Design Your Project Guide

ADAPTING TO RISING TIDES PROGRAM

Design Your Project is step-by-step guidance on how to conduct an adaptation planning project. It is part of the Adapting to Rising Tides (ART) Portfolio website How-To section.

What is ART?

The ART Program is a San Francisco Bay Conservation and Development Commission (BCDC) initiative that provides collaborative staff support and expertise, as well as tools, information and data to Bay Area agencies and organizations who are doing adaptation planning for sea level rise and storm impacts. Members of the ART Program staff have been successfully leading adaptation planning efforts and providing this type of support since 2010.

What is the ART Portfolio?

The ART Portfolio is a website for accessing ART resources. The planning guidance, tools, data and information in the ART Portfolio have been developed and refined by ART Program staff based on their extensive experience and lessons learned in adaptation planning through leading and supporting numerous projects. The ART Portfolio consists of:

Findings: ART Program outcomes summarized by sectors and adaptation planning issues

Projects: Latest information about current and past projects of the ART Program

How-To: Background information about the ART approach to adaptation planning, the Design Your Project step-by-step guidance, and "supplies" for leading your own project

Help Desk: Support that connects users to knowledgeable ART Program staff who can assist them with understanding and using Portfolio content, and connect them with other relevant expertise and information

What is the ART approach to adaptation planning?

The ART approach is a road-tested, outcome-oriented adaptation planning process. While the process was built on a traditional planning framework – from scoping to implementation – ART has developed, tested and refined the planning steps with the specific challenges of adapting to sea level rise and storms in mind.

The ART approach emphasizes three factors for success: robust collaboration, transparent decision-making, and integrating sustainability from start to finish

Contents of the ART Portfolio: How-To

The ART Approach

An overview of the ART Program's approach to adaptation planning, including links to a handout and white paper with additional information about the ART approach.

Design Your Project

Detailed instructions for recreating the ART approach for your adaptation planning project. Design Your Project is organized into 8 steps:

1. Scope & Organize the Project
2. Choose an Approach
3. Do the Assessment
4. Summarize Findings
5. Identify Issues
6. Develop Adaptation Responses
7. Evaluate Adaptation Responses
8. Advance Implementation Options

ART Supplies

Guides and tools developed by the ART Program to help you carry out the Design Your Project steps. The numbers in parentheses note the Design Your Project step(s) where each supply is referenced.

Good Planning Guides:

Stakeholder Engagement (1)

Transparent Decision-Making (1, 5)

How-to-Guides:

Communicating About Climate Impacts (1)

The ART Assessment Questions (2, 3)

Selecting Climate Scenarios (2)

Exposure Analysis (3)

Vulnerability & Consequence Statements (4)

Profile Sheets (4)

Issue Statements (5)

Key Planning Issues (5)

Developing Adaptation Responses (6)

Developing Evaluation Criteria (7)

Example Process Agendas:

Kick-Off Meeting (1)

Shifting from Assessment to Adaptation (5)

Developing Adaptation Responses (6)

Evaluating Responses (7)

Engagement Exercises:

Functions & Values Mapping (1)

Field Trip! (3)

Understanding Vulnerability (4)

Adaptation Response Open House (6)

Adaptation in Action (6)

Exploring Implementation Options (8)

Findings Information: Findings information and reports from past ART projects that are specifically referenced in the Design Your Project steps are also included in ART Supplies.

Design Your Project

The ART Portfolio: Design Your Project provides detailed guidance and supporting materials for using the ART approach to adaptation planning. Design Your Project is broken into eight steps.

1. Scope & Organize	2. Choose an Approach	3. Do the Assessment	4. Summarize Findings
Define what to address in the project. Convene stakeholders. Set project goals.	Plan out the assessment methods. Select climate scenarios.	Conduct the vulnerability assessment and climate impacts exposure analysis.	Synthesize assessment findings on asset profile sheets, and share with the working group.

5. Identify Issues	6. Develop Responses	7. Evaluate Responses	8. Advance Options
Summarize asset-specific issues & identify key planning issues. Refine project resilience goals.	Develop adaptation responses for key planning issues and agency-specific vulnerabilities.	Evaluate adaptation responses for key planning issues against resilience goals.	Share outcomes. Explore options & develop recommendations for taking action.

Each step in Design Your Project begins with a brief statement of what takes place during the step. Appropriate roles and tasks for your project working group and you – as the project lead or team – are specifically laid out. Integrated into roles and tasks are references to supporting ART guides, tools and information. These resources* include:

Good Planning Guides provide a foundation for designing a project that utilizes robust stakeholder engagement and transparent decision-making.

Example Process Agendas for working group meetings at certain points in the planning process.

Engagement Exercises describe how to conduct a hands-on exercise with your project working group to engage them in project tasks and decision-making.

How-to-Guides provide instructions and tools used by the project team.

Findings information and reports from past ART projects that are useful reference points or sources of data and information.

There are many resources, guides and tools for adaptation and resilience planning, and not one of them, including the ART approach, will be a perfect fit. Each adaptation planning project will have its unique context, considerations, and constraints.

Be adaptive in your adaptation planning: take what is useful and make it your own.

* These are available to download from the relevant Design Your Project step webpages in the ART Portfolio.

How do the Design Your Project steps fit into the ART planning process?

The ART planning process is broken up into five parts that broadly describe the stages of a planning project:

- SCOPE & ORGANIZE
- ASSESS
- DEFINE
- PLAN
- IMPLEMENT

In putting this process into practice in a variety of projects with diverse stakeholder working groups, the ART Program has found that these five stages should be broken down into smaller, more feasible steps that involve intermediate milestones and work products for the project team and working group.

For this reason, the Design Your Project guidance has eight steps – some of which span two different steps. For example Step 5. Identify Issues wraps up the Define stage of the ART planning process and moves the project into the Plan stage. The figure below shows where each of the Design Your Project steps fit into the ART Program's planning process.

1. Scope & Organize the Project

Convene and engage your stakeholder working group in defining what will be addressed in the project, and developing project resilience goals.

In a nutshell

- The project team convenes a stakeholder working group and holds a project kick-off meeting
- The project team and working group agree on a project area, a list of assets to be addressed, a climate impacts statement and resilience goals to guide the project
- Expected project outcomes, communications practices and participant roles and responsibilities are established to ensure transparency and build trust
- Additional stakeholders are identified and invited to join the working group to ensure representation of diverse perspectives and expertise relevant to the project

What role does the working group have in this step?

- Help determine the scope and scale of the project to ensure it will meet individual and collective needs.
- Join subcommittees as appropriate.
- Develop and confirm project resilience goals.
- Serve as representatives and liaisons between the project team and their agencies, organizations or communities.

Defining the Project Area

Within project constraints (e.g., jurisdiction, timing or resource restrictions) select a project area that is broad enough to include assets, infrastructure, neighborhoods and services that:

- reflect the management responsibilities, goals, and values of the agencies, organizations and communities in the area; and
- enable you to assess a range of consequences on society and equity, economy and environment.

Refer to the **Good Planning Guide: Transparent Decision-Making** ( ) for guidance on identifying reasonably foreseeable consequences.

What does the project team or lead do in this step?

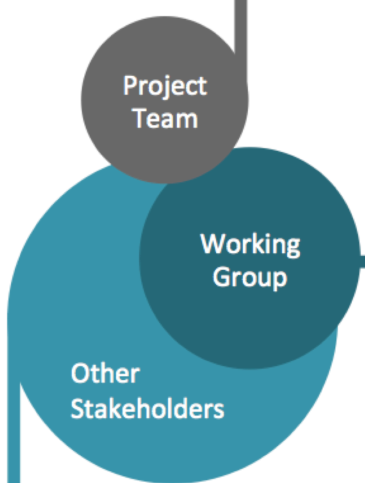
Get prepared

1. Conduct research on similar planning studies or processes, and review findings about vulnerability that may be relevant. Refer to the **ART Portfolio: Findings** and **Projects** pages for information from the ART Subregional Project in Alameda County and other ART Program planning efforts.
2. Determine the project area to be proposed to the working group.
3. Draft project goals, objectives and expected outcomes.

4. Develop drafts of:
    - An assets list, by sector, category, or specific name.
    - Climate impact statements. **How-to Guide: Communicating About Climate Impacts** ()
    - Working group member list including name, affiliation and contact information. Refer to the **Good Planning Guide: Stakeholder Engagement** () for guidance on identifying stakeholders.
    - A description of working group member roles and responsibilities. See figure.
    - A set of communications practices for the project team and the working group; the project team and those outside of the project; and working group members and those outside of the project. Refer to the **Good Planning Guide: Stakeholder Engagement** () for guidance on developing good communications practices for the project.
5. Create and print a large format copy map of the project area.

PROJECT ROLES AND RESPONSIBILITIES IN THE ART APPROACH

The team that leads and manages the project, engages the stakeholder working group, and completes work products including the assessment and development of adaptation responses for the project.



Stakeholders from public, non-profit and private sectors, community members and issue experts representing the relevant expertise, local knowledge, regulatory oversight and asset management for the project area and assets.

Working group stakeholders actively participate in the project, attend project meetings, and work with the project team to provide data and information, local knowledge and best professional judgment for the assets, communities and services that they manage and represent in the project area.

The working group also coordinates and communicates about the project with their stakeholders – both internal and external to their organizations – to bring additional expertise, perspectives and concerns to the project.

A wide range of organizations and individuals that have interests and perspectives that are related to the project scope, follow the progress of the project, provide feedback on draft materials, and comment on project components and outcome, but are not responsible for providing data and information. These stakeholders are not participating actively in the project.

Engage the working group

1. Hold a project kick off meeting. **Example Agenda: Kick-Off Meeting** ( )
   - Introduce the project team.
   - Introduce the planning process.
   - Identify studies or processes and related ongoing projects that provide relevant data, information or outcomes that will be used.
   - Discuss roles, responsibilities and time commitments for the working group members, as well as the different roles for the public, decision-makers, and others. Consider if there is a need for subcommittees (e.g., communications or technical), to provide additional support, feedback and guidance to the project team.
   - Present, obtain input, and confirm
     - Project goals, objectives and expected outcomes.
     - Project area.
     - Assets list, by sector, category, or specific name.
     - Climate impact statements.
     - Working group members, e.g., are there important perspectives missing?
     - Project communication practices.
   - Develop project resilience goals
     - Present the need for and purpose of resilience goals and explain how they will be used to guide the project. Refer to the **Good Planning Guide: Transparent Decision-Making** ( ) for an explanation of the role of project resilience goals.
     - Solicit input from the working group on what should be included in the resilience goals by conducting **Engagement Exercise: Functions & Values Mapping** ( )

A Good Start

The first project meeting provides an important opportunity for the project team and working group to discuss and agree on what the project will entail. This helps set expectations about likely project outcomes; ensure transparency; and support clear communication about the project to others.

Keep in mind that inclusion of issues important to the working group may need to be balanced with available resources and data. Solutions to challenges such as lack of funding or participation may need to be sought (e.g. leveraging other partnerships or findings from previous projects).

Resilience reflects the ability of a community to "bounce back" after hazardous events, such as coastal storms and flooding, rather than simply reacting to impacts. In the ART approach, resilience is an overarching goal for adaptation planning outcomes.

Incorporate input

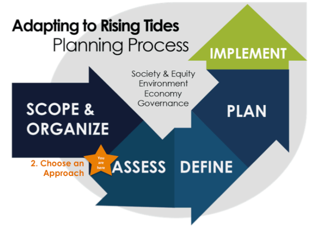
1. Contact and invite additional stakeholders to join the working group if necessary.
2. Finalize project area boundary.
3. Finalize assets list, which may require contacting individual working group members.
4. Finalize the climate impact statements and the communications practices – meet with communications subcommittee if one has been set up to get additional input and feedback on these work products.
5. Finalize project resilience goals:
    - Use input from functions and values mapping exercise to draft resilience goals
    - Share draft resilience goals with working group for their review and input at the next meeting (or via email in between meetings)
    - Incorporate refinements, revisions, addition or deletions to finalize project resilience goals

The Working Group's Stakeholders: Part I

Working group members have their own stakeholders, many of whom will be very interested progress and outcomes of the project. The project team should support working group members in effectively communicating about the project to their own stakeholders by providing them with materials that clearly frame the project goals, objectives and expected outcomes. Examples of these include:

- Clear project description (A project "Elevator Speech")
- An overview slideshow or video about the project to share
- Nice handouts in easy-to-share formats
- Graphics and/or slides to add to their presentations

The project team and working group may also feel obligated to initiate a broader public outreach about the project. Based on extensive experience, the ART Program recommends postponing broad public communications efforts until after the Assess and Define steps have been completed. This type of effort can overburden the project team during the assessment by generating strong public interest in the project at a time when the project team and working group are struggling to understand complex issues and may not be prepared to communicate these to effectively to other audiences.



2. Choose an Approach

Save time and resources by thinking through how best to approach the assessment based on your project scope, scale and resilience goals.

In a nutshell

- An approach for conducting the assessment of asset vulnerabilities and consequences, including analyzing asset exposure to the climate impacts, is developed by the project team and confirmed by the working group
- Climate scenarios to be used in the analysis of asset exposure are selected
- The project team reviews available climate impact data and information

What role does the working group have in this step?

- Provide subject area expertise to determine how best to approach the assessment, including the selection of climate scenarios to be used in the exposure analysis.
- Inform the project team of the quality and availability of assessment information and data for different types of assets.
- Help ensure the assessment will result in actionable outcomes that resonate with the agency, organization, or community they represent.

What does the project team or lead do in this step?

Get prepared

1. Review the ART assessment questions and guidance to learn about the types of information that will be needed to understand existing conditions, vulnerabilities and consequences. **How-to Guide: The ART Assessment Questions** ( ) and **ART Assessment Questions Supplement.xls**

2. For each type of asset addressed in the project, determine the appropriate scale, or level of detail, for the assessment. The **ART Scope & Scale Issue Paper** ( ) describes how these factors affect project outcomes, and provides helpful background for making decisions about the assessment scale for different types of assets.

3. Develop an approach for answering the assessment questions that includes how preliminary information will be gathered, e.g., research of readily available information, and how to solicit input from working group members and others that respects their time and makes good use of their expertise and experience

4. Conduct research on best available maps, models, or analyses that can be used to evaluate the exposure of assets in the project area to the climate impacts. **How-to Guide: Exposure Analysis** ( )

5. Select climate scenarios. **How-to Guide: Selecting Climate Scenarios** ( )

6. Meet with appropriate working group or subcommittee members, as needed, to:
    - Discuss the selected climate scenarios and adjust or modify them as necessary
    - Evaluate the maps and models that can inform the analysis of climate impact exposure
    - Seek a volunteer to present at the next working group meeting. S/he will need to remind the working group of the climate impacts, introduce the proposed scenarios, and explain how they will be use in the analysis of asset exposure.
7. Develop a non-technical summary of the proposed climate scenarios that describes the basis for scenario selection and use.

Beware of "Scope Creep"!

A common problem that the ART Program has at this stage in projects is "scope creep." In discussing the assessment approach with the stakeholder working group, the project team will inevitably get requests to gather more data and information for more detailed assessments.

This presents a challenge for staff to balance resource and staffing constraints with a variety of needs. For example suggested additional data collection may be value-added to understanding key planning issues (in future project steps). And, conducting further assessment may help maintain engagement of stakeholders whose involvement is critical to the project and future implementation of responses. The project team will have to gauge the situation and decide how to handle these suggestions on a case by case basis.

In general, a good approach at a working group meeting is to:

- Listen and note these suggestions. Ask clarifying questions that will help the project team and working group understand how these additional assessment requests would or would not be value-added.
- Be prepared to respond with a plan (and time frame) for reviewing and making decisions about changes to the assessment approach.
- Avoid committing to additional data collection and analysis at the meeting.
- After the meeting, follow up with the individual working group members who expressed interest in expanding the assessment to learn more and discuss options, both within and outside of the scope of the project, to achieve these objectives.

Engage the working group

1. Hold a meeting to introduce the assessment.
    - Describe the assessment process, including how the assessment questions will be answered and how the outcomes will be summarized.
    - Introduce the proposed climate scenarios and explain how they will be use in the analysis of asset exposure (project team, or working group member, if possible)
    - Obtain the group's input on how best to confirm with them the answers to the assessment questions and findings of the exposure analysis
    - Review the asset list and discuss whether there are adequate resources and available information to evaluate assets as laid out in the assessment approach. If not, document decisions about how to address these challenges (e.g., to seek additional funding), or if it is necessary and more efficient scale back the workload by assessing representative assets. For example, if the project area is an entire county, is it necessary to assess each wastewater pump station or is it adequate to assess one or two representative pump stations, and list the total number of pump stations?

Incorporate input

1. Finalize climate scenarios and the summary statement
2. Finalize the approach to gathering and confirming answers to the assessment questions and identify project team members who are responsible for gathering the data and information and the working group member, asset manager or owner, those with local knowledge or expertise, or those with topic expertise that are the best point of contact for different types of information
3. Determine how the assessment data and information will be cataloged, e.g., database, spreadsheet or word documents
4. Develop a schedule for collecting and summarizing assessment information and share this schedule with the working group, acknowledging there will likely not be a working group meeting during this phase of the project but to expect one-on-one meetings or interviews with smaller groups or individuals

3. Do the Assessment

Lead an efficient yet thorough evaluation of vulnerability and consequences of climate impacts for your project area assets, and determine their potential exposure to climate impacts.

In a nutshell

- Project team compiles draft answers – data and information – for assessment questions
- Working group and other topic experts review draft answers, provide more information
- Information gaps are identified
- An analysis of asset exposure to the selected climate impacts is completed

What role does the working group have in this step?

- Identify and provide data, information, and best professional judgment to help answer assessment questions.
- Assist in asking colleagues, co-workers and other experts to provide data and information.
- Ground-truth asset exposure findings based on local knowledge.
- Host a working group field visit.

What does the project team or lead do in this step?

Get prepared

1. Gather preliminary answers to the assessment questions before asking the working group for their review and input. **How-to Guide: The ART Assessment Questions** ( ) and **ART Assessment Questions Supplement.xls**
    - Develop and maintain a list of resources, e.g., data and information sources, used to both gather preliminary assessment answers, and to review and revise the assessment answers.
2. Conduct an analysis of the selected climate impacts to identify which assets may be exposed and develop draft findings to share with technical subcommittee or entire the working group. **How-to Guide: Exposure Analysis** ( )

Engage the working group

1. Communicate with working group members and others as necessary, individually or in small groups, to confirm the accuracy of information that has been gathered, and to close information gaps.
    - Provide the working group, asset manager or owner, those with local knowledge or expertise, or those with topic expertise with the preliminary assessment answers developed by the project team for the asset(s) that they are most familiar with or most interested in and request review, revision, and the input of additional data and information.
    - Schedule and hold interviews, small meetings, or phone calls to discuss assessment answers and to identify how to fill data gaps or information needs.

- Schedule short follow-up interviews to review preliminary findings and outcomes of the assessment.
- Present the exposure analyses to the technical subcommittee or working group members and ask them to ground-truth the findings based on local knowledge and experience during past storms or extreme high tides. (This review may need to be done with a small group of technical advisors). Flag trouble spots or areas where the analysis does not agree with local knowledge or experience for further consideration.

2. Schedule one or more field visits to help the project team and the working group more fully understand the relationships between the assets, vulnerabilities, consequences, and opportunities for adaptation. **Engagement Exercise: Field Trip** ( )

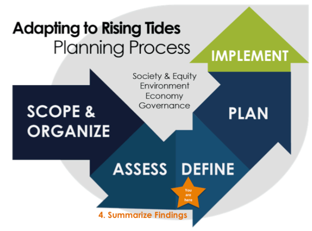
Incorporate input

1. Finalize the answers to the assessment questions based on information and input from the working group member, asset manager or owner, those with local knowledge or expertise, or those with topic expertise.
2. Catalogue trouble spots flagged in the exposure analysis review and note if the project team and working group determined that further studies, field verification, re-mapping or analysis is needed.
3. Update the list of resources, e.g., data and information sources, based on input.

Field Trip!

The opportunities from a field trip include:

- Visit key locations and assets in the project area, focusing on assets that are less understood or where assessment information has been hard to gather.
- Better understand the potential for co-located and interdependent vulnerabilities, by focusing on the locations where assets such as transportation and utility infrastructure are concentrated and connected.
- Discuss physical and organizational relationships among assets.
- Ground-truth exposure findings and other assessment information.



4. Summarize Findings

Summarize answers to the assessment questions as clear, outcome-oriented vulnerability and consequence statements.

In a nutshell

- Assessment findings are summarized by the project team into vulnerability and consequence statements for the individual assets, sectors and services addressed in the project
- The project team prepares profile sheets that efficiently communicate these outcomes for the working group and other stakeholders.
- The working group reviews and provides input on summarized outcomes and profile sheets.

What role does the working group have in this step?

- Verify the understanding of vulnerability and consequences based on local knowledge, experience and expertise.
- Help identify unique and shared vulnerabilities, dependencies and relationships among assets that could affect vulnerability.
- Review and revise summary profile sheets for use in communicating the assessment outcomes both within and outside of the working group, e.g., to broader audiences.

What does the project team or lead do in this step?

Get prepared

1. Review answers to the assessment questions and write statements that describe the vulnerabilities and consequences organized by the types often observed (ART classifications). These include: information, governance, functional and physical challenges, and effects on the economy, the environment and people where they live, work, or recreate. **How-to Guide: Vulnerability and Consequence Statements** ()
2. Use the vulnerabilities and consequence statements to create draft profile sheets for the assets, sectors and services evaluated. **How-to Guide: Profile Sheets** ()
3. Review vulnerability statements and determine which assets, sectors or services have similar characteristics, conditions or challenges, which have particular or unique, issues, and which are vulnerable because they are reliant or dependent on other vulnerable assets.

Engage the working group

1. Hold a meeting to present and obtain input on the assessment outcomes:
    - Discuss observations and outcomes from the field visits (if conducted).
    - Present vulnerabilities and consequences identified, and the findings of the exposure analysis, for all or a select number of assets (depending on the scope and scale of the project).

- Provide draft profile sheets to working group for review and feedback.
- Conduct **Engagement Exercise: Understanding Vulnerability** () to obtain input on shared and unique vulnerabilities, and confirm physical and organizational dependencies and relationships among assets, sectors and services.

Incorporate input

1. Revise vulnerability and consequences statements to reflect working group input and comments on the draft asset profile sheets.
2. Refine and finalize the climate impacts analysis based on local review and input, and if necessary, plan and conduct additional analyses (potentially including field verification of local conditions)

Findings that lead to actions

Emerging from this step, the project team and working group will have a solid understanding of the vulnerabilities and consequences for individual assets, the project area or subareas, and particular sectors and services evaluated.

The project team makes these findings meaningful and useful for the working group by summarizing them according to ART's classifications that identify actionable characteristics, such as an information vulnerability caused by gaps in or lack of publicly available data, or a physical vulnerability due to below-grade electrical infrastructure that is water and salt-sensitive.

5. Identify Issues

Use the assessment findings to summarize asset-specific issues and identify key planning issues, and revisit the project resilience goals to ensure that they are still relevant in light of the planning issues.

In a nutshell

- The project team reviews the asset profile sheet and summarizes the existing conditions, vulnerability and consequences information into issue statements for each asset
- The project team also identifies and develops key planning issues for the project
- Together, the project team and working group review and revise the key planning issues, and revisit the project resilience goals to ensure that they are relevant in light of the assessment findings

A Challenging Task

The process of summarizing asset-specific issues and then determining key planning issues can feel overwhelming. However it is worth the effort as it will help the project team and the working group sort issues into those that should be considered by the entire group in the next step in the project – 6. Developing Adaptation Responses – versus those that are appropriately addressed within or by a specific agency or organization.

The ART **How-to-Guides: Issue Statements** ( ) and **Key Planning Issues** ( ) help the project team prepare for sharing and working on key planning issues with the working group.

What role does the working group have in this step?

- Review the vulnerability and consequence findings and issue statements on the updated asset profile sheets.
- Provide input on the decision framework used to identify key planning issues, and the issues themselves.
- Review project resilience goals and ensure they align with the planning issues and continue to reflect their agency, organization, or community values and visions.

What does the project team or lead do in this step?

Get prepared

1. For each profile sheet, review the vulnerabilities and summarize them into an issue statement (that is added to the profile sheet). **How-to-Guide: Issue Statements** ( ) Note that this can be a time-consuming task depending on the number of asset profile sheets!
2. Through the process of drafting issue statements, identify vulnerabilities and issues that could be part of bigger, key planning issues. Using a well-documented process, develop a draft set of key planning issues for the project. **How-to-Guide: Key Planning Issues** ( )

3. Review project resilience goals, and based on the assessment outcomes, revise if necessary. For example, if the original resilience goal was to protect local businesses (economy), but the assessment found that residential housing was at greater risk (society and equity), the goal could be reframed to focus on protecting people where the live as well as where they work.

4. Review examples of adaptation responses to develop and understanding of how they will be organized, the types of information to be included, and the level of specificity. **ART Subregional Adaptation Responses** ( )

Engage the working group

1. In advance of meeting with the working group, re-share the profile sheets with the relevant asset managers. Each profile sheet should include: the revised vulnerability and consequence statements based on the working group's input; as well as the newly drafted issue statement. Respond promptly to questions or concerns about the revised profile sheets.

2. Hold a meeting to transition from the assessment into developing adaptation responses. **Example Agenda: Shifting from Assessment to Adaptation** ( )

    - Introduce the Plan step components and expected outcomes, explaining how the assessment is the foundation for developing an appropriate response.
    - Share the draft framework used to flag vulnerabilities and issues that contribute to or should be elevated to key planning issues for the project team; the themes that emerged from sorting and organizing them; and the draft key planning issue statements and underlying vulnerabilities and issues.
        - Regardless of how these are introduced, the project team should allow plenty of opportunities for Q&A and time for discussion (e.g., facilitated large or small group discussions; or one-on-one conversations during an "open house" engagement exercise)
    - Review project resilience goals and discuss if they need to be refined based on the outcome of the assessment.
    - Present and discuss the organization of the adaptation responses as well as the type and specificity of information to be included. Refer to the **Good Planning Guide: Transparent Decision-Making** ( ) and the **ART Subregional Adaptation Responses** ( ) for information about the adaptation response structure and content.

Incorporate input

1. Finalize the key planning issues; and revisit assessment findings to make sure no important issues were left behind, and share with working group.

2. Document the framework that the project team and working group ultimately follow to identify and develop the key planning issues that the project team and *working group* will take up together.

3. Revise the profile sheets as needed.

4. Finalize project resilience goals (if revised) based on working group input.

6. Develop Adaptation Responses

Develop adaptation responses for the key planning issues that lay a clear and transparent path towards implementation.

In a nutshell

- For each key planning issue, the project team and working group together develop possible adaptation responses that include a variety of actions and implementation options to address the underlying vulnerabilities
- For the asset-specific vulnerabilities on the asset profile sheets (i.e., those not captured in the key planning issues), the project team adds example adaptation responses (taken from existing resources). The working group provides input on these adaptation actions and implementation options.

What role does the working group have in this step?

- Review the asset profile sheets, and provide comments on the actions proposed and implementation options, (e.g., partners, processes, funding sources, time from initiation to benefit, etc) in the example adaptation responses.
- Work collaboratively with the project team and other working group members, to develop adaptation responses for the complex key planning issues

The Three Components of an ART Adaptation Response

1 The **vulnerability** or **key planning issue** being addressed by the adaptation response. Including this provides a direct link to the outcomes of the assessment.

2 **Adaptation actions** (one or more). While some vulnerabilities can be addressed by a single action, most require multiple, often coordinated actions. Some actions can be taken at the same time, while others require a series of sequential steps that incrementally build towards resilience.

3 **Implementation options** for each action. These provide alternatives for initiating adaptation actions such as incorporating them into existing planning or processes or creating new initiatives. The options also should identify agencies and organizations – public and private – that have a role in implementing the actions.

What does the project team or lead do in this step?

Get prepared

1. Develop adaptation responses for the asset-specific vulnerabilities on the profile sheets (i.e., those not captured in the key planning issues), and add these to the asset profile sheets. **How-to-Guide: Develop Adaptation Responses** ( )

2. Determine an approach for engaging the working group in developing adaptation responses to the key planning issues that will make the most efficient use of their time by engaging them on the issues relevant to them.

Engage the working group

1. Hold a meeting to present the adaptation responses and obtain working group feedback. **Example Agenda: Developing Adaptation Responses** () and the **Engagement Exercise: Adaptation Response Open House** ()
    - Introduce exercise purpose and the adaptation response format and questions to consider:
        - Do the actions make sense for the vulnerabilities that they are supposed to address?
        - Are the role assignments (for actors) correct? Working with right partners?
        - How do these actions fit into ongoing local and regional efforts?
    - Conduct the open house station rotations
    - Debrief with the entire group
    - If appropriate, lead small group discussions about next steps for adaptation – within participants' own organizations and/or in coordination with others – for moving forward on priority issues and actions.
2. Provide revised summary profile sheets to the working group
3. Carry out small-format meetings and site visits (as appropriate) with subsets of the working group members to explore individual key planning issues and develop potential responses to these. **How-to-Guide: Develop Adaptation Responses** ()

Helping the Working Group Respond to the Responses

The adaptation response approach is valuable because unlike a simple list of adaptation actions, responses include a substantial level of detail about roles and responsibilities, implementation options and timing and sequencing of actions needed to address the key planning issues. At the same time, this additional content can make it more challenging for working group members to understand and provide feedback on adaptation responses.

The **Engagement Exercise: Adaptation Response Open House** () provides a relatively rapid way for working group members to gain familiarity with the format and content of adaptation responses. This exercise is interactive yet self-paced in terms of how participants choose to move through the responses, and it allows project team members to document and clarify feedback, and explore questions or ideas in greater depth with one or a couple of participants at a time.

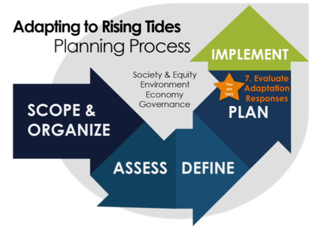
Incorporate input

1. Review feedback from the working group and revise the adaptation responses that go onto the profile sheets, and, if necessary, develop new adaptation responses.
2. Provide to the working group revised summary profile sheets.
3. Develop draft adaptation responses for the key planning issues based on the discussion(s) and input provided in the focused meetings and site visits. **How-to-Guide: Develop Adaptation Responses** ( )

The Working Group's Stakeholders: Part II

This point in the planning process – once the key planning issues have been defined and adaptation responses are taking shape – can provide an opportunity for the project team and working group to touch base with other stakeholders to bring them up to speed and share outcomes. Depending on the audience(s) and circumstances, a range of approaches may be appropriate, such as: sharing and discussing profile sheets with colleagues; presenting outcomes (e.g., to a city council, board or association); leading interactive discussions and exercises to explore issues, adaptation actions and implementation options.

This last approach requires significant planning and preparation, but it can be an effective way to build capacity among decision-makers to understand and consider the relevance of the project outcomes for their policy and funding decisions. The Engagement Exercise: Adaptation in Action ( ) guide describes how to organize and lead an interactive workshop that helps participants to identify trade-offs among the adaptation actions and implementation options, and evaluate various possible outcomes against resilience goals.



7. Evaluate Adaptation Responses

Evaluate adaptation responses against project resilience goals and the four sustainability frames: society and equity, environment, economy and governance)

In a nutshell

- The project team develops a draft set of evaluation criteria to help the working group identify qualitative benefits and trade-offs of the adaptation responses, and ways to improve responses
- Evaluation criteria are tested and refined by the project team and working group
- All or a subset of the adaptation responses for asset-specific vulnerabilities are evaluated and refined, and the outcomes are shared with the working group
- With the help of the project team, the working group explores options for responding to larger planning issues, using the evaluation criteria to provide a transparent structure for the discussion.

What role does the stakeholder working group have in this step?

- Assist in testing and refining evaluation criteria, using the project resilience goals and the four sustainability frames as a guide.
- Provide input on how to revise and prioritize the list of adaptation responses based on the evaluation
- Discuss and explore tradeoffs of proposed adaptation responses for key planning issues

The Role of Evaluation Criteria

This process of testing and refining evaluation criteria builds the working group's understanding of the benefits and trade-offs of different adaptation responses. It allows them to explore how adaptation responses can be broadly beneficial and address more than one resilience goal or sustainability frame. It also sets the stage for transparent decision-making about which adaptation responses and individual actions are priority for implementation.

What does the project team or lead do in this step?

Get prepared

1. Develop draft evaluation criteria that will help the working group weigh benefits and trade-offs of each adaptation response against the project resilience goals and the four sustainability frames. How-to-Guide: Developing Evaluation Criteria ( )
2. Apply the draft criteria to a number of example adaptation responses to test out the approach and identify any hurdles or information gaps that will need to be overcome.

Engage the working group

1. Work individually with working group members to test and refine the criteria for evaluating adaptation responses for the assets that they manage or address in their work. Have them consider where

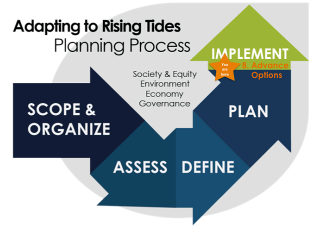
responses do not adequately address the goals or certain aspects of sustainability, and, if possible, refine responses to perform better. If necessary, refine the evaluation criteria based on these one-on-one conversations.

2. Hold a meeting to evaluate adaptation responses using selected criteria. **Example Agenda: Evaluating Responses** ( )

   - Present proposed evaluation criteria and the approach to applying them
   - As a group apply the evaluation criteria to a number of example adaptation responses and discuss how the criteria work and if they need to be adjusted.
   - Discuss and explore tradeoffs of adaptation responses for key planning issues using the evaluation criteria (with adjustments, as needed) to structure the conversation.

Incorporate input

1. Refine the adaptation responses based on working group evaluation criteria ratings and discussions.
2. Summarize outcomes of the evaluation and share with working group members.



8. Advance Implementation Options

Explore implementation options and develop recommendations for advancing high priority adaptation responses and further collaborations.

In a nutshell

- The project team summarizes and communicates project outcomes to support the working group in implementing adaptation responses and making the case for continued participation in collaborative adaptation planning
- Participants develop recommendations for advancing high priority adaptation responses that require shared, coordinated action
- Working group members launch new efforts and collaborations that will have a "life of their own"

What role does the working group have in this step?

- Determine how the project outcomes can be applied within their agency, organization or community.
- Provide input on the best way to gain support for action implementation, and maintain the continued participation in collaborative adaptation planning of their agency, organization or community.
- Identifying opportunities for assessing the feasibility of action implementation and further collaborative adaptation planning.

What does the project team or lead do in this step?

Get prepared

1. Identify actions that are ready for implementation and those that are ready but lack funding.
2. Identify actions that need further refinement or feasibility assessments, changes in governance or regulations, or the addition of new partners and participants.
3. Craft a set of recommendations for advancing and funding actions that are ready to be implemented.
4. Review actions that are not ready for implementation, and identify those that are most in need of immediate further collaboration.
5. Hold one-on-one discussions with working group members and stakeholders to hear their ideas on what next steps are needed.

Engage the working group

1. Hold a meeting(s) to present and obtain input on opportunities for implementation and further collaboration. Depending on the nature of the next steps – the high priority adaptation responses – the project team should determine whether it is productive for the entire working group to meet and collectively discuss these. Alternatively, the project team can meet with subsets of working group members to discuss implementation of responses that are specifically relevant to them.
Engagement Exercise: Exploring Implementation Options ( )

- Present recommendations for advancing and funding "ready to go" adaptation responses and actions.
- Discuss if there are next steps that project participants can take either individually or collectively to initiate ready to go actions, including getting buy-in from decision-makers, and what next steps need to be taken for those that need further consideration.
- Confirm next steps, discuss who will lead them, and determine a schedule and roadmap for their initiation

Incorporate input

1. Finalize and share with working group members recommendations for advancing and funding "ready to go" adaptation responses, and for initiating additional assessments, feasibility studies, new efforts, or further collaborations.
2. Follow up with those identified to lead any next steps to support them in the initiation of these efforts, including facilitating further collaborations, setting up meetings, connecting stakeholders directly, etc.

Next Steps

Below are examples of next steps that were identified and pursued as a result of various adaptation planning efforts that the ART Program has led or supported:

- Integrate actions into updates of local general, capital and specific plans.
- Develop partnerships with federal, state, regional and local governments and organizations to better define and advance actions through environmental review and permitting.
- Conduct focus area planning to refine actions, identify necessary partners, develop funding strategies and build political support.