Preparing for Climate Change with a Risk-Based Approach: Lessons Learned

RAE-TCS Summit
New Orleans
December 13, 2016
10:30–12:00

Michael Craghan, US EPA
Lexie Bell, Morro Bay National Estuary Program (Calif.)
Curtis Bohlen, Casco Bay Estuary Partnership (Maine)
Jorge Bauzá, San Juan Bay Estuary Program (P.R.)
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A Risk-Based Approach to Preparing for Climate Change

Michael Craghan

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How do you decide what to do if you don’t have the resources to do everything you need to do?!

100+ discrete risks from climate change.

(unfortunately, $5 \times 6 \times 4 > 100$)
What is a risk based approach? or What is risk management?

Risk = the possibility that a given [climate change] stressor will affect your ability to meet your goals

Risk management
• looking at stressors for consequences, likelihoods, and effects on goals
• figuring out which are the biggest potential problems
• deciding the best way to deal with those risks so you can still be successful
Why risk–based plans?

Risk management is about an organization.

Your organization’s:

- Goals.
- Context.
- Decisions.

It clarifies your situation.

You get a better plan.
Vulnerability Assessment

1—Communication and Consultation

2—Establishing the Context for the Vulnerability Assessment

3—Risk Identification

4—Risk Analysis

5—Risk Evaluation: Comparing Risks
## Risk evaluation

An example consequence/probability matrix.
Prioritizing in an adaptation plan

Using a risk–based vulnerability assessment actually gives you a basis for prioritizing.

*Before this workbook, climate change planners never had good guidance on how to prioritize!*

The leading guides to climate change adaptation said to just get started on something, or just decide what you want to do, or go after low hanging fruit, or choose robust projects, or look for projects with co–benefits, etc.
Work on the biggest risks

The CRE Workbook advises that you should not choose to work on *any* good thing.

In your VA you identified a set of risks which are highly likely to occur and will derail you if they do.

You can’t ignore high risks. You must adapt to them.

Do not prioritize interesting low-impact risks.

Pay attention to the risks that matter !!!
A risk-based climate change adaptation plan

Q: How do you decide what to do if you don’t have the resources to do everything you need to do?

The vulnerability assessment points toward the biggest risks! The ones that are highly likely to occur and will have high consequences when they do.

The action plan points to the actions that reduce the most risk and don’t have bad side effects.
Being Prepared for Climate Change
A Workbook for Developing Risk-Based Adaptation Plans

CRE risk page:
https://www.epa.gov/cre/risk-based-adaptation
**Action Plan**

Step 6—Establishing the Context for the Action Plan

Step 7—Risk Evaluation: Deciding on a Course

Step 8a—Finding Adaptation Actions

Step 8b—Selecting Ad. Actions

Step 9—Preparing and Implementing an Action Plan

Step 10—Monitoring & Review