

Old Saybrook Coastal Resilience Committee

OSCRC Report No. 4

Meeting Summary

June 2, 2022

Old Saybrook, CT

**Compiled by: Edwin Rajotte
Joseph Russo
Thomas Tokarz**

Introduction

The Old Saybrook Coastal Resilience Committee (OSCRC) was formed in 2021 to assess the needs of the dozen or so local beachfront and riverfront communities as a response to sea level rise. This report is a summary of the OSCRC's fourth meeting held in the Old Saybrook Town Hall on June 2, 2022.

Each beach community (association, tax district, borough, etc.) sent a representative to the fourth meeting. The attendee list from the previous meetings is in Appendix 1. Representatives of town governments were also in attendance. The focus of the fourth meeting was to outline how to plan for each of the problems identified and prioritized by the beach communities in previous meetings. Prioritize & plan is the fourth step in the resilience framework (Figure 1), which was introduced in the first meeting.

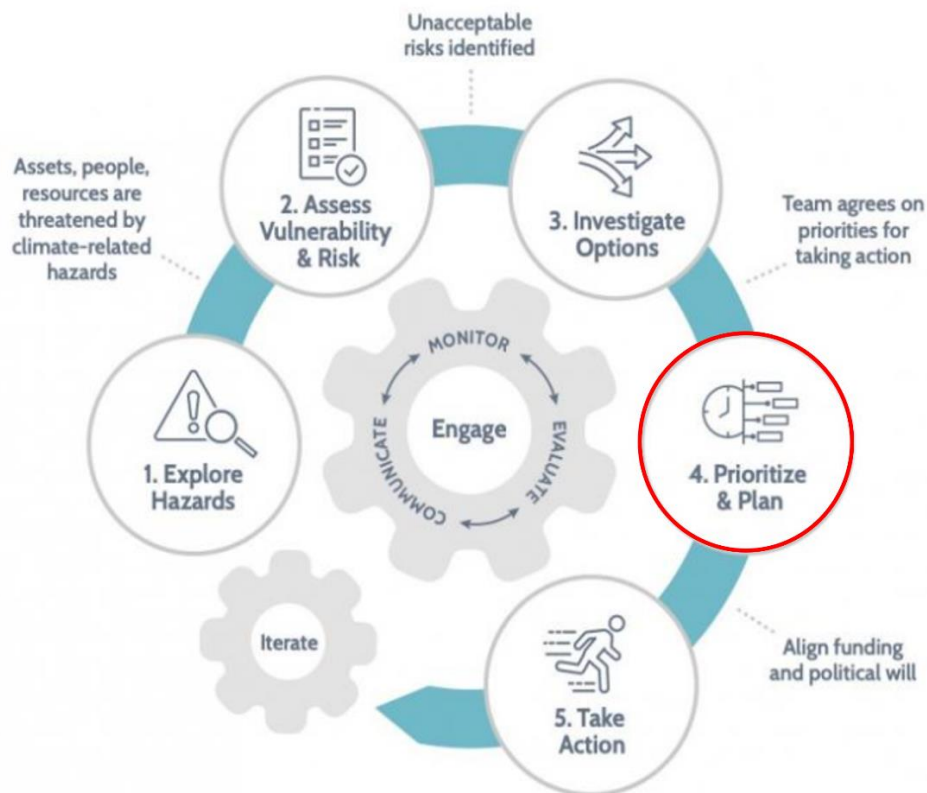


Figure 1. Steps to Resilience. Graphic by Anna Eshelman, NOAA (<https://toolkit.climate.gov/image/3354>). The Steps to Resilience framework has five steps: 1. Explore Hazards, 2. Assess Vulnerability and Risk, 3. Investigate Options, 4. Prioritize and Plan, and 5. Take Action.

The fourth meeting agenda called for introductions, approval of a two-page summary about the OSCRC for public distribution (Appendix 2), a brief presentation on how to prioritize and plan options for addressing the vulnerabilities identified by OSCRC beach communities (Appendix 3), a roundtable discussion of a strategic plan for implementing previously-identified mitigation

options, present a list of active “Request for Proposals (RFPs) as possible funding sources for mitigation options, and discuss the setting up a website as a place for distributing documents and soliciting comments from the public.

Strategic Plan for Implementing Mitigation Options

The roundtable discussion focused on a strategic plan for implementing previously-identified mitigation options. The presentation during the meeting provided a guide for creating a plan. The next step is to do the plan.

There are multiple ways to prioritize mitigation options in a plan. One way is to focus on options that address problems that need immediate attention regardless of cost or the number of affected beach communities. Another way is to choose those options that represent an easy, cost-effective fix. A third way is to choose options that address a problem shared by the largest number of beach communities. The OSCRC membership as a whole will decide on the criterion for prioritizing mitigation responses in the planning process.

For each prioritized option, there will be a plan, including the end goal and metrics to determine its success. The plan will include objectives and a list of actions to achieve them, a timeline, milestones within the timeline showing progress to the end goal, overall cost, stakeholders, required permits, materials to be purchased, and a flexible work schedule that allows for delays due to weather or community activities in the targeted area(s).

Once the OSCRC commits to a plan for each option, it must secure funding and identify individuals or an organization to oversee the work, report on its progress, and evaluate final results.

Securing Public Funding

It became clear to the membership that in order to secure public funding, the committee needed to incorporate as a non-profit organization. Individuals present at the meeting approved moving forward to contact a lawyer and an accountant so that the committee could register as a company. The goal is to be incorporated by the fall of this year. Each OSCRC representative was asked to go back to their association to see if there is monetary support for the incorporation.

As mentioned in previous meetings, all attendees were encouraged to continue to pass along any names and contact information to the report authors below. These names and their contact information will be added to the list created in the previous meeting.

Ed Rajotte (Fenwood District) – Email: rajottes@comcast.net

Joe Russo (Knollwood Beach Association) – Email: jmr2649@gmail.com

Tom Tokarz (Fenwood District) – Email: tomtokarz0@gmail.com

Appendix 1. Attendee List in Alphabetical Order

Attendees at the June 2, 2022 meeting are in bold

Name	Association	Email
Gary Albanese	Chalker Beach	gjalbanese@sbcglobal.net
Joanne Breen	Saybrook Manor Cove	joanne.breen@era.com
Jeffrey Brødersen	Saybrook Manor	Jeffrey.Brodersen@gmail.com
Linda Cannarella	Saybrook Manor Cove	lindacannarella@gmail.com
Marie Cerino	Great Hammock Beach	mariecerino521@gmail.com
Arcangela Claffey	Bel Aire Manor	tnclaffey@gmail.com
Michael Cohen	Chalker Beach	cohenx4@aol.com
Tim Conklin	Cornfield Point	tconklin@magner.com
Christina Costa	Town Planner, CZEO	Chris.costa@oldsaybrookct.gov
Jay Costello	Indian Town	jay.a.costello@comcast.net
Pat DeVito	Knollwood Beach	patdevito@sbcglobal.net
Carl Fortuna	First Selectman	Carl.fortuna@oldsaybrookct.gov
Peter Gillespie	Town of Westbrook	pgillespie@westbrookct.us
John Kennedy	Otter Cove	John.Kennedy@JKennedyTechLaw.com
Marilyn Ozols	Borough of Fenwick	zeo@fenwicknews.com
Lew Perry	Cornfield Point	lperry45@comcast.net
Dave Pettinicchi	Saybrook Manor	neech1214@gmail.com
Robert Pulito	Saybrook Manor Cover	pulito@slamcoll.com
Edwin Rajotte	Fenwood District	rajottes@comcast.net
Ileen Roth	Indian Town	iroth@travelers.com
Michael Roth	Indian Town	ournextboat@comcast.net
Joseph Russo	Knollwood Beach	jmr2649@gmail.com
Beth Ann L. Sennett	Great Hammock Beach	blovelandsennett@comcast.net
Thomas Tokarz	Fenwood District	tomtokarz0@gmail.com
Rose Ziegler	Indian Town	rose.ziegler@sbcglobal.net

Appendix 2. Two-Page Summary About the OSCRC for Public Distribution

Old Saybrook Coastal Resilience Committee (OSCRC) Seeking Solutions for Sea Level Rise

Old Saybrook Coastal Resilience Committee

The Old Saybrook Coastal Resilience Committee (OSCRC) was formed in 2021 to coordinate a response to sea level rise by documenting vulnerabilities of local beachfront and riverfront communities and, through regional, state, and federal partnerships, identifying immediate and long-term mitigation solutions. OSCRC members include: Bel Aire Manor, Borough of Fenwick, Chalker Beach, Cornfield Point, Fenwood District, Great Hammock Beach, Indian Town, Knollwood Beach, Otter Cove, Saybrook Manor, Saybrook Manor Cove, Town of Old Saybrook, and Town of Westbrook. Through periodic meetings and guided by National Oceanic and Atmospheric (NOAA) "Steps to Resilience Framework," the OSCRC has taken the first steps towards addressing sea level rise.

The Challenge of Sea Level Rise

According to the National Oceanic and Atmospheric Administration (NOAA), the global mean sea level in the Northeast United States is expected, with a high degree of confidence, to increase to 1.3 ft by 2050, with a range of uncertainty between 1.0 and 1.5 ft. This increase in sea level will result in susceptible low-lying areas along the coast and adjacent to rivers being permanently wet and future storms causing extensive damage due to storm surge and flooding. The expected change in water levels threatens roads, properties, septic systems, and recreational areas. Furthermore, there will be a steady expansion of tidal marshes onto residential lands.

Identified Problems and Preferred Options

The OSCRC members in a series of meetings identified problems associated with sea level rise; the resulting vulnerabilities due to these problems; and preferred mitigation options to address the vulnerabilities. The identified problems are bulleted below along with their preferred mitigation options.

- Sand erosion Move excessive sand from one local beach to replenish sand (i.e. beach nourishment) at another local beach. Push sand away from shore to promote natural replenishment. Pile sand to side of beach during winter. Install jetties/groins to either deposit or remove sand. Dredge sand at river entrances. Implement living shoreline where applicable. Investigate beach slope for sand retention or loss.
- Sand deposition
- Tidal flooding Raise roads or properties experiencing tidal flooding. Clean drainage ditches and pitch roadways toward marshes. Add embankments along road and properties facing marshes. Add manmade barriers to prevent flooding on roads, properties.
- Tidal encroachment
- Inadequate drainage Repair tide gate, install larger pipe, regrade area, and remove structures to prevent septic flooding.
- Disruption of septic system
- Storm surge Install coherent seawall/revetment along all properties. Rebuild slopes with appropriate material. Repair and maintain existing retaining walls, sea walls, revetments, piers and jetties.
- Deterioration of sea walls
- Deterioration of piers and jetties
- Education Institute public education to engage beach users to do their part to preserve beaches and natural areas.

How You Can Help

The response to sea level rise is going to be costly, time-consuming, socially challenging. The OSCRC communities are soliciting help. We are looking for partners, funding sources, skilled professionals, and individuals who can assist in making the public aware of our efforts. Please contact (website to be named) to join us in fortifying the infrastructure of the Connecticut coastline.

How Sea Level Rise Will Impact the Connecticut Shoreline

An online, digital tool called “Sea Level Rise and Storm Surge Viewer” was developed by the Connecticut Institute for Resilience & Climate Adaptation (CIRCA), which is part of the University of Connecticut. This tool allows a user to see the impact of sea level rise along the Connecticut shoreline. By comparing maps in Figures 1 and 2, one can see the change in mean higher high water (MHHW) level for a one-foot increase in sea level. The most striking change is the expansion of inundated areas resulting in loss of property and traffic passageways. In addition to flooding, more frequent and intense storms are predicted to be concurrent with sea level rise.

Figure 1. Mean Higher High Water (MHHW) for current sea level.

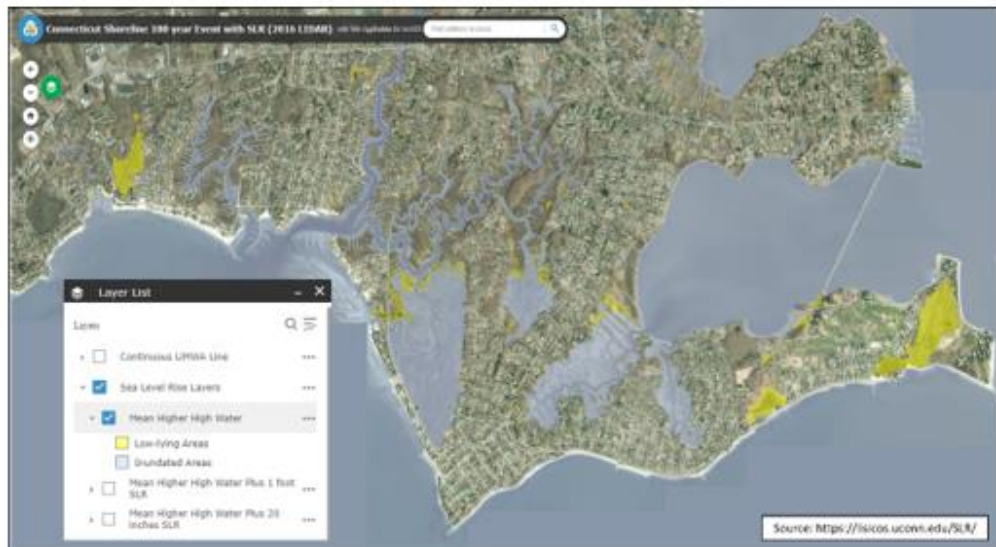
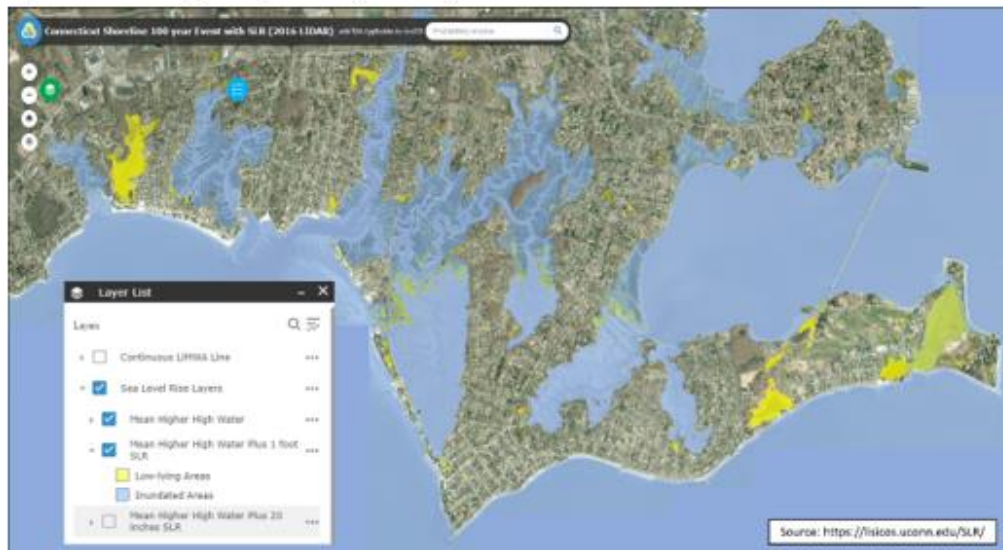


Figure 2. Mean Higher High Water (MHHW) for sea level rise of one foot.

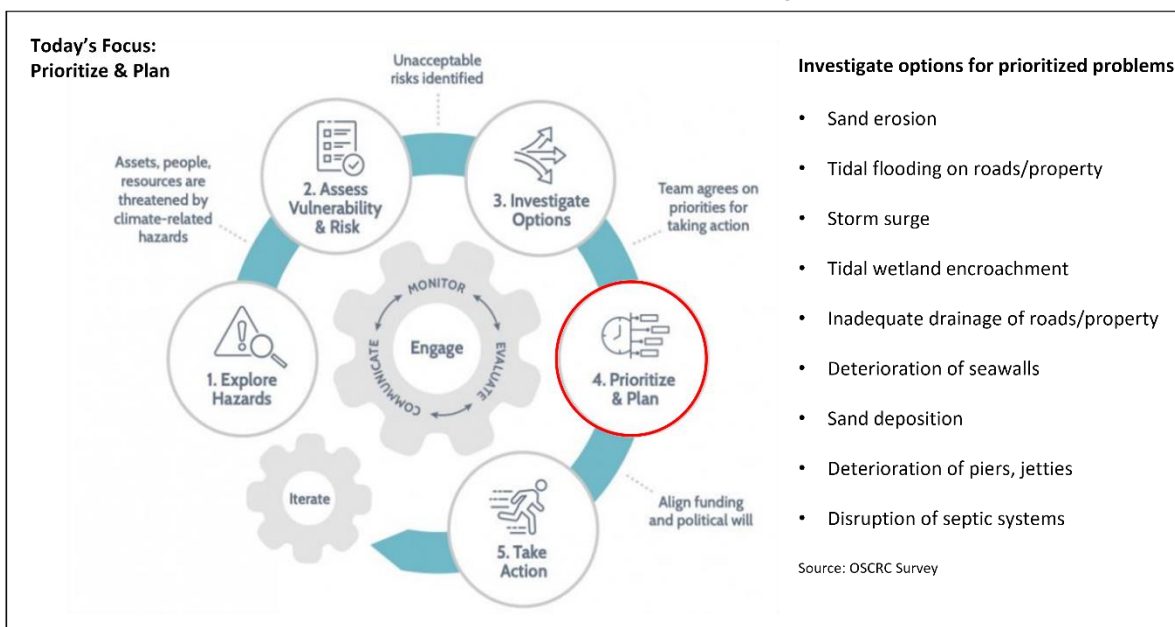


Sea level rise is observable now and will only get worse in the ensuing years. Our communities need to be prepared for future infrastructural investments and behavioral changes. For more information on OSCRC reports and planned activities, please contact (website to be named).

Appendix 3. Brief Presentation on Prioritize and Plan

A brief presentation on “prioritize & plan” for the problems identified by the OSCRC beach communities was given by Joe Russo, who is a representative of the Knollwood Beach Association. The goal of the presentation was to provide a common understanding, through descriptions and terminology, of how to prioritize and plan for mitigating the problems identified in a previous meeting. The presentation, in the form of a PowerPoint slides, has been duplicated in this appendix. Notes are provided to emphasize the main point of each slide.

Slide 1: Resilience Framework Steps



Source: Graph - U.S. Climate Resilience Toolkit. 2022. <https://toolkit.climate.gov/steps-to-resilience/steps-resilience-overview>

Slide 1 Note: The focus of the fourth meeting was to provide background information for Step 4: Prioritize & Plan. The prioritizing and planning were for the nine prioritized problems (listed on the right side of this slide) identified by the OSCRC in a previous meeting.

Slide 2: Consolidate Actions into a Cohesive Plan and Estimate Expected Value of Each Action

<p>Consolidate actions into a cohesive plan</p> <ul style="list-style-type: none"> Combine similar actions and sequence them to reduce risk across assets. <p>In this step, you'll raise the group's perspective from considering a subset of single assets to taking a look at the bigger picture. Examine your full list of actions from the previous step and look for patterns and similarities among the entries.</p> <p>Consider how you might combine actions intended to increase resilience for single asset-threat pairs to protect several assets. Look for an efficient sequence of actions that could reduce risk across the full range of assets. Taking this larger view may help you find synergistic actions and cost savings; it can also help you recognize the potential for unintended consequences.</p> <p>The goal of this step is identify a series of actions that all stakeholders will agree upon and support. The process also enables all stakeholders to represent the benefits of the plan to their own constituents.</p>	<p>Estimate the expected value of each action</p> <ul style="list-style-type: none"> Assess whether investments will reduce risk. <p>Before you invest in an action, you'd like to have a good sense of if it will truly reduce risk. Recall that the concept of risk encompasses the <i>probability</i> of a loss as well as the <i>magnitude</i> of the loss. Effective actions need to reduce one or both of these elements. Addressing this type of risk is called an <i>expected value analysis</i>. As was the case in earlier steps, some groups choose to engage risk management consultants to assist them with this process.</p> <p>You can decide if each action is a worthwhile investment by comparing the cost to implement it to the expected value of the benefit it will provide. If the total value of reduced risk, increased resilience, and co-benefits are expected to have a comparable or higher value than the cost of implementing the project, expected value is positive.</p> <p>Compare the cost to implement each solution you listed to the expected value of the benefit it will provide.</p> <p>Be aware that estimating the potential financial benefit of intangible things such as ecosystem services can lead to a broad range of expected values. Also, in some cases, the expected value of reduced risk associated with an action may seem positive, but only because the action transfers or delays risk. For actions in your plan that do not show a positive expected value, return to Step 4.1 or earlier steps to seek another solution.</p>
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Source: <https://toolkit.climate.gov/steps-to-resilience/prioritize-plan>.

Slide 2 Note: First step in prioritizing and planning is to consolidate actions into a cohesive plan and estimate expected value of each action.

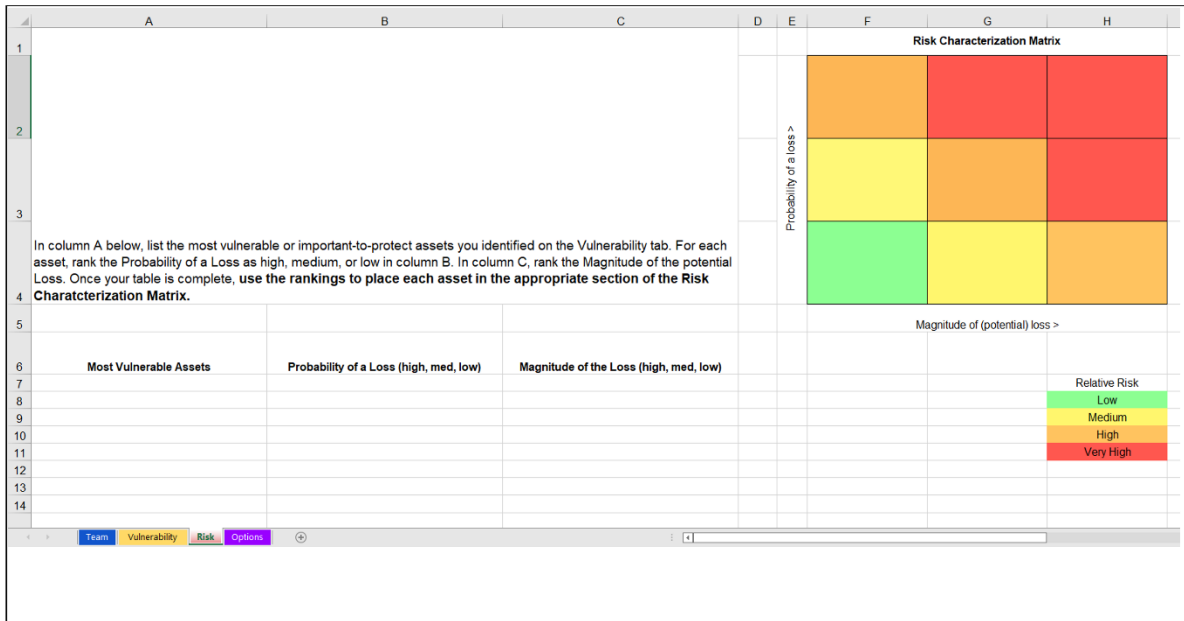
Slide 3: Evaluate Trade-Offs and Plan the Project

<p>Evaluate trade-offs</p> <ul style="list-style-type: none"> In light of limited resources, decide what you can do. <p>Compare your list of worthwhile investments with your budget: most groups won't have enough time or money to do everything they've identified.</p> <p>From your sequence of actions, try to identify a subset of actions you can implement with available resources that would yield a positive benefit-to-cost ratio. Consider that taking action to put an important and highly visible portion of your plan into effect may give you a "win" that could attract additional resources. As possible, anticipate any unintended consequences that could result from individual actions.</p> <p>Decide which positive benefit-to-cost ratio actions you can implement with available resources.</p> <p>If your budget check indicates your feasible solutions wouldn't be sufficient to build resilience, break your actions into smaller steps to identify the most effective solutions you could implement. Iterate as often as necessary, looping back to previous steps and giving further consideration to solutions you once discarded as infeasible. Figure out what it would take to get past the obstacles you perceived to put additional options on the table.</p>	<p>Plan the project</p> <ul style="list-style-type: none"> Develop a timeline and milestones to mark your progress. <p>Decide which option(s) should be implemented in what order, and lay them out in a detailed plan. Actively involve stakeholders who will invest in the plan. Recognize that some groups may take responsibility or make a major contribution for specific parts of the plan. Groups may also find funds, win grants, or recruit volunteers to implement various facets of the plan.</p> <p>Select a project management method that works for your group to document your plans.</p> <p>In building your timeline, consider a phased approach with discrete milestones. As the first steps can be among the hardest, you may want to include some easy-to-implement options early in the process to help you build a track record of wins. Include a strategy for communicating your efforts via press releases and/or social media. Make contingency plans for acknowledging and correcting strategies that don't turn out as well as you planned.</p> <p>Encourage stakeholders to formalize commitments of time and resources that will meet the timeline you've developed. Alternatively, be prepared to adjust your schedule to meet stakeholders' abilities to contribute resources. Where possible, build in flexibility, alternatives, and redundancies to accomplish the most important parts of the plan.</p> <p>Be sure to document your plan and share it widely. Include a narrative that summarizes the asset-threat pairs you've addressed; the potentially exacerbating climate- and non-climate-related stressors you identified; actions that were considered and which were selected, and why; the anticipated costs, benefits, and outcomes of the plan; phases of the plan's implementation, with estimated timelines to completion; and how progress and results will be monitored and reported over time. You want to be transparent and inclusive: be sure to cite your sources for important data and information that isn't common knowledge. Publish your plan at an accessible, easily identifiable location.</p>
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Source: <https://toolkit.climate.gov/steps-to-resilience/prioritize-plan>.

Slide 3 Note: The second step in prioritizing and planning is to evaluate trade-offs and plan the project.

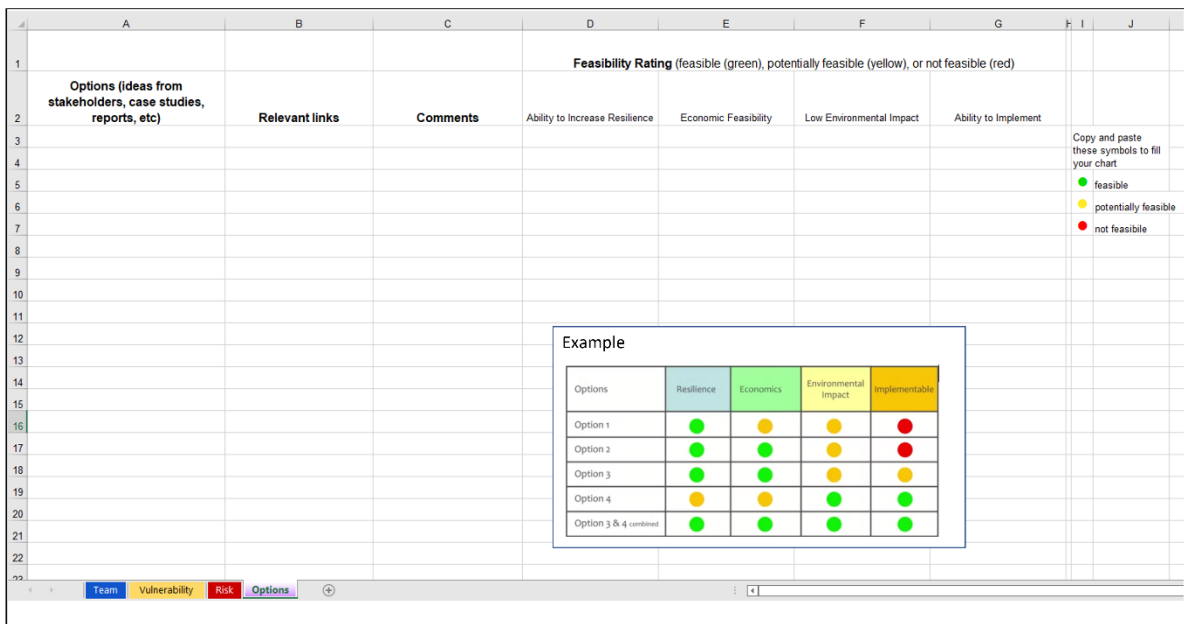
Slide 4: Risk Characterization Matrix



Source: <https://toolkit.climate.gov/steps-to-resilience/prioritize-plan>.

Slide 4 Note: Since the team and vulnerability have already been identified, the third step in the prioritizing and planning is create a risk characterization matrix. This matrix assesses the probability of loss versus the magnitude of potential loss for shoreline assets.

Slide 5: Options



Source: <https://toolkit.climate.gov/steps-to-resilience/prioritize-plan>.

Slide 5 Note: The fourth step for prioritizing and planning is to rate each option for ameliorating a vulnerability for its resilience, economics, environmental impact and ability to implement.