The Climate Risk in the Seacoast: Assessing Vulnerability of Municipal Assets and Resources to Climate Change (C-RiSe) project provides maps and assessments of flood impacts to infrastructure and natural resources in the coastal Great Bay region associated with projected increases in storm surge, sea level, and precipitation.

**TOWN OF MADBURY**

Map 12: Climate Ready Culverts
Sea-Level Rise + Storm Surge 1.7', 4.0', 6.3'

### CRiSe Culvert/Crossing ID

<table>
<thead>
<tr>
<th>Culvert Cross ID &amp; Location</th>
<th>Predetermined Flood Flow</th>
<th>aq. Org Passage (AOP) Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 - YR</td>
<td>25 - YR</td>
<td>100 - YR</td>
</tr>
</tbody>
</table>

### Hydraulic Ranking Key:
- Green: Headwater stage is below the lower top of culvert at the site
- Yellow: Headwater stage is between the lower top of culvert and the top of the road
- Red: Headwater stage extends over the road

### Aquatic Organism Passage (AOP) Key:
- No AOP
- Juvenile Salmonid
- Reduced AOP
- Full AOP

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Sea-Level Rise Scenarios
Please note that the sea-level rise scenarios used in this assessment were derived from the Urban, 2011 report (refer to table of values below from this report). These scenarios were selected prior to the release of the Science and Technical Advisory Panel Report to the N.H. Coastal Risks & Hazards Commission, in August, 2014 (1). While slightly different than the scenarios cited in that report, they yield coverage estimates that are within the mapping range of that report.

### Sea-Level Rise Scenarios at 2060 and 2090

<table>
<thead>
<tr>
<th>Sea Level Rise</th>
<th>2060</th>
<th>2090</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low End</td>
<td>3.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Medium Low</td>
<td>3.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Medium High</td>
<td>3.0</td>
<td>6.0</td>
</tr>
<tr>
<td>High End</td>
<td>3.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Baseline</td>
<td>1.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Total Difference</td>
<td>2.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

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Prepared by: Mike Donovan, Project Geologist, CDR Tech, Inc.

Date: 2-12-2017

References:

Coastal Change, Sea Level Rise and Storm Surge Impacts

Prepared by: Michael Donovan, Project Geologist, CDR Tech, Inc.

Date: 2-12-2017

References: