

NJ FRAMES

New Jersey Fostering Regional Adaptation through Municipal Economic Scenario

New Jersey Department of Environmental Protection | Jacques Cousteau National Estuarine Research Reserve | Rutgers Climate Institute | WSP | Perkins Eastman



2030

PREPARE WETLANDS - RAISE ROADS AND HOUSES

| REGION-WIDE ACTIONS | REGION-WIDE POLICIES | SUB-REGION ACTIONS |
|---|--|--------------------|
| <ul style="list-style-type: none"> 2 Critical Facilities Planning / Protection 3 Retrofit Waterfront Assets 5 Near Term Storm Surge and Flood Protection 10 Targeted Road Raising | <ul style="list-style-type: none"> 9 Home Raising | |

2000 MHHW SLR 1.1' Permanent Inundation: 1.1' Probability of TWL reaching EI +7' once a year: 2%



2050

NEW WATERFRONT INLAND SHORE & WETLAND PARK

| REGION-WIDE ACTIONS | REGION-WIDE POLICIES | SUB-REGION ACTIONS |
|---|--|--------------------|
| <ul style="list-style-type: none"> 1 Bayshore and Estuary Restoration and Green Infrastructure Development 2 Critical Facilities Planning / Protection 3 Retrofit Waterfront Assets 5 Near Term Storm Surge and Flood Protection 7 Inland Shore and Extension of Recreation Area 10 Targeted Road Raising | <ul style="list-style-type: none"> 6 Permanent Inundation Master Plan 8 Resilient Smart Growth 9 Home Raising | |

2000 MHHW SLR 2.0' Permanent Inundation: 2' Probability of TWL reaching EI +7' once a year: 4%



2100

EXPANDING INLAND SHORE WITH NEW WATERFRONT & RT36 DEVELOPMENT

| REGION-WIDE ACTIONS | REGION-WIDE POLICIES | SUB-REGION ACTIONS |
|--|--|--------------------|
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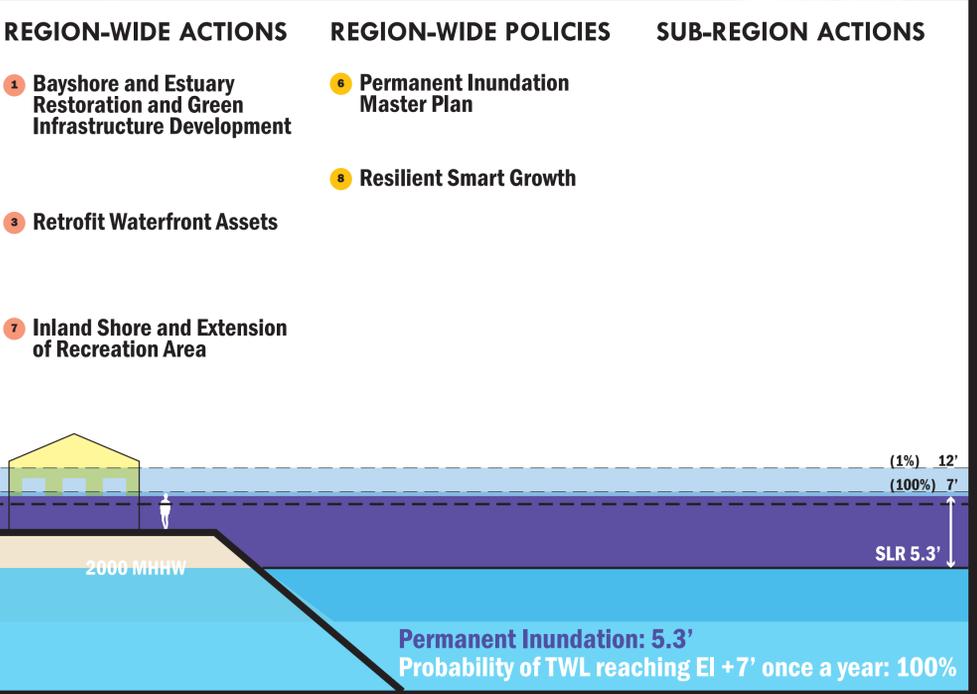
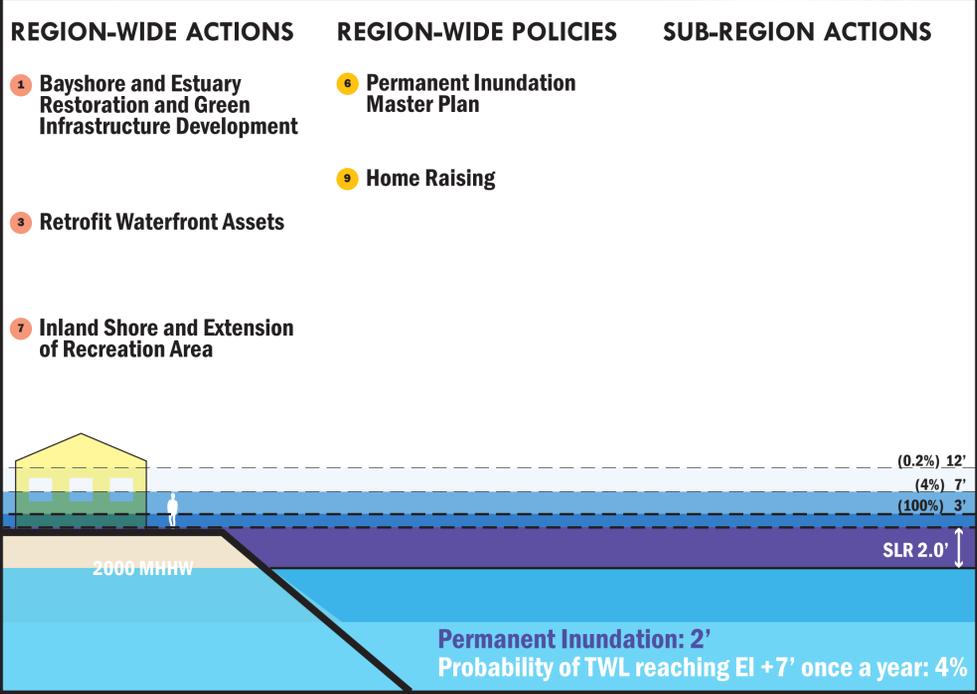
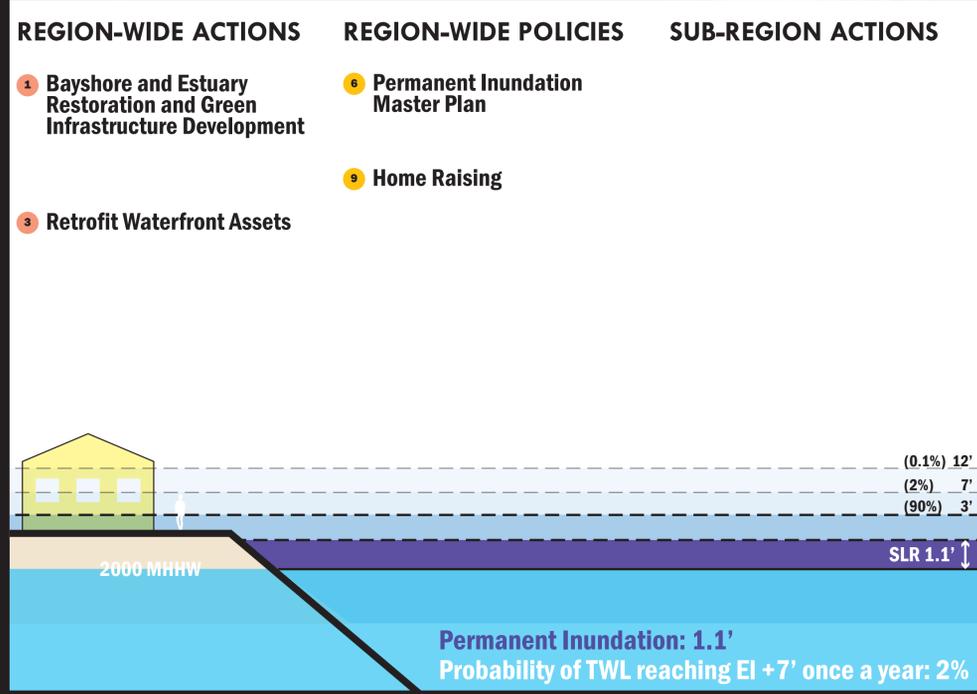
2000 MHHW SLR 5.3' Permanent Inundation: 5.3' Probability of TWL reaching EI +7' once a year: 100%

Conceptual Adaptation Scenario - Bayshore Waterfront

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Conceptual Adaptation Scenario - Lower Navesink

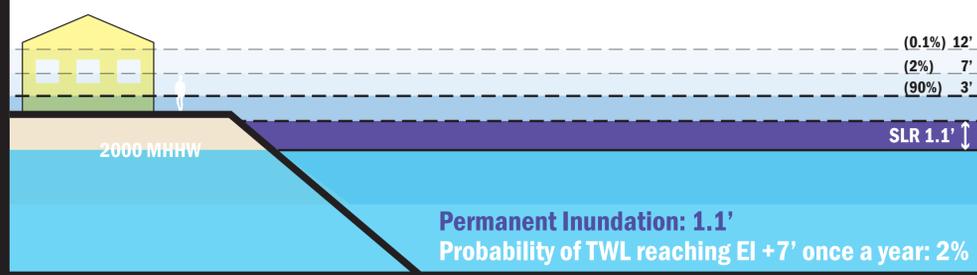
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New Jersey Fostering Regional Adaptation through Municipal Economic Scenario

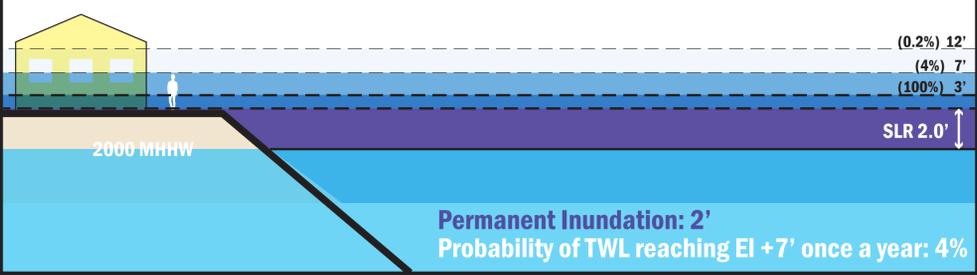
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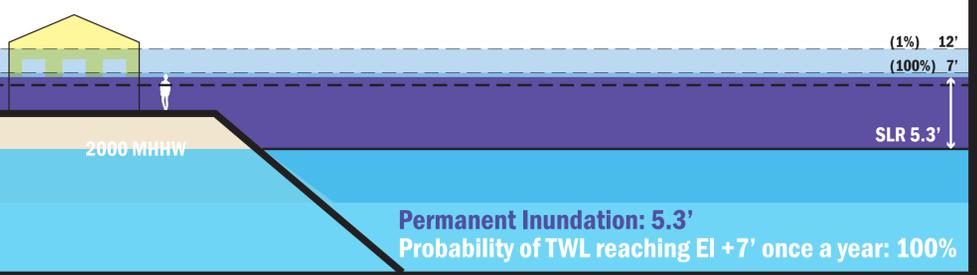
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Conceptual Adaptation Scenario - Shrewsbury River, Sea Bright / Monmouth Beach

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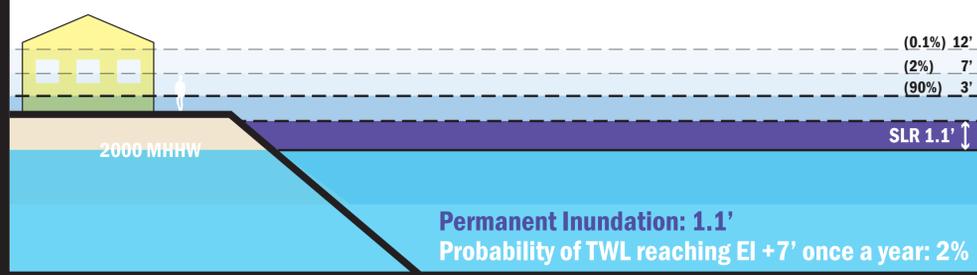
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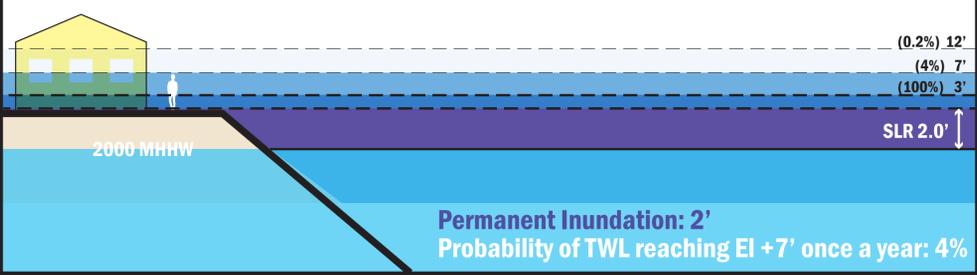
2030 NEAR TERM RAISING BULKHEADS, ROADS AND HOMES

- | REGION-WIDE ACTIONS | REGION-WIDE POLICIES | SUB-REGION ACTIONS |
|--|--|--------------------|
| <ul style="list-style-type: none"> 1 Bayshore and Estuary Restoration and Green Infrastructure Development 10 Targeted Road Raisings | <ul style="list-style-type: none"> 9 Home Raising | |



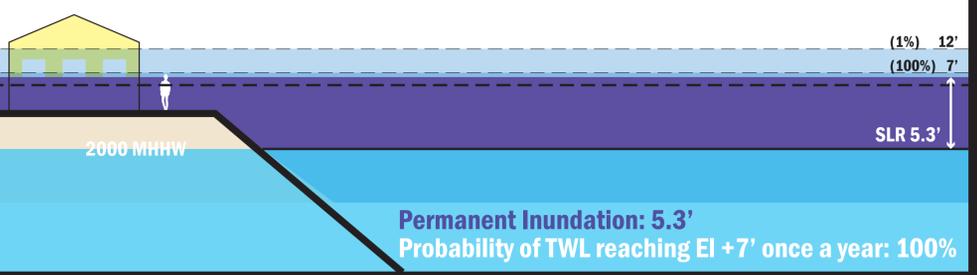
2050 FOCUSING ON SEA LEVEL RISE

- | REGION-WIDE ACTIONS | REGION-WIDE POLICIES | SUB-REGION ACTIONS |
|--|--|--------------------|
| <ul style="list-style-type: none"> 1 Bayshore and Estuary Restoration and Green Infrastructure Development 2 Critical Facilities Planning / Protection | <ul style="list-style-type: none"> 6 Permanent Inundation Master Plan | |



2100 NEW INLAND SHORE AND EXPANSION OF NEW WATERFRONT

- | REGION-WIDE ACTIONS | REGION-WIDE POLICIES | SUB-REGION ACTIONS |
|--|--|--------------------|
| <ul style="list-style-type: none"> 1 Bayshore and Estuary Restoration and Green Infrastructure Development 7 Inland Shore and Extension of Recreation Area | <ul style="list-style-type: none"> 6 Permanent Inundation Master Plan 8 Resilient Smart Growth | |



Conceptual Adaptation Scenario - Shrewsbury River, Sea Bright / Monmouth Beach

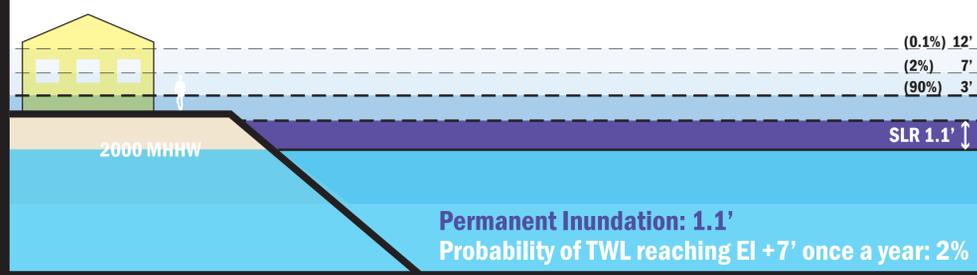
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New Jersey Fostering Regional Adaptation through Municipal Economic Scenario

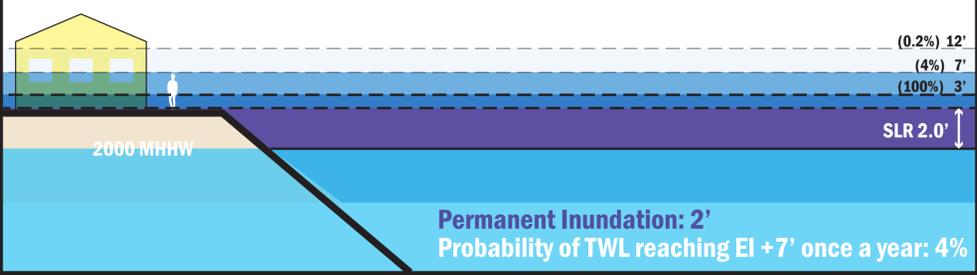
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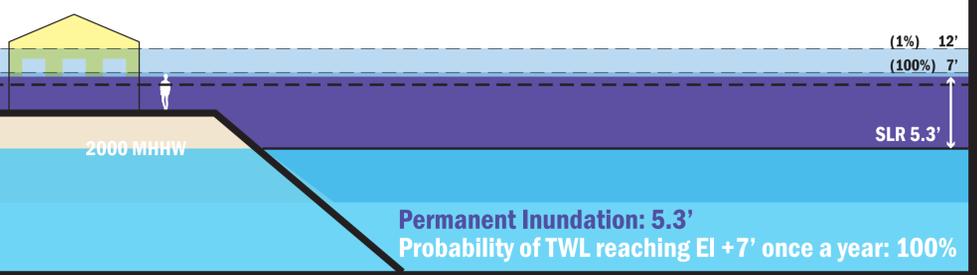
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Conceptual Adaptation Scenario - Downtown Highlands

PREPARE WETLANDS - RAISE ROADS AND HOUSES

2030



REGION-WIDE ACTIONS

REGION-WIDE POLICIES

SUB-REGION ACTIONS

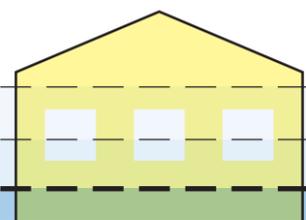
9 Home Raising

2 Critical Facilities Planning / Protection

3 Retrofit Waterfront Assets

5 Near Term Storm Surge and Flood Protection

10 Targeted Road Raising



2000 MHHW

(0.1%) 12'
(2%) 7'
(90%) 3'

SLR 1.1' ↑

Permanent Inundation: 1.1'
Probability of TWL reaching EI +7' once a year: 2%

NEW WATERFRONT INLAND SHORE & WETLAND PARK

2050



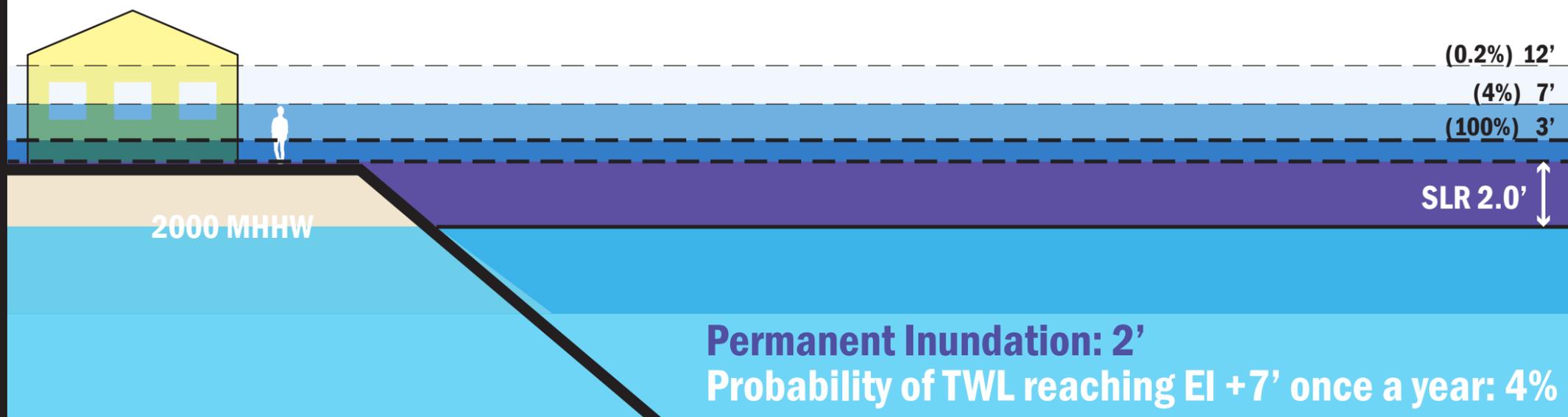
REGION-WIDE ACTIONS

- 1 Bayshore and Estuary Restoration and Green Infrastructure Development**
- 2 Critical Facilities Planning / Protection**
- 3 Retrofit Waterfront Assets**
- 5 Near Term Storm Surge and Flood Protection**
- 7 Inland Shore and Extension of Recreation Area**
- 10 Targeted Road Raising**

REGION-WIDE POLICIES

- 6 Permanent Inundation Master Plan**
- 8 Resilient Smart Growth**
- 9 Home Raising**

SUB-REGION ACTIONS



EXPANDING INLAND SHORE WITH NEW WATERFRONT & RT36 DEVELOPMENT

2100



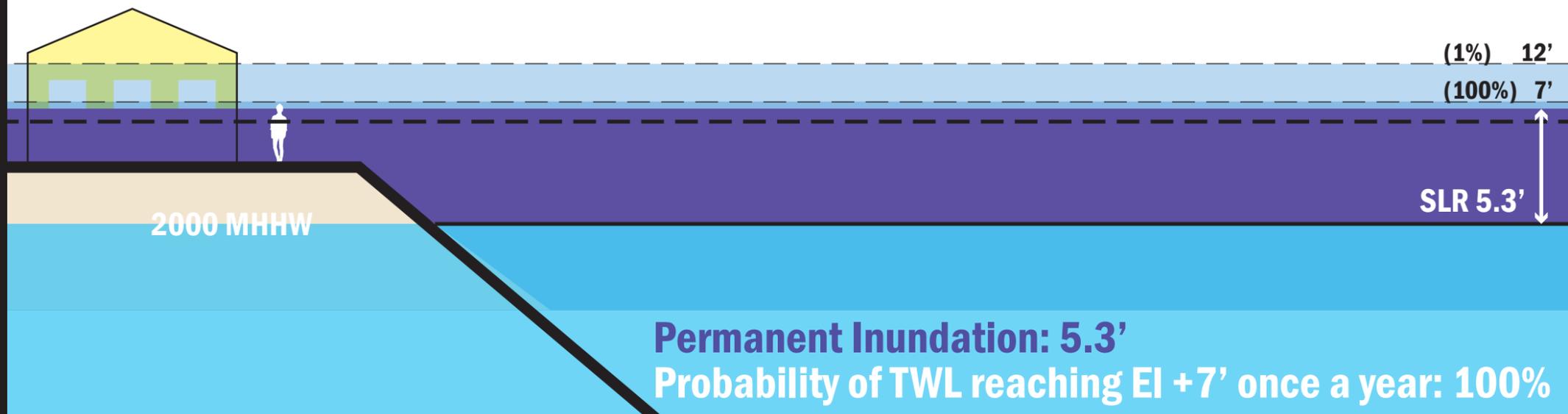
REGION-WIDE ACTIONS

- 2 Critical Facilities Planning / Protection**
- 3 Retrofit Waterfront Assets**
- 7 Inland Shore and Extension of Recreation Area**
- 10 Targeted Road Raising**

REGION-WIDE POLICIES

- 8 Resilient Smart Growth**
- 9 Home Raising**

SUB-REGION ACTIONS



NEAR TERM RAISING BULKHEADS, ROADS AND HOMES 2030



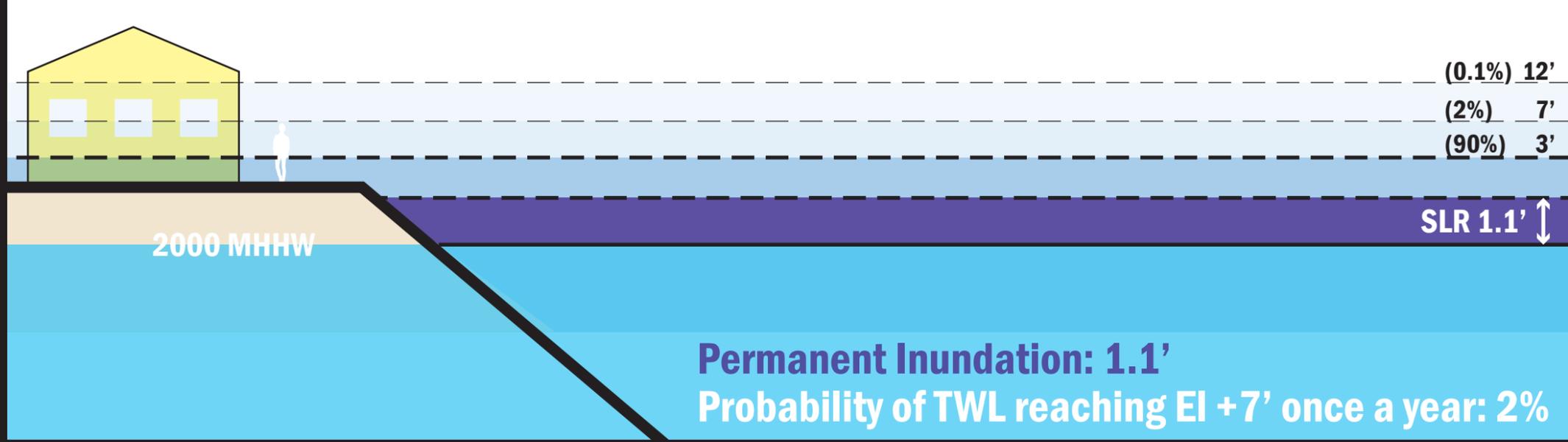
REGION-WIDE ACTIONS

- 1 Bayshore and Estuary Restoration and Green Infrastructure Development**
- 3 Retrofit Waterfront Assets**

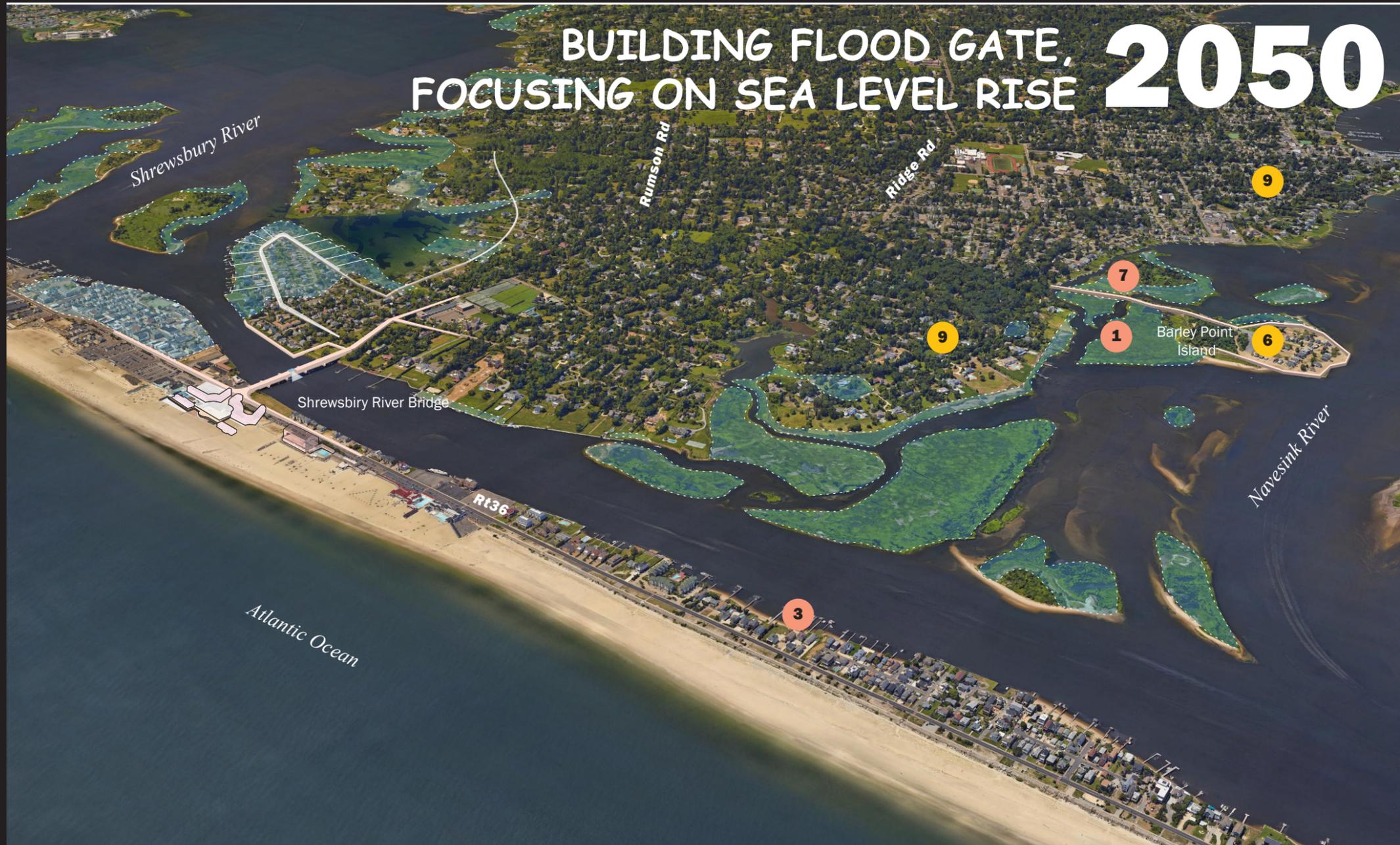
REGION-WIDE POLICIES

- 6 Permanent Inundation Master Plan**
- 9 Home Raising**

SUB-REGION ACTIONS



BUILDING FLOOD GATE, FOCUSING ON SEA LEVEL RISE 2050



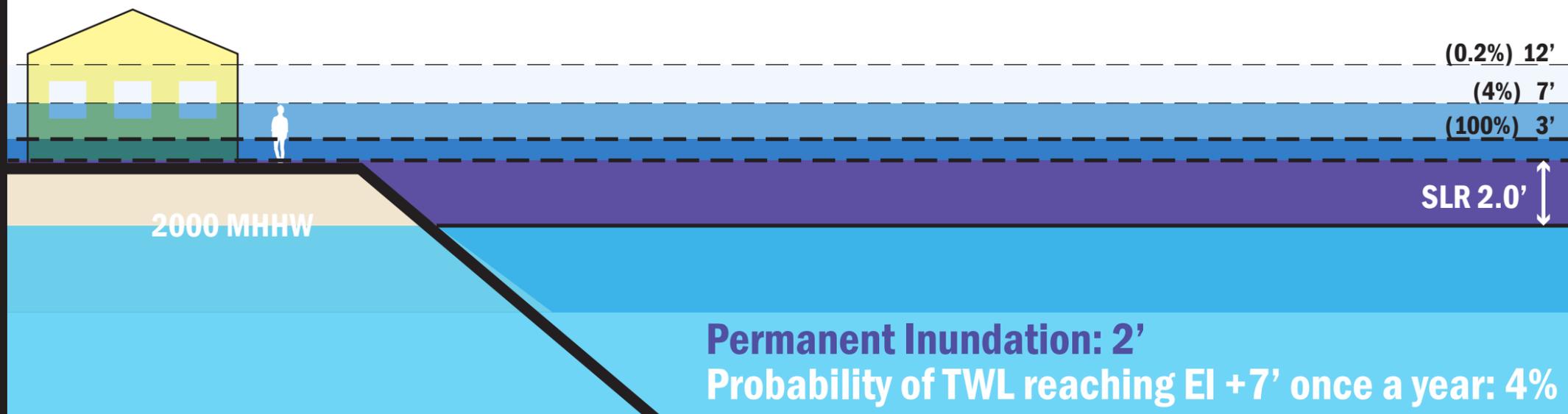
REGION-WIDE ACTIONS

- 1 Bayshore and Estuary Restoration and Green Infrastructure Development
- 3 Retrofit Waterfront Assets
- 7 Inland Shore and Extension of Recreation Area

REGION-WIDE POLICIES

- 6 Permanent Inundation Master Plan
- 9 Home Raising

SUB-REGION ACTIONS



NEW INLAND SHORE AND EXPANSION OF NATIONAL PARK

2100



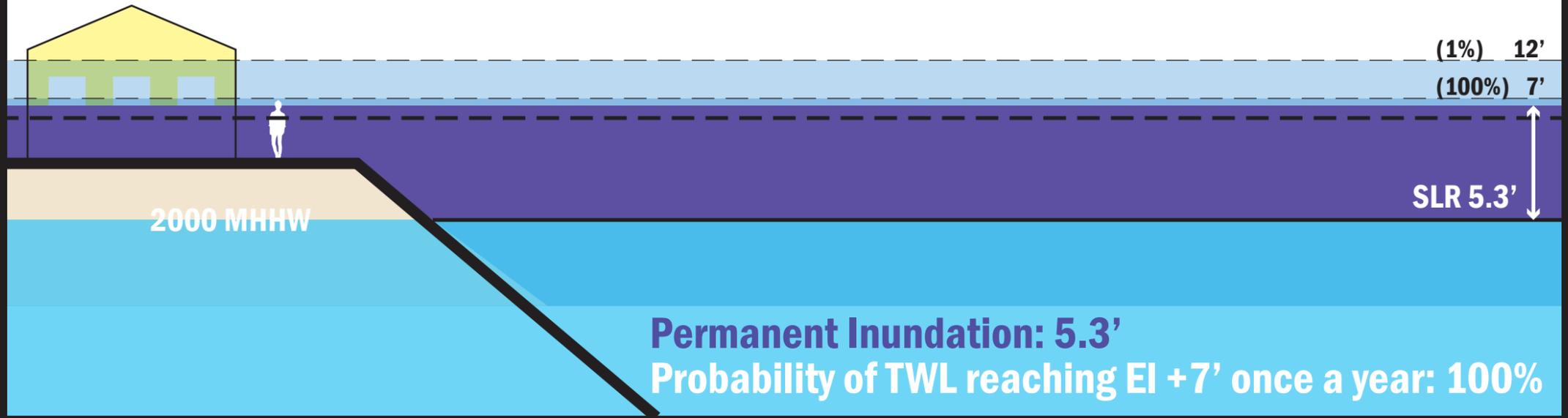
REGION-WIDE ACTIONS

- 1** Bayshore and Estuary Restoration and Green Infrastructure Development
- 3** Retrofit Waterfront Assets
- 7** Inland Shore and Extension of Recreation Area

REGION-WIDE POLICIES

- 6** Permanent Inundation Master Plan
- 8** Resilient Smart Growth

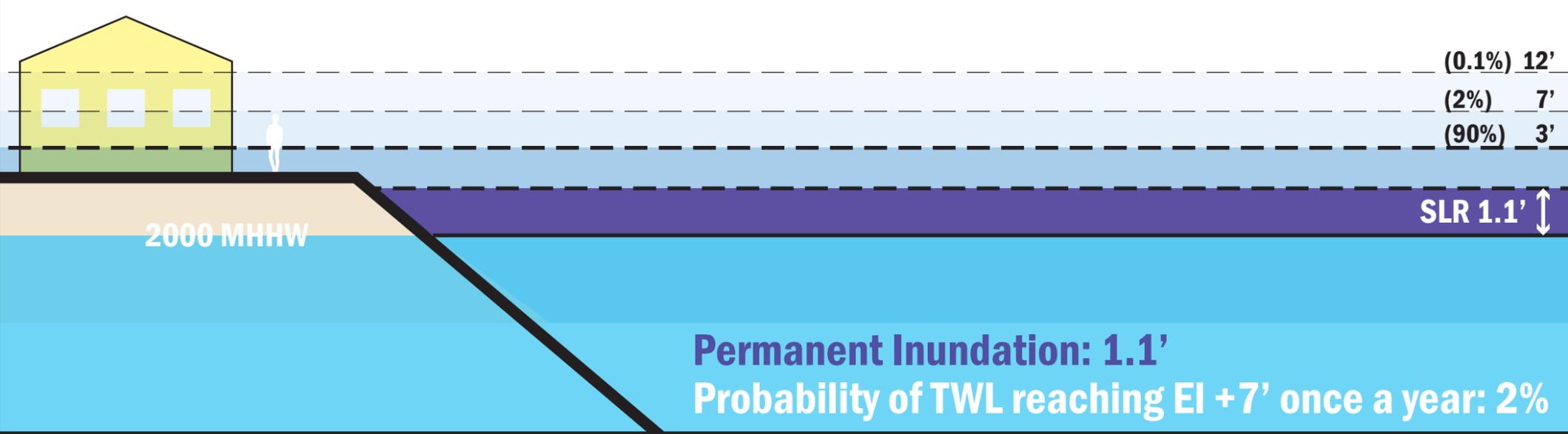
SUB-REGION ACTIONS



NEAR TERM RAISING BULKHEADS, ROADS AND HOMES 2030



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Google Earth

BUILDING FLOOD GATE, FOCUSING ON SEA LEVEL RISE 2050



REGION-WIDE ACTIONS

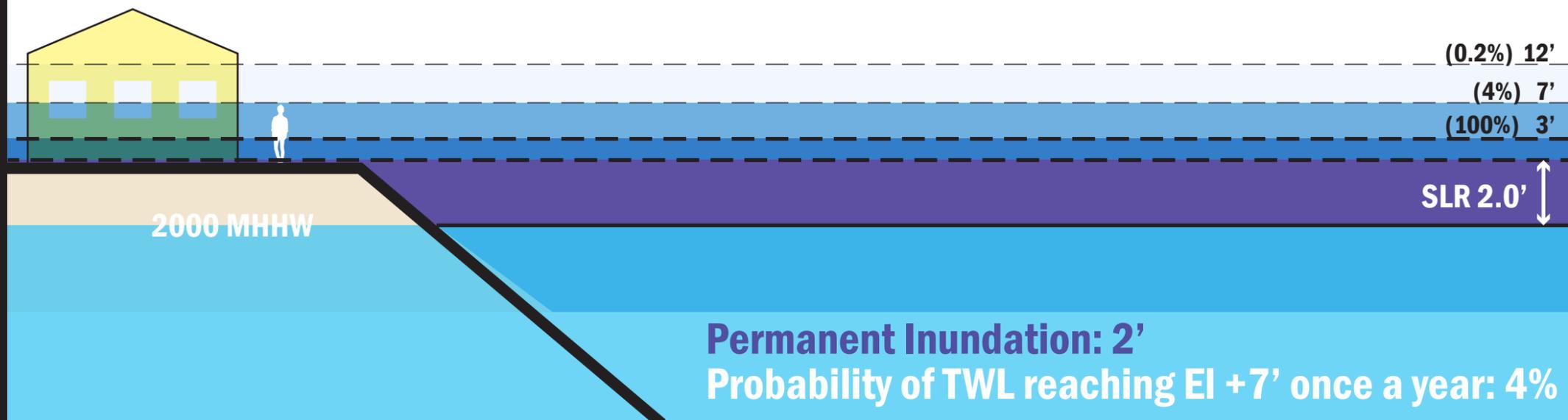
- 1 Bayshore and Estuary Restoration and Green Infrastructure Development
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- 3 Retrofit Waterfront Assets
- 5 Near Term Storm Surge and Flood Protection
- 7 Inland Shore and Extension of Recreation Area
- 10 Targeted Road Raising

REGION-WIDE POLICIES

- 6 Permanent Inundation Master Plan
- 8 Resilient Smart Growth
- 9 Home Raising

SUB-REGION ACTIONS

- 4 Flood gate at the Rumson-Sea Bright Bridge



NEW INLAND SHORE AND EXPANSION OF BEACH AND PARK

2100



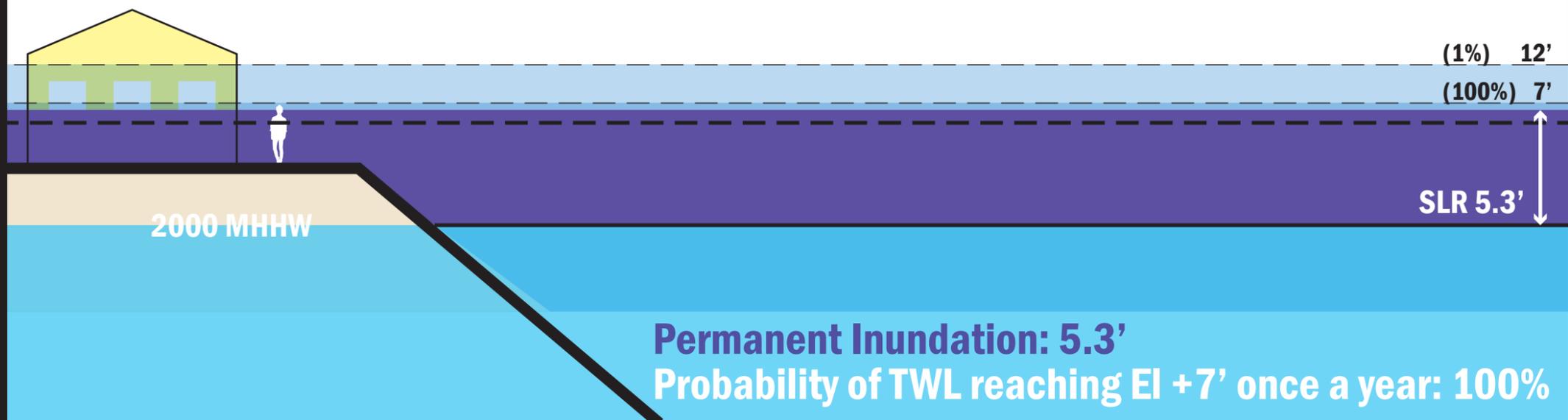
REGION-WIDE ACTIONS

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- 3 Retrofit Waterfront Assets
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- 10 Targeted Road Raising

REGION-WIDE POLICIES

- 6 Permanent Inundation Master Plan
- 8 Resilient Smart Growth
- 9 Home Raising

SUB-REGION ACTIONS



2030 SELECTIVE ROAD & HOME RAISING AND RETROFIT WATERFRONT ACCESS



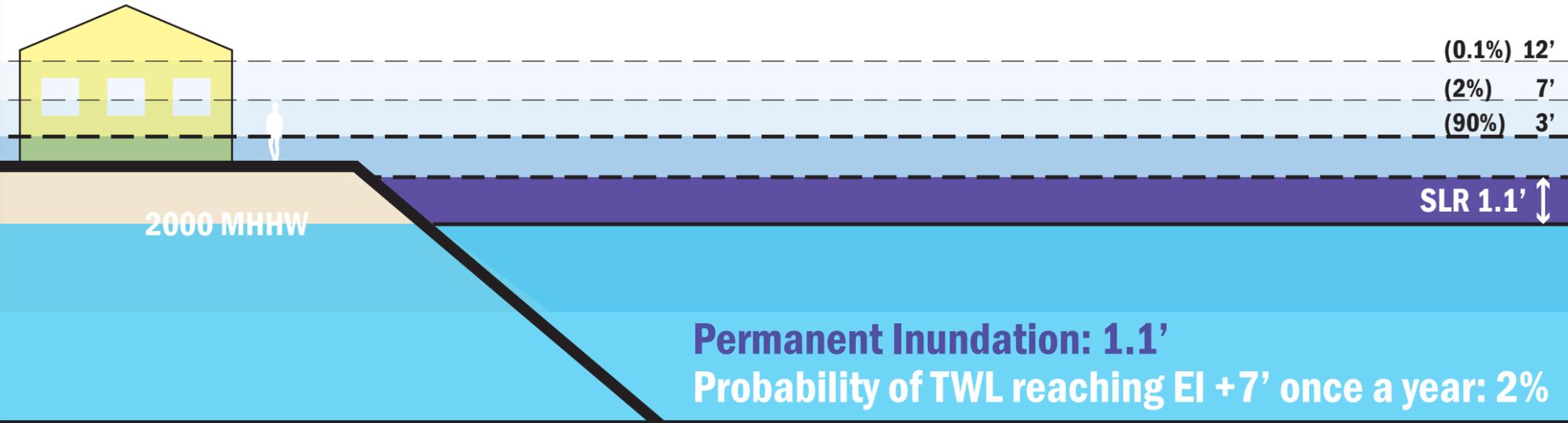
REGION-WIDE ACTIONS

- 3 Retrofit Waterfront Assets**
- 7 Inland Shore and Extension of Recreation Area**

REGION-WIDE POLICIES

- 6 Permanent Inundation Master Plan**
- 8 Resilient Smart Growth**
- 9 Home Raising**

SUB-REGION ACTIONS



Google Earth

2050 NEW SMART RESILIENT GROWTH ON RT 36



Google Earth

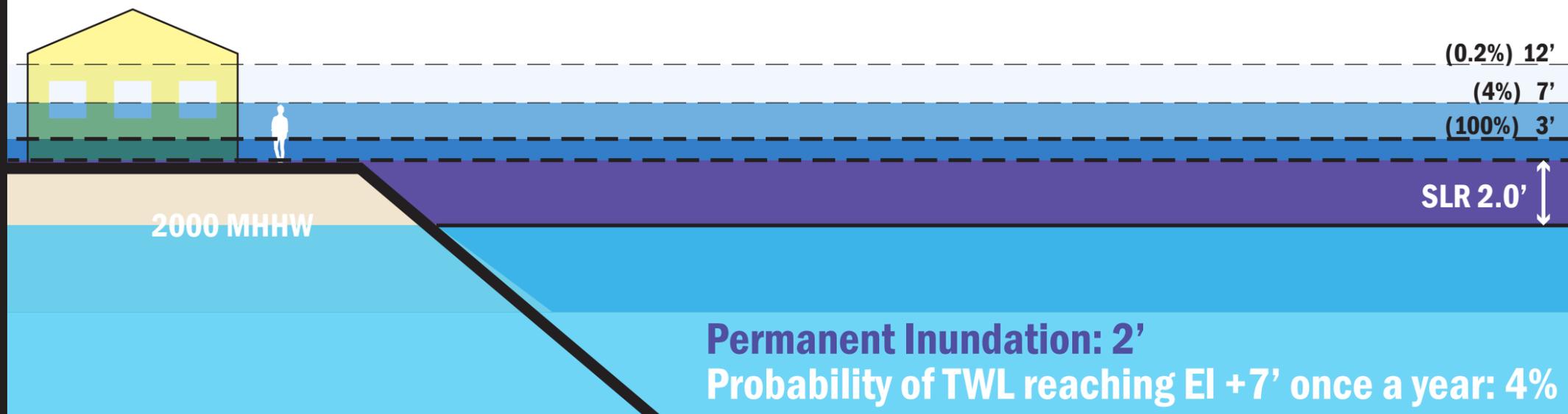
REGION-WIDE ACTIONS

- 3** Retrofit Waterfront Assets
- 7** Inland Shore and Extension of Recreation Area

REGION-WIDE POLICIES

- 6** Permanent Inundation Master Plan
- 8** Resilient Smart Growth
- 9** Home Raising

SUB-REGION ACTIONS



2100 NEW WATERFRONT DEVELOPMENT AND ENHANCE WATER-RELATED PROGRAMMING AND AMENITIES



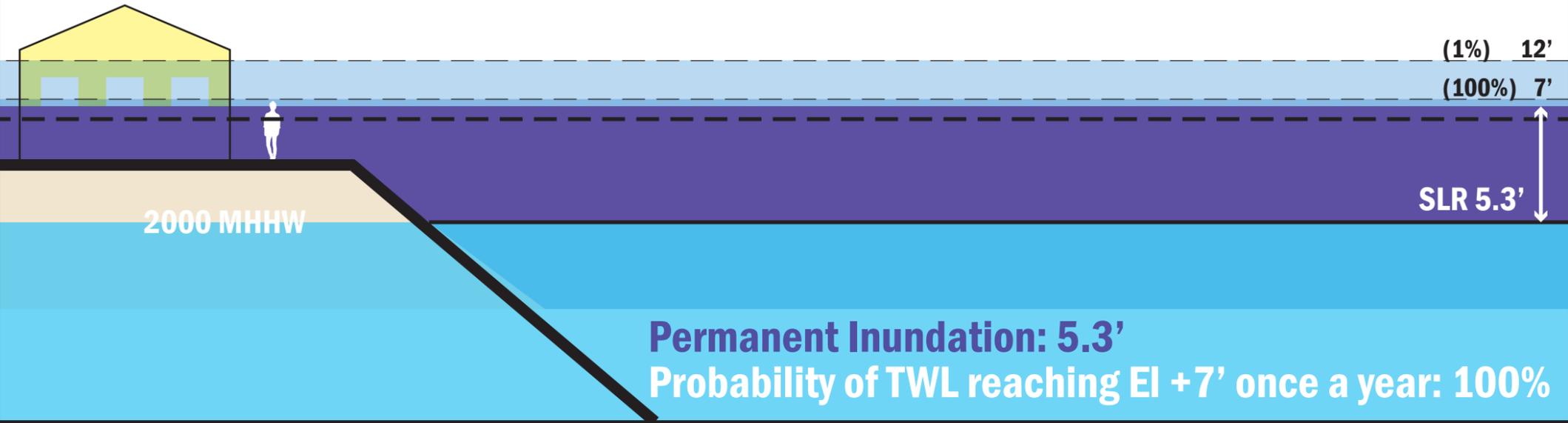
REGION-WIDE ACTIONS

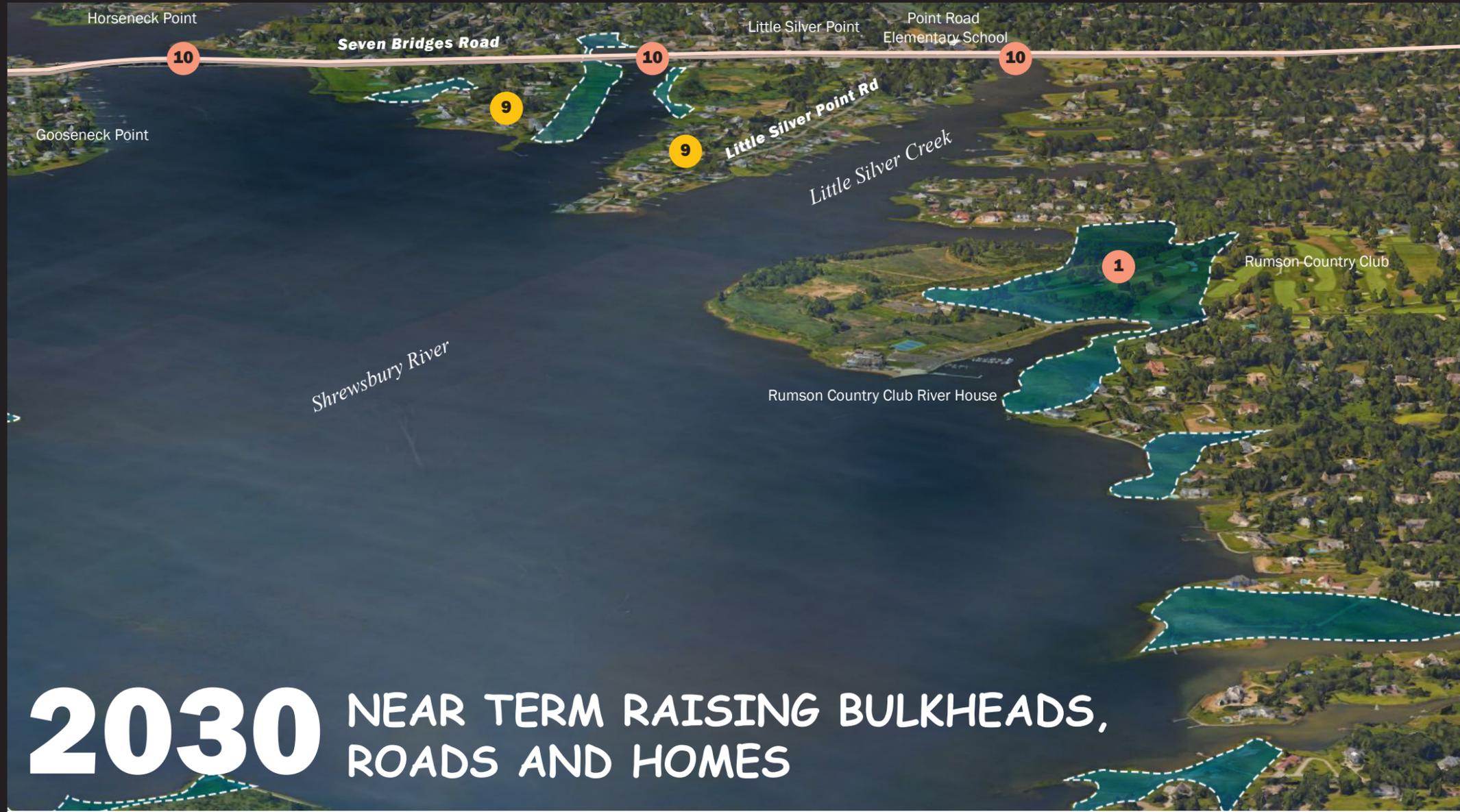
- 1** Bayshore and Estuary Restoration and Green Infrastructure Development
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REGION-WIDE POLICIES

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- 8** Resilient Smart Growth
- 9** Home Raising

SUB-REGION ACTIONS





2030 NEAR TERM RAISING BULKHEADS, ROADS AND HOMES

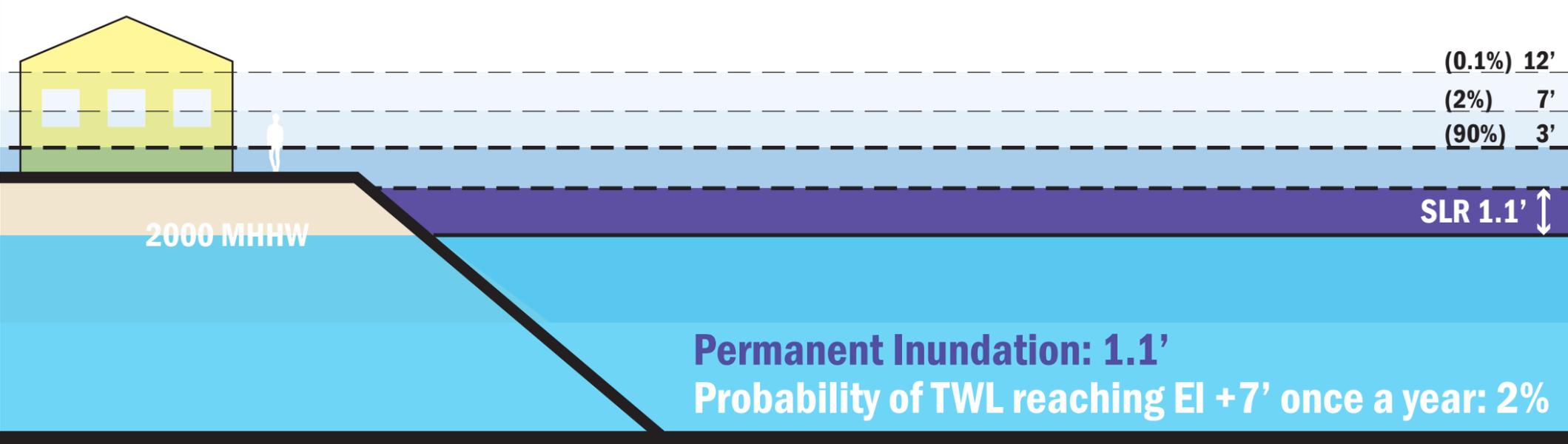
REGION-WIDE ACTIONS

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REGION-WIDE POLICIES

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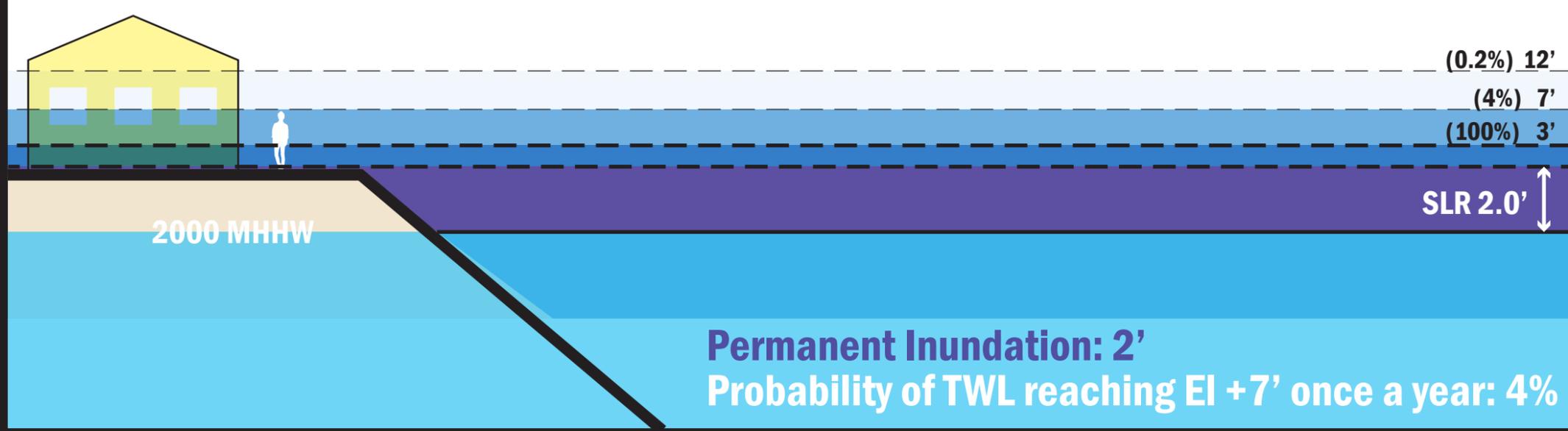
SUB-REGION ACTIONS





2050 FOCUSING ON SEA LEVEL RISE

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2100 NEW INLAND SHORE AND EXPANSION OF NEW WATERFRONT

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