

WARWICK, RI

SOCIOECONOMICS OF SEA LEVEL RISE COASTAL FACTSHEET



PROJECT OVERVIEW

Rhode Island's municipalities are in the preliminary stages of integrating planning for sea level rise and climate change into their comprehensive planning process. To support these planning efforts of RI cities and towns, RISPP developed the Socioeconomics of Sea Level Rise project. The project aims to assist coastal municipalities in their long-term planning by attempting to identify population characteristics of **the people** located within sea level rise (SLR) inundation zones 1, 3, 5 and 7 FT. The data presented in this factsheet places a focus on Environmental Justice and Title VI populations.

METHODOLOGY

The RISPP utilized 2010 Decennial Census data and the latest American Community Survey (ACS) estimates to conduct an extensive data analysis. Staff also utilized CRMC's STORMTOOLS GIS shapefiles to identify the SLR inundation zones. In addition, RI Geographic Information Systems (RIGIS) e-911 data was utilized to identify single family, multi-family and mobile home residential points located within each SLR inundation zone. For more information on the methodology, please reference the [full report](#) on our website.

WARWICK QUICK FACTS

82,672

2010 Census Population

43.7

2010 Census Median Age

\$62,803

2014 ACS Median Household Income

WARWICK'S OCCUPIED RESIDENTIAL UNITS & POPULATION ESTIMATES

Warwick is one of Rhode Island's 21 coastal communities, and the second most populated municipality and coastal community in the state.

The City of Warwick has an average household size of 2.31 (2010 Census). The average household size and the percentage of occupied housing units were used to calculate population estimates.

Approximately 89-90% of the residential units located within SLR inundation zones

3, 5 and 7 FT. are occupied units. Single family (SF) units and multi-family (MF) units were identified in GIS using the e-911 shapefile. The majority of the residential units located in the SLR inundation zones are single family units. There is a significant change between the estimated population located in the 3 and 5 FT. inundation zone, with an additional 368 people estimated in the 5 FT. zone. The 7 FT. inundation zone has the greatest population and number of residential units, with 1,113 people estimated within the zone and 482 occupied residential units.

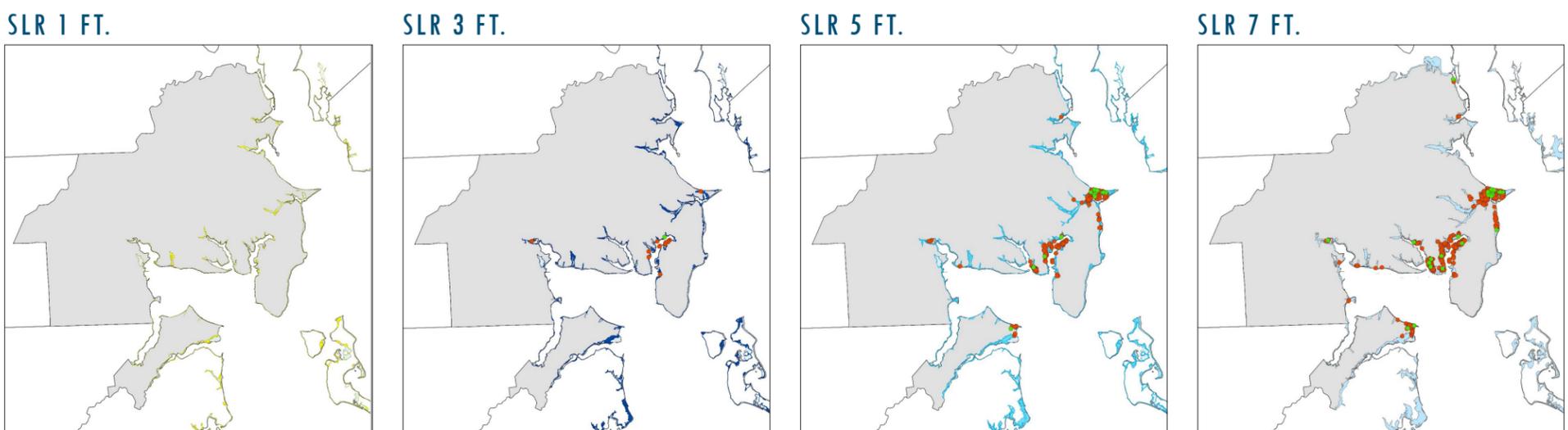
SLR Inundation zone	Residential Units	Occupied Unit calculation (Total Units (x) Occ. Housing Unit Rate in SLR zone)	Population calculation (Occupied Units (x) Warwick Avg. HH Size)
1FT.	0	0	0
3FT.	14 SF, 1 MF	14 (89% occ. HU)	32
5FT.	164 SF, 15 MF	173 (89% occ. HU)	400
7FT.	458 SF, 39 MF	482 (90% occ. HU)	1113



Conimicut Point, Warwick RI
Sept. 2015 King Tide, Photo Courtesy of Mycoast.org, submitted by Janet Freedman.

SLR INUNDATION ZONES

The maps above illustrate each of the SLR inundation zones. Single family units are represented by orange points in the SLR inundation zone maps, while multi-family units are represented by green points.



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SLR 1

EST. POPULATION: 0
EST. OCCUPIED HOUSEHOLDS: 0

There were zero residential units located within the e-911 shapefile in the 1 FT. SLR inundation scenario. Please note, a zero value does not imply that zero people or structures will be impacted in a 1 FT. SLR scenario.

SLR 3

EST. POPULATION: 32
EST. OCCUPIED HOUSEHOLDS: 14

94% or 30 - White
1% or 0.4 - Black
0% - American Indian/
Alaska Native
2% or 0.5 - Asian
2% or 1 - Hispanic
7% or 2 - Minority



SLR 5

EST. POPULATION: 400
EST. OCCUPIED HOUSEHOLDS: 173

94% or 376 - White
1% or 6 - Black
0.3% or 1 - American
Indian/Alaska Native
2% or 7 - Asian
2% or 10 - Hispanic
8% or 30 - Minority



SLR 7

EST. POPULATION: 1113
EST. OCCUPIED HOUSEHOLDS: 482

94% or 1041 - White
2% or 18 - Black
0.4% or 4 - American
Indian/Alaska Native
2% or 19 - Asian
3% or 28 - Hispanic
8% or 90 - Minority



RACE &
AGE

SOCIAL
CHARACTERISTICS

HOUSEHOLD
INCOME

HOUSEHOLD
CHARACTERISTICS



11% or 2 are Individuals with Disabilities

1% or 0.1 are Limited English Proficiency Households

10% or 3 are Unemployed

7% or 2 are Individuals Below Poverty Level

5% or 1 Households receive SSI

11% or 29 are Individuals with Disabilities

1% or 2 are Limited English Proficiency Households

10% or 33 are Unemployed

8% or 32 are Individuals Below Poverty Level

5% or 9 Households receive SSI

11% or 80 are Individuals with Disabilities

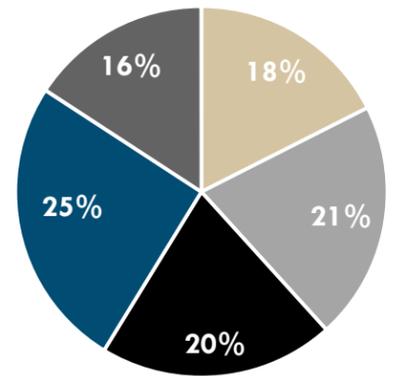
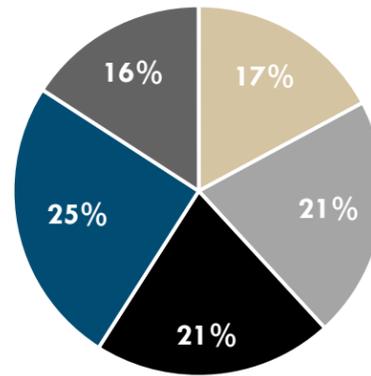
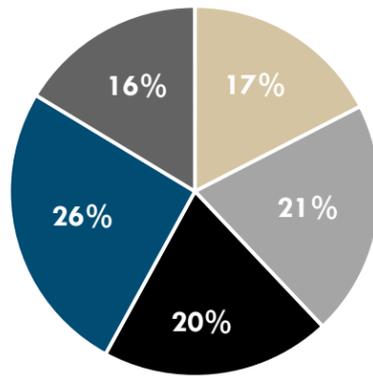
1% or 8 are Limited English Proficiency Households

9% or 83 are Unemployed

7% or 78 are Individuals Below Poverty Level

6% or 29 Households receive SSI

- In Estimated Occupied Housing Units



■ Less than 24,999K ■ 25,000 to 49,999 ■ 50,000 to 74,999 ■ 75,000 to 124,999 ■ 125,000 and up

- Percent of Population in Housing Type

19% Renter Occupied
15% Owned Outright



66%
Owned with
Mortgage/Loan

19% Renter Occupied
15% Owned Outright



66%
Owned with
Mortgage/Loan

20% Renter Occupied
14% Owned Outright



65%
Owned with
Mortgage/Loan

*No Residential Units within 1FT SLR Scenario

		Sea Level Rise (SLR)				Count
HOUSING UNITS & POPULATION	Variable Name					Count
	e911 Housing Unit Total	SLR 3	SLR 5	SLR 7	SLR 7	
	Single Family (R1) Units	14	164		458	
	Multifamily (R2) Units with Calculation (*2)	1*2=2	15*2=30		39*2=78	
	Mobile Home (R3) Units	0	0		0	
	Total Units: Single Family (R1), Multifamily (R2), Mobile Home (R3)	16	194		536	
	Note: Multifamily unit totals are multiplied by 2 based on the presumption that there are a minimum of two units within each multifamily e911 point					
	Variable Name	Sea Level Rise (SLR)				Count & Percentage
	e911 Occupied Housing Unit Calculation	SLR 3	SLR 3 %	SLR 5	SLR 5 %	SLR 7 SLR 7 %
	Total Units: Single Family (R1), Multifamily (R2), Mobile Home (R3)	16	100%	194	100%	536 100%
Estimated Occupied Units - Count and Percentage	14	89%	173	89%	482 90%	
Population Calculation	SLR 3				SLR 5	SLR 7
Estimated Occupied Units	14	100%	173	100%	482 100%	
Population Estimate= Occupied Units (x) Municipal Avg. Household Size (2.31)		14*2.31=32		173*2.31=400		482*2.31=1113
DEMOGRAPHIC <small>Block Level and Block Group Data</small>	Race/Hispanic Ethnicity	SLR 3	SLR 3 %	SLR 5	SLR 5 %	SLR 7 SLR 7 %
	Total Population (in Occupied Housing Units)	32	100%	400	100%	1113 100%
	White	30	94%	376	94%	1041 94%
	Black or African American	0.4	1%	6	1%	18 2%
	American Indian and Alaska Native	0	0%	1	0.3%	4 0.4%
	Asian	0.5	2%	7	2%	19 2%
	Some Other Race	0.2	1%	3	1%	8 1%
	Hispanic	1	2%	10	2%	28 3%
	Non-Hispanic, White Population	30	93%	370	92%	1023 92%
	Minority Population (Total Population minus Non-Hispanic, White Population)	2	7%	30	8%	90 8%
SOCIAL <small>Block Group Data</small>	Age	SLR 3	SLR 3 %	SLR 5	SLR 5 %	SLR 7 SLR 7 %
	Total Population (in Occupied Housing Units)	32	100%	400	100%	1113 100%
	Young Children (<5)	1	4%	17	4%	48 4%
	School-Age Children (5-17)	4	13%	55	14%	158 14%
	Age 18-24	2	7%	28	7%	82 7%
	Age 25-44	7	23%	97	24%	282 25%
	Age 45-64	11	36%	139	35%	379 34%
	Age 65-74	3	10%	36	9%	92 8%
	Age ≥75	2	7%	27	7%	72 7%
	Population 16-64 (For Individuals with a disability variable) [†]	21	65%	260	65%	723 65%
Population ≥25 (For educational attainment variable)	24	76%	300	75%	826 74%	
Population ≥16 (For employment variable) [*]	27	83%	332	83%	924 83%	
Population ≥65 (For age ≥65 in group quarters variable) [†]	5	17%	64	16%	165 15%	
ECONOMIC <small>Block Group Data and Municipal Level Data†</small>	Disability	SLR 3	SLR 3 %	SLR 5	SLR 5 %	SLR 7 SLR 7 %
	Total Population (in Occupied Housing Units, age 16-64)	21	100%	260	100%	723 100%
	Individuals with Disabilities	2	11%	29	11%	80 11%
	Limited English Proficiency (LEP)	SLR 3	SLR 3 %	SLR 5	SLR 5 %	SLR 7 SLR 7 %
	Estimated Occupied Housing Units	14	100%	173	100%	482 100%
	Limited English Proficiency Households	0.1	1%	2	1%	8 1%
	Educational Attainment	SLR 3	SLR 3 %	SLR 5	SLR 5 %	SLR 7 SLR 7 %
	Total Population (in Occupied Housing Units, age ≥25)	24	100%	300	100%	826 100%
	Less than a High School Diploma or Equivalent	2	10%	31	10%	81 10%
	High School Diploma or GED	7	27%	86	29%	242 29%
Professional School	0	2%	5	2%	12 1%	
Associate's/Bachelor's	8	31%	91	30%	249 30%	
Master's/PhD	2	10%	28	9%	77 9%	
Other (Some College)	5	20%	59	20%	165 20%	
HOUSING <small>Block Level and Block Group Data</small>	Employment	SLR 3	SLR 3 %	SLR 5	SLR 5 %	SLR 7 SLR 7 %
	Total Population (in Occupied Housing Units, age ≥16)	27	100%	332	100%	924 100%
	Employed	24	90%	299	90%	841 91%
	Unemployed	3	10%	33	10%	83 9%
	Job Industry ‡	SLR 3	SLR 3 %	SLR 5	SLR 5 %	SLR 7 SLR 7 %
	Total Population (age ≥16 and employed)	24	100%	299	100%	841 100%
	Agriculture, forestry, fishing & hunting, mining	0	0%	1	0%	4 0.4%
	Construction	1	5%	15	5%	43 5%
	Manufacturing	3	11%	33	11%	92 11%
	Wholesale trade	0.6	2%	7	2%	21 2%
Retail trade	3	12%	36	12%	102 12%	
Transportation & warehousing, utilities	0.9	4%	11	4%	31 4%	
Information	0.4	2%	5	2%	14 2%	
Finance & insurance, real estate, rental & leasing	2	7%	21	7%	58 7%	
Professional, scientific, management, administrative, waste management services	2	10%	29	10%	81 10%	
Educational services, health care, social assistance	6	27%	81	27%	227 27%	
Arts, entertainment, recreation, accommodation & food services	3	11%	33	11%	92 11%	
Other services (except public administration)	1	4%	13	4%	37 4%	
Public administration	1	4%	13	4%	38 4%	
JOBS <small>Municipal Data† & e911 Data</small>	Income	SLR 3	SLR 3 %	SLR 5	SLR 5 %	SLR 7 SLR 7 %
	Estimated Occupied Housing Units	14	100%	173	100%	482 100%
	Less than \$24,999K	2	17%	30	17%	84 18%
	\$25,000 to 49,999	3	21%	36	21%	100 21%
	\$50,000 to 74,999	3	20%	36	21%	99 20%
	\$75,000 to 124,999	4	26%	43	25%	123 25%
	\$125,000 and greater	2	16%	27	16%	76 16%
	Total Population (in Occupied Housing Units)	32	100%	400	100%	1113 100%
	Income Below Poverty Level	2	7%	32	8%	78 7%
	Income Above Poverty Level	30	93%	368	92%	1035 93%
Estimated Occupied Housing Units	14	100%	173	100%	482 100%	
With Social Security Income (SSI) Households	1	5%	9	5%	29 6%	
Without Social Security Income (SSI) Households	13	95%	164	95%	453 94%	
HOUSING <small>Block Level and Block Group Data</small>	Housing Occupancy	SLR 3	SLR 3 %	SLR 5	SLR 5 %	SLR 7 SLR 7 %
	Total Housing Units	16	100%	194	100%	536 100%
	Occupied Housing Units	14	89%	173	89%	482 90%
	Vacant Housing Units	2	11%	21	11%	54 10%
	Estimated Occupied Housing Units	14	100%	173	100%	482 100%
	Owner-Occupied Housing Units	12	83%	140	81%	376 78%
	Renter-Occupied Housing Units	2	17%	33	19%	106 22%
	Total Population (in Occupied Housing Units)	32	100%	400	100%	1113 100%
	Population in Group Quarters	0	1%	4	1%	0 0%
	Total Population (age ≥65)	5	100%	64	100%	165 100%
Age ≥65 in Group Quarters [†]	0.4	8%	4	6%	9 5%	
Housing Tenure[†]	SLR 3	SLR 3 %	SLR 5	SLR 5 %	SLR 7 SLR 7 %	
Total Population (in Occupied Housing Units)	32	100%	400	100%	1113 100%	
Population in Property Owned with mortgage or loan	21	66%	266	66%	726 65%	
Population in Property Owned free and clear	5	15%	60	15%	161 14%	
Population in Renter-Occupied Units	6	19%	75	19%	226 20%	
JOBS <small>Municipal Data† & e911 Data</small>	Employment and Business Unit Data‡					Count
	Average Employment - Municipality					47272
	Number of Units (Business - Private and Government)					3081
	Average Number of Workers per Unit (Business - Private and Government)					15
	Workers Per Commercial Unit	SLR 3	SLR 5		SLR 7	
e911 Commercial Unit Total	8	17		37		
Average Number of Workers/Jobs per Commercial Unit	123	261		568		