

# Nantucket Buildout Analysis



Preserving the Past, Building the Future



Liaisons:

Rita Higgins, Select Board Member

Gregg Tivnan, Assistant Town Manager

Andrew Vorce, Director of Planning

Jonathan Barr, Peter Durkin, James Heineman, David Simpson

# Buildout Analysis: Definition and Application

## Definition

- A buildout analysis is a detailed study that projects a hypothetical number of future dwellings, subject to constraints
- This project only considers residentially zoned parcels

## Application

- Inform the 2020/2021 Master Plan
- Sewerage, electricity, potable water, and other town services

# Presentation Outline

Present Day: 2018

Hypothetical Max Buildout

2030 Low Scenario

2030 High Scenario



# Presentation Outline

Present Day: 2018

Present Day Nantucket  
Basic Definitions and Caveats

# Presentation Outline

**Hypothetical Max Buildout**

Theoretical Maximum Buildout  
Parcel Type Definitions  
Uncertainties  
Recommendations for Future Analysis

# Presentation Outline

2030 Low Scenario | 2030 High Scenario

Projecting 2030 Dwelling Count  
Low and High Scenarios  
Recommendations for Future Analysis  
Application for Master Planning

# Basic Definitions and Caveats

Parcel: A tract of land that is owned by an entity

Dwelling Unit: A building that has at least one bedroom

Residential: Existing within a residential zone

Zone: Area of land having a set use and regulations

Ground Cover: Total footprint of a dwelling or other large structures

- The following analysis considers only residential parcels (35.9% Land Area)
- Most recent Assessor and GIS data used

# Present Day Nantucket

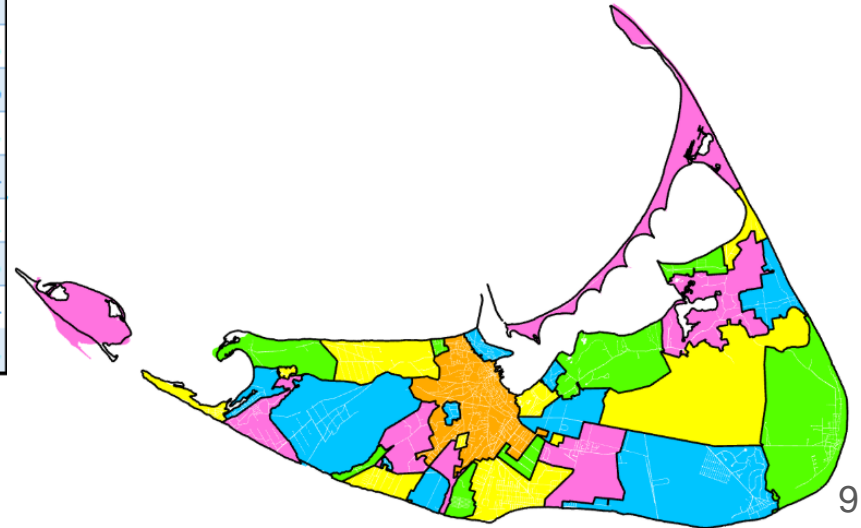
District	Present Day: 2018			Scenario #1: Hypothetical Max			Scenario #2: 2030, Average		Scenario #3: 2030, Linear	
	Residential Parcels	Total Dwellings	% of Total Dwellings	New Dwellings	% New Dwellings	% Potential Growth	New Dwellings	% Potential Growth	New Dwellings	% Potential Growth
<b>Grand Total</b>	<b>10697</b>	<b>10456</b>	<b>100%</b>	<b>5461</b>	<b>100%</b>	<b>52.2%</b>	<b>1260</b>	<b>12.1%</b>	<b>2484</b>	<b>23.8%</b>
<b>Town</b>	4166	4276	40.9%	2610	47.8%	61.0%	602	14.1%	1187	27.8%
<b>Scon</b>	963	554	5.3%	598	11.0%	107.9%	138	24.9%	272	49.1%
<b>Airport</b>	377	335	3.2%	368	6.7%	109.9%	85	25.4%	167	49.9%
<b>Surf</b>	595	719	6.9%	289	5.3%	40.2%	67	9.3%	131	18.2%
<b>Brant</b>	318	330	3.2%	239	4.4%	72.4%	55	16.7%	109	33.0%
<b>Quid</b>	169	156	1.5%	124	2.3%	79.5%	29	18.6%	56	35.9%
<b>Tom</b>	612	522	5.0%	116	2.1%	22.2%	27	5.2%	53	10.2%
<b>Dionis</b>	273	336	3.2%	115	2.1%	34.2%	27	8.0%	52	15.5%
<b>Mad</b>	325	284	2.7%	101	1.8%	35.6%	23	8.1%	46	16.2%
<b>Polpis</b>	147	178	1.7%	98	1.8%	55.1%	23	12.9%	45	25.3%
<b>Harbor</b>	255	300	2.9%	91	1.7%	30.3%	21	7.0%	41	13.7%
<b>Other</b>	2497	2466	23.6%	712	13.0%	28.9%	163	6.6%	325	13.2%



# Present Day Nantucket

District	Present Day: 2018				
	Residential Parcels	Total Dwellings	% of Total Dwellings	Parcels with 1 Dwelling	Parcels with 2+ Dwellings
<b>Grand Total</b>	<b>10697</b>	<b>10456</b>	<b>100%</b>	<b>6821</b>	<b>1760</b>
Town	4166	4276	40.9%	2933	661
Scon	963	554	5.3%	355	97
Airport	377	335	3.2%	221	54
Surf	595	719	6.9%	349	167
Brant	318	330	3.2%	215	55
Quid	169	156	1.5%	82	36
Tom	612	522	5.0%	354	83
Dionis	273	336	3.2%	124	104
Mad	325	284	2.7%	242	21
Polpis	147	178	1.7%	62	55
Harbor	255	300	2.9%	124	84
Other	2497	2466	23.6%	1760	343

Total Dwellings: 10,456  
 Town: 40.9% total dwellings  
 Residential Parcels with Dwellings: 8,581  
 80% are single dwelling  
 Dwellings/Parcel: 1.22



# Hypothetical Max Buildout

District	Present Day: 2018			Scenario #1: Hypothetical Max			Scenario #2: 2030, Average		Scenario #3: 2030, Linear	
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<b>Grand Total</b>	<b>10697</b>	<b>10456</b>	<b>100%</b>	<b>5461</b>	<b>100%</b>	<b>52.2%</b>	<b>1260</b>	<b>12.1%</b>	<b>2484</b>	<b>23.8%</b>
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# Hypothetical Max Buildout

District	Scenario #1: Hypothetical Max		
	New Dwellings	% New Dwellings	% Potential Growth
<b>Grand Total</b>	<b>5461</b>	<b>100%</b>	<b>52.2%</b>
Town	2610	47.8%	61.0%
Scon	598	11.0%	107.9%
Airport	368	6.7%	109.9%
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Mad	101	1.8%	35.6%
Polpis	98	1.8%	55.1%
Harbor	91	1.7%	30.3%
Other	712	13.0%	28.9%

The hypothetical maximum assumes that every parcel that can be developed, is developed.

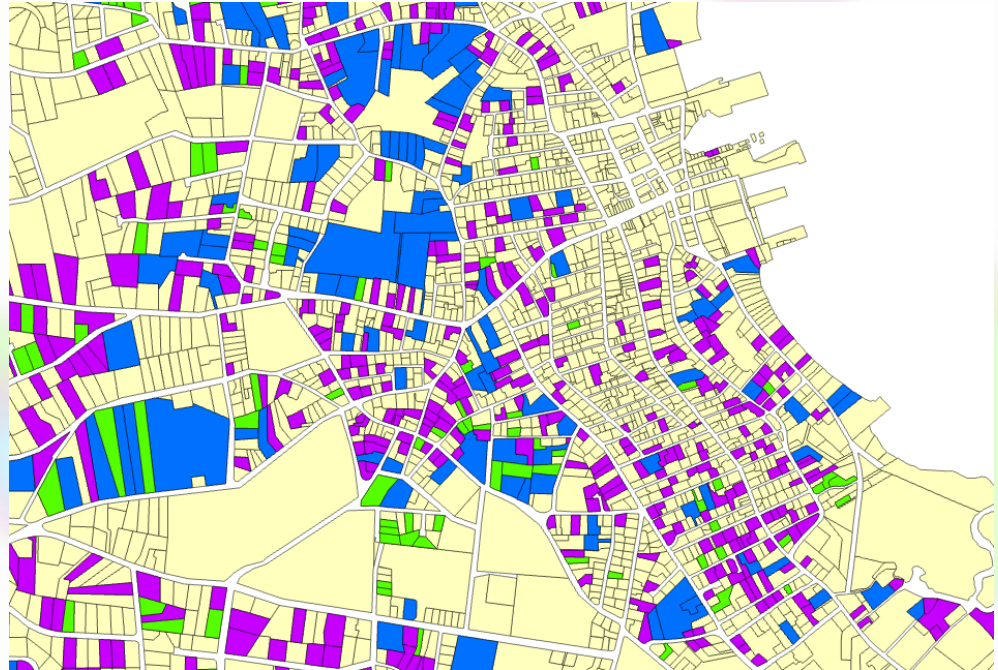
It is by no means an expectation that every new dwelling will be constructed.

This analysis is an estimated maximum number of dwellings Nantucket could build.

# Hypothetical Max Buildout

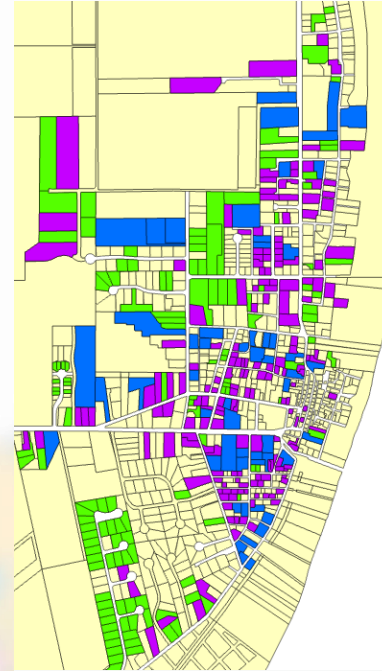
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Potential of 5,461 new dwellings in residential zones  
52% total growth



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<b>Scon</b>	<b>598</b>	<b>11.0%</b>	<b>107.9%</b>
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# Parcel Type: Undeveloped

No current dwelling

Potential for subdivision

Potential for primary and secondary dwellings

Ratio: 1.22 dwellings/parcel

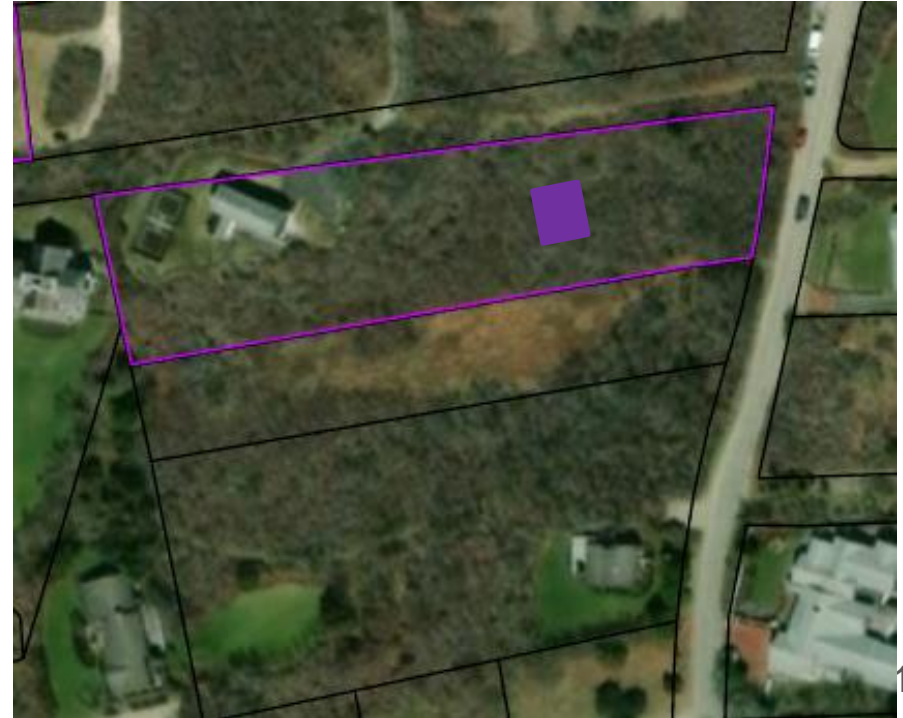
Parcel Type	Affected Residential Parcels	Maximum New Dwellings
<b>TOTAL</b>		<b>5461</b>
<b>Undeveloped</b>	<b>848</b>	<b>1463</b>



# Parcel Type: Secondary Dwelling

Zone that allows 2<sup>nd</sup> dwellings  
Only 1 dwelling currently  
Ground cover available

Parcel Type	Affected Residential Parcels	Maximum New Dwellings
<b>TOTAL</b>		<b>5461</b>
Undeveloped	848	1463
Secondary Dwelling Eligible	2066	2066



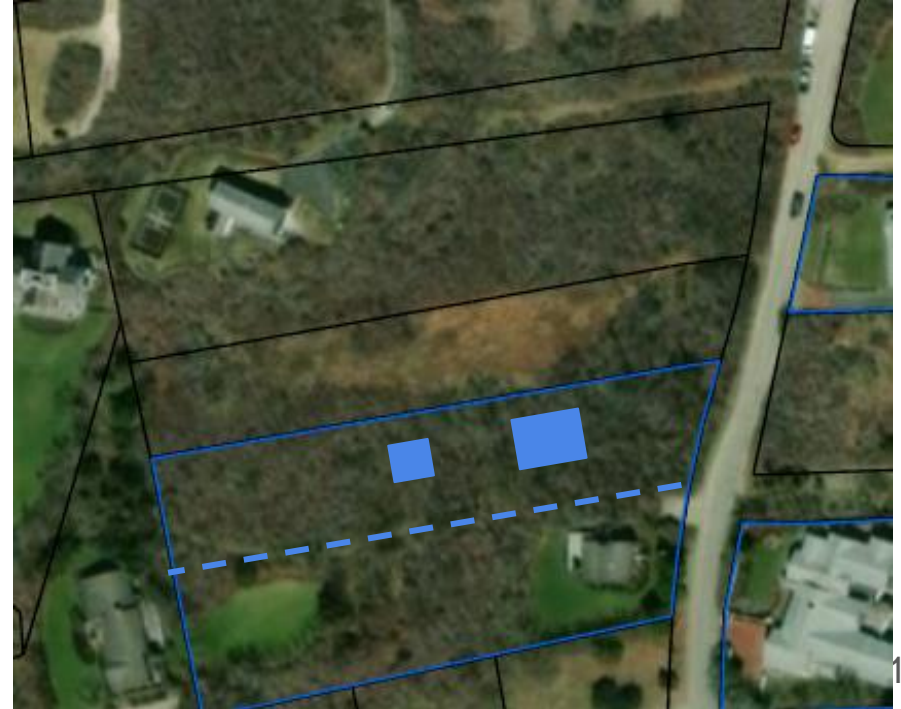
# Parcel Type: Subdividable

Sized 2.5x minimum lot size

Ground cover available

Newly subdivided parcels could have both primary and secondary dwelling

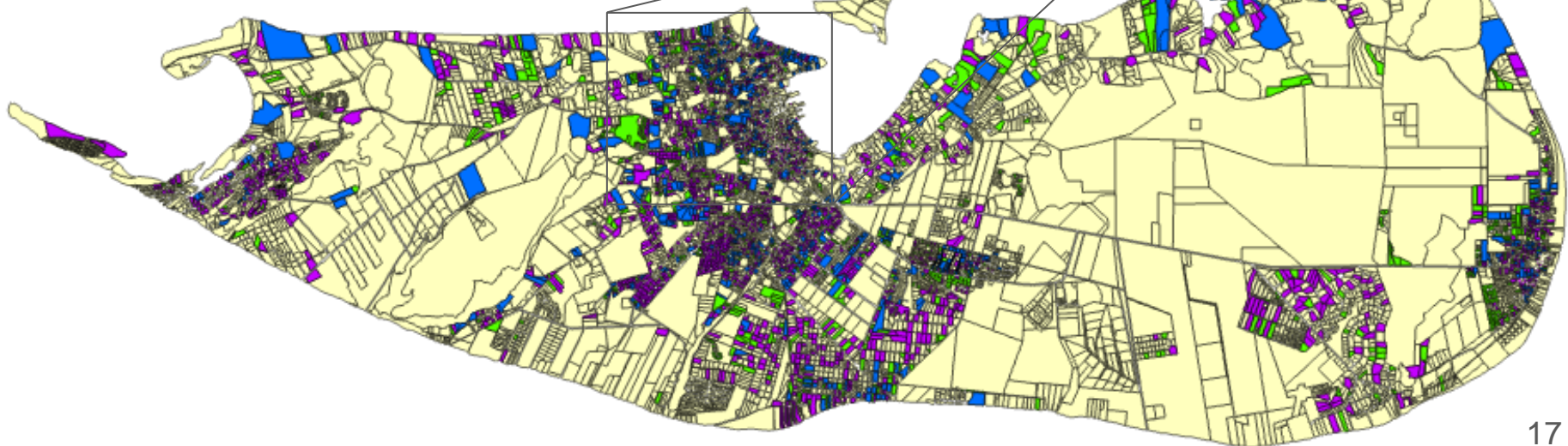
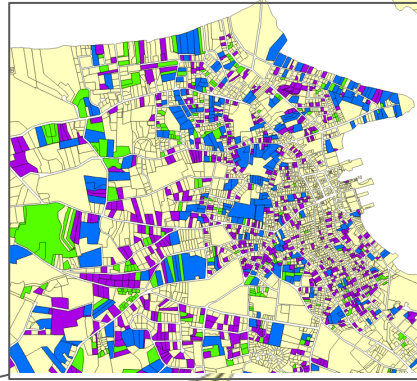
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Undeveloped	848	1463
Secondary Dwelling Eligible	2066	2066
Subdividable	564	1932



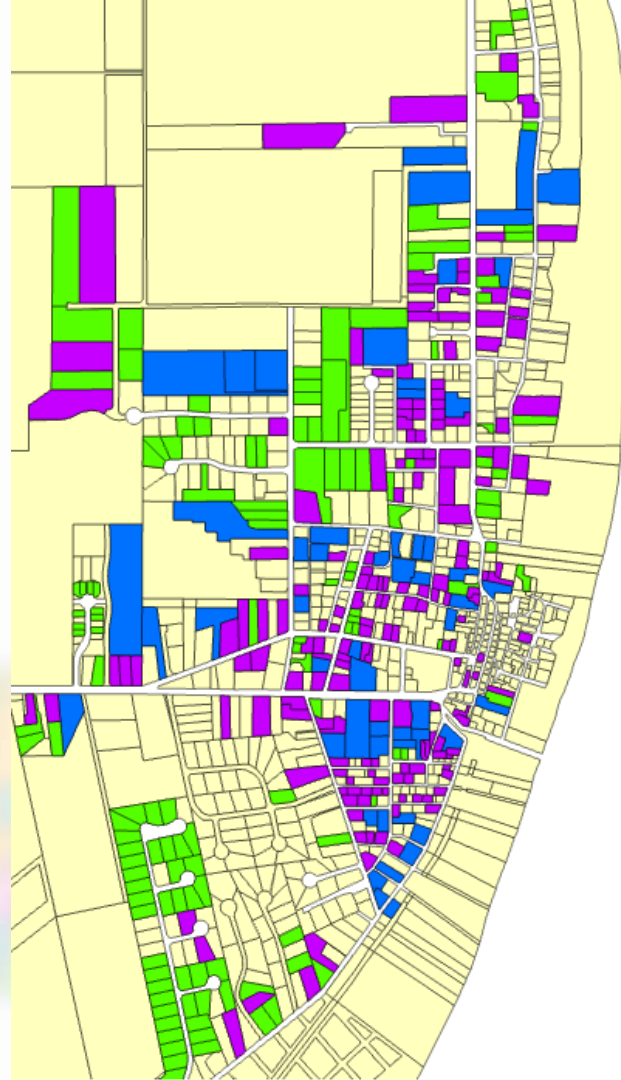


# Second Dwellings account for over 1/3 of potential new dwellings.

Parcel Type	Affected Residential Parcels	Maximum New Dwellings
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Undeveloped	848	1463
Secondary Dwelling Eligible	2066	2066
Subdividable	564	1932



Siasconset	Affected Residential Parcels	Maximum New Dwellings
<b>TOTAL</b>		<b>598</b>
Undeveloped	146	220
Secondary Dwelling Eligible	188	188
Subdividable	55	190



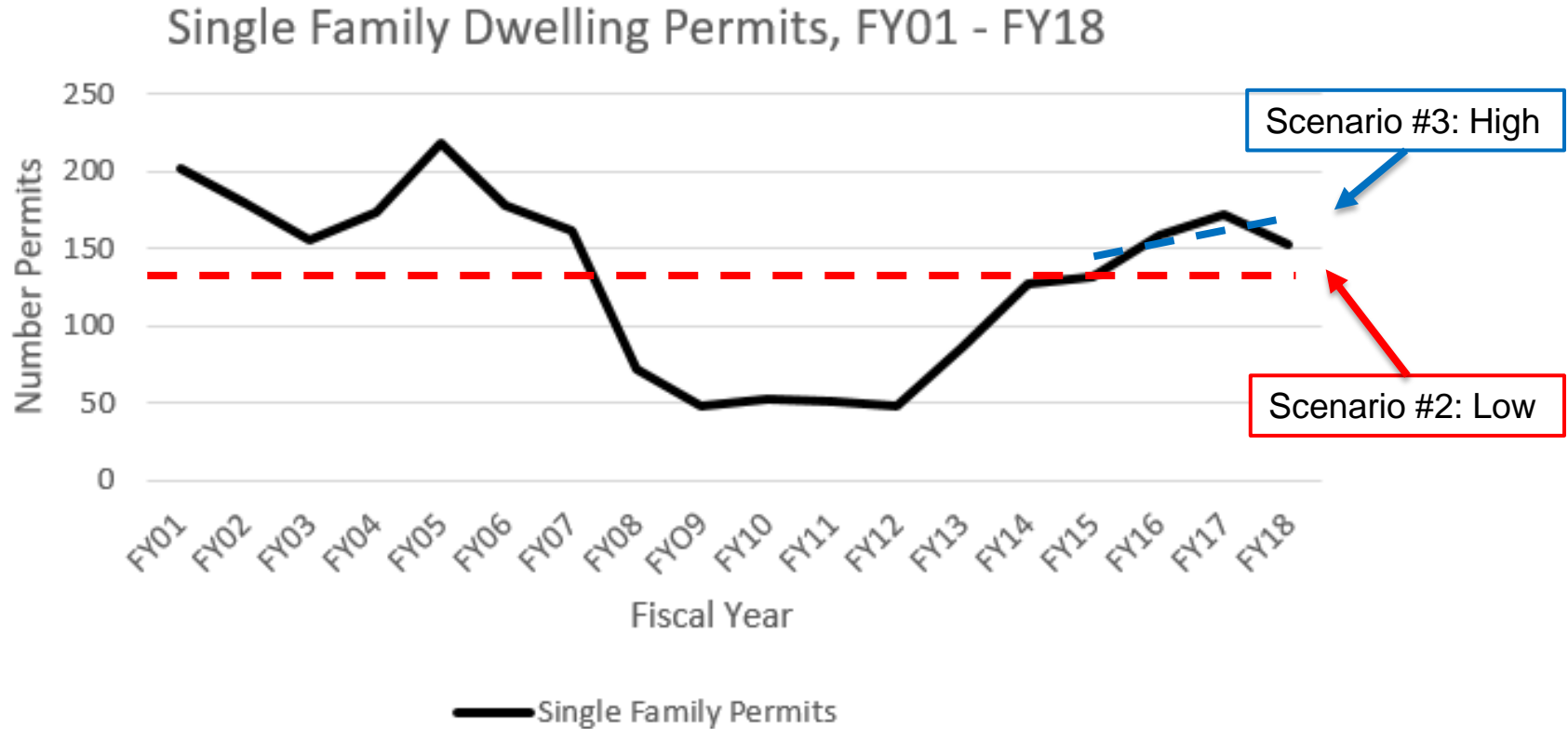
# Uncertainties for Future Analysis

Uncertainty	Change to Maximum Dwelling Estimate
Conserved Areas and Wetlands	-5% to 0%
Other Dwelling Sources	0% to +3%
Geometric Restrictions	-5% to 0%
Other Uncertainties	-5% to +7%
TOTAL	-15% to +10%

Recommendation: Further analysis in categories of uncertainties to refine finding.  
Incorporate non-residential zones for a more complete analysis.

(Not in uncertainty chart)

# How do we apply this to a Master Plan?



# 2030 Dwelling Projections

District	Present Day: 2018			Scenario #1: Hypothetical Max			Scenario #2: 2030, Average		Scenario #3: 2030, Linear	
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<b>Town</b>				2610	47.8%	61.0%	602	14.1%	1187	27.8%
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	2497	2466	23.6%							

# 2030 Dwelling Projections

District	Scenario #2: 2030, Average		Scenario #3: 2030, Linear	
	New Dwellings	% Potential Growth	New Dwellings	% Potential Growth
<b>Grand Total</b>	<b>1260</b>	<b>12.1%</b>	<b>2484</b>	<b>23.8%</b>
Town	602	14.1%	1187	27.8%
Scon	138	24.9%	272	49.1%
Airport	85	25.4%	167	49.9%
Surf	67	9.3%	131	18.2%
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Other	163	6.6%	325	13.2%

Low Scenario  
Average Net Dwelling Increase

Estimated 1,260 net new dwelling units by 2030

1/8 increase in dwellings across island  
Evenly applied to districts, town grows by 14%

# 2030 Dwelling Projections

District	Scenario #2: 2030, Average		Scenario #3: 2030, Linear	
	New Dwellings	% Potential Growth	New Dwellings	% Potential Growth
<b>Grand Total</b>	<b>1260</b>	<b>12.1%</b>	<b>2484</b>	<b>23.8%</b>
Town	602	14.1%	1187	27.8%
Scon	138	24.9%	272	49.1%
Airport	85	25.4%	167	49.9%
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High Scenario

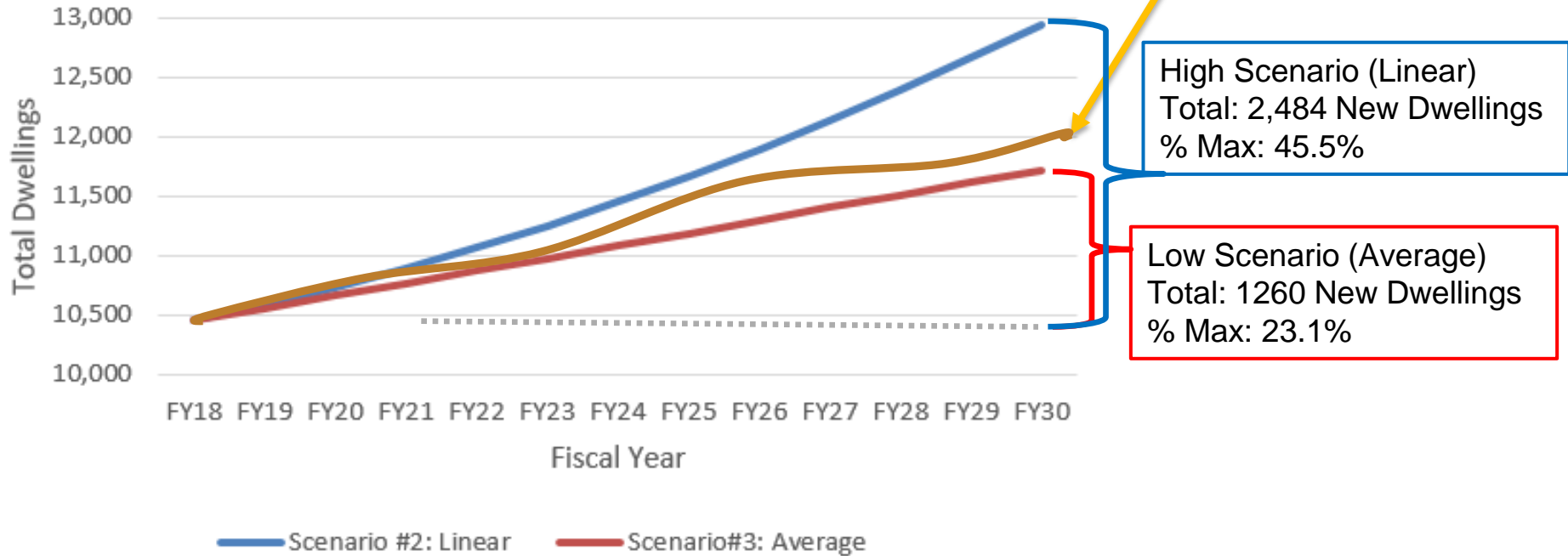
Upward Trend in Net Dwelling Increase

Estimated 2,484 net new dwelling units by 2030

1/4 increase in dwellings across island  
Town grows by 28%

# Where does Nantucket go now?

## Scenario Comparison





# Potential Applications for Master Plan

What range of applications can the analysis reach?

## Direct

1. Sewerage Needs Areas
2. Affordable Housing
3. Electricity



## Indirect

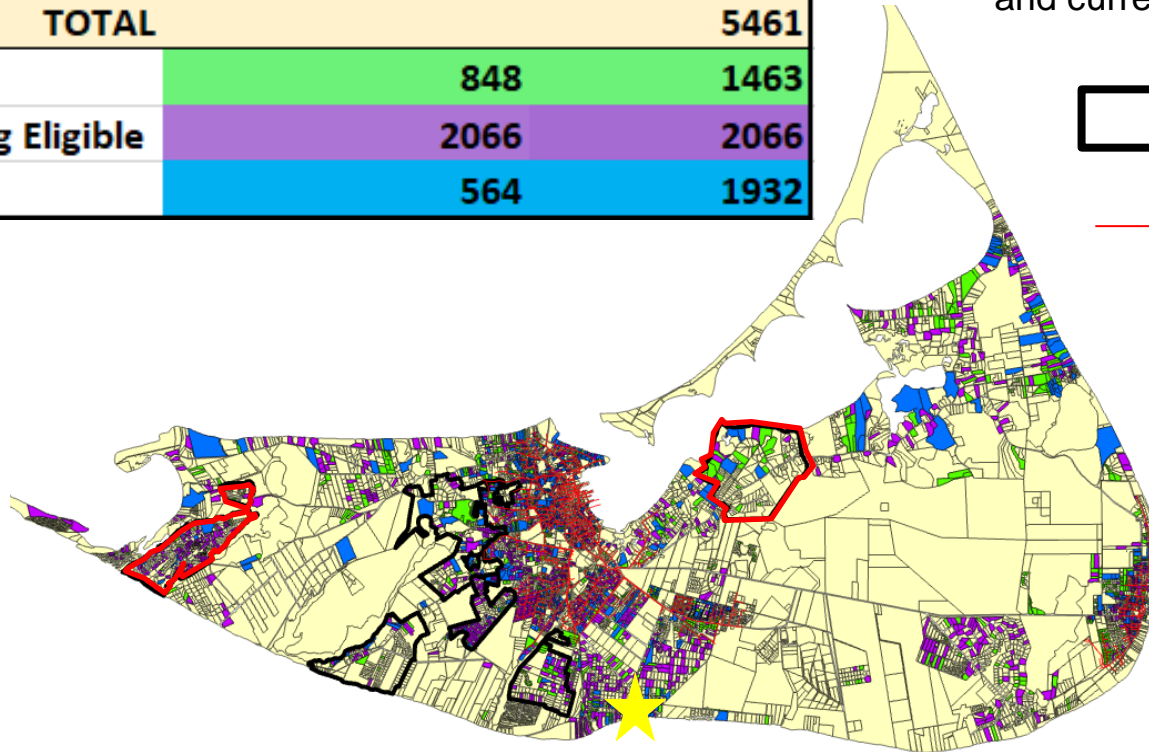
1. Population Growth

# Potential Application: Sewerage Needs Area

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Undeveloped	848	1463
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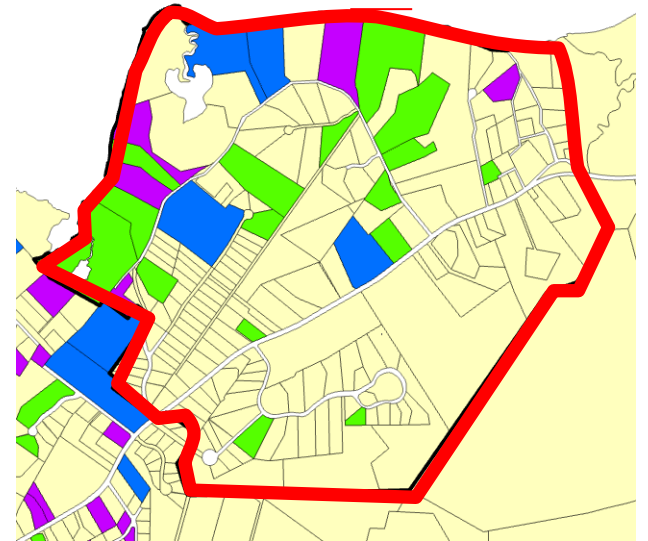
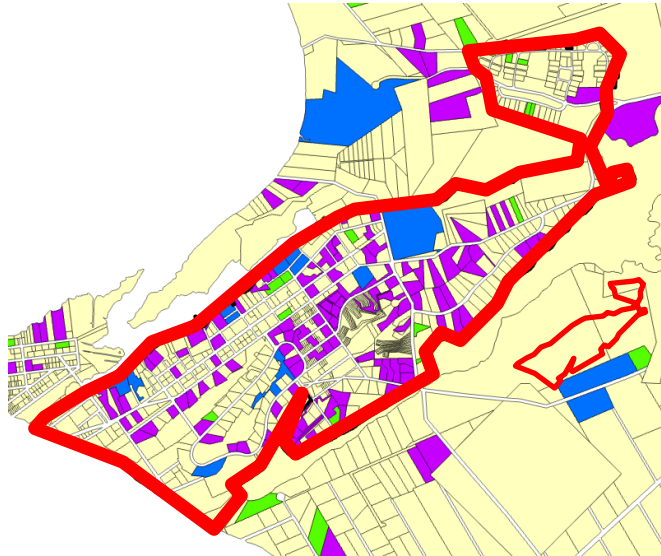
Potential application of Nantucket  
Maximum Residential Buildout map  
overlaid with sewerage needs area  
and current piping for Sewage  
Master Plan

-  - Needs Areas
-  - Sewer Piping



# Potential Application: Sewerage Needs Area

Needs Area	Max New Dwellings	2030, Low	2030, High
Madaket	X1	Y1	Z1
South Harbor	X2	Y2	Z2



# Thank You!

## Comments or Discussion?

Scenario Comparison

