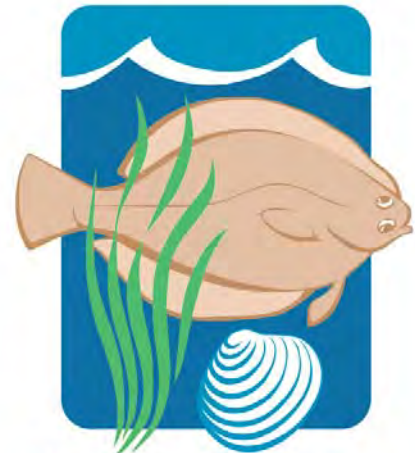


Connect with Your Audiences Through Effective Messaging

Jennifer West

Coastal Training Program Coordinator



**Narragansett Bay
Research Reserve**

Objectives

- Identify common communication challenges
- Recognize the importance of mindset in framing our communications
- Discuss best practices for science communication

The steps...

1. Who is your target audience?
- 2. What does your audience know and think?**
3. What would you like your audience to know, think (and do)?
- 4. How can you get your message across?**

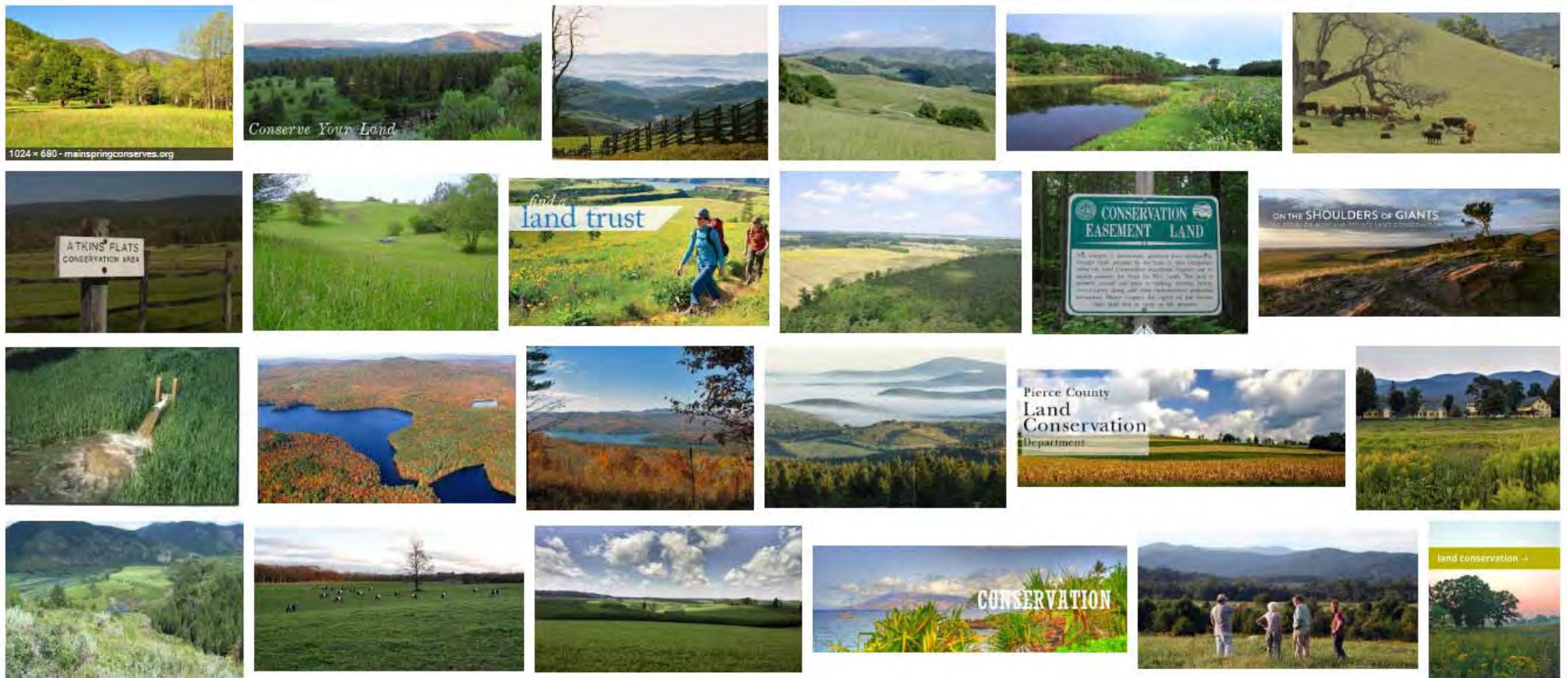
**What does your audience
know and think?**

Recognizing the Importance of Mindset

Mental & Cultural Models



What trends do you notice in these pictures?



Google image search, 3/9/18: "Land Conservation"

The Swamp of Cultural Models

Oceans

- Ocean and land= separate worlds
- Oceans are vast; Drop in the bucket
- Heal themselves
- All on the surface
- Ocean acidification- what's that?
- Ocean is too big to be harmed
- Oceans as a resource
- Basis of life
- Oceans support humans

Nature

- Nature works in cycles
- Nature is self-correcting
- Change is natural/Fatalism
- Mother nature
- System? What system?
- CO₂ is natural, therefore it is good
- Web of life/It's all connected
- Shared fate

Science

- How do scientists know that?
- New study every week
- My observation is as good as yours
- "Scientists say..."
- Science is innovation



Consumerism

- Eat it while you can!
- Bottomless grocery store
- Jobs vs. environment
- Cost/benefit thinking
- Ecosystems are valuable resources



What's in the swamp of...
Ocean & Climate Change

Climate Change

- Climate=yearly weather patterns in place
- "It's about the ozone, isn't it?"
- Big, Scary depressing
- Climate change = warming
- Melting Ice
- What can I really do?
- Something needs to be done

Pollution

- Ocean problems=material pollution
- The root of all environment problems
- Just clean it up
- Solution=Recycling
- Carbon dioxide=carbon monoxide
- Human caused



Public Affairs

- Two sides to every story
- Even if we do our part, other countries won't
- Politics as usual
- Individualism
- Government is good at protection
- Americans are problem solvers
- Civic Responsibility

Characteristics of Cultural Models

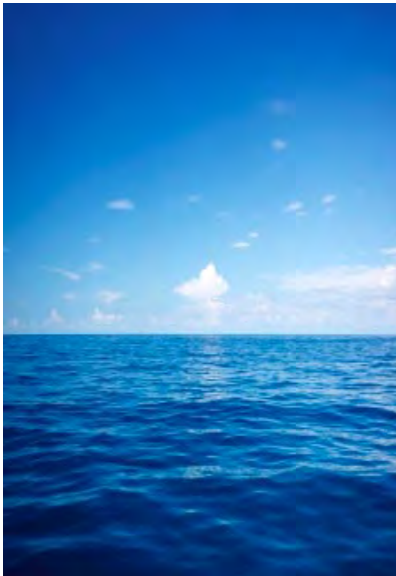
Cultural models are widely shared



Oceans support humans

Characteristics of Cultural Models

There are multiple cultural models
on any one topic



All on the Surface



Oceans support humans



Drop in the Bucket

Multiple Models Can Overlap, Contradict and Reinforce

Characteristics of Cultural Models

Cultural models are durable



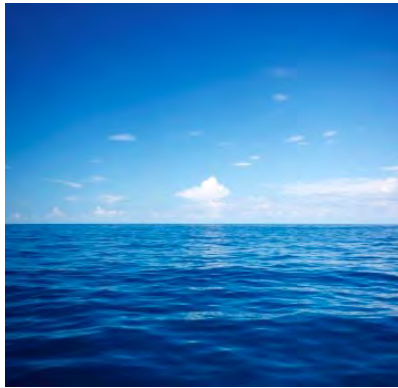
Codex Justinianus (529) (Justinian Code), Book II, Part III.
The Division of Things:

By the law of nature these things are common to mankind---the air, running water, the sea, and consequently the shores of the sea. No one, therefore, is forbidden to approach the seashore, provided that he respects habitations, monuments, and buildings which are not, like the sea, subject only to the law of nations.

‘Oceans as a Resource’ is an enduring concept

Characteristics of Cultural Models

Cultural models structure thinking



‘All on the surface’ thinking
focuses on water and human
enjoyment and activities

Makes ecosystems ‘hard to
think’



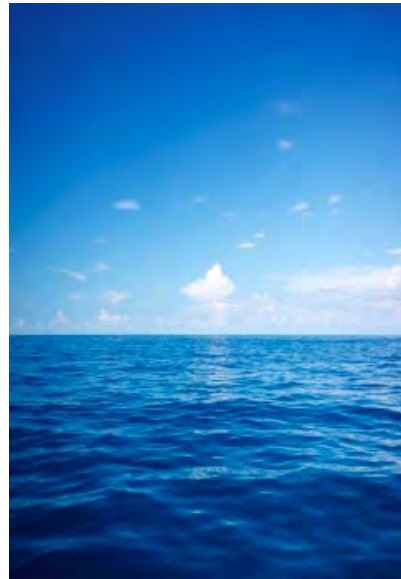
‘Oceans support humans’
focuses on multiple resources in
ocean and common good

Makes ecosystems ‘easy to
think’

Characteristics of Cultural Models

Models are ‘activated’ by associated information

AVOID



‘Oceans are vast’

ADVANCE



‘Oceans support humans’

**How can you get your
message across?**

Composing a Story with Strategic Framing

Why does this matter to society?

Values

How does it work?

Explanatory Chains/Metaphors

How do we improve the situation?

Solutions

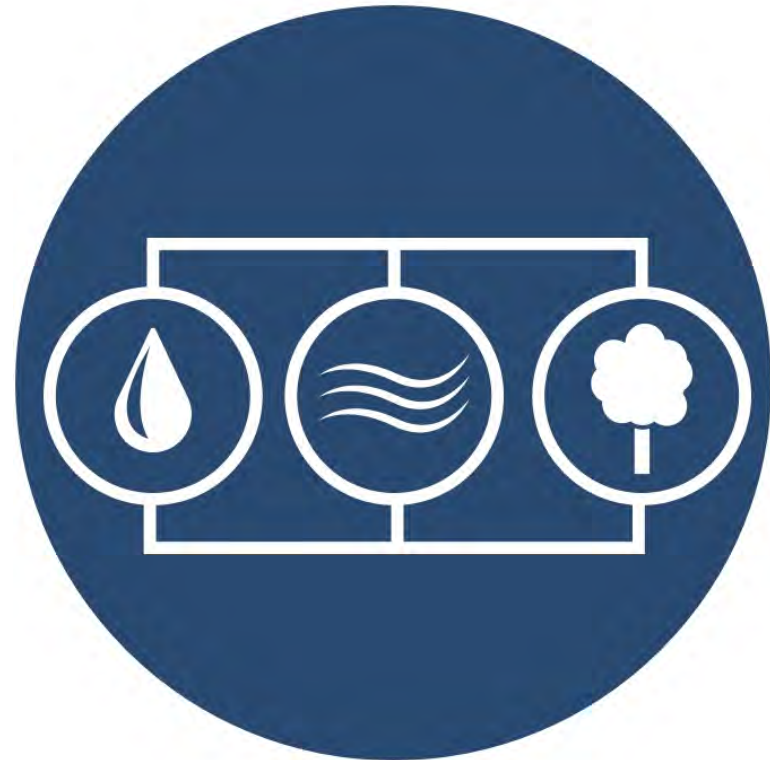
Reasonable

tone

Values



Protection



**Responsible
Management**

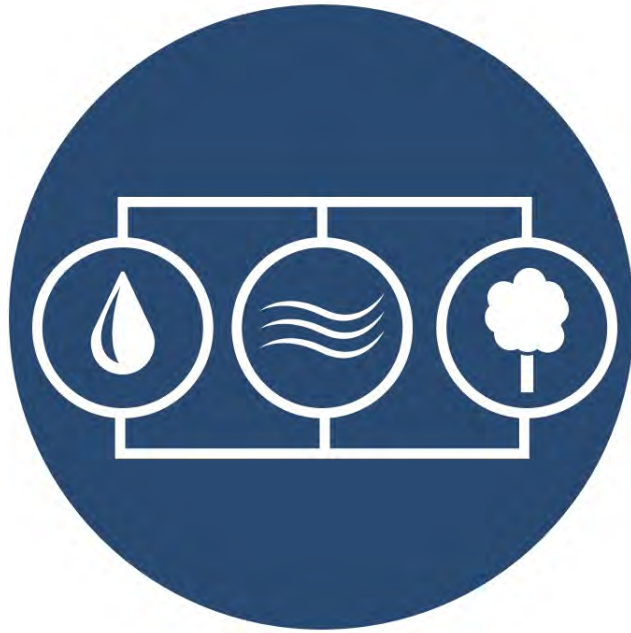
Protection



x matters because we have a duty to safeguard the wellbeing of people and places

- We must protect and preserve the habitats and ecosystems we depend on
- Showing concern for others is the right thing to do
- Stepping in to ensure peoples' safety and well being
- Let's take measures to eliminate or reduce risks
- Let's be vigilant in shielding people and places from harm

Responsible Management

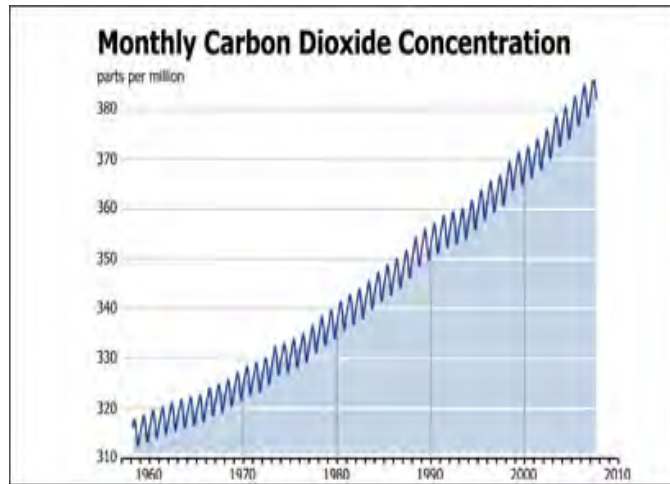


x matters because taking common-sense steps today is in the interests of future generations

- Let's be responsible when it comes to the environment
- Let's look ahead to handle problems before they get worse
- Responsible managers keep an open mind, look to evidence, and take a level-headed, step-by-step approach
- Future generations depend on the decisions we make today

Common appeals to avoid ("Rogue Values")

Scientific
Authority



Utility

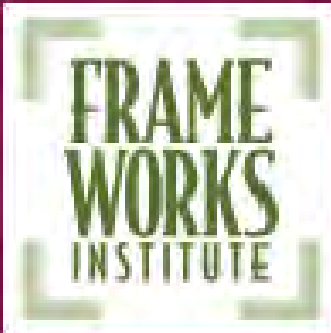
Intrinsic Value/
Right to Exist



Consumerism

Explanatory Metaphors

- Make an abstract idea concrete and something that sticks with people
- Help people understand the mechanisms at work
- When linked to causes and impacts they motivate consideration of solutions



Heat-Trapping Blanket

A metaphor for the basic mechanism of climate change



The story you're telling:
When we burn fossil fuels for energy, we add more and more carbon dioxide into the atmosphere. This buildup acts like a blanket that traps heat around the world, which disrupts the climate.

Solutions



Solutions Cornerstones

- evidence-based policies, programs, or initiatives that address the problem
- practical, ongoing
- present them as the social norm

Example:

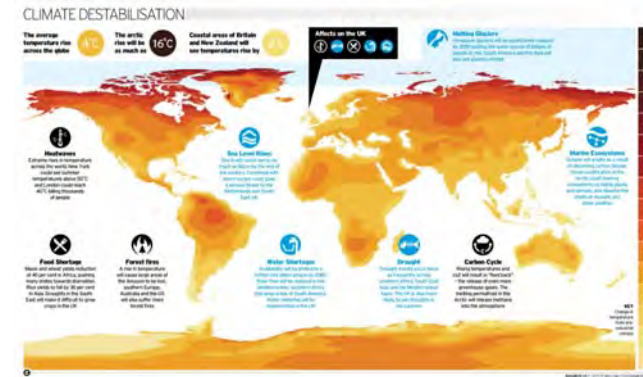
“I’m curious about community gardens. There are a lot of abandoned lots in my neighborhood.”

“Yes, community gardens help because they reduce the CO₂ emitted when transporting vegetables to your grocery store. They are also great at helping us adapt to the intense rain storms we are getting as an effect of climate change by absorbing the stormwater. And they are great places for the community to come together. I bet you are not the only person in your neighborhood that is concerned with the abandoned lots. I would start talking to your neighbors to see who else is interested. The Belle Isle Salt Marsh in East Boston was restored because neighbors in the area wanted to keep that area for recreational uses and came together to make sure that it happened.”

The art of science communication



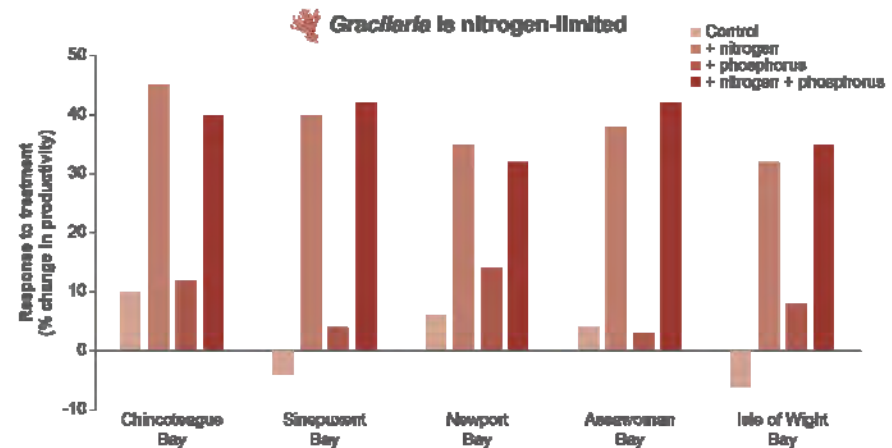
Conceptual diagrams



Maps



Photos



Tables and figures

Avoid jargon and acronyms

Jargon sounds good but means
what?

(e.g., sustainable development,)

Acronyms need to be introduced

- TMDL = Total Maximum Daily Load
- = Target-Machine Description Language
- = Too Many Damn Lawyers
- = Technical Manual Data List

Terms to Avoid

Watershed management

Nonpoint source pollution

Water quality

Biodiversity

Ecosystem services

Green infrastructure

Resilient

Sprawl

Conservation easement

Sustainable

Recommended Substitutes

Land and water conservation

Polluted runoff

Clean water

Plants and animals/wildlife

Nature's benefits

Nature-based solutions

Healthy and safe

Overdevelopment/runaway development

Voluntary land preservation agreement

Responsible/planning
ahead/environmentally-friendly

Consider Readability

Score	Compare To:	Good Range For:
80-100	Children's Book	"Underserved Audiences"
60-70	Supermarket Tabloid	Average Readers, "The General Public"
45-55	Newspaper	White collar professionals, elected officials, journalists, business leaders, donors Professional peers prefer this
30-40	Academic Journal	Professional peers will tolerate this, everybody else hates this
<30	IRS Code	Nobody. You need to rewrite this.

Use photos and maps for context... not decoration!

Park resource setting/resource stewardship context

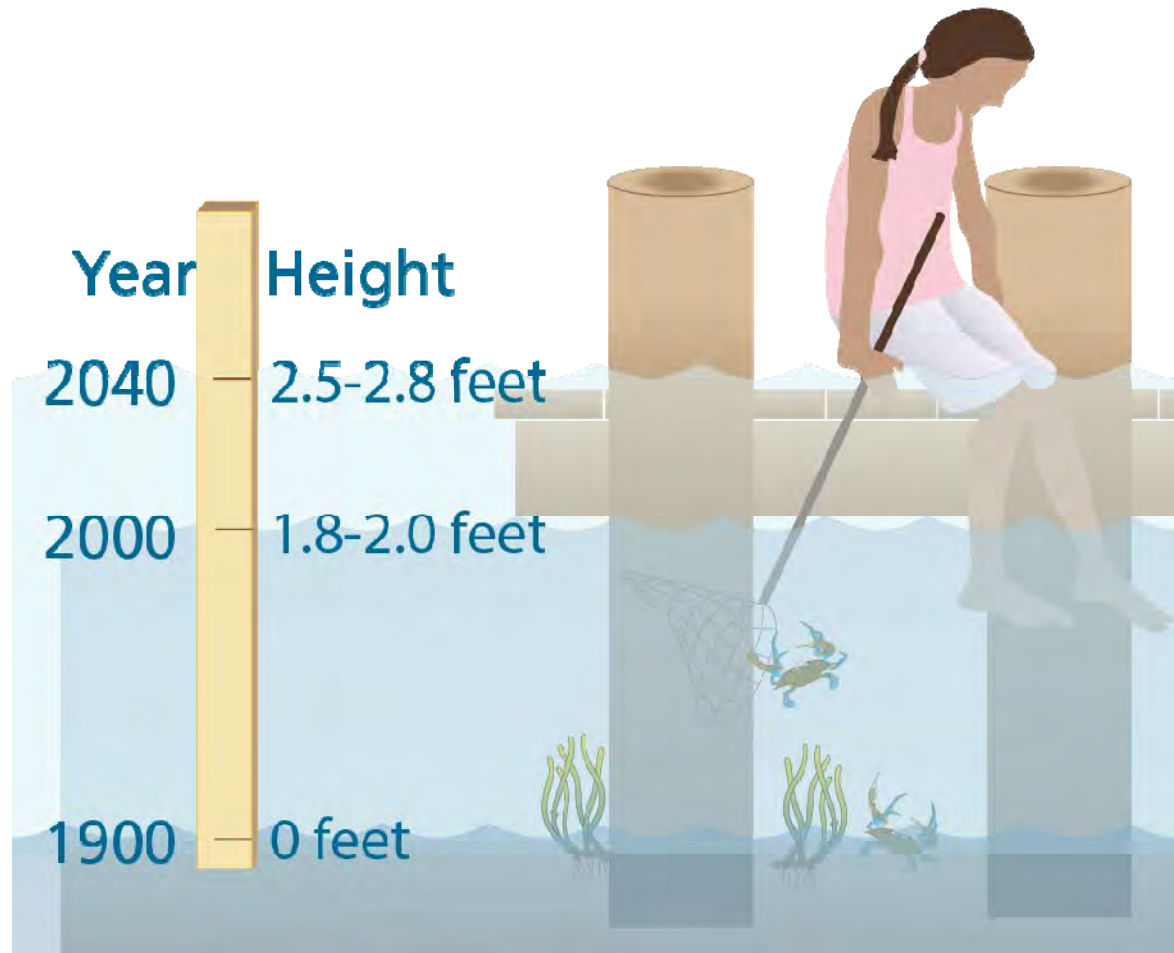


Ecosystem features

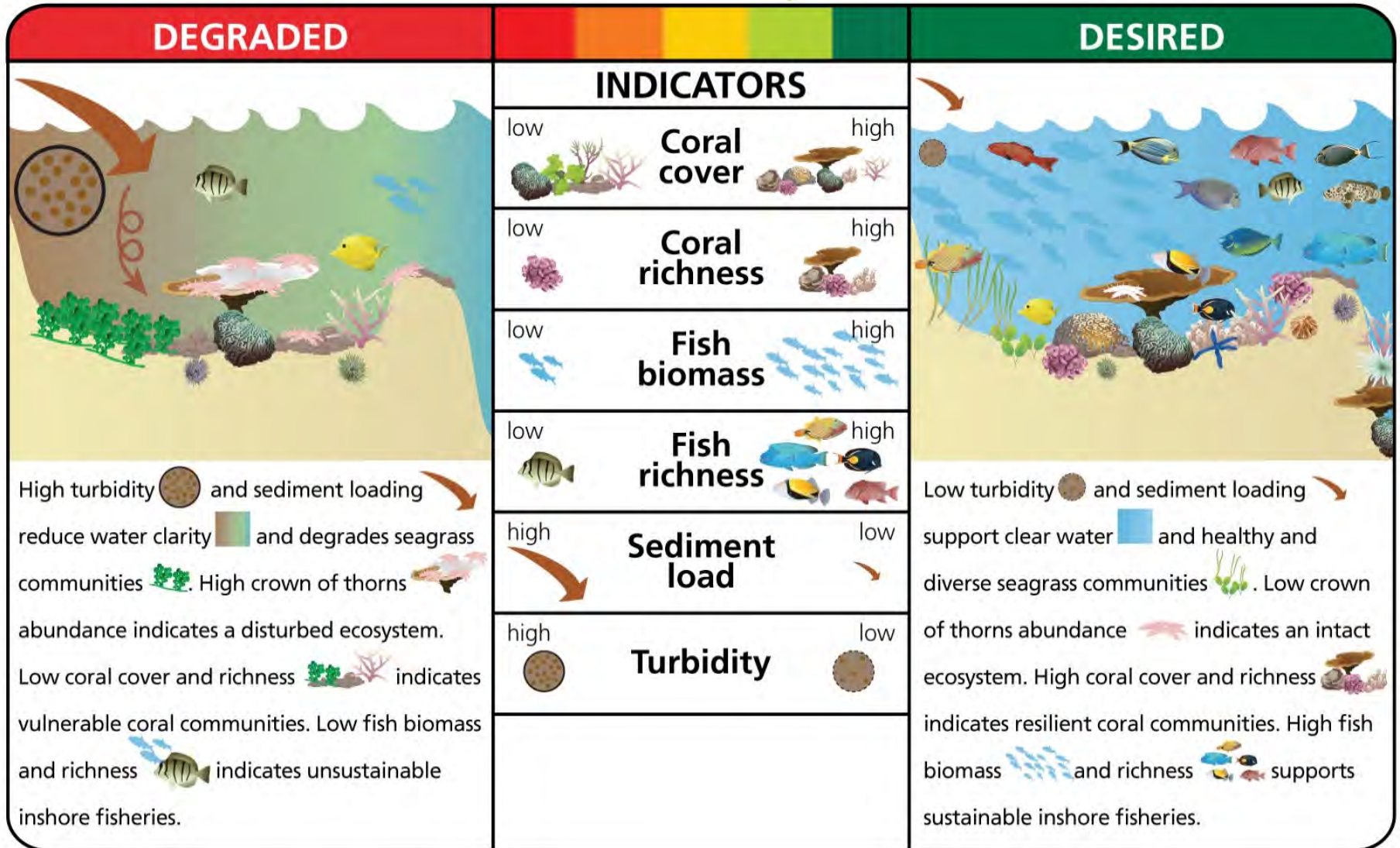
Abundant ecosystem features are supported by the diverse and unique habitats of Assateague Island (Figure 2.11). Globally rare sand over-wash habitat provides nesting sites for the shorebird, *Charadrius melodus* (piping plover), federally listed as threatened

Sand overwash provides nesting sites for the threatened Piping Plover (*Charadrius melodus*).

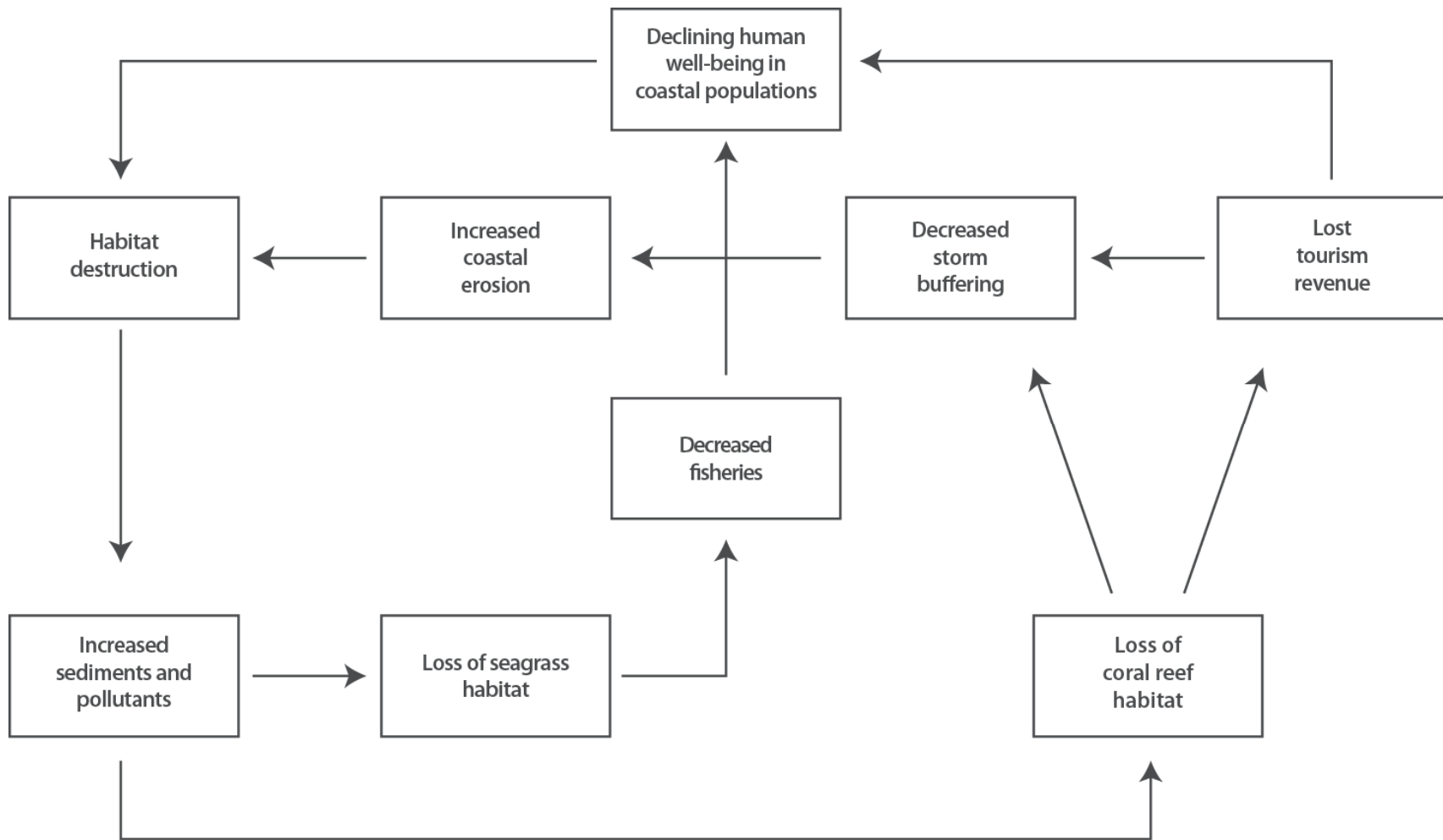
Conceptual Diagrams



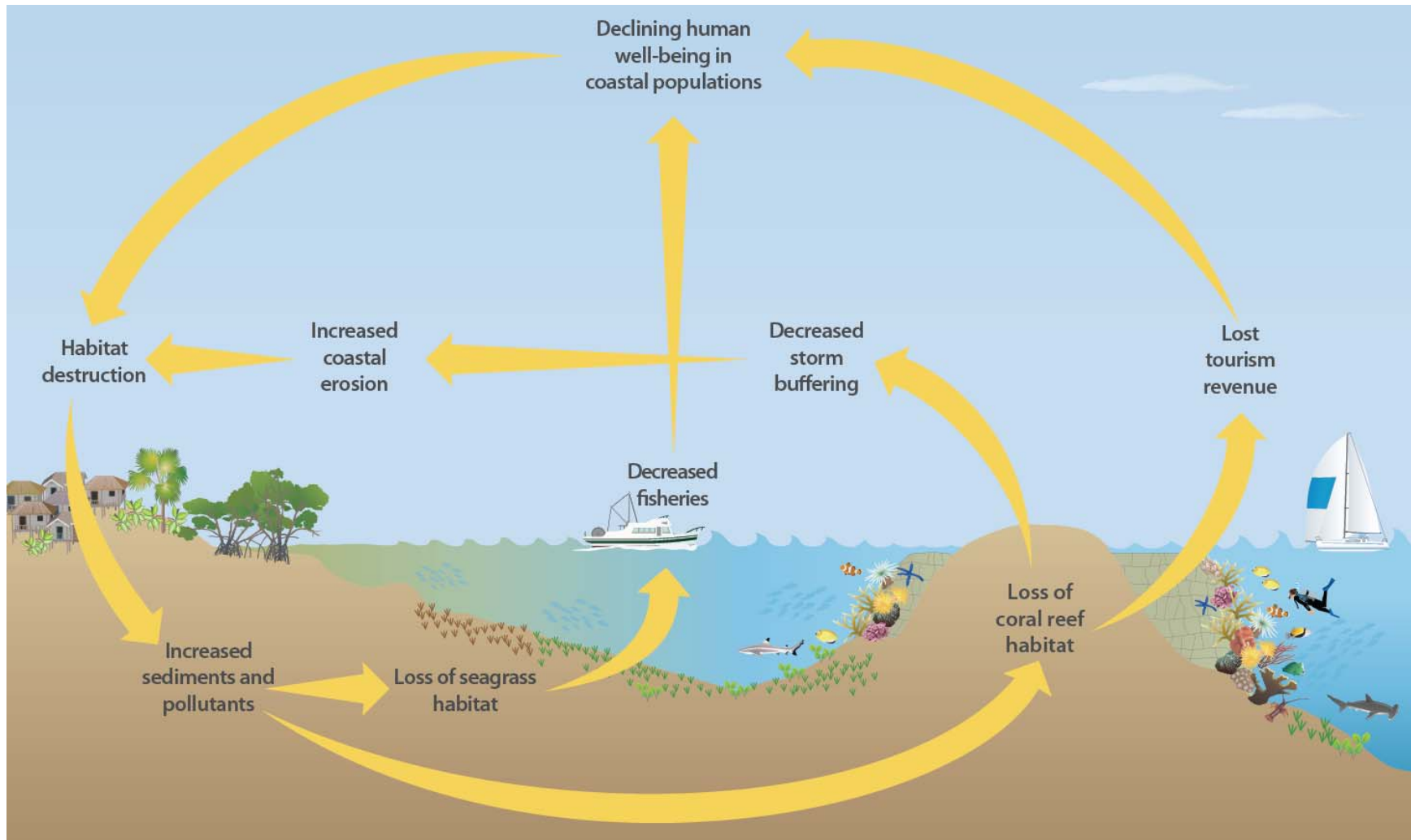
Sea-level rise



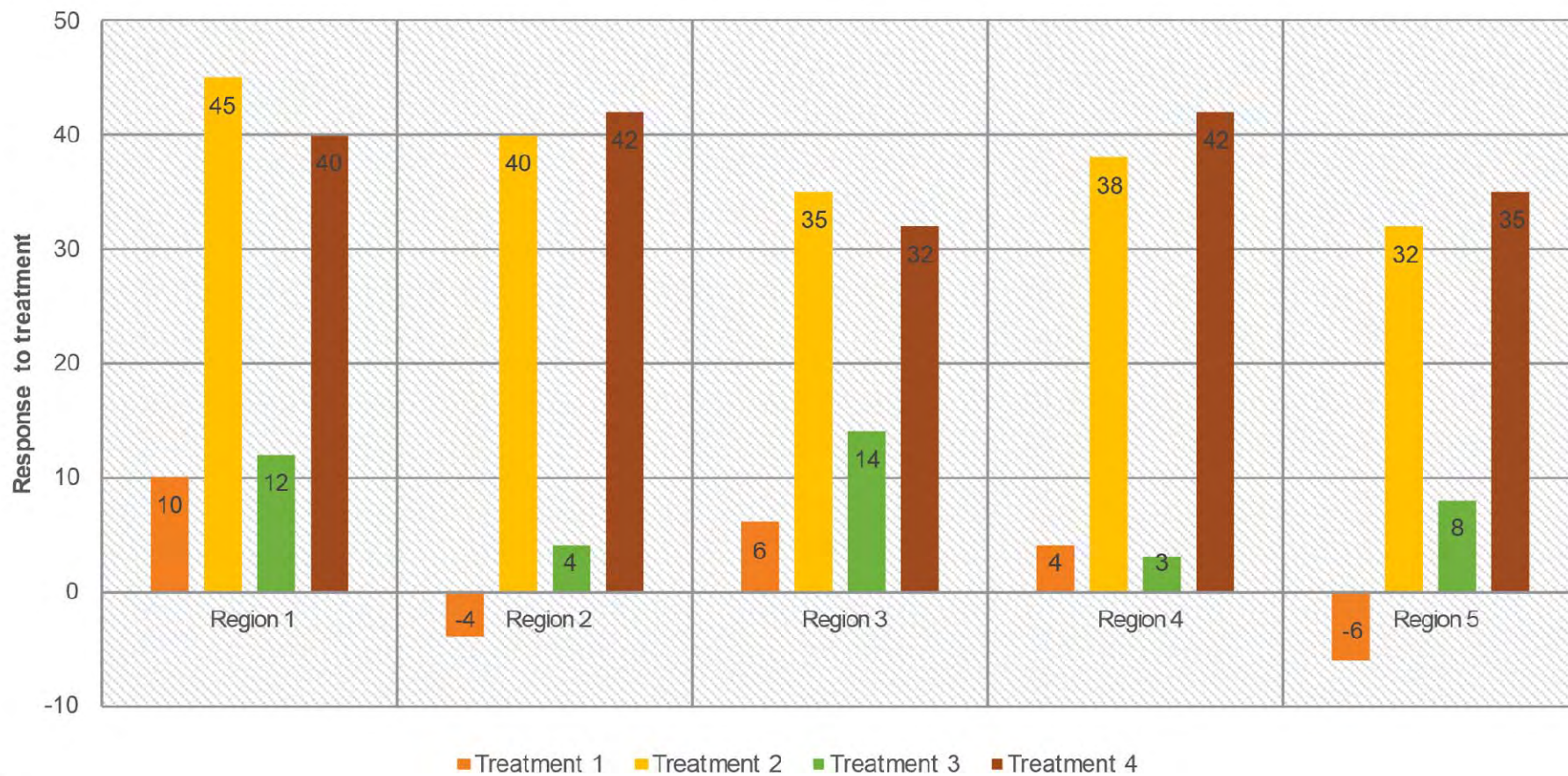
Boring flow charts become....



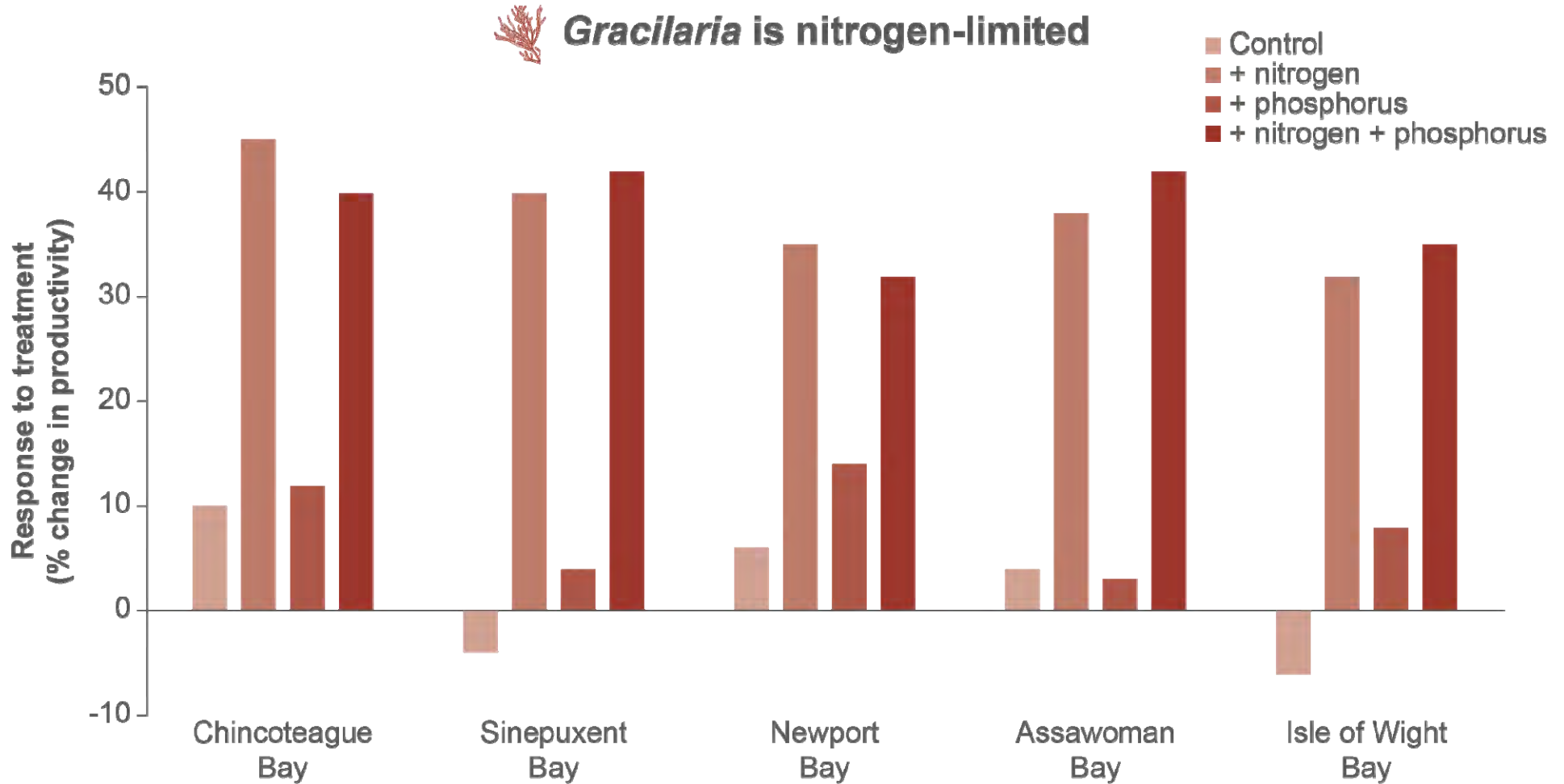
... a dynamic conceptual diagram that engages *and* informs



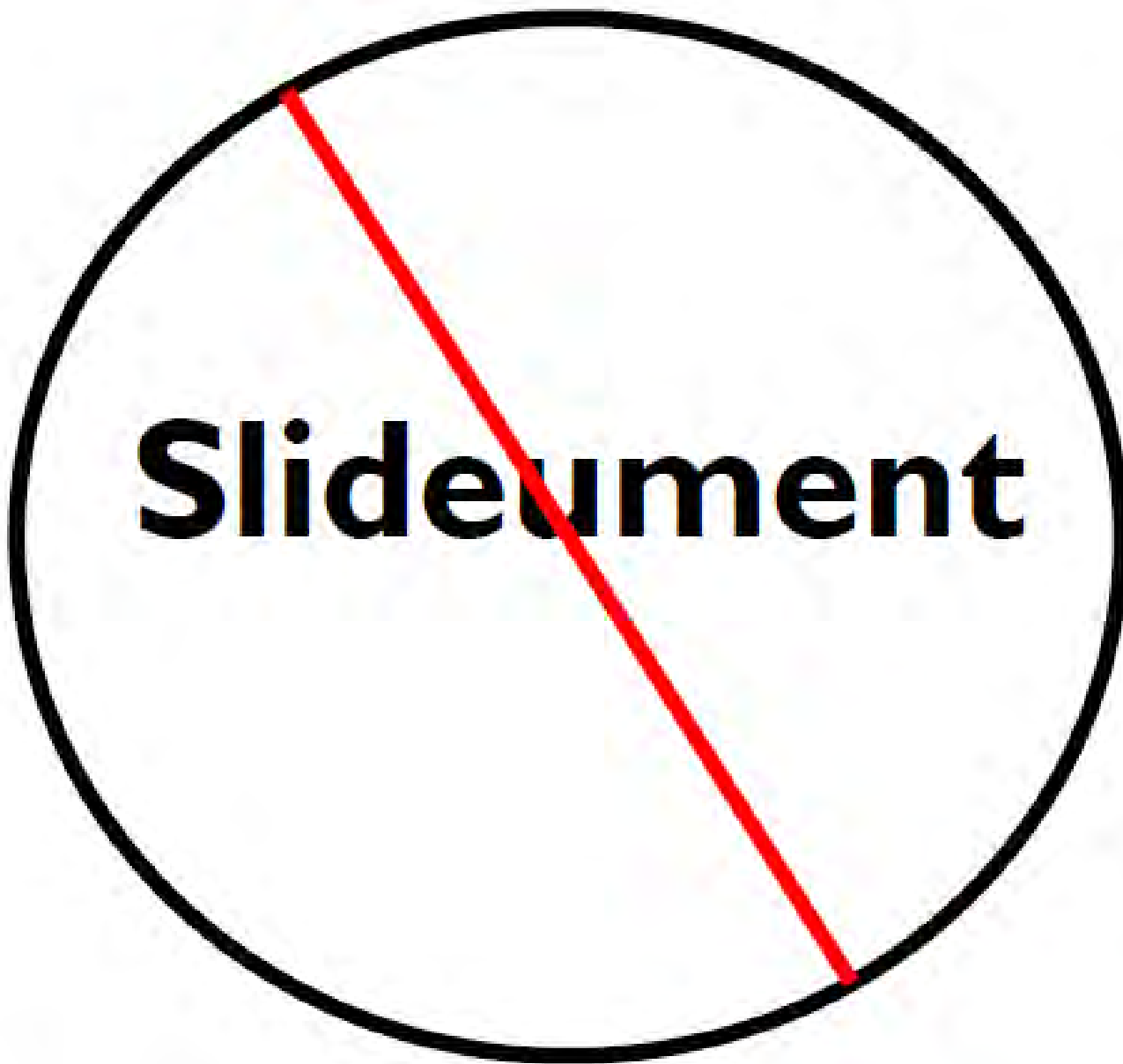
Experimental results



Formatting makes all the difference



- In
- Inc
- Sig
- W
- 10
- R



Sea Level Rise



- Increase in rainfall.
- Increase in stormy weather.
- Significant reduction in glacial ice.
- Warming of oceans.
- 100 year floods will become 10 year floods.
- Risk to low-lying infrastructure.

Every 10 years?







Accelerated sea level rise underscores existing coastal management challenges:

- ❖ **Planning:** Guide/contain shoreline development, beware coastal sprawl
- ❖ **Hazards:** Anticipate and avoid, don't just react and rebuild
- ❖ **Setbacks:** from dynamic coastal features - bluffs, beaches, marshes
- ❖ **Armoring:** Decide where you want it, and where you don't, or you'll get it everywhere
- ❖ **Restoration:** Build resilience by restoring and protecting geomorphic processes, not specific habitat configurations



Answer to sea level rise?







Dan Nickel, The Watershed Co.

BEFORE



Dan Nickel, The Watershed Co.

AFTER

Thank you!