### Williamstown Farmland Project

Assessing Contemporary Threats to Farmland in Williamstown, Massachusetts

Elizabeth Bigham, Juan Rebolledo, Nicholas Sommer ENVI 302 Environmental Planning Workshop Fall 2020

© Cricket Creek Farm



#### **David McGowan** – Executive Director, Williamstown Rural Lands Foundation

### **Andrew Groff** – Town Planner, Town of Williamstown

### Project Goals



- 1) Identify land at risk of conversion from farmland to other purposes.
- Update parcel information of lands owned and leased by Williamstown farmers.
- 3) Get a sense of farmer succession plans.
- 4) Identify 4-5 priority farms for preservation efforts.

#### Why Preserve Farmland?



Declining number of farms and shrinking farm sizes

Retiring generation of farmers

Aesthetic + historical value

Regional food networks

Conversion to single-family residential housing

# How to Preserve Farmland?



Challenge: Market Land Value vs. Agricultural Land Value

Methods for Farmland Preservation:

- APR Agricultural Preservation Restriction – permanent agricultural protection
- Conservation Restrictions land use restriction
- Ch 61A property tax breaks for active farms
- Farmer match + land lease programs

### Methodology



#### • Background Research

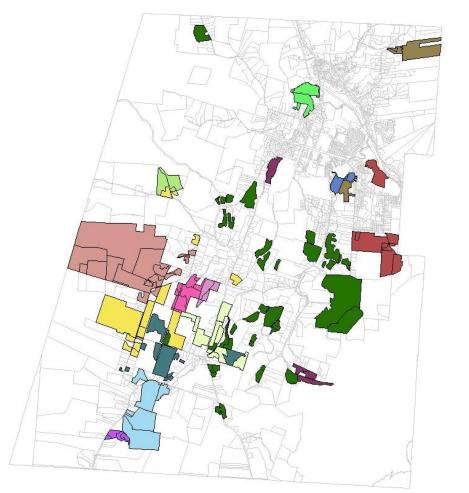
- Agricultural Reports
  - Farms Under Threat (2020)
  - APR Program Guide (2020)
  - A Future for Farming (2013)
  - NE Food Vision (2011)
- Paul Catanzaro (MassWoods)
- Dr. Eric White (landowner)
- Mr. Dustin Griffin (historian)

#### • Farm Interviews

- 14 in-person farm visits
- 1 Zoom interview
- $\circ$  1 Phone call
- Evaluation Matrix
- Parcel Mapping

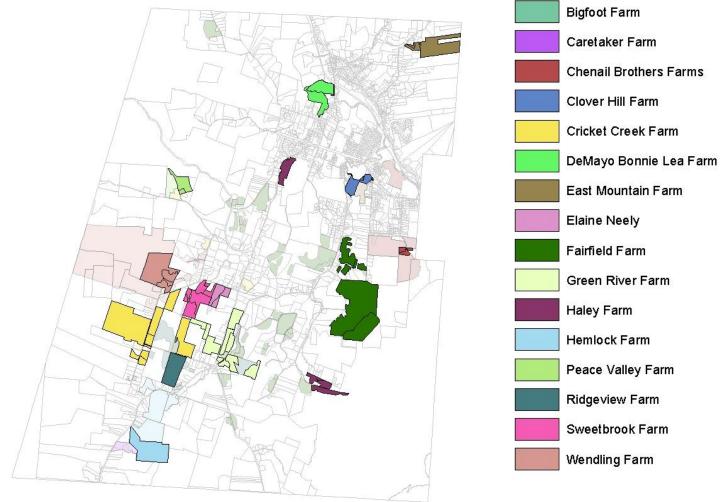
Parcel Maps

#### **Farms in Williamstown**

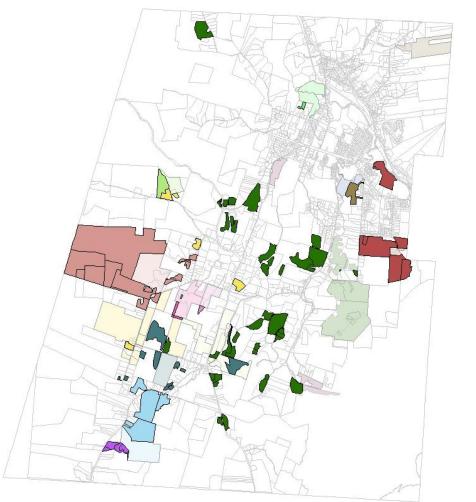




#### **Owned Farmland Parcels**

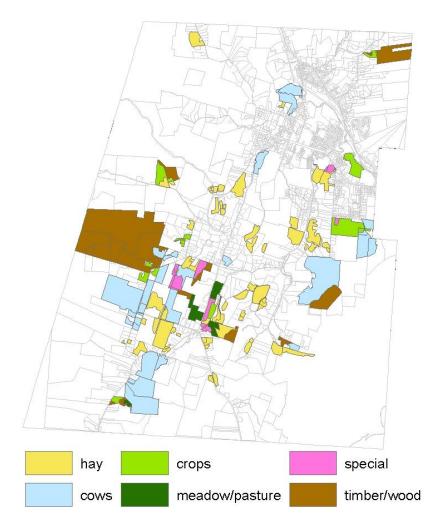


#### **Leased Farmland Parcels**

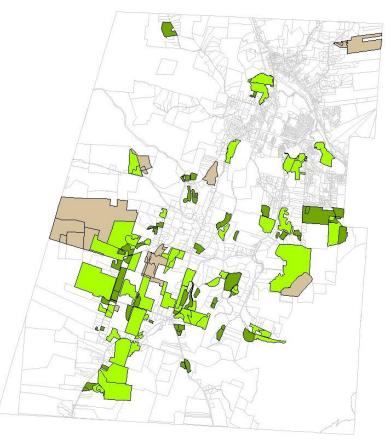


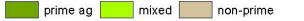


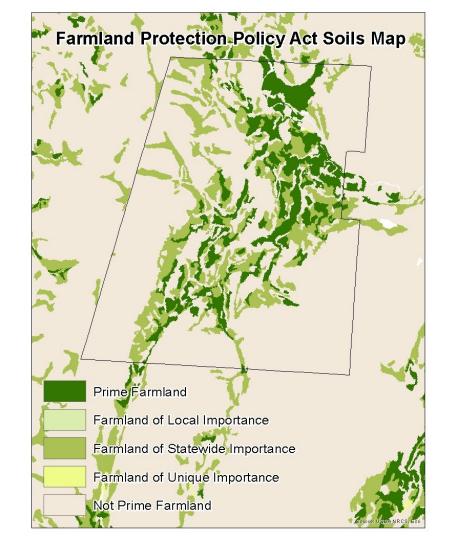
#### **Agricultural Use**



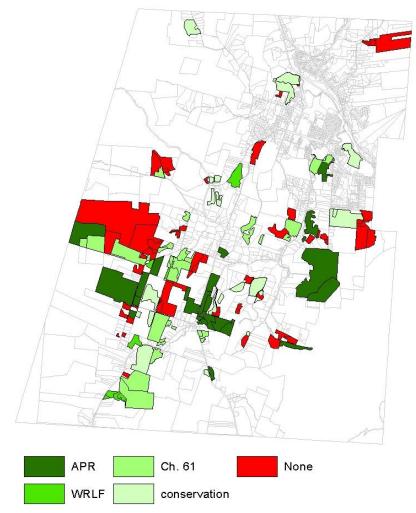
#### **Soil Status**







#### **Conservation Status**



### **Threat Evaluation Matrix**

#### **Evaluation Matrix**

			0	Threats to Farmland									
		3		Land									
Farms	Owned Farmland Size (ha)	Leased Farmland Size (Estimate) (ha)	Size	Soil Type	Land Protection Status	Succession Plan	Business Model Adaptation	Willingness to Consider APR/CR	Raw Threat Score (6-19)				
Farm A													
Farm B													
Farm C													
Farm D						.:							
Farm E		2											
Farm F													
Farm G													
Farm H													
Farm I		1											
Farm J													
Farm K													
Farm L													
Farm M		20 X											
Farm N													
Farm O													
Farm P													
Lowest Possib	e Raw Score: 6	Highest Poss	ible Raw Score:	19									

### **Evaluation Matrix Legend**

Legend						
Threat Level (Low–High) (1–4)	Size	Soil Type*	Land Protection Status	Succession Plan	Business Model Adaptation	Willingness to Consider APR/CR
[1]	>5 Acres farmlable land greater than 5 acres, elligible under APR farm size guidelines	Prime Ag >75% of all soils are Prime soils	All APR/Land Trust owned land is conserved as farmland in perpetuity via Mass APR or land trust organization	Solid Plan young farmer, or plans for family member taking over	Recent Adaptation evidence of changes in farming practices within last 5 years or plans to change in next 2 years	APR Achieved all elligible lands are already placed in APR
[2]	<5 Acres owned land is less than 5 acres. therefore not elligible for APR restriction	Mixed mixture of Prime and Non-Prime soils	Mixed: APR/CR owned lands partially conserved. Mixture of APR and CR lands	Semi-Plan farmer starting to take action on who gets/wants the farm. Unlikely to sell/pass on farm in next 5 years	Historical Adaptation evidence of changes in farming practices within last 5-20 years	Interested APR/CR eligible lands. Farmer could benefit from land conservation agreement. Farmer holds strong sentiments that lands should remain undeveloped
[3]		Non-Prime >75% of all soils are Non-Prime	Some CR some owned lands protected through Conservation Resprictions	No Plan no individual lined up to take over the farm. Could be because they couldn't find someone or becuase they are scaling back operations. Farm facing threat of being sold in next 5-10 years		Does Not Qualify/Not Interested land does not meet the eligability requirements for conservation. The owner is not interested in conservation options.
[4]			No Conservation Status owned lands have no conservation status	Market Listing Imminant no succession plan in place, farmer likely to sell lend within 5 years		

\*Regarding the Soil Type category, we chose to label soils as Prime Ag, Mixed, and Non-Prime. The purpose of our matrix assessment is to show the level at which particular farmland is at risk of being lost. Although non-prime agricultural soil is beneficial to the biodiversity of an area, based on APR requirements we ranked Prime Ag soils above Non-Prime in terms of being targets for potential conservation efforts.

### **Evaluation Matrix**

Threats to Farmland						and										
			Land Operation					nal								
Farms	Owned Farmland Size (ha)	Leased Farmland Size (Estimate) (ha)	Size	Soil Type	Land Protection Status	Succession Plan	Business Mo Adaptation		Willingnes Consid APR/C	er n	aw Threat core (6-19)					
Farm A																
Farm B																
Farm C																
Farm D																
Farm E																
Farm F																
Farm G																
Farm H							L	egen						I	1	
Farm I									eat Level w–High)				Land Protection		Business Model	Willingness to Consider
Farm J									(1–4)	Si	ze	Soil Type*	Status	Succession Plan	Adaptation	APR/CR
Farm K									a da	>5 Acres		Prime Ag	All APR/Land Trust	Solid Plan		APR Achieved
Farm L										farmlable I greater that		>75% of all soils are	owned land is conserved as	young farmer, or plans for family member taking		all elligible lands are already placed in APR
Farm M										acres, ellig		Prime soils	farmland in perpetuity over via Mass APR or land		farming practices within last 5 years or plans to	placed III AFK
Farm N									[4]	under APF	R farm				change in next 2 years	
Farm O							_		[1]	size guide			trust organization			
Farm P										<5 Acres owned ian		Mixed mixture of Prime and	Mixed: APR/CR owned lands partially	Semi-Plan farmer starting to take	Historical Adaptation evidence of changes in	Interested APR/CR eligible lands.
Lowest Possib	e Raw Score: 6	Highest Poss	ible Raw Score:	19						than 5 acr		Non-Prime soils	conserved. Mixture of	action on who gets/wants	farming practices within	Farmer could benefit from
										therefore r			APR and CR lands	the farm. Unlikely to	last 5-20 years	land conservation
										elligible for restriction	APR			sell/pass on farm in next 5 years		agreement. Farmer holds strong sentiments that lands
									[2]							should remain undeveloped
										13		Non-Prime	Some CR	No Plan	No Adaptation	Does Not Qualify/Not
												>75% of all soils are Non-Prime	some owned lands protected through	no individual lined up to take over the farm. Could		Interested land does not meet the
												NOI-F1IIIIE	Conservation	be because they couldn't		eligability requirements for
													Resprictions	find someone or becuase		conservation. The owner is
														they are scaling back operations. Farm facing		not interested in conservation options.
														threat of being sold in		conservation options.
									[3]					next 5-10 years		
													No Conservation Status	Market Listing Imminant		
									[4]				conservation status	place, farmer likely to sell		
									[4]					land within 5 years		
														Prime. The purpose of our n I to the biodiversity of an are		

soils above Non-Prime in terms of being targets for potential conservation efforts.

#### Results [Alphabetical]

				Threats to Farmland								
					Land							
Farms <del>–</del>	Owned Farmland = Size (ha)	Leased Farmland Size = (Estimate) (ha)	Size	ч	Soil Type 👳	Land Protection <del>_</del> Status	Succession <del>,</del> Plan	Business Model <del>_</del> Adaptation	Willingness to Consider ╤ APR/CR	Raw Threat Score (6-19) 👳		
Farm A	0.00	1.00	2		3	2	3	1	3	14		
Farm B	0.00	33.64	1		1	1	1	1	1	6		
Farm C	14.48	270.37	1		2	4	2	3	3	15		
Farm D	44.42	0.00	1		2	4	4	3	3	17		
Farm E	410.66	53.17	1	1. S	1	2	2	1	2	9		
Farm F	93.87	4.72	1		2	2	2	2	2	11		
Farm G	128.08	32.67	1		3	2	4	2	3	15		
Farm H	44.60	4.81	1	Ĩ	2	4	4	3	2	16		
Farm I	441.73	506.79	1		2	1	1	1	1	7		
Farm J	202.54	0.00	1		2	1	2	1	1	8		
Farm K	89.67	0.00	1		2	3	4	3	2	15		
Farm L	131.49	232.00	1	Ĩ	2	3	2	2	2	12		
Farm M	40.74	36.66	1		3	4	4	3	2	17		
Farm N	84.383	125.40	1		2	4	3	3	3	16		
Farm O	107.93	9.30	1	Î	3	4	1	1	2	12		
Farm P	169.94	869.39	1		3	4	2	1	2	13		
Lowest Possibl	e Raw Threat Score: 6	Highest Possible R	aw Threat S	core	: 19		-					

#### Results [Raw Threat Score]

				Threats to Farmland								
				Land								
Farms 📼	Owned Farmland 👳 Size (ha)	Leased Farmland Size = (Estimate) (ha)	Size =	Soil Type 📼	Land Protection <del></del> Status	Succession <del>–</del> Plan	Business Model 🚊	Willingness to Consider <del>–</del> APR/CR	Raw Threat Score (6-19)			
Farm D	44.42	0.00	1	2	4	4	3	3	17			
Farm M	40.74	36.66	1	3	. 4	4	3	2	17			
Farm H	44.60	4.81	1	2	4	4	-3	2	16			
Farm N	84.383	125.40	1	2	4	3	3	3	16			
Farm C	14.48	270.37	1	2	4	2	3	3	15			
Farm G	128.08	32.67	1	3	2	4	2	3	15			
Farm K	89.67	0.00	1	2	3	4	3	2	15			
Farm A	0.00	1.00	2	3	2	3	1	3	14			
Farm P	169.94	869.39	1	3	4	2	1	2	13			
Farm L	131.49	232.00	1	2	3	2	2	2	12			
Farm O	107.93	9.30	1	3	4	1	1	2	12			
Farm F	93.87	4.72	1	2	2	2	2	2	11			
Farm E	410.66	53.17	1	1	2	2	1	2	9			
Farm J	202.54	0.00	1	2	1	2	1	1	8			
Farm I	441.73	506.79	1	2	1	1	1	1	7			
Farm B	0.00	33.64	1	1	1	6						
Lowest Possible	e Raw Threat Score: 6	Highest Possible R	aw Threat Score	e: 19								

#### Results [Succession Plan]

				Threats to Farmland							
					Land						
Farms <del>–</del>	Owned Farmland 👳 Size (ha)	Leased Farmland Size = (Estimate) (ha)	Size	·I	Soil Type 📼	Land Protection <del></del> Status	Succession <del>_</del> Plan	Business Model <del></del> Adaptation	Willingness to Consider	Raw Threat = Score (6-19)	
Farm D	44.42	0.00	1		2	4	4	<b>&gt;</b> 3	3	17	
Farm G	128.08	32.67	1		3	2	4	2	3	15	
Farm H	44.60	4.81	1		2	4	4	3	2	16	
Farm K	89.67	0.00	1		2	3	4	3	2	15	
Farm M	40.74	36.66	1		3	4	4	3	2	17	
Farm A	0.00	1.00	2		3	2	3	1	3	14	
Farm N	84.383	125.40	1		2	4	3	3	3	16	
Farm C	14.48	270.37	1		2	4	2	3	3	15	
Farm E	410.66	53.17	1		1	2	2	1	2	9	
Farm F	93.87	4.72	1		2	2	2	2	2	11	
Farm J	202.54	0.00	1		2	1	2	1	1	8	
Farm L	131.49	232.00	1		2	3	2	2	2	12	
Farm P	169.94	869.39	1		3	4	2	1	2	13	
Farm B	0.00	33.64	1		1	1	1	1	1	6	
Farm I	441.73	506.79	1		2	1	1	1	1	7	
Farm O	107.93	9.30	1		3	4	1	1	2	12	
Lowest Possibl	e Raw Threat Score: 6	Highest Possible R	aw Threat S	core	: 19						

#### Results [Land Protection Status]

			Threats to Farmland							
					Land					
Farms <del>-</del>	Owned Farmland 🚽	Leased Farmland Size = (Estimate) (ha)	Size	чI	Soil Type 👳	Land Protection <del></del> Status	Succession <del>ू</del> Plan	Business Model <del>_</del> Adaptation	Willingness to Consider <del>≂</del> APR/CR	Raw Threat = Score (6-19)
Farm D	44.42	0.00	1	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	2	4	5	3	3	17
Farm H	44.60	4.81	1		2	4	4	3	2	16
Farm M	40.74	36.66	1		3	4	4	3	2	17
Farm N	84.383	125.40	1	Ĩ	2	4	3	3	3	16
Farm C	14.48	270.37	1		2	4	2	3	3	15
Farm P	169.94	869.39	1		3	4	2	1	2	13
Farm O	107.93	9.30	1		3	4	1	1	2	12
Farm K	89.67	0.00	1	<sup>2</sup>	2	3	4	3	2	15
Farm L	131.49	232.00	1	1 1	2	3	2	2	2	12
Farm G	128.08	32.67	1		3	2	4	2	3	15
Farm A	0.00	1.00	2		3	2	3	1	3	14
Farm E	410.66	53.17	1		1	2	2	1	2	9
Farm F	93.87	4.72	1		2	2	2	2	2	11
Farm J	202.54	0.00	1		2	1	2	1	1	8
Farm B	0.00	33.64	1	Î	1	1	1	1	1	6
Farm I	441.73	506.79	1		2	1	1	1	1	7
Lowest Possibl	e Raw Threat Score: 6	Highest Possible R	aw Threat S	core	: 19					

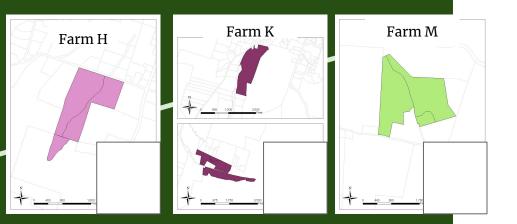
## Key Findings



### Key Findings

- Farms with little-to-no land protection status have high threat scores
- Land Protection Status and Succession Plan scores are the best indicators of where preservation focus should be directed
- Added Value & Community Engagement





### Key Findings

- Five farms in danger of being sold in next 5 years
  - Farm A, Farm D, Farm H, Farm K, Farm M
- Possibility for Conservation Restrictions
  > APR
  - (most low hanging conservation fruit gone)



### Recommendations



#### Recommendations

Farms to Preserve:

- Farm P
- Farm F (southwestern parcel, 5 acres)
- Farm D
- Farm H

Relationships with Land Owners:

- Herb Allen (via Bruce Grinnell)



#### Recommendations

Williamstown Rural Lands

- Farmer matching
- Conservation Restrictions
- Succession Planning events + workshops (MassWoods)

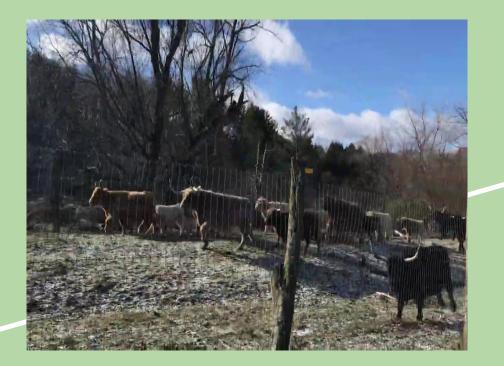
Town of Williamstown

- Smart growth development in town center
- Support for regional food network + farmer co-ops
- Conscientious forest-to-farm land use conversion

Williamstown Agricultural Commission

- Farm succession planning to promote future of farming
- Promote innovative + value added products
- Peer-to-peer assistance with grant acquisitions

### Thank You!



#### Williamstown Farmland Project Assessing Contemporary Threats to Farmland in Williamstown, Massachusetts



Elizabeth Bigham, Juan Rebolledo, Nicholas Sommer ENVI 302 Environmental Planning Workshop Professor Sarah Gardner Fall 2020

Clients: Andrew Groff, Williamstown Planning Department David McGowen, ED Williamstown Rural Lands Foundation

Stay tuned!