THE GUANABARA BAY REPORT CARD
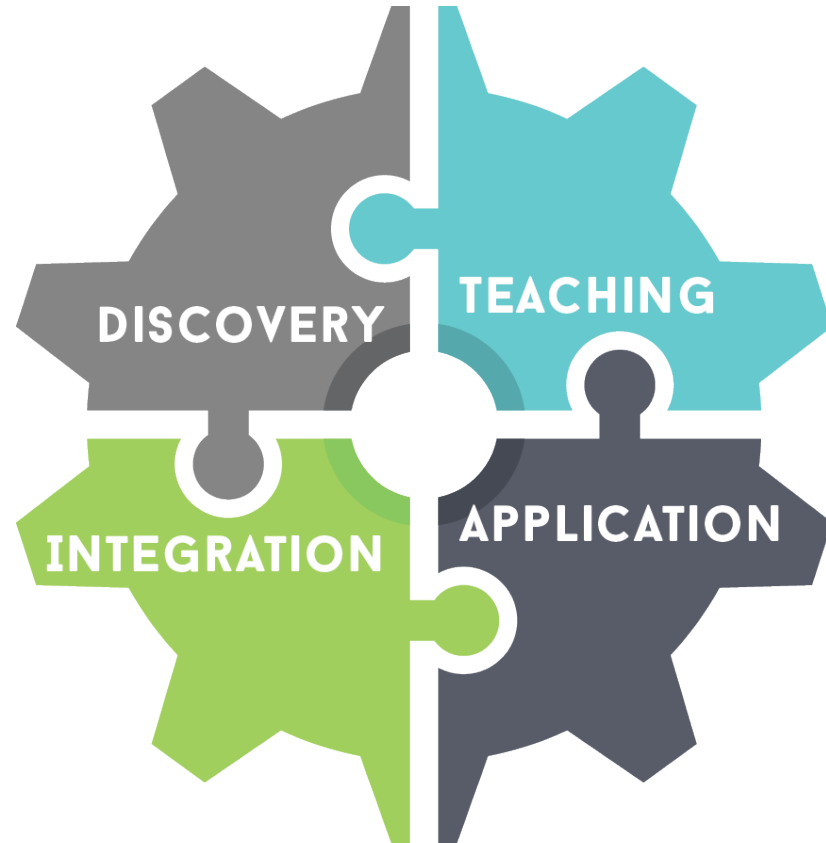

Bill Dennison

April 25th, 2016

UNIVERSITY OF MARYLAND CENTER FOR ENVIRONMENTAL SCIENCE AND THE INTEGRATION AND APPLICATION NETWORK

- UMCES formed in 1925 to provide practical environmental advice
- UMCES defines scholarship as discovery, integration, application, and teaching
- IAN was created in 2002 to address integration and application

DISCOVERY

TEACHING

INTEGRATION

APPLICATION

Innovation for a better future

University of Maryland
CENTER FOR ENVIRONMENTAL SCIENCE

ian

WHO ARE WE?

IAN's aim is to enable better communication to empower change.
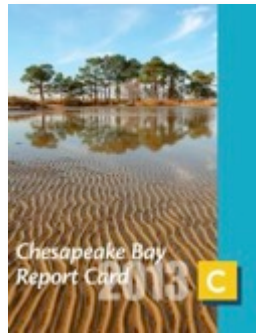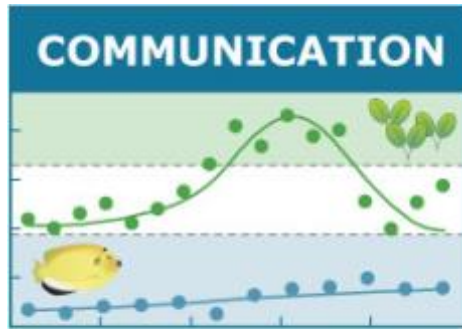
IAN HAS THREE MAIN FOCUS AREAS

Develop Science Communication products

Environmental Report Cards

Science Communication Training

SOLVING, NOT JUST STUDYING ENVIRONMENTAL PROBLEMS

STUDY

- Dispassionate
- Embrace complexity
- Publish & funding via peer review
- Getting it right

SOLVE

- Passionate
- Simplify
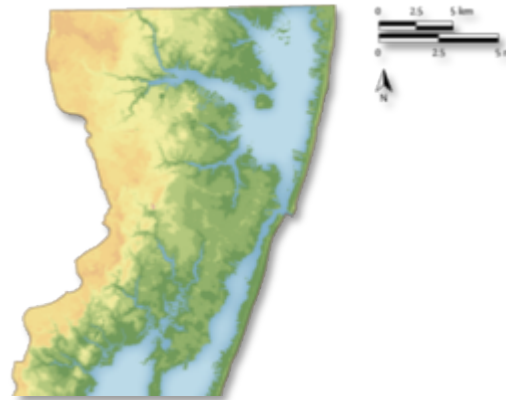- Publish & funding via stakeholders
- Getting it done

SYNTHESIZING INFORMATION FOR LESS TECHNICAL AUDIENCES
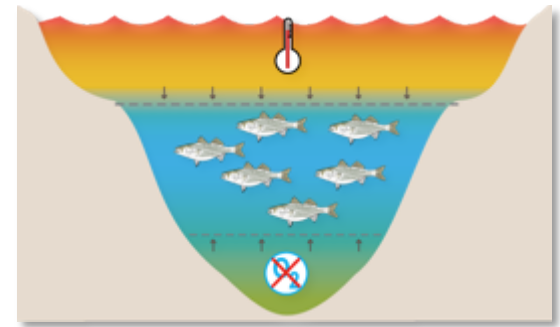
Synthesis

Synthesized data

Visualization

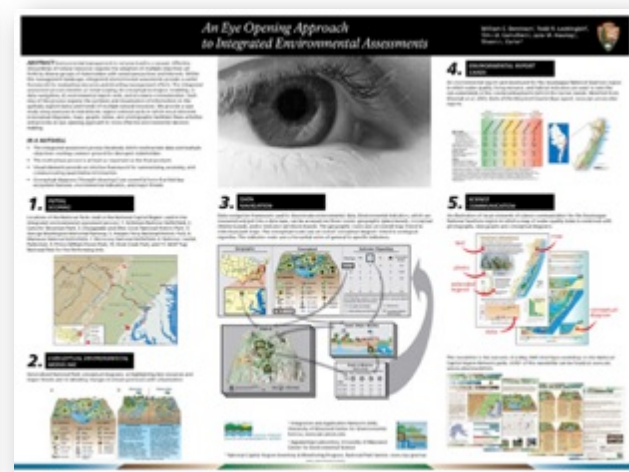
Illustrate key points

Context

So what?

DEVELOPING A VARIETY OF SCIENCE COMMUNICATION PRODUCTS

Newsletters

Science Journals

Posters

Reports

Books
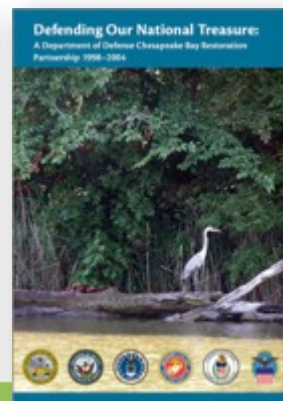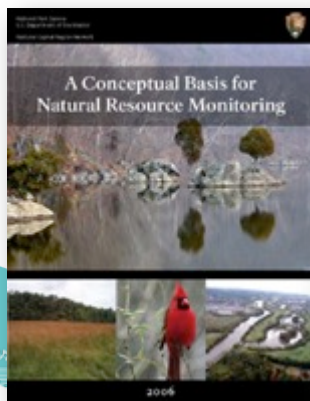
REPORT CARD EXAMPLES
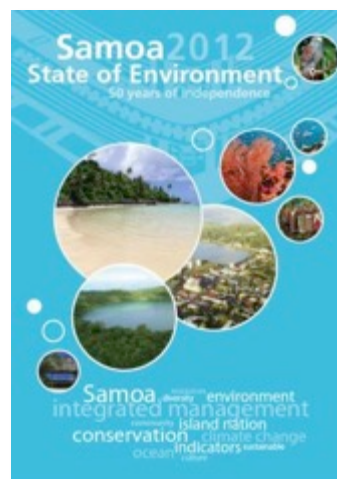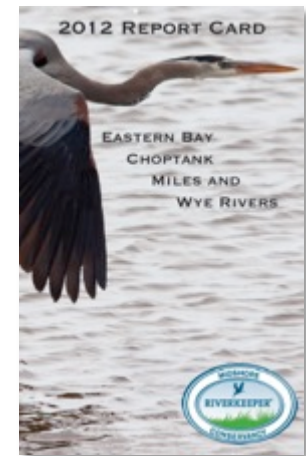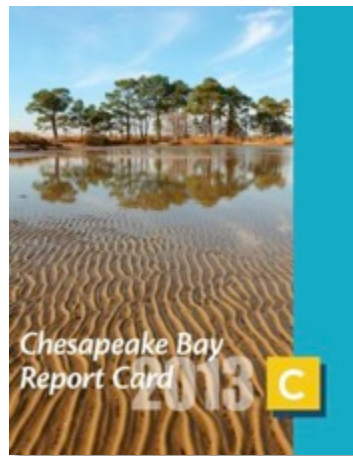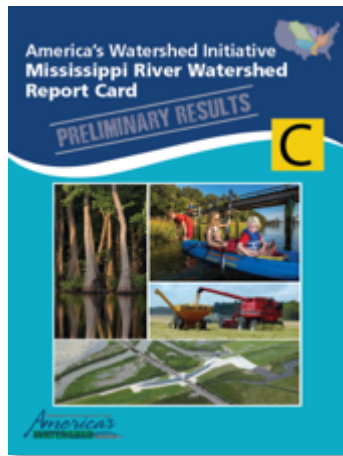
WHAT IS AN ECOSYSTEM HEALTH REPORT CARD?

- Broad-level assessments of a region or system

- Communicate complex information

- Based on real data: transparent and defendable

- Provide accountability

- Engage communities
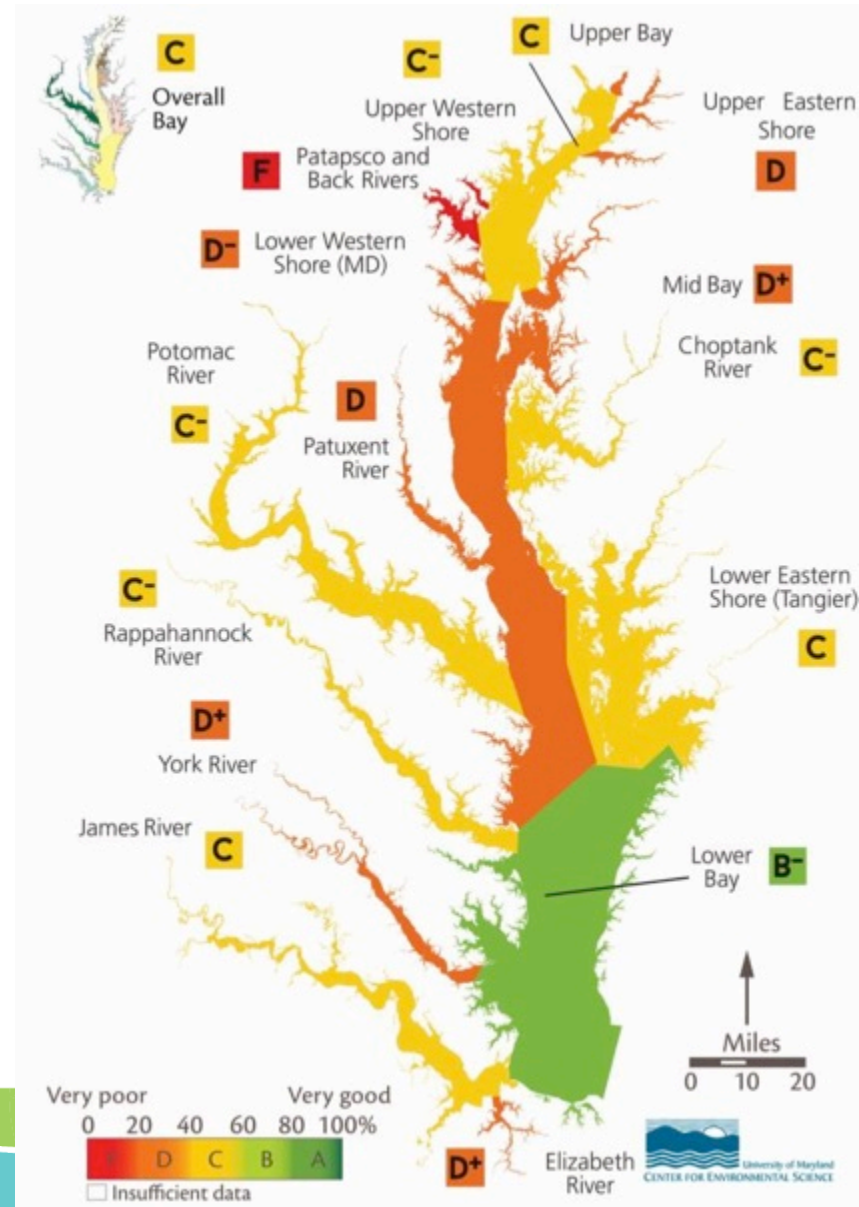
ECOSYSTEM HEALTH REPORT CARDS ARE AN EFFECTIVE COMMUNICATION TOOL

- Peer pressure is a powerful human motivator

- Educational report cards are a common experience

- Report cards synthesize large amounts of data
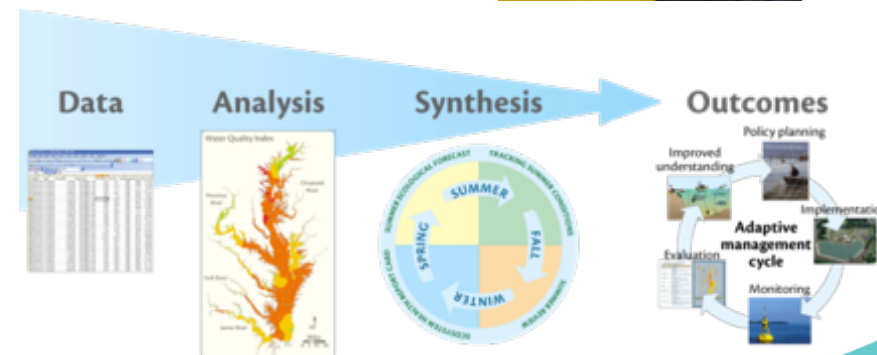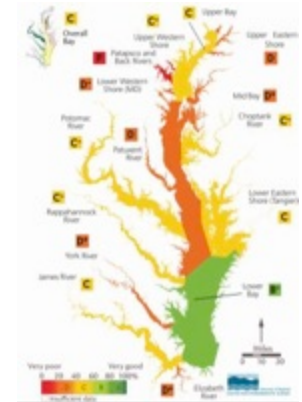
OUTCOMES OF ECOSYSTEM HEALTH REPORT CARDS
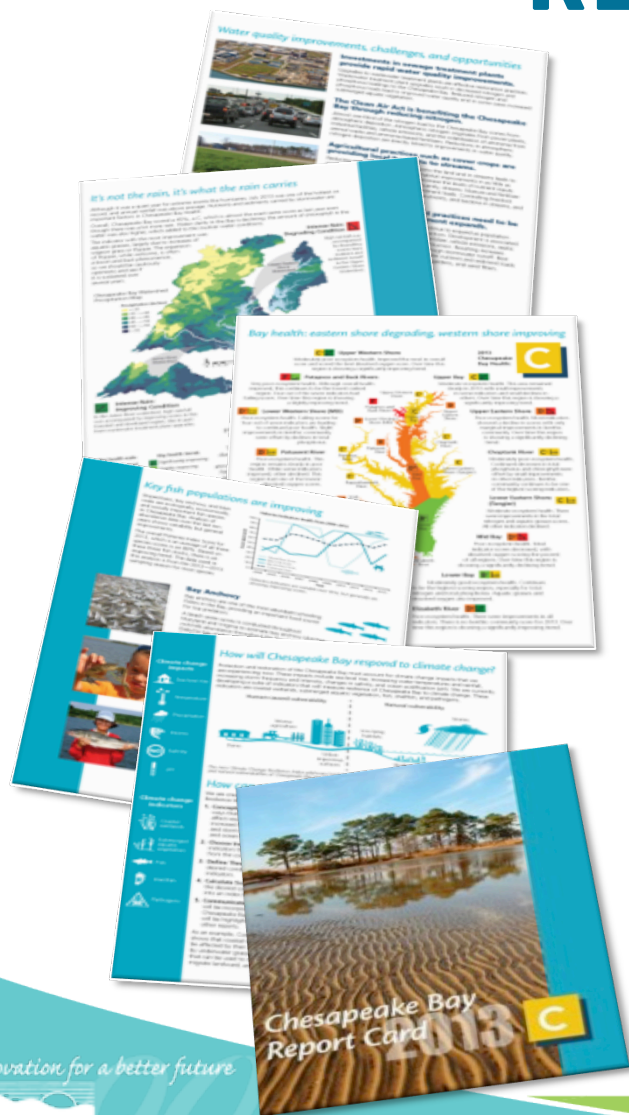
- Well received and influential

- Comprehensive package – goes beyond simple grading

- Visually appealing

- Being local – sense of ownership

- Educational

REPORT CARDS ARE A FIVE STEP PROCESS

1 Create a conceptual framework

Create a framework defining goals and major aspects of each goal that should be evaluated over time.

2 Choose indicators

Select indicators that convey meaningful information and can be reliably measured.

3 Define thresholds

Missouri

Define status categories, reporting regions, and method of measuring threshold attainment.

**4** Calculate scores

Source	Station	Region	Date	DO Value
DNR	CCC0008		4/29/09	9.00
DNR	CCC0008		4/29/09	9.50
DNR	CCC0008		4/29/09	9.70
DNR	CCC0008		5/28/09	8.90
DNR	CCC0008		5/28/09	9.00
DNR	CCC0008		5/28/09	9.00
DNR	CCC0008		6/28/09	9.00

Calculate indicator scores and combine into index grades.

5 Communicate results

A vision for
America's Watershed
Report Card

Communicate results using visual elements, such as photos, maps, and conceptual diagrams.

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REPORT CARD SUPPORTS GUANABARA BAY MONITORING AND RESTORATION

- Top tier = Report card

- 2nd Tier = Newsletter, website

- 3rd Tier = Technical reports, scientific literature

- Base = Data

WORKSHOP AGENDA AND GOALS

- Agenda
  - 1 Day
  - Hands-on
  - Data rich
  - Fun!
- Goals
  - Review goals and objectives
  - Conceptualize the system
  - Identify values and threats
  - Identify indicators and data to be used
  - Mockup potential product