



Going with the flow:
Sea Level Rise, Vulnerability,
Adaptation and ACTION



Lara Hansen, Ph.D.
Chief Scientist & Executive Director

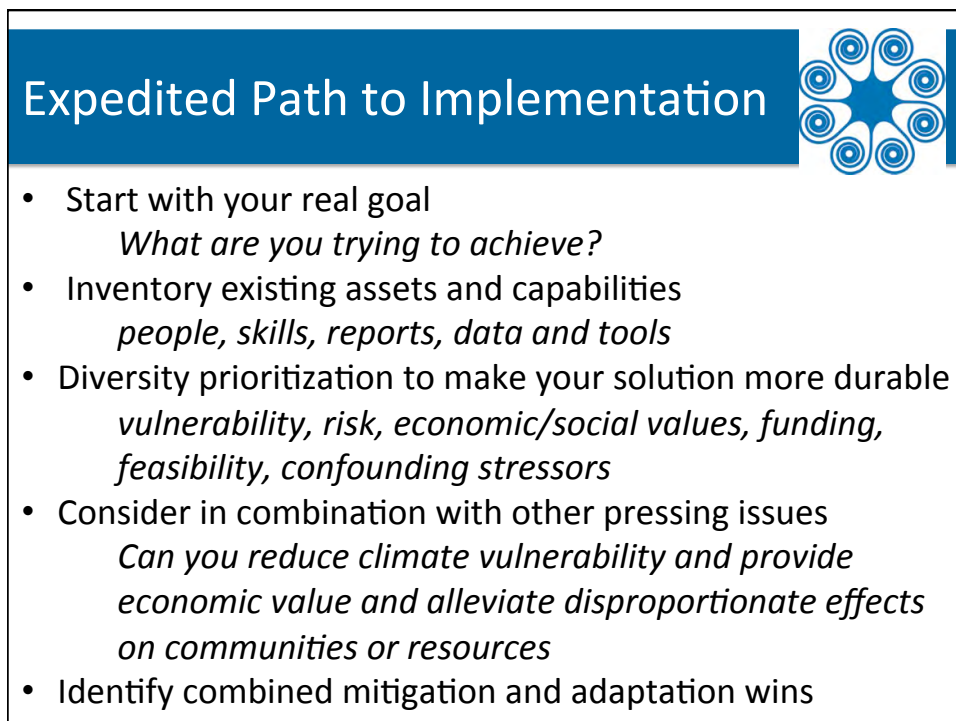
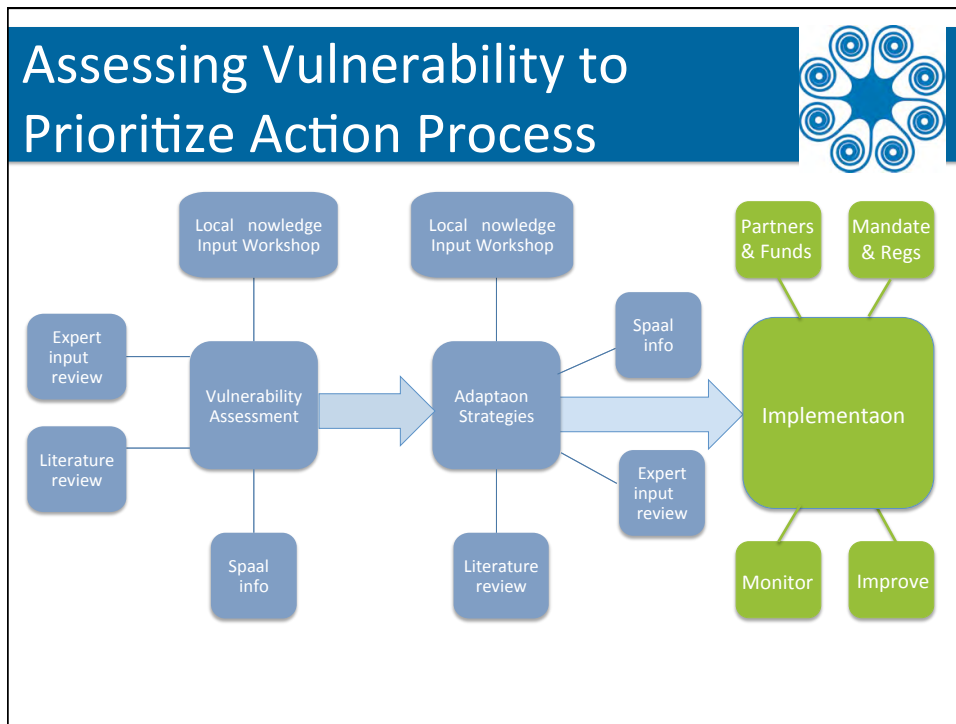


Adaptation Ladder of Engagement®

What rung are you on?

7 Sharing	You are sharing what are doing and what you have learned with others so they can benefit from it.
6 Evaluation	You are examining if your actions are effective, and integrating the results to improve future outcomes
5 Integration	You are incorporating the reality of climate change and how you address it into all of your work and thinking.
4 Implementation	You are implementing your plan in order to reduce your vulnerability to the effects of climate change.x
3 Planning	You are using your knowledge of the vulnerability of your system to develop a plan to reduce it.
2 Assessment	You are determining how climate change affects your work, perhaps through a vulnerability assessment
1 Awareness	You recognize that climate change is happening and it may be an issue that affects your work

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Example 1 – Seattle, WA

Brightwater Wastewater Treatment



Vulnerability Assessment of facilities (2008, 2011, 2012)

Update the 30 year infrastructure plan to adjust for new flow patterns (1999)

\$162.5M in upgrades budgeted (2015)

Implement water reclamation and conservation strategies to deal with seasonal drought issues (on going)

Example 2 – Central Coast, CA

Greater Farallones NMS



Vulnerability Assessment Workshop and Report (2014-2015)

Developed by Adaptation Working Group (gov't and fed partners)

Scenario Planning and Adaptation Strategy Development (2015)

Recommendations to Sanctuary Advisory Committee by February

Recommendations expected to be implemented by Sanctuary and partners in 2016 (and beyond)



Example 3 – South Florida Climate Change Action Plan for the Florida Reef System 2010-2015



Developed in workshops by scientist, managers and user groups (→2010)

Action Plan with 40 specific actions agreed to all partners (2010)

- Increase coral reef resilience
- Increase related community resilience
- Strengthen scientific knowledge for resilient management

Implemented Actions (2010-2015)

Analyzed implementation (2015)
15 competed, 17 partial, 8 remain



Example 3 – South Florida
Climate Change Action Plan for the Florida Reef System 2010-2015





CLIMATE CHANGE ACTION PLAN
 FOR THE
Florida Reef System
 2010-2015

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The screenshot displays the CRAVE website interface. At the top, there is a navigation bar with links for 'HOME', 'ABOUT US', 'BUSINESS', and 'DISCUSSION SUPPORT'. The main header includes the USGS logo and the title 'CRAVE - Climate Registry for the Assessment of Vulnerability'. Below the header, there is a search bar and a 'Login to CRAVE' button. The main content area features a large image of a waterfall with the text 'Vulnerability Assessment and Adaptation Strategies for Fiscal Resilience of the Sierra Nevada'. Below this, there are several smaller article teasers with titles like 'A Climate Change Vulnerability Assessment for Fiscal Resilience of the Sierra Nevada' and 'Sea Level Rise Vulnerability Study for the City of Los Angeles'. The footer includes 'Our Partners' with logos for USGS, CDC, and others.

This block contains a collage of images and text. The top row features four images: a bridge over water, a stone wall with a circular opening, a sunset over a body of water, and blue pebbles. Below these images is a green banner with the text 'Contact me or EcoAdapt' in white. To the right of the banner is the EcoAdapt logo, which consists of a blue star-like shape with concentric circles. Below the banner, there are three more images: a sunset, blue pebbles, and the word 'CHANGE' written on a wall in large, colorful letters. At the bottom, there is contact information for Lara Hansen, Ph.D., including her email 'Lara@EcoAdapt.org' and the website 'www.EcoAdapt.org'. The EcoAdapt logo and tagline 'Meeting the challenges of climate change' are also present at the bottom.