% land)
- 3,307 available acres
  - (Old analysis NULA=2,046 acres)
Analysis
NULA Absolute Constraints Zoning Maps

Absolute Constraints Zoning Distribution

Legend
- General Residence
- Rural Residence 1
- Rural Residence 2
- Rural Residence 3
- Village Business
- Planned Business
- Limited Business
- Limited Industrial
- Other

Absolute Constraints Net Usable Land Area Zoning

Roads
- Line
- Town Boundary
NULA Absolute & Partial Constraints Zoning Map

Absolute and Partial Constraints Zoning Distribution

Legend
- General Residence
- Rural Residence 1
- Rural Residence 2
- Rural Residence 3
- Limited Business
- Limited Business
- Town Boundary
- Roads Line

48.2%
41.7%
8.7%
<table>
<thead>
<tr>
<th>Zoning District</th>
<th>Absolute NULA (Acres)</th>
<th>Absolute NULA (Percentage)</th>
<th>Absolute &amp; Partial NULA (Acres)</th>
<th>Absolute &amp; Partial NULA (Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Residence</td>
<td>1782.524</td>
<td>17.246</td>
<td>1227.058</td>
<td>41.678</td>
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<tr>
<td>Rural Residence 1</td>
<td>464.603</td>
<td>4.495</td>
<td>257.070</td>
<td>8.732</td>
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<tr>
<td>Rural Residence 2</td>
<td>7886.000</td>
<td>76.296</td>
<td>1418.935</td>
<td>48.196</td>
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<tr>
<td>Rural Residence 3</td>
<td>162.199</td>
<td>1.569</td>
<td>33.292</td>
<td>1.131</td>
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<tr>
<td>Village Business</td>
<td>3.880</td>
<td>0.038</td>
<td>3.387</td>
<td>0.115</td>
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<tr>
<td>Planned Business</td>
<td>3.880</td>
<td>0.038</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Limited Business</td>
<td>9.713</td>
<td>0.094</td>
<td>4.376</td>
<td>0.149</td>
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<tr>
<td>Limited Industrial</td>
<td>23.209</td>
<td>0.225</td>
<td>0</td>
<td>0</td>
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<tr>
<td>TOTAL</td>
<td>10336.008</td>
<td>100</td>
<td>2944.119</td>
<td>100</td>
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## Housing Build-Out

<table>
<thead>
<tr>
<th>Zone</th>
<th>Minimum Lot Size</th>
<th>Maximum Percent Building Coverage</th>
<th>Minimum Percentage Open Space</th>
<th>Buildings (Absolute)</th>
<th>Number of Buildings (Partial &amp; Absolute)</th>
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</thead>
<tbody>
<tr>
<td>General Residence</td>
<td>10,000 ft²</td>
<td>20</td>
<td>--</td>
<td>7765</td>
<td>5345</td>
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<tr>
<td>Rural Residence 1</td>
<td>5 acres</td>
<td>--</td>
<td>85</td>
<td>93</td>
<td>51</td>
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<tr>
<td>Rural Residence 2</td>
<td>2.5 acres</td>
<td>--</td>
<td>50</td>
<td>3154</td>
<td>568</td>
</tr>
<tr>
<td>Rural Residence 3</td>
<td>2.5 acres</td>
<td>--</td>
<td>50</td>
<td>65</td>
<td>13</td>
</tr>
<tr>
<td>Village Business</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>‘undefined’</td>
<td>‘undefined’</td>
</tr>
<tr>
<td>Planned Business</td>
<td>20,000 ft²</td>
<td>30</td>
<td>--</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Limited Business</td>
<td>--</td>
<td>50</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Limited Industrial</td>
<td>--</td>
<td>30</td>
<td>--</td>
<td>--</td>
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</tbody>
</table>
Recommendations
Proposal Goals

1. Stem population decline
2. Economic growth
3. Preserve forests and agricultural land

As supported by the Master Plan, interviews, Environmental Planning Workshop, and other Williamstown reports
New Urbanism

**Charter of New Urbanism**: “It represents the interests of a broad coalition of environmentalists concerned with farmland preservation, habitat enhancement, and air quality as well as inner-city advocates concerned with urban reconstruction and social equity.”

- Walkability and connectivity
- Mixed-use and diversity
- Mixed-housing
- Increased density
- Sustainability
- Quality of life
Stem Population Decline Overview

- Decreasing population, especially compared to rest of Massachusetts
- Losing young people, lacking resources for starter families and low-income
- Growing older population, but we have resources for them
  - Proprietor’s Field, Highland Woods, etc.

Ryan, John, and Development Cycles. *Housing Needs Assessment: Williamstown, MA.*
Stem Population Decline Overview

- Huge increase in expensive rent, decrease in inexpensive rent
- Difference between affordable housing and low-income housing
  - Williamstown is in need of low-income
- New housing in Williamstown not truly affordable (no low-income)
  - Cable Mills

Ryan, John, and Development Cycles. Housing Needs Assessment: Williamstown, MA.
Stem Population Decline Overview

- 30% household income cut off for low-income program (Section 8)
  - Fair market price for units, program covers from 30% income to fair market price
- Not enough units that fit the under 30%
  - Waitlists for all units
  - Even with fair market rent increasing since 2013, not enough units

<table>
<thead>
<tr>
<th>HUD Fair Market Rents</th>
<th>2000</th>
<th>Current</th>
<th>% Change</th>
<th>Income Needed to Afford</th>
<th>% of Renters Who Can Afford</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Bedroom</td>
<td>$458</td>
<td>$648</td>
<td>41.5%</td>
<td>$25,920</td>
<td>53%</td>
</tr>
<tr>
<td>Two Bedroom</td>
<td>$564</td>
<td>$768</td>
<td>36.2%</td>
<td>$30,720</td>
<td>49%</td>
</tr>
<tr>
<td>Three Bedroom</td>
<td>$708</td>
<td>$973</td>
<td>37.4%</td>
<td>$38,930</td>
<td>40%</td>
</tr>
</tbody>
</table>

Ryan, John, and Development Cycles. *Housing Needs Assessment: Williamstown, MA.*
Rent in neighboring towns much less expensive
Stem Population Decline

- Smaller minimum lot sizes
- Higher density housing
- Reduce sprawl

**Proposal 1a**: Upzone developable General Residence within walking distance of town center

<table>
<thead>
<tr>
<th>Interest</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
<td>+/-</td>
</tr>
<tr>
<td>Quality of Life</td>
<td>+</td>
</tr>
<tr>
<td>Economic Growth</td>
<td>+</td>
</tr>
<tr>
<td>Community</td>
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http://www.buildstore.co.uk/FindingLand/Plotsizeexamples.aspx
Stem Population Decline

**Proposal 1b:** Allow multi-family units in developable General Residence within walking distance of town center

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- General Residence currently requires a special permit for multi family units
- More flexible housing
Stem Population Decline

Proposal 1c: High-density, affordable housing on Route 7
General Residence near VT border

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<td>Economic Growth</td>
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- Distance from town center makes affordable housing more realistic
- Brings more customers to Planned Business District across the street
Stem Population Decline

- Ease restrictions on “granny-flats” and mobile homes
  - Flexible housing option could attract more residents
  - “Millennial-flats”

- Townhouses
  - Higher density
  - Bring housing diversity near town center


Economic Growth Overview

- Closely linked to population growth
- A need for more diverse employment options
- Lack of commercially-zoned land

http://magazine.williams.edu/files/2015/10/SpringStreet2.jpg
**Economic Growth**

<table>
<thead>
<tr>
<th>Proposal 2a: Loosen Planned Business bylaws to allow for more flexible development</th>
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<tbody>
<tr>
<td><strong>Interest</strong></td>
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<td>Environment</td>
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<td>Economic Growth</td>
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- Allow residential units to be located on the first floor
- More flexibility with minimum lot size and amount of impervious coverage
Economic Growth

● Increase low-income housing
  ○ PhoTech Mill and Highland Woods as a good start

● Allow building in setbacks and higher max coverage by special permit in Limited Industrial for projects like Community Solar
  ○ Front: 150’, sides: 50’, Rear: 50’, Max Coverage: 30%
Protect Forests and Agricultural Lands Overview

**Master Plan:** “the future of the town [lies in] culture, education, tourism, and maintaining an environment that people want to come and interact with.”

**Master Plan Land Use Goal:** “preserve land in outlying areas for open space, recreation, and farming” and to “limit consumption of land while increasing residential units by launching a concerted effort to protect endangered privately-owned agricultural lands”
Protect Forests and Agricultural Lands

**Proposal 3a: Agricultural overlay district or Natural Resource Protection Zoning**

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<td>+/-</td>
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- **Goals:**
  - Protect agriculturally valuable soils
  - Protect economic viability of farms

Cricket Creek Farm Shop: [http://madamefromageblog.com/2012/cricket-creek-farm/](http://madamefromageblog.com/2012/cricket-creek-farm/)
Amherst, MA: Agriculture Overlay District

- Land carefully selected to maximize effectiveness
- Functions:
  - Less restrictive regulations for accessory uses
  - Requires clustered development
- Barkowski Meadow
  - Next to APR-protected farm
  - 23 out of 35 acres permanently protected
  - 17 building lots, 14 houses
Natural Resource Protection Zoning

- Low density approach where 65-90% of land is permanently protected
- Formulaic approach for smarter subdivisions
  - Density divider
  - Conservation multiplier
  - Analysis for smart placement on site
- Encourages diversity in residential uses
Protect Forest and Agricultural Lands

**Proposal 3b:** Generally protect ecologically-valuable open land

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- Open Space and Recreation Plan: 83% of Williamstown is open space
  - Only 29% of that is permanently protected
  - Lowest percentage of the 8 towns in Northern Berkshires

- Soil stability, drainage patterns, prevents erosion
- Protects rare species of plants and animals
- Preserves character of the town
- Increases town property values
Acknowledgements

First we would like to thank Sarah Gardner, our classmates in Environmental Planning Workshop, and Sophia Schmidt for their constant feedback and help. Our report would not have gotten nearly as far without your support and ideas. We’d also like to thank our interviewees for providing direct, irreplaceable knowledge that helped focus our recommendations. Thanks to Cory Campbell for his assistance with GIS, Andrew Groff for his input and help along the way, and Ann McCallum for her feedback and expertise.

Thank You!
Thanks for listening!