

# Step 1: Project Scoping

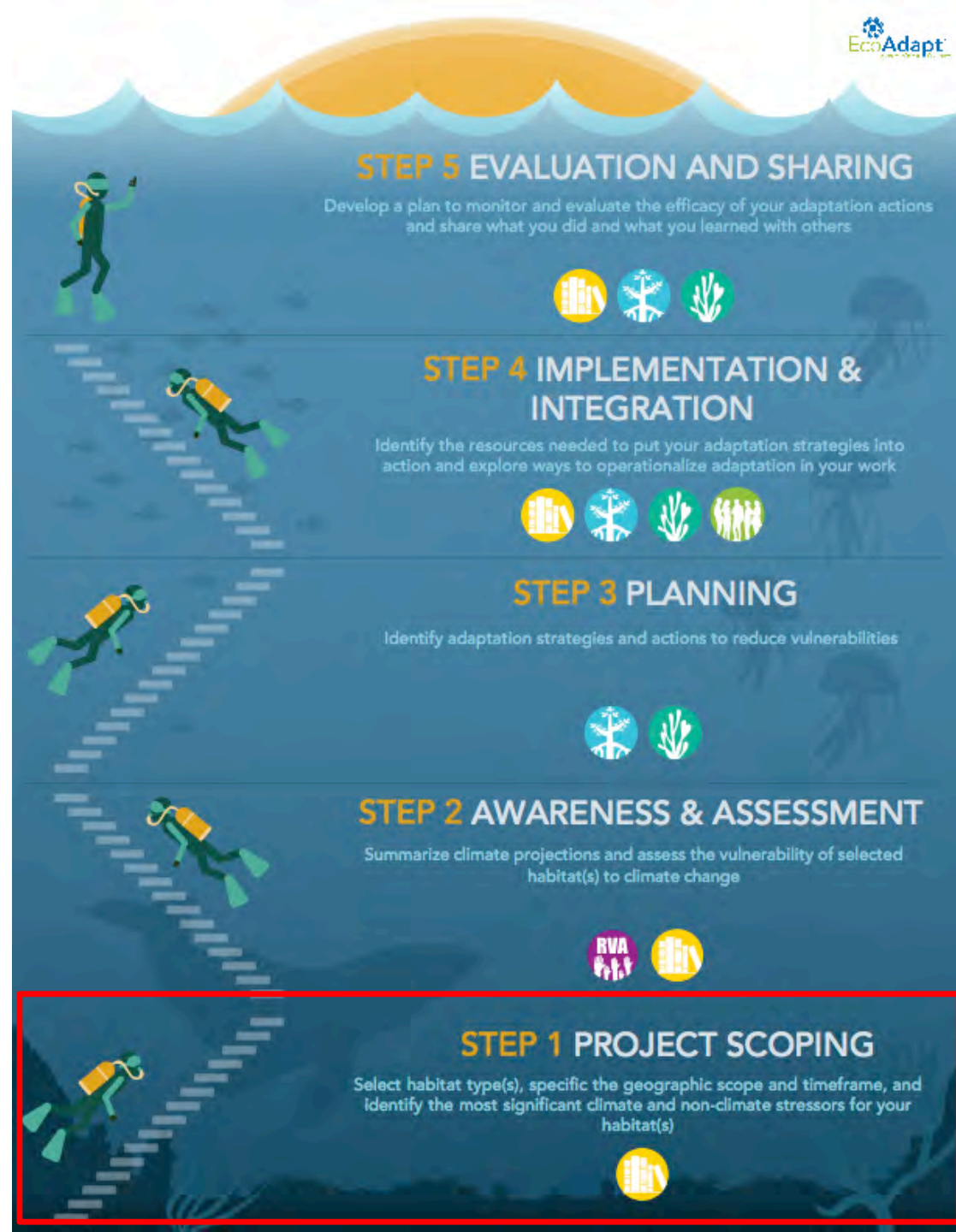
**Defining** the purpose and scope of your adaptation planning effort



# Step 1: Project Scoping

## Learning Objectives

- Become familiar with project scoping components and how Toolkit resources can assist you in defining parameters
- Practice defining project parameters, including habitat description, timeframe, and key climate and non-climate stressors



# Project Scoping



Clearly define the purpose and scope:

- Clarify goals and objectives
- Identify conservation targets
- Specify geographic area and time frame
- Identify key climate and non-climate stressors





# Project Scoping: MPA Toolkit

**cake**  
Climate Adaptation  
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## Foundational Resources for Marine and Coastal Protected Areas

Get Started Login

Overview About Using the Toolkit Tools Experts

- Adaptation Actions Table
- Adaptation Actions Search
- Foundational Resources**
- Rapid Vulnerability Assessment

### Foundational Resources

The Toolkit provides a wealth of documents, case studies, guides and tools to inform your adaptation work, which can be overwhelming when starting out. Here are resources the project team considers great starting places. These resources are also foundational to every step of the Adaptation Ladder of Engagement. The list is curated and does not necessarily represent the full portfolio of what is available. It is a list of foundational resources upon which to build your adaptation work or provide a more comprehensive, high-level view of adaptation from start to finish.

# Step 2: Awareness and Assessment

**Awareness** that climate change affects your resources and the ability to meet your goals



**Assessment** to understand how and why climate change will impact your resources and goals



# Step 2: Awareness and Assessment

## Learning Objectives

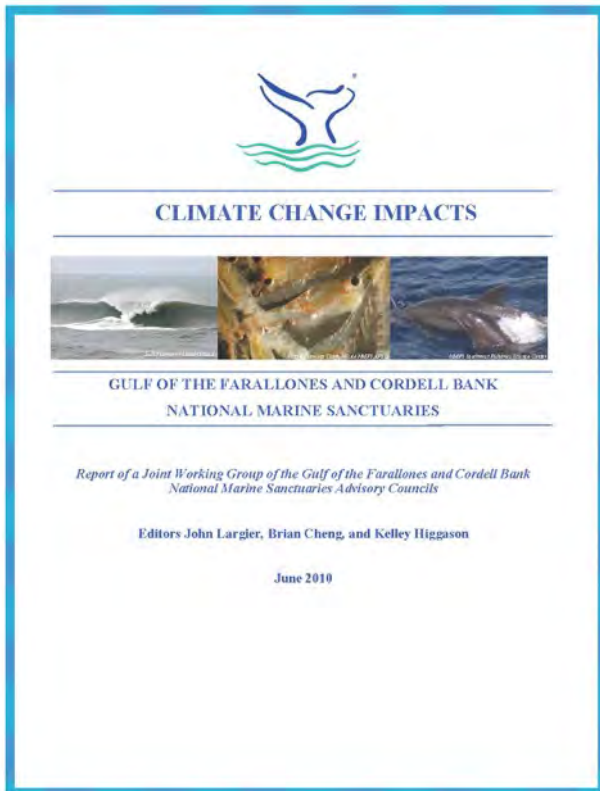
- Understand how to access basic climate data for your region
- Practice assessing climate vulnerability for a habitat of interest using the RVA Tool



# Awareness



Create a common understanding of climate change and impacts for your site/region in preparation for a climate vulnerability assessment



- What climate stressors matter most for my site/habitat?
- How have those stressors changed to date?
- How are those stressors projected to change moving forward?
- How confident are we in the projected direction and magnitude of change?

**We have done this for you in this abbreviated training!**

# Awareness



Overview	About	Using the Toolkit	Tools ▾	Experts
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## Foundational Resources

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Adaptation Actions Table
Adaptation Actions Search
<b>Foundational Resources</b>
Rapid Vulnerability Assessment

### Our foundational resources are organized by the different steps in the Adaptation Ladder of Engagement:

1. Awareness (climate change and your goals)
2. Assessment (vulnerability or risk assessment)
3. Planning (identifying solutions)
4. Implementation (moving from plans to action)
5. Integration (climate savvy thinking)
6. Evaluation (what actions are working and what is not working)
7. Sharing (share with and learn from others)

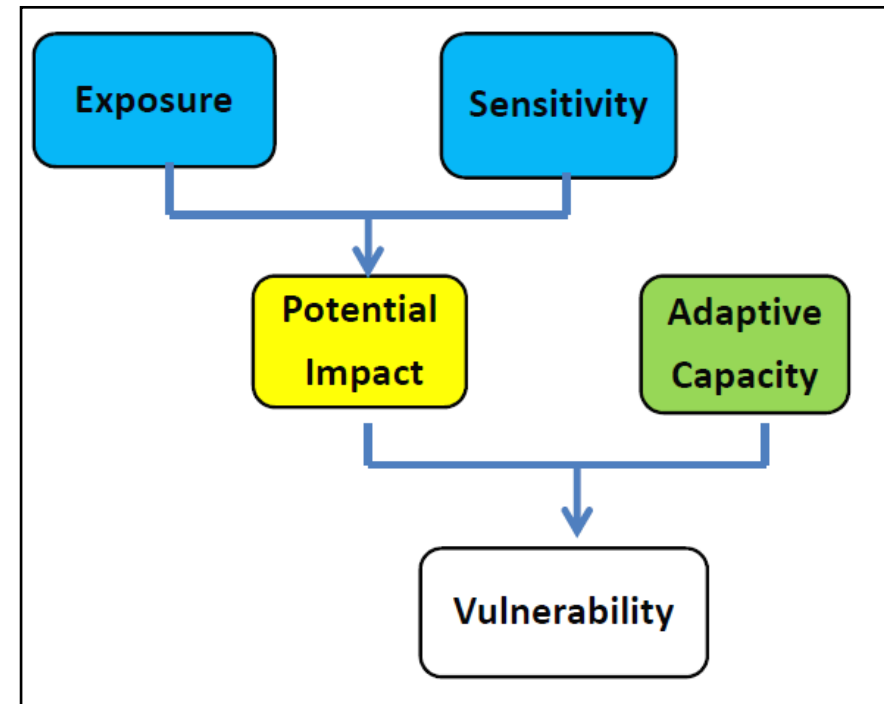




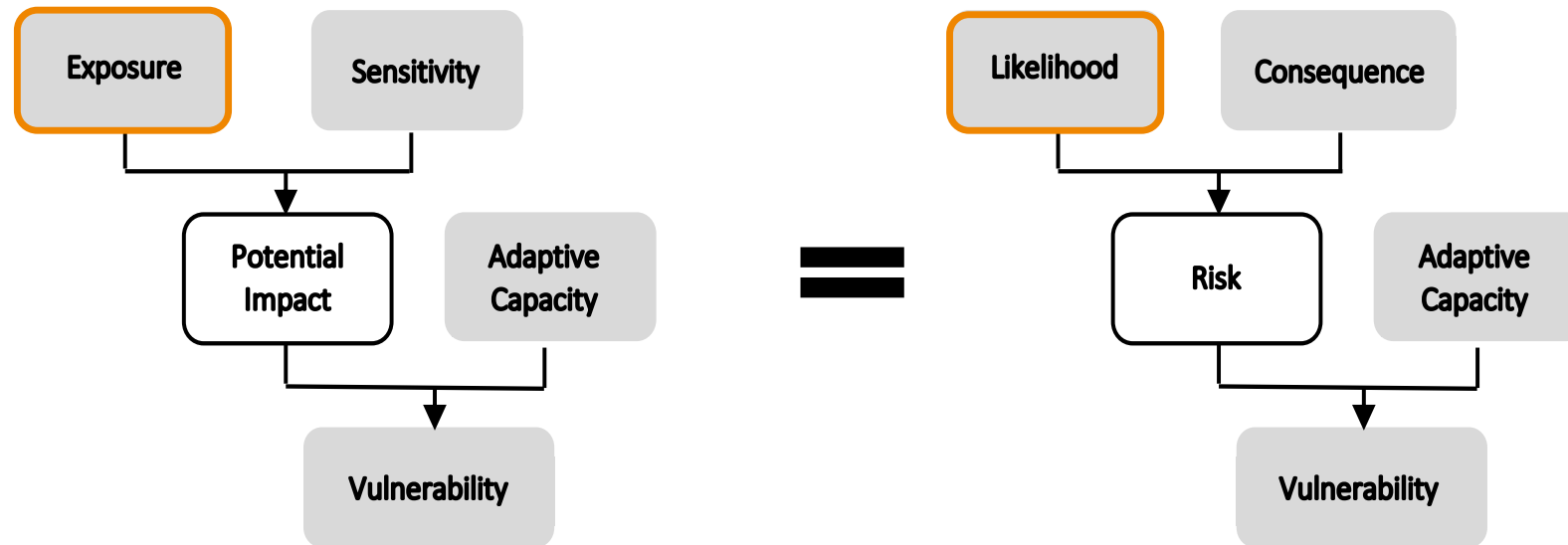
# Assessment

Qualitatively describe and evaluate how climate and non-climate stressors will impact your habitat's vulnerability to climate change. Ultimately to improve management approaches for long-term success.

Vulnerability = *A function of the **sensitivity** of a particular resource to climate changes, its **exposure** to those changes, and its **capacity to adapt** to those changes (IPCC 2007)*



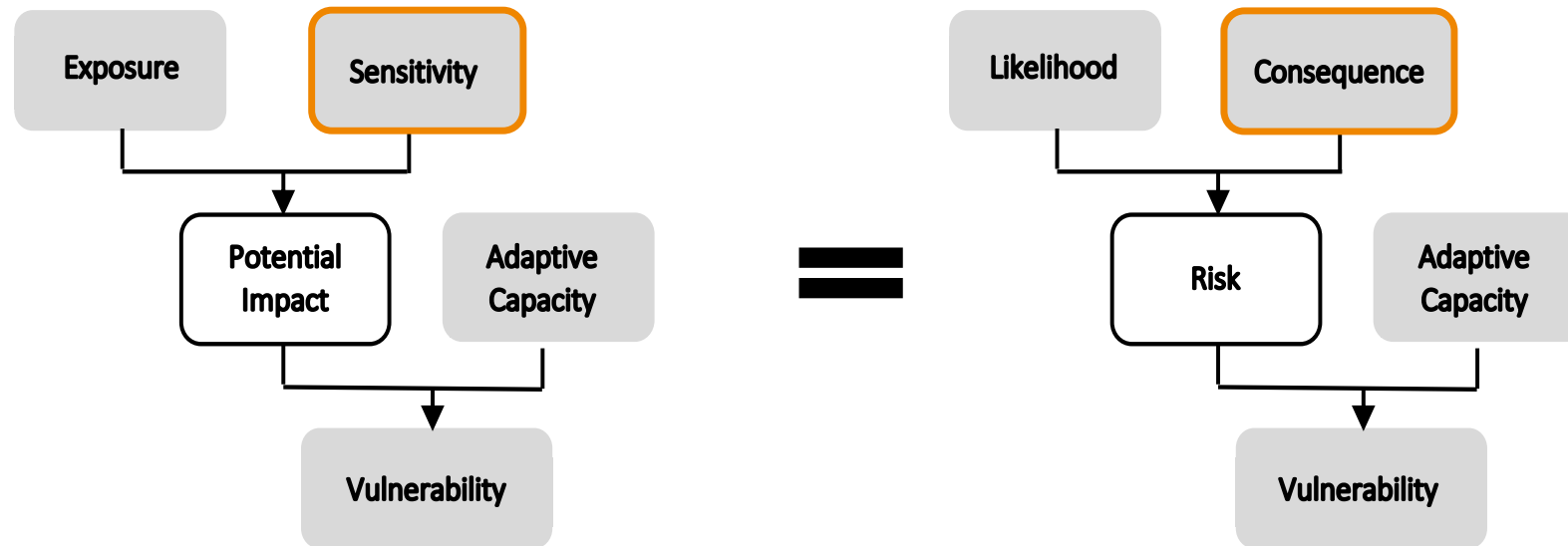
# Vulnerability Assessment Models



**Likelihood:** How likely is it that your habitat will be exposed to the identified climate impacts within your chosen timeframe?

*Almost certain, Likely, Possible, Unlikely, Rare*

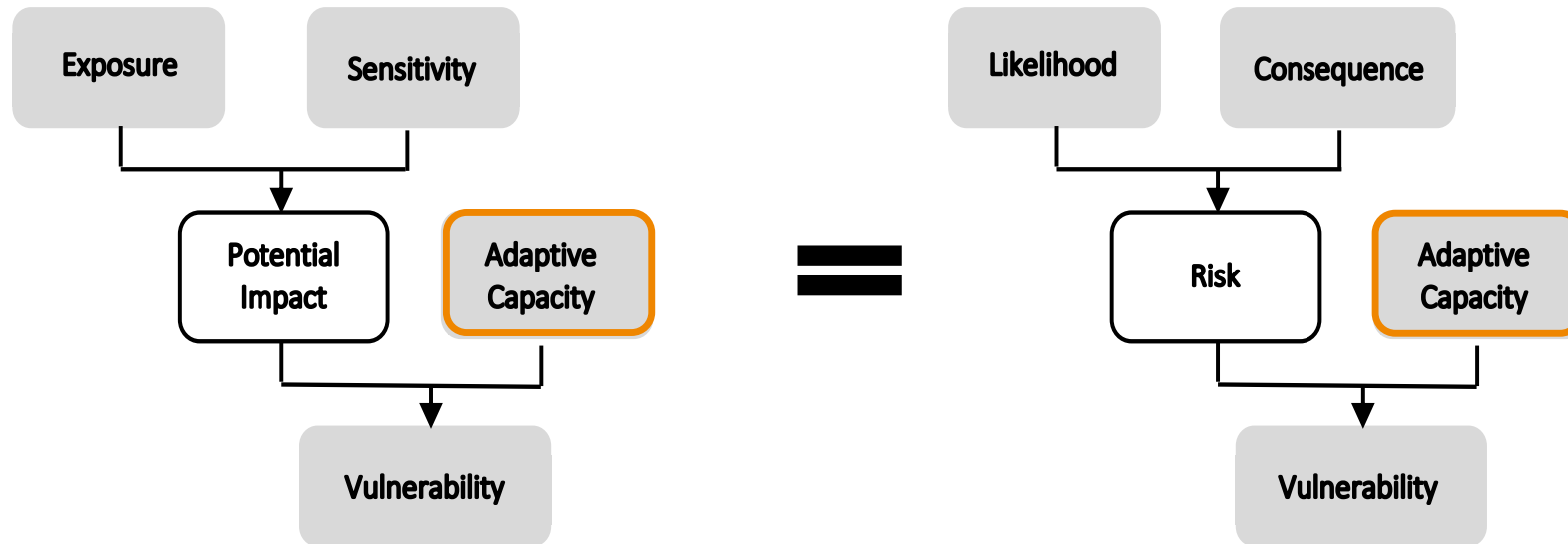
# Vulnerability Assessment Models



**Consequence:** How significant is the effect of the climate impact combined with the effects of non-climate stressors on your habitat?

*Catastrophic, Major, Moderate, Minor, Negligible*

# Vulnerability Assessment Models

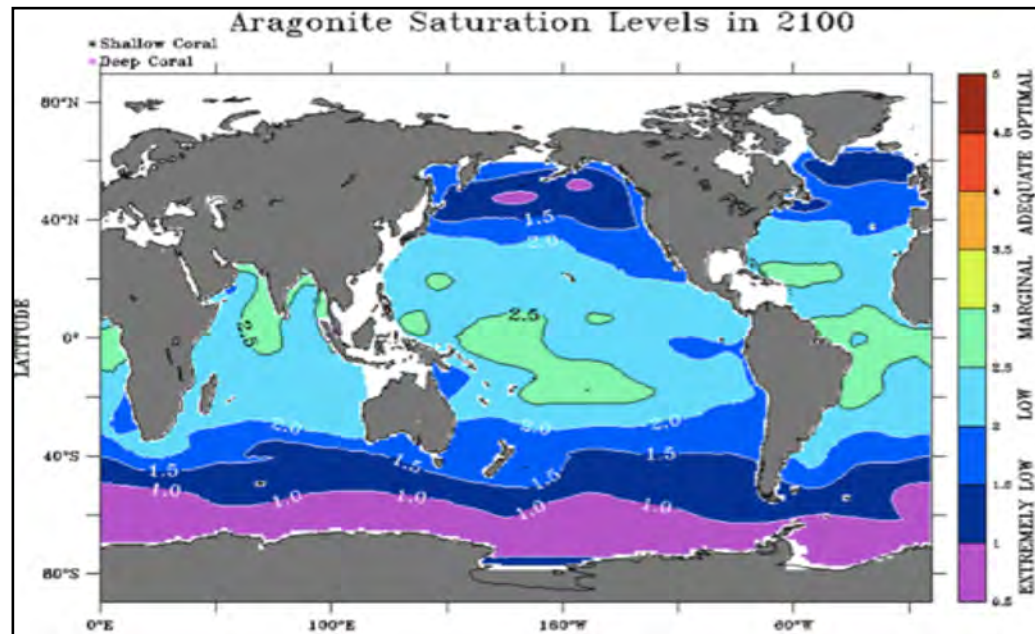


**Adaptive Capacity** is a measure of the ability of the resource to accommodate or cope with climate change impacts with minimal disruption.

# Components of Vulnerability



Likelihood: How likely is the rocky intertidal to be exposed to decreased pH by 2050?



*Workshop participants assign the likelihood of anticipated effects occurring in your chosen timescale*

# Components of Vulnerability



Consequence: How significant is the effect of decreased pH, combined with non-climate stressors, on rocky intertidal habitat?



We have indicated that the rocky intertidal is almost certain to be exposed to decreased pH, but what is the consequence of that exposure for the California mussel?

*Workshop participants assign the consequence of the climate stressor in tandem with existing non-climate stressors*

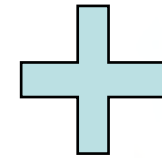
# Components of Vulnerability



Consequence: How significant is the effect of decreased pH, combined with non-climate stressors, on rocky intertidal habitat?



*trampling*



*Ocean acidification*

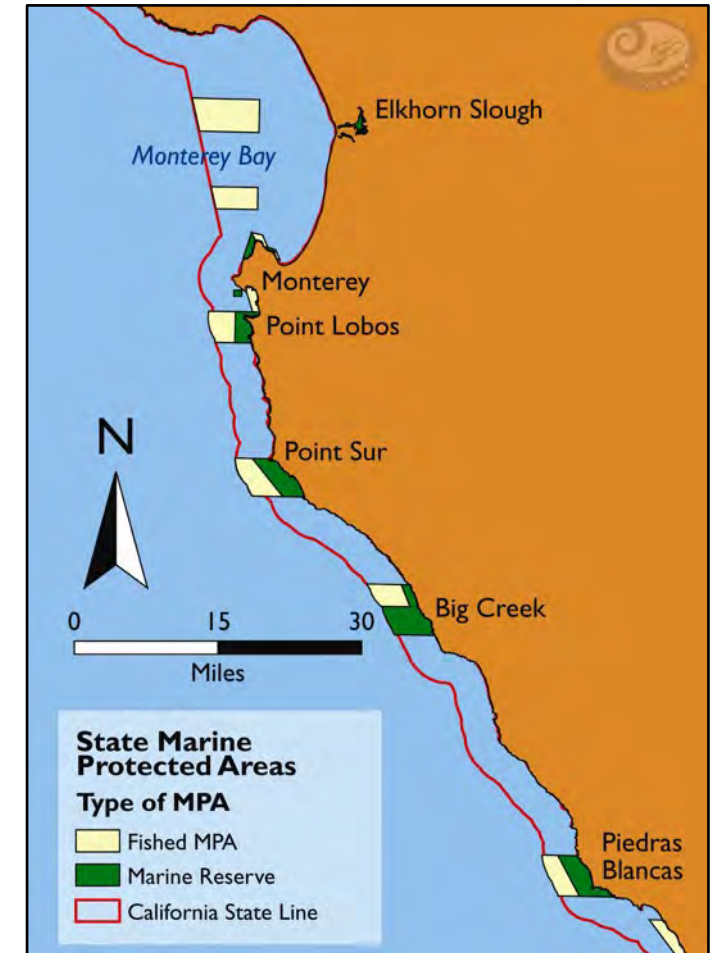
= MAJOR consequence

*Workshop participants assign the consequence of the climate stressor in tandem with existing non-climate stressors*

# Components of Vulnerability



Adaptive Capacity: Ability to accommodate or cope with climate change impacts with minimal disruption.



*Workshop participants assign both the capacity of the habitat (ecological potential) and of the institutions that manage the habitat (social potential)*



# Components of Vulnerability



Adaptive Capacity: Ability to accommodate or cope with climate change impacts with minimal disruption.

*Ecological Potential: characteristics that are intrinsic to the resources itself:*

- *Extent and connectivity – widespread, continuous habitat will have higher AC*
- *Diversity – physically and biologically diverse habitats will have higher AC*
- *Condition of keystone species – healthier, more robust populations of keystone species will have higher AC*



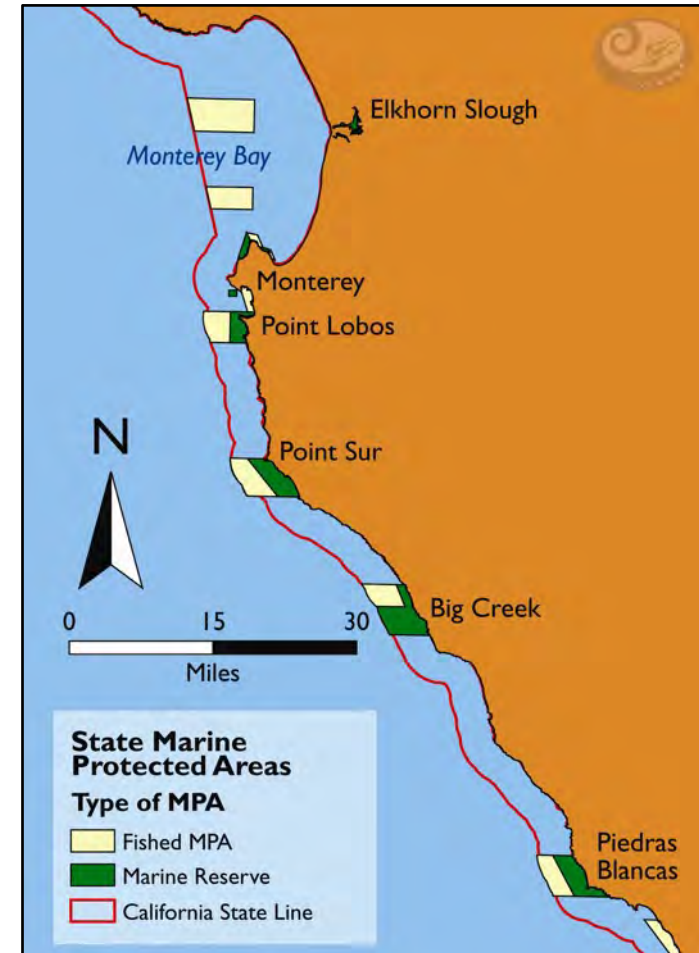
# Components of Vulnerability



Adaptive Capacity: Ability to accommodate or cope with climate change impacts with minimal disruption.

*Social potential: characteristics that are extrinsic to the resource itself*

- *Staff capacity – more resources to address the problem means greater AC*
- *Responsiveness – the more flexible the management entity the greater the AC*
- *Stability/longevity – longer planning horizon, long-term funding, and robust governance structure will likely increase AC*



# Marine Protected Area Rapid Vulnerability Assessment Tool: MPA Toolkit



Get Started

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## Rapid Vulnerability Assessment Tool

Overview

About

Using the Toolkit

Tools ▾

Experts

Adaptation Actions Table

Adaptation Actions Search

Foundational Resources

**Rapid Vulnerability Assessment**



## Rapid Vulnerability Assessment Tool

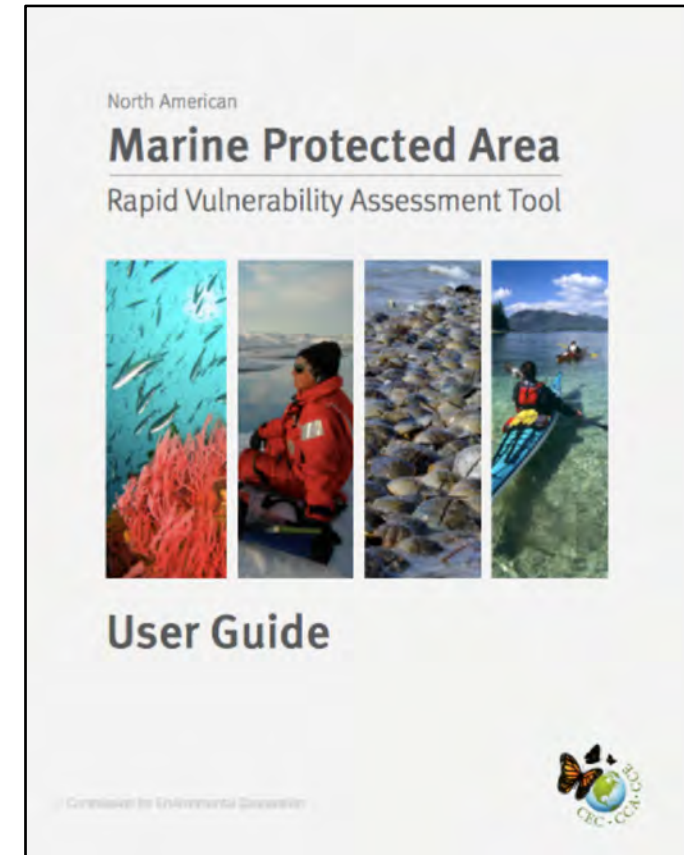
The North American Marine Protected Area Rapid Vulnerability Assessment Tool was created to help marine protected area managers evaluate the implications of climate change for the resources they manage. The tool is introduced, and links are provided to download a user guide, blank worksheets and sample completed worksheets.

# What is a Rapid Vulnerability Assessment?



A Rapid Vulnerability Assessment (RVA) is a modified version of this process that is:

- Simple
- Focused on your interests
- Feasible to undertake based on what you already know
- Feasible to undertake with the team you already have
- Creates a product to apply to your management activities



# Steps in the RVA tool



## Step 1

Define the scope of the vulnerability assessment



## Step 2

Construct the assessment matrices



## Step 3

Undertake the assessment



## Step 4

Adaptation strategy development



## Step 5

Create your own narrative vulnerability assessment report



# Rapid Vulnerability Assessment: An abbreviated version!



3 tables in this exercise:

1. Climate Change Vulnerability Assessment (master table)
2. Consequences table
3. Adaptive Capacity table

## Exercise 2 (Part II). Vulnerability Assessment

Habitat: EELGRASS

Timescale: MEDIUM-TERM

Table 1. Climate Change Vulnerability Assessment

A. Climate stressor	B. Observed or projected change (direction and magnitude; relevant details)	C. Anticipated effects on your habitat type	D. Likelihood	E. Consequence (Table 2)	F. Risk (Figure A)	G. Adaptive Capacity (Table 3)	H. Vulnerability Level (Figure B)