

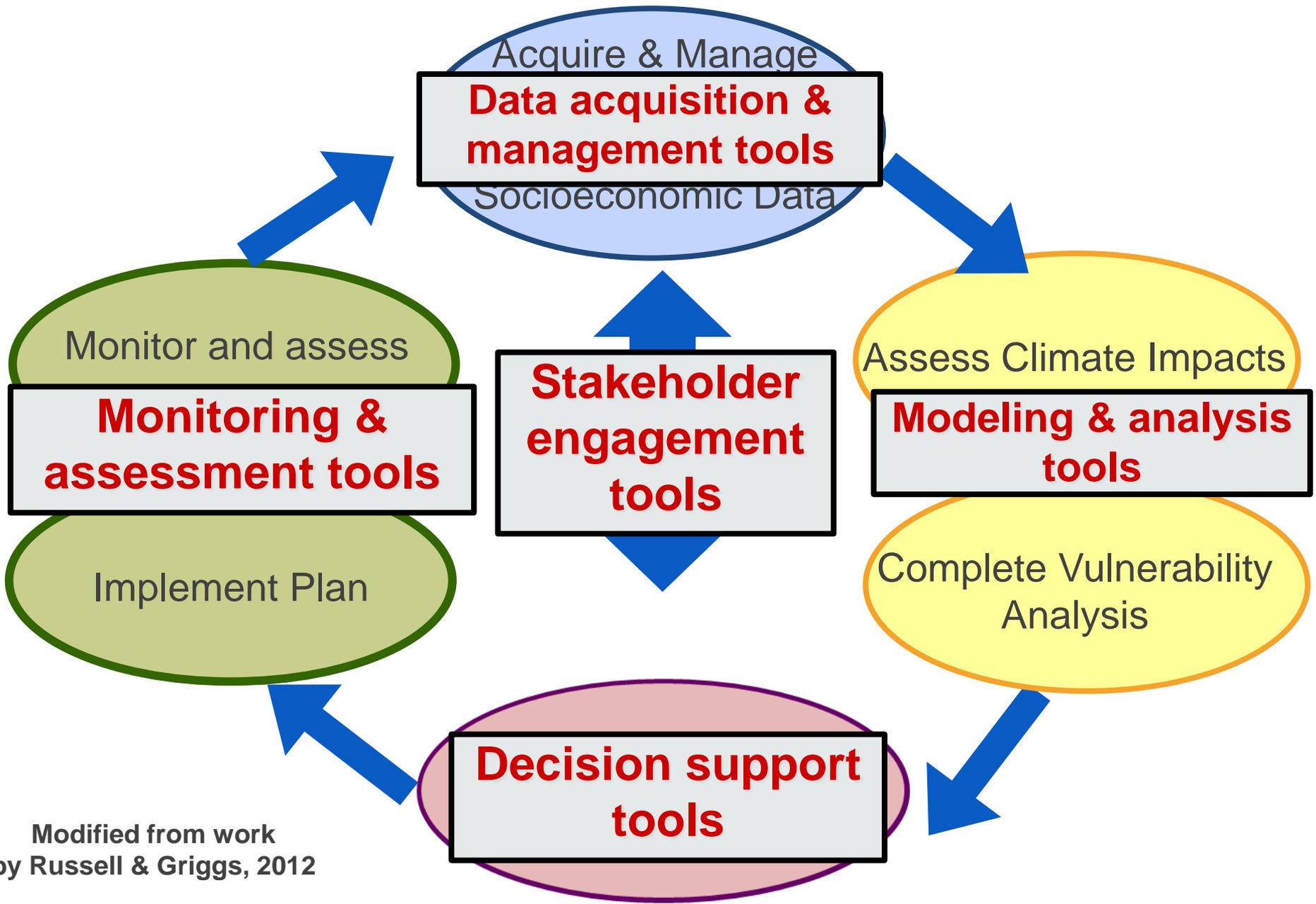
# TOOLS SELECTION

# What is a Tool?

- Decision guidance
- Application access and analysis
- Regulatory and compliance
- Engagement strategies
- Decision support systems

**SOMETHING THAT HELPS YOU!!!**

# An Adaptation Planning Process



# Two key principles for choosing data and tools

1. Your goals and objectives should drive the selection of tools and data, not vice versa
2. The sophistication of the VA should not exceed the sophistication of possible uses of VA results.

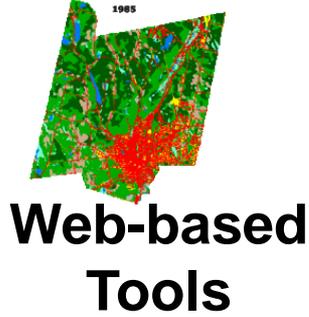
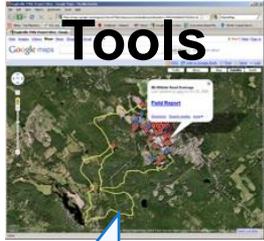
# Choosing tools and data comes back to the basic questions:

- *What is the goal of your VA?*
  - *“Assessment questions”: what do you need to know to answer them?*
- *Who will use the output and how?*
- *What resources do you have?*

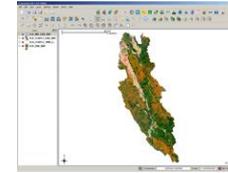
If you don't ask the right question, every answer feels wrong  
*Ani DiFranco*

Factors to Consider:

Visualization



GIS-based  
DSTs



Models

Toolkits



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FUNCTIONALITY

LEARNING CURVE

COST

SKILLS NEEDED



**You don't have to pick just one!**

Can use different tools and data at different points in the engagement or adaptation planning process

# RVAA Process Steps

Crist et al., 2012

## Step 1 Characterization

Policy framework  
Resource Inventory

## Step 2 Prioritize Issues

Resources List  
Mission-Critical Infrastructure List  
Stressors List  
Regional context assessment  
**Tools: Gap Analysis (GIS)**

## Step 3 Data Needs

Sources and Costs  
Availability and Timing  
**Tools: data portals, e.g., DataBasin, Climate Wizard**

## Step 4 Current Conditions

Resource distribution  
Scenario Development Management  
Stressors  
**Tools: Maxent, NatureServe Vista, Envision, HPP**

## Step 5 Forecasts

Scenario Development  
Stressors (future growth, development proposals, climate change)  
**Tools: Visioning, NatureServe Vista, SLAMM, Community Viz, Maxent, VDDT**

## Step 6 Evaluate Effects

Issues, Opportunities, and Conflicts  
**Tools: NatureServe Vista, N-SPECT, VDDT, HPP**

## Step 7 Strategies

Concepts and lists for actions to mitigate undesired effects  
Adaptation  
**Tools: Miradi, NatureServe Vista**

## Step 8 Inform Alternatives

For new or revised plans  
**Tools: NatureServe Vista, Marxan, CommunityViz, N-SPECT, VDDT**

Example of a process tool but coupled with technical tools



MANAGER'S GUIDE TO  
REFUGE VULNERABILITY ASSESSMENT  
& ALTERNATIVES:  
OVERVIEW AND PRACTICAL CONSIDERATIONS

Final Draft  
June 2012



# Tool Resources

ebmtools.org

<http://www.csc.noaa.gov/digitalcoast/>



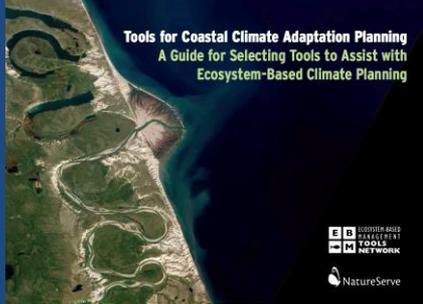
**Tools for Climate Change Adaptation Planning (California)**

Tool Name	Adaptation Database for Planning Tool (ADAPT)	CRITICAL (Community-based Risk Reduction Tool - Adaptation and Resilience)	NOAA CSC Coastal Foundation Toolkit	NOAA CSC Roadmap	Ecosystem-Based Management Tools Network	Digital Coast
<b>Tool Type</b>	Decision Support	Process	Process	Process	Tool Portal	Data and Tool Portal
<b>Objective</b>	Provide decision support for coastal planning and management. ADAPT provides a platform for the development of coastal planning and management plans. ADAPT also provides a platform for the development of coastal planning and management plans.	Provide decision support for coastal planning and management. CRITICAL provides a platform for the development of coastal planning and management plans. CRITICAL also provides a platform for the development of coastal planning and management plans.	Provide decision support for coastal planning and management. NOAA CSC Coastal Foundation Toolkit provides a platform for the development of coastal planning and management plans. NOAA CSC Coastal Foundation Toolkit also provides a platform for the development of coastal planning and management plans.	Provide decision support for coastal planning and management. NOAA CSC Roadmap provides a platform for the development of coastal planning and management plans. NOAA CSC Roadmap also provides a platform for the development of coastal planning and management plans.	Provide decision support for coastal planning and management. EBM Tools Network provides a platform for the development of coastal planning and management plans. EBM Tools Network also provides a platform for the development of coastal planning and management plans.	Provide decision support for coastal planning and management. Digital Coast provides a platform for the development of coastal planning and management plans. Digital Coast also provides a platform for the development of coastal planning and management plans.
<b>Other Features</b>	Process	Process	Process	Process	Tool Portal	Data and Tool Portal
<b>Skill Level</b>	Low	Medium to High	Low	Low	Low	Low
<b>Developer</b>	NOAA Coastal Services Center	NOAA Coastal Services Center	NOAA Coastal Services Center	NOAA Coastal Services Center	EBM Tools Network	NOAA Coastal Services Center
<b>Price</b>	Free	Free	Free	Free	Free	Free
<b>Additional Software Needed</b>	NA	NA	NA	NA	NA	NA
<b>Link</b>	<a href="http://www.adapt.noaa.gov/">http://www.adapt.noaa.gov/</a>	<a href="http://www.critical.noaa.gov/">http://www.critical.noaa.gov/</a>	<a href="http://www.noaa.gov/coastal-foundation-toolkit/">http://www.noaa.gov/coastal-foundation-toolkit/</a>	<a href="http://www.noaa.gov/roadmap/">http://www.noaa.gov/roadmap/</a>	<a href="http://www.ebmtools.org/">http://www.ebmtools.org/</a>	<a href="http://www.digitalcoast.gov/">http://www.digitalcoast.gov/</a>
<b>Applicable Planning Phases</b>						
Policy & Strategy	x	x	x	x	x	x
Plan	x	x	x	x	x	x
Assess Vulnerability	x	x	x	x	x	x
Assess Risk	x	x	x	x	x	x
Develop Plan	x	x	x	x	x	x
Implement Plan	x	x	x	x	x	x
Evaluate	x	x	x	x	x	x
Engage Stakeholders	x	x	x	x	x	x

The original version of this sheet was created by the Ecosystem-Based Management Tools Network and the San Francisco Bay National Estuarine Research Reserve. More information and links to tools can also be found on the related EBM Tools page: <http://www.ebmtools.org/>

Corrections, comments, or additional information? [john.nolan@noaa.gov](mailto:john.nolan@noaa.gov)

## Climate Tools Matrix



## Climate Tools Decision Guide

