

Adaptation Roadmap

Workbook 1: **Build Your Adaptation Roadmap**

Worksheets 1A-1J

Outcomes include:
Strengths and Opportunities
Challenges to Address

Your Roadmap: Sections to Use in the Adaptation Roadmap

Tracking Progress

Name(s):
Title/Dept./other Identifier:
Jurisdiction/Organization:
Date Worked On:
Worksheets Worked On:

Name(s):
Title/Dept./other Identifier:
Jurisdiction/Organization:
Date Worked On:
Worksheets Worked On:

Name(s):
Title/Dept./other Identifier:
Jurisdiction/Organization:
Date Worked On:
Worksheets Worked On:

Workbook 1

1.1 Assess Your What and Why
(Worksheet 1A):

1.2 Assess Your Issues and Scale
(Worksheets 1B-1C):

1.3 Assess Your Capacities and Resources
(Worksheet 1D-1E):

BUILD YOUR ROADMAP
(Worksheet 1F-1J):

Print Your Roadmap

Adaptation Roadmap

INSTRUCTIONS

Workbook 1 and Outcomes

This workbook is designed to accompany Chapter 1: Build Your Adaptation Roadmap. This resource will help you organize and pick up the pieces of existing sea level rise vulnerability and related climate adaptation efforts to understand how to best use the resources in the Adaptation Roadmap. The worksheets within provide fillable PDF spaces to list and record your responses.

Strengths and Opportunities

Chapter 1 and Workbook 1 differ from chapters and workbooks 2-6 in that they are meant to help you understand where you are starting from in an adaptation planning effort and what resources to use within Adaptation Roadmap that make the most sense for you and your community. In this workbook, the notes and comments you make in worksheets 1A-1E are presented back to you to organize your comments into:

- **Strengths and Opportunities (Worksheet 1F)**
- **Challenges to Address (Worksheet 1G)**

These two pages (worksheets 1F-1G) can be shared with others as you begin formulating how to initiate an adaptation effort. These should be considered as starting points and initial ways to organize key foundational information that can be built upon and integrated into your adaptation effort moving forward.

Your Adaptation Roadmap: Using the Decision Tree

A key outcome of this Workbook 1 is helping you understand what sections of the Adaptation Roadmap to review. Use worksheets 1H-1I to review a series of questions that help you understand what information you already have and what sections of the Adaptation Roadmap may be useful to help you achieve your outcomes. Your responses are presented back to you in a way that provides a checklist of sections to review:

- **Your Adaptation Roadmap (Worksheet 1J)**

Supplemental Pages

The supplemental pages provide extra space to list additional notes, as needed.



See Adaptation
Roadmap
guidance on
pages 30-32.

Adaptation Roadmap

Worksheet 1A: Build Your Roadmap

1.1 Assess Your What and Why

What brings you here? What outcomes (or goals) are you interested in?

Check the boxes and use the space to articulate what you'd like to get out this adaptation effort. Consider this a starting point for your story.
Tip: You can have multiple outcomes, try to be as clear as possible, and you can change/adjust these as you move through this work.

1.1.1: I want to...

Planning

Education/Awareness

Capacity Building

Project

Learn about adaptation

Unsure

What **motivations and opportunities** do you have going for you?

Click the description that best matches who you are or what perspective you best represent. List of the main motivations for adaptation that come to mind and other relevant opportunities that will add support as you create your own Adaptation Roadmap. Tip: Think of all the positives.

1.1.2: I work for or represent... 1.1.3: The good news...

If other, please specify:

What are you most concerned about? What might be key barriers?

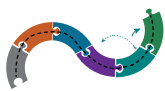
Click the circle that best matches how you currently feel. List the key challenges or barriers that come to mind and be as locally specific as possible. Consider barriers or challenges that this adaptation effort can seek to address. Tip: Think of challenges/barriers that you can potentially change.

I'm feeling... 1.1.4: The biggest challenges include...

*Overwhelmed and not sure
where to start*

*Ready to explore how to take
small steps in adaptation*

*Excited to think holistically
about adaptation*



See Adaptation
Roadmap
guidance on
pages 33-36.

Adaptation Roadmap

Worksheet 1B: Build Your Roadmap

1.2 Assess Your Issues and Scale

What studies, reports, or other efforts are you building upon?

Use the space to list the name(s) and date(s) of foundational studies or reports that are the building blocks of this work. The check boxes provide ideas for types of studies, but add as many as apply. Include who led or was involved, scale, and other important context details.

1.2.1: We can build upon...

County Vulnerability Assessment

City/Local Vulnerability Assessment

General Plan Update

Local Hazard Mitigation Plan Update

Other Studies/Reports/Efforts

1.2.1: It would be great if we could integrate...

County Vulnerability Assessment

City/Local Vulnerability Assessment

General Plan Update

Local Hazard Mitigation Plan Update

Other Studies/Reports/Efforts

What other issues should be addressed together in this work?

Use the space to list other issues that should be integrated into this work. The check boxes provide ideas for types of connected issues, but add as many as apply in the space where appropriate. Include related plans, studies, or areas of work and additional context details.

1.2.2: Related issues we can likely include...

Housing

Transportation

Public Health

Safety / Emergency

Environmental Health

Economic Health

Hazardous Materials

Food Security

Education

Other Climate Hazards

1.2.2: Related issues we'd like to be able to include...



See Adaptation
Roadmap
guidance on
pages 33-36.

Adaptation Roadmap

Worksheet 1C: Build Your Roadmap

1.2 Assess Your Scale and Issues

What data are you using in your sea level rise projections?

Use the space to list the details of the flooding sources and data used in the foundational studies. Note if the studies identified in worksheet 1B used the same or different foundational data, and if the data reflects the most up-to-date science.

1.2.3 Our work is based on the following scientific data:

Sea Level Rise Projections

Storm Surge

Fluvial/Riverine Flooding

Shallow Groundwater Rise

Shoreline Erosion

Subsidence

Other, specify:

1.2.3 Across our work, our data is...

*Definitely
consistent and
up-to-date*

*Likely
consistent and
up-to-date*

*Likely not
consistent or
up-to-date*

No idea

1.2.3 Do we need to review the state of the science...

What scale(s) are you considering working at?

Check the boxes and use the space to list articulate your approach to scale. Start with thinking about the biggest scale your work is likely to address, as well as the smallest. Tip: You will often have multiple scales and articulating them will be helpful.

1.2.4 Our scale includes...

County-wide

City-wide

Neighborhood

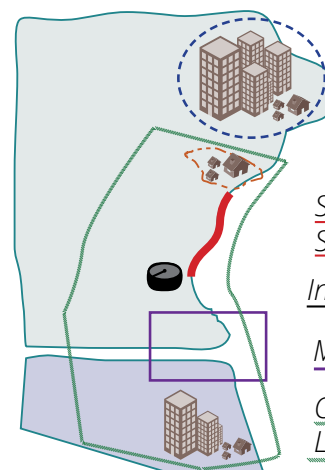
Specific Shoreline

Individual Asset

Cross-jurisdictional

Other, specify:

Unsure



County-wide

City-wide

Neighborhood

*Specific Shoreline/
Shoreline Reach*

Individual Asset

Multi-jurisdictional

*Operational
Landscape Units*



See Adaptation
Roadmap
guidance on
pages 37-40.

Adaptation Roadmap

Worksheet 1D: Build Your Roadmap

1.3 Assess Your Capacity and Resources

What people or expertise do you likely already have or need?

Based on your answers and responses to all the sections in the previous worksheets 1A-1C (i.e. motivations, foundational studies, connected issues, and scale), consider people you know that are either in support of this work, and people (or areas of expertise) that would likely be needed to contribute time, expertise, and resources. Consider existing capacity and future needs.

1.3.1: Is there government capacity...

Yes, government staff available and ready to participate

Mostly, but still need resources, training, or something else

No, or not sure

1.3.2: Is there community capacity...

Yes, community groups available and ready to participate meaningfully

Some capacity, but still need resources, training, or something else

No, or not sure

1.3.3: Is there stakeholder capacity and/or support...

Yes, there is broad support for this effort to go forward

Some support, but additional local support is likely needed

No, or not sure

People or expertise we likely have...

Name, Title	Area of Expertise	Organization/Department	Contact Information

Click here if you need more space, and list additional names in supplemental page 1.

People or expertise we likely need...

Name, Title	Area of Expertise	Organization/Department	Contact Information

Click here if you need more space, and list additional names in supplemental page 2.



See Adaptation
Roadmap
guidance on
pages 37-40.

Adaptation Roadmap

Worksheet 1E: Build Your Roadmap

1.3 Assess Your Capacity and Resources

What funding sources are you considering for this work?

Check the boxes and use the space to list the name(s) and date(s) of funding or financing sources you have or need. Use the space to articulate the details of these sources, as well as what the funding includes (e.g. planning, outreach, consultant support, implementation, etc.).

1.3.4: Funding options we already have...

Grant

Local Bonds

Property Taxes

Fees

General Fund

Other, specify:

Unsure

1.3.4: Funding options we are seeking or need...

Grant

Local Bonds

Property Taxes

Fees

General Fund

Other, specify:

Unsure

**Extra space for
additional notes
on any sections
if needed.**

Adaptation Roadmap

Worksheet 1F:

Build Your Roadmap

Strengths and Opportunities

You aren't starting from scratch. You have a lot of opportunities! This page has gathered your responses so that you can see all of your strengths in front of you.

Our Adaptation Roadmap Outcomes:

From the perspective of

.

Planning

Education/Awareness

Capacity Building

Project

Learn about Adaptation

Unsure

Key Motivations

Existing Studies

Connected Issues

Science Used

Scale

County-wide scale

City-wide scale

Neighborhood
scale

Specific Shoreline
scale

Individual
Asset scale

Cross-jurisdictional
scale

Unsure

Supporting Partners

Name, Title

Area of Expertise

Funding Opportunities

Additional Contacts in Supplemental pages

Adaptation Roadmap

Worksheet 1G:

Build Your Roadmap

Challenges to Address

Challenges and barriers can often be re-framed. This page has gathered your responses so you can evaluate how to use the Adaptation Roadmap to build resilience.

Key Concerns or Barriers Listed

Re-Frame Concerns as Opportunities

Plans/Data to Integrate

Issues to Connect To

We need to

review the state of
the science.

If necessary, next steps include...

Funding Needs

People and/or Areas of Expertise Needed

Name, Title	Area of Expertise

Building these
relationships will likely
require...

Additional Contacts in Supplemental pages

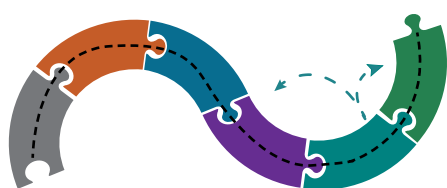
Adaptation Roadmap

Worksheet 1H:

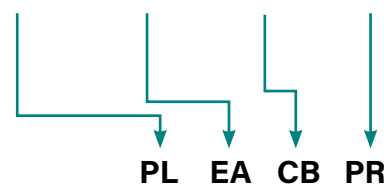
Build Your Roadmap

Now that you've gathered your strengths, opportunities, and challenges to address, review the questions below in worksheets 1G-1H to explore what sections of the Adaptation Roadmap may be most useful for your effort. While we provide some recommendations on the right, every place will face different challenges, so use this resource in whatever way you see fit. Worksheet 1I will then provide a list of sections for you to review.

*We suggest reviewing all the questions below. However, based on the outcomes *you* identified earlier, we recommend specific sections to review that may be especially applicable for that particular outcome. If you selected Learn or are Unsure, review all the questions and check the boxes that reflect what you're looking to learn about.



Education/
Planning (PL*) Awareness (EA*) Capacity
Building (CB*) Project (PR*)



Are you looking for guidance on...

	PL	EA	CB	PR
Why is sea level rise adaptation so challenging and how it can also be an opportunity ? See the Introduction: i. Laying the Landscape of Adaptation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Why should adaptation be collaborative, equitable, integrative, and flexible ? See the Introduction: ii. Embedding Four Foundational Pillars into the Adaptation Roadmap.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Who should be managing the effort ? See 2.1 Manage the Process. Guidance on Building Your Core Team, Key Partnerships, Role of Consultants, and Roles and Responsibilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Who should be involved ? See 2.2 Input into the Process. Guidance on Stakeholder Groups to Consider, Audiences to Involve and Why, Identifying and Mapping Populations, and Assessing Relationships for Participation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How should participation and decision-making be structured? See 2.3 Participation and Decision Making. Guidance on Participatory Engagement, Types of Participation Structures, Decision-Making Process, and Types of Networks and Agreements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How can you share key messaging and communications ? See 2.4 Effective Communications Techniques. Guidance on Communications Approach, Connecting to Values, Making it Relatable, and Framing the Message and Delivery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What plans and processes can be aligned ? See 3.1 Align Local and Regional Plans and Processes. Guidance on reviewing your Vulnerability Assessment, Local Plan Alignment, and Regional or Neighboring Alignment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How to engage in conversations about local concerns and values with communities? See 3.2 Integrate Community Values. Guidance on Building Upon Community Initiatives, Connecting to Local Knowledge, and Creating Shared Stories of Place.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How to explore nature-based opportunities and physical condition considerations ? See 3.3 Incorporate Environmental and Physical Characteristics. Guidance on Nature-Based Opportunities, Projects and Infrastructure, and Shoreline Planning Units.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Adaptation Roadmap

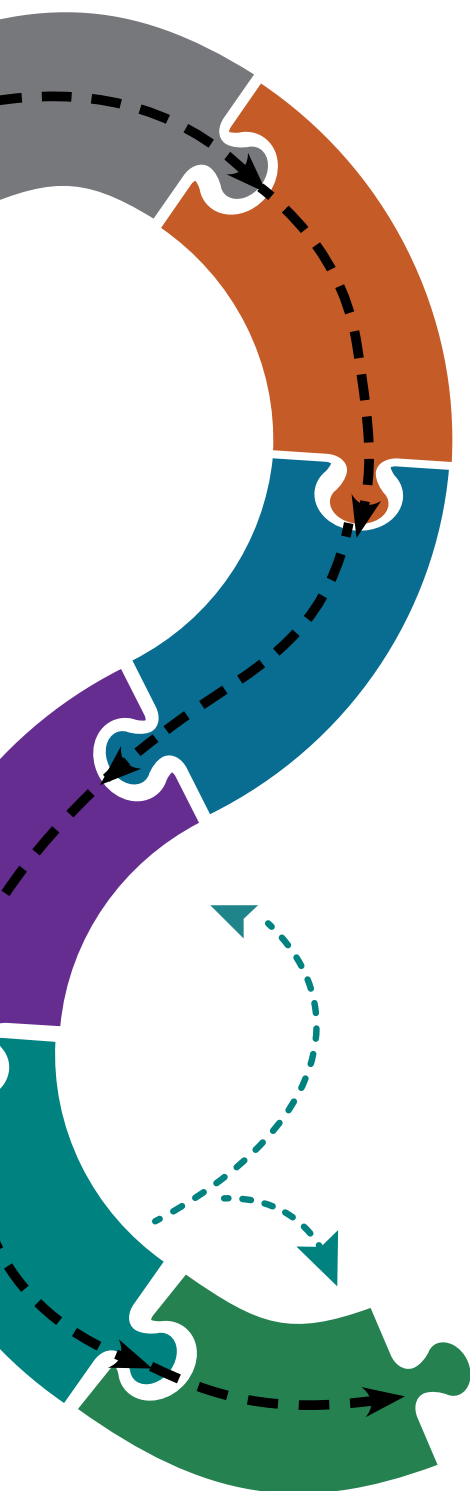
Worksheet 1I: Build Your Roadmap

*We suggest reviewing all the questions below. However, based on the outcomes *you* identified earlier, we recommend specific sections to review that may be especially applicable for that particular outcome. If you selected Learn or are Unsure, review all the questions and check the boxes that reflect what you're looking to learn about.

	↓ PL	↓ EA	↓ CB	↓ PR
How to talk about adaptation pathways ? See 3.4 Frame Discussion for Uncertain Futures Using Adaptation Pathways. <i>Guidance on Conceptual Framing of Adaptation Pathways, Thresholds, Triggers, and Creating Planning Horizons.</i>		■	■	
How to discuss risk and determine key problems to respond to ? See 4.1 Define the Problem. <i>Guidance on Risk Tolerance and Perception, Current Decision Context, and Shared Problems to Respond To.</i>		■	■	
How to create the vision and guiding principles ? See 4.2 Determine What Success Means. <i>Guidance on creating a Vision, Guiding Principles, and Evaluation Criteria.</i>	■			■
How to create future scenarios with communities and stakeholders ? See 4.3 Explore Future Scenarios. <i>Guidance on using Scenarios as a Pathways Tool, Strategic Approaches, Scenario Planning Parameters, and Conducting and Summarizing Scenarios.</i>	■			■
How to talk about and advance potential adaptation outcomes ? See 4.4 Outcomes and Expectations. <i>Guidance on Raising Difficult Topics, Future Decision Context, and Advancing Scenarios.</i>	■	■	■	■
Where to start in terms of exploring adaptation actions and strategies ? See 5.1 Explore Actions to Meet Envisioned Futures. <i>Guidance on Actions and Strategies, Adaptation Action Types, and using the ART Adaptation Catalog.</i>	■	■	■	■
How to bundle actions to create cohesive strategies? See 5.2 Bundled Strategies That Work Together. <i>Guidance on Starting with the End in Mind, Linking Plans and Programs, Connecting to People, and Paying for Adaptation.</i>	■			■
How to build adaptation pathways that incorporate change over time ? See 5.3 Phasing and Sequencing Strategies Over Time. <i>Guidance on Action Lifespan and Time Horizons, Sequencing and Lead Times, Applying Triggers and Decision Points, and Visualizing Adaptation Pathways.</i>	■			■
How to evaluate strategies and make decisions ? See 5.4 Evaluation Tradeoffs and Making Decisions. <i>Guidance on Sharing Results and Applying Evaluation Criteria, Additional Evaluation Approaches, and Making Decisions.</i>	■			■
How to advance adaptation through appropriate avenues ? See 6.1 Link Strategies to Outcomes. <i>Guidance on Creating (Or Connecting To) Plans, Connecting Processes and Projects, and Connecting People</i>	■			■
How to advance low-hanging, low-regret strategies for the short-term? See 6.2 Advance Near Term Strategies. <i>Guidance on developing an Implementation Work Plan, Order of Implementation, and Sustaining Momentum.</i>	■			■
How to track, adapt, and be prepared for change over time? See 6.3 Prepare for Change Over Time. <i>Guidance on Monitoring and Tracking, Reacting to Changes, and Love Letter to the Future.</i>	■			■

YOUR ADAPTATION ROADMAP

Worksheet 1J: Use Sections Below to Help You Reach Your Outcomes



i. Laying the Landscape of Adaptation Page 11

ii. Foundational Pillars of the Adaptation Roadmap Page 16

Chapter 2. Center People in Decision-Making

2.1 Managing the Adaptation Process Page 46

2.2 Input Into the Adaptation Process Page 52

2.3 Participation and Decision-Making Page 60

2.4 Effective Communications Techniques Page 69

Chapter 3. Set Local Context and Sense of Place

3.1 Align Local and Regional Plans and Processes Page 82

3.2 Integrate Community Values Page 91

3.3 Incorporate Environmental and Physical Characteristics Page 97

3.4 Frame Discussions for Uncertain Futures Using Adaptation Pathways Page 104

Chapter 4. Shape a Shared Vision of the Future

4.1 Define the Problem Page 118

4.2 Determine What Success Means Page 123

4.3 Explore Future Scenarios Page 130

4.4 Discuss Outcomes and Expectations Page 139

Chapter 5. Bring Together Shared Solutions

5.1 Explore Actions to Meet Envisioned Futures Page 150

5.2 Bundling Strategies Together Page 155

5.3 Phasing and Sequencing Strategies Over Time Page 164

5.4 Evaluating Tradeoffs and Making Decisions Page 175

Chapter 6. Pathways Approach to Implementation

6.1 Link Strategies to Actionable Outcomes Page 188

6.2 Advance Near-Term Strategies Page 192

6.3 Prepare for Changes Over Time Page 197

SUPPLEMENTAL PAGES

Workbook 1 and Outcomes

Extra space for additional notes as needed.

Adaptation Roadmap

Supplemental Page

People or expertise we likely have...

Name, Title	Area of Expertise	Organization/Department	Contact Information

People or expertise we likely need...

Name, Title	Area of Expertise	Organization/Department	Contact Information

Adaptation Roadmap

Supplemental Page

Extra space for additional notes as needed.

Duplicate this PDF page to take additional supplemental notes.

Workbook 1 is a complimentary resource to the **Adaptation Roadmap: A Practitioner's Guide to Plan and Implement a Collaborative, Equitable, Integrative, and Flexible Approach to Sea Level Rise Adaptation**. These resources were created by the Adapting to Rising Tides Program at the San Francisco Bay Conservation and Development Commission. March 2022.

This workbook has been designed to meet Web Content Accessibility Guidelines (WCAG) Level AA Requirements to the extent feasible. We acknowledge parts of this document may still require additional assistance. Please contact us at BCDC at:

415-352-3600

Bay Area Metro Center (375 Beale St., Suite 510, San Francisco, CA 94105)

Accessibility@bcdc.ca.gov