Seven elements of a successful NRCA project

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Integration & Application Network

Communicate better. Empower change.

A SUCCESSFUL NRCA PROJECT IS ONE THAT:

- ✔ Engages park staff
- ✔ Has access to good data
- ✔ Uses good science and professional judgment
- ✔ Synthesizes information
- ✔ Has conclusions and recommendations
- ✔ Has a report that is attractive, easy to read and understand
- ✔ Can be repeated to assess change

1. Engage park staff

- Park staff:
  - know the park
  - know its values
  - know its issues
  - have a vested interest and are partners
  - have the data!
- Involve park staff from the beginning
- Put time aside to visit the park and have Park staff give you a tour
- Keep park staff involved through the process
- Produce a product that is useful to them

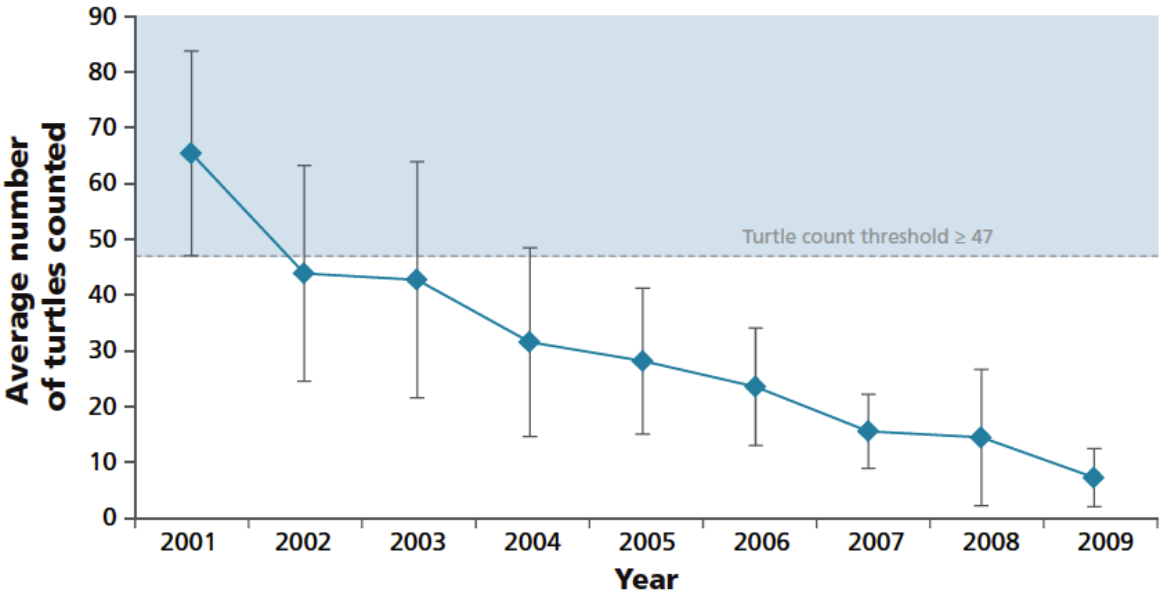
1. ENGAGE PARK STAFF

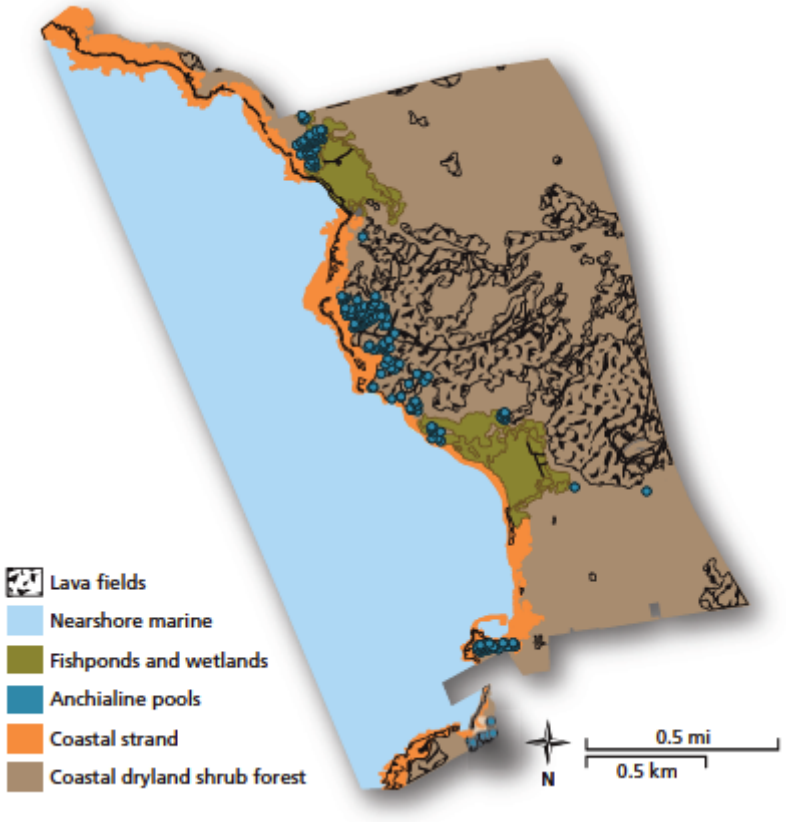
Typical kickoff meeting agenda

Item	Time
Introductions and overview	9:00 am – 9:15 am
Project administration • Participants and roles • Timelines • Milestones • Lines of communication	9:15 am – 9:45 am
Park conceptualization • Natural resource values • Park zonation (habitat, geology, geography, legislative, management) • Park pressures	9:45 am – 11:15 am
Break	11:15 am – 11:30 am
Assessment approach • Framework/s to adopt • Indicators/metrics	11:30 am - 1:00 pm
Lunch	1:00 pm – 2:00 pm
Assessment approach cont. • Data availability and location • Threshold identification/development • Reporting	2:00 pm – 3:30 pm
Close	4:00 pm

2. Access to good data

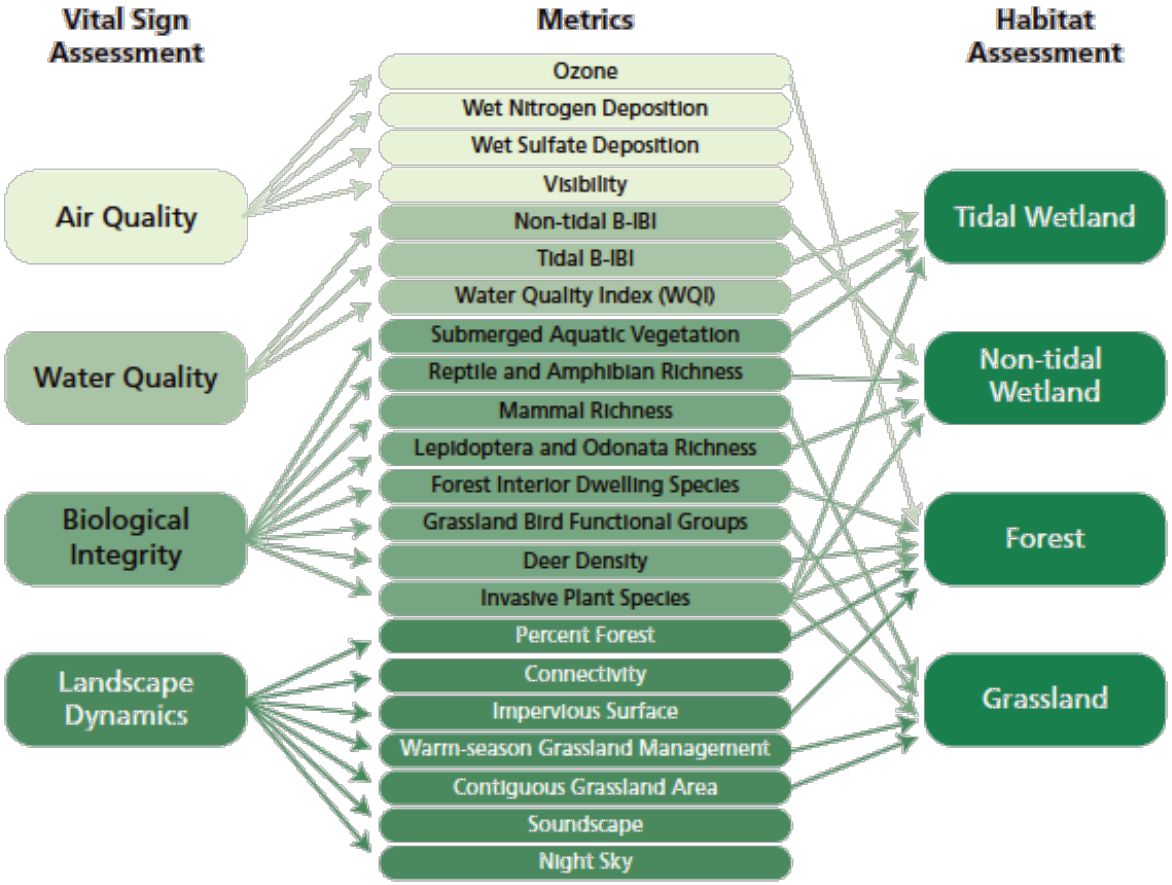
- NRCAs are all about data
- Knowing where to get it and who from is a challenge
- Raw and processed data
- GIS layers
- Common issues include:
  - Format and quality of data
  - Gaps in data
  - Ownership of data





3. GOOD SCIENCE AND PROFESSIONAL JUDGMENT

- NRCAs need to be defendable
- Methodology needs to be documented
- Assumptions need to be documented
- Approach needs to be scientifically sound
- Confidence in findings need to be stated



4. SYNTHESIZE INFORMATION

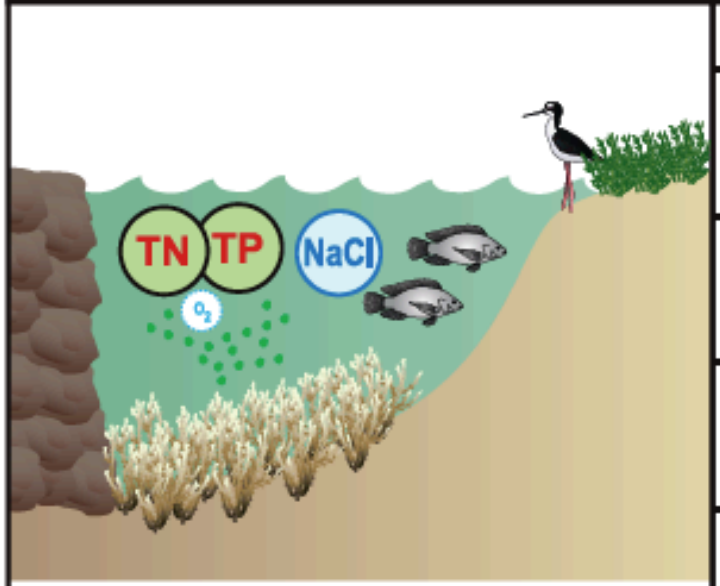
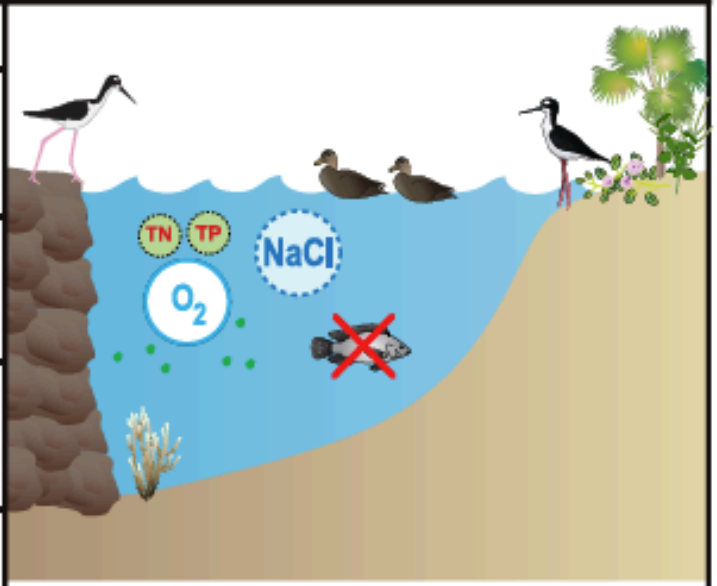
- Often a lot/too much information available
- Not everything has to be used
- Choose indicators that best represent the condition of the natural resources being assessed
- Use maps and diagrams to present the data and your findings
- Adopt a grading a system (color coded, report card, %)

	Metric (by category)	Threshold	Mean	SD	Sites	Samples	Period	Percent Attainment	
								Sub-metric	Overall
Fishponds and wetlands: Aimakapa									
Water quality	Chlorophyll *a* (ug/L)	< 2	10.0	6.31	12	259	2004-2007	14.7%	31.6%
	Total Nitrogen (mg/L)	< 0.2	-	-	-	-	-	-	
	Total Phosphorus (mg/L)	< 0.025	2.3	1.73	2	20	2005-2009	25%	
	Dissolved Oxygen (% sat.)	> 75	77.5	25.97	13	259	2004-2008	55%	
	Salinity (psu)	**< 26**	13	0.61	38	281	2004-2009		**100%**
	Percent invasive algae (%)	< 5	0	0	-	-	N/A		**100%**
	Coot and stilt abundance (number per survey)	> 33	28.8	12.6	-	108	2001-2010		**39.8%**
	Percent native vegetation (%)	> 90	27.1	43.1	4	4	2008		**25%**
	Tilapia catch per unit effort	0	26.4	29.44	1	7	2008-2009		**0%**
								Aimakapa fishpond overall	*49.4%*

4. SYNTHESIZE INFORMATION

FISHPOND & WETLAND HABITAT

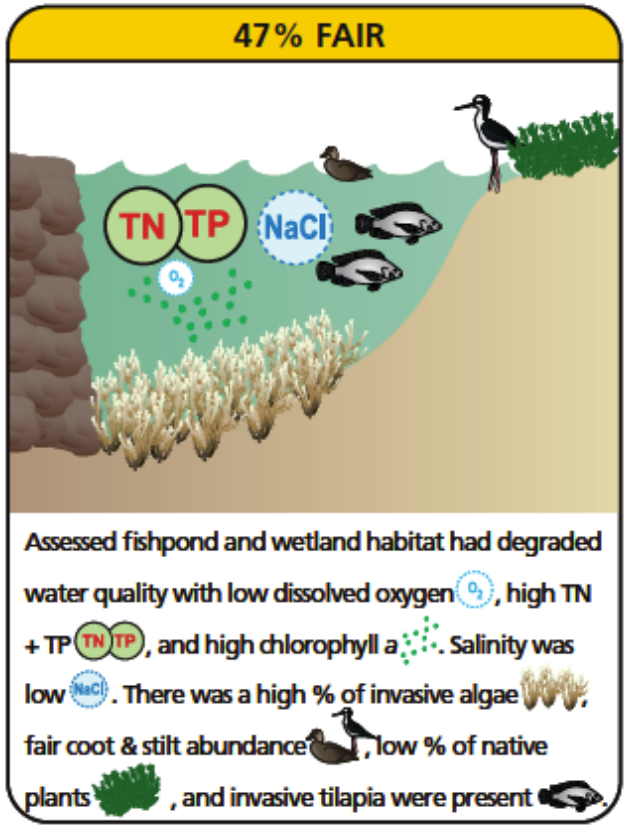
47%

DEGRADED	INDICATORS	DESIRED
	low — Water quality index — high	
	high — Salinity — low	
	high — % Invasive algae cover — low	
	unsustainable — Coot & stilt abundance — sustainable	
	low — % Native vegetation — high	
	present — Tilapia capture per unit effort — not present	
Degraded fishpond and wetland habitat has poor water quality with low dissolved oxygen, high TN + TP, and high chlorophyll a, and higher salinity. There is a high % of invasive algae, low coot & stilt abundance, low % of native plants, and invasive tilapia are present.		Desired fishpond and wetland habitat has excellent water quality with high dissolved oxygen, low TN + TP, and low chlorophyll a, and lower salinity. There is a low % of invasive algae, high coot & stilt abundance, a high % of native plants, and invasive tilapia are not present.

5. Conclude and recommend actions

- Not enough to just summarize
- Conclude your findings, data inadequacies and limitations of your assessment
- Recommend actions to overcome these limitations in the future
- Recommend actions to address issues identified in the park

FISHPOND AND WETLAND HABITAT



FISHPONDS AND WETLANDS HABITAT

Key findings	Recommendations
Fishponds and wetlands habitat	
• Two systems, Kaloko and Aimakapa, combined for assessment though very different in condition.	• Management effort needs to be targeted to individual ponds.
• Highly modified and managed systems.	• Intervention possible but need to balance cultural and natural needs.
• Water quality poor in both ponds.	• Missing data for TN in Aimakapa fishpond. Include analysis of TN for this fishpond in future sampling.
• Non-native vegetation problem in both wetlands.	• Invasive species management; native replanting.
• Mean salinity in Kaloko pond often above threshold required for mullet reproduction.	• Conduct fish surveys to ascertain if mullet production is lower in different ponds. If so implement groundwater management; reduce/increase ocean flushing rate.
• Invasive fish species in Aimakapa fishpond.	• Investigate and initiate eradication options.
• Invasive algae species in Kaloko fishpond	• Investigate and initiate eradication options.

5. CONCLUDE AND RECOMMEND ACTIONS

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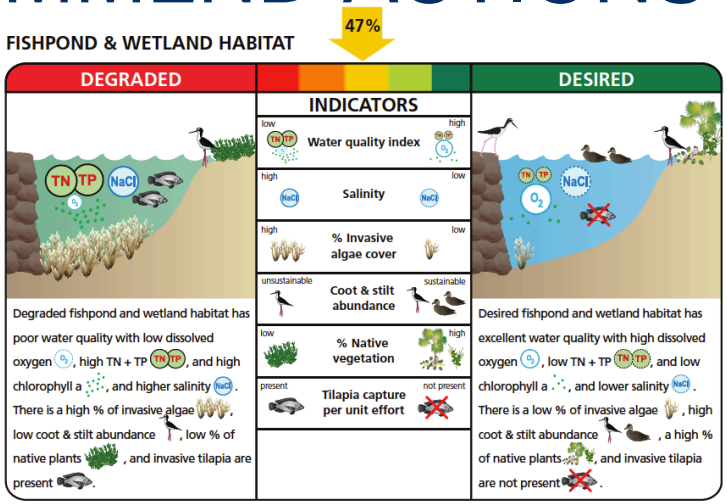

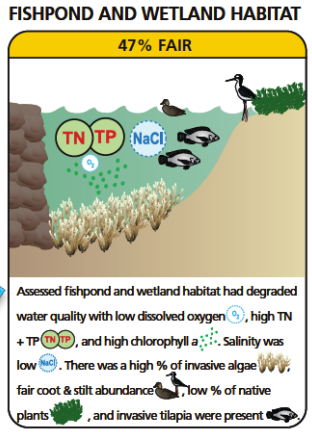

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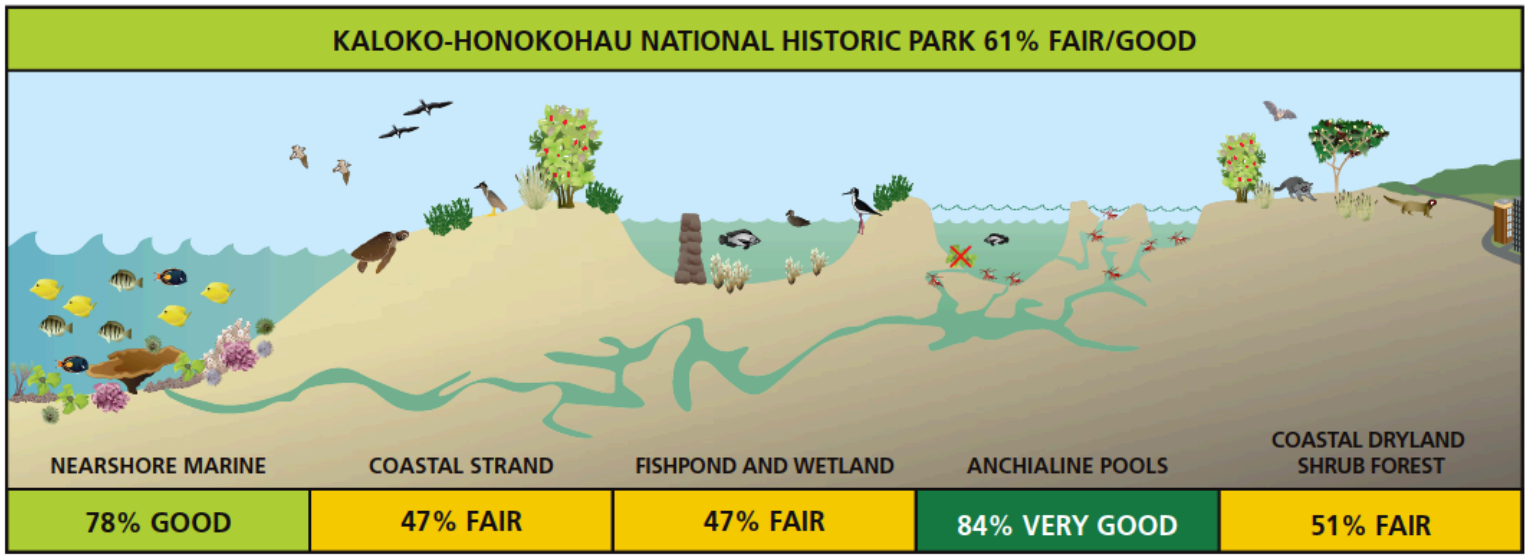
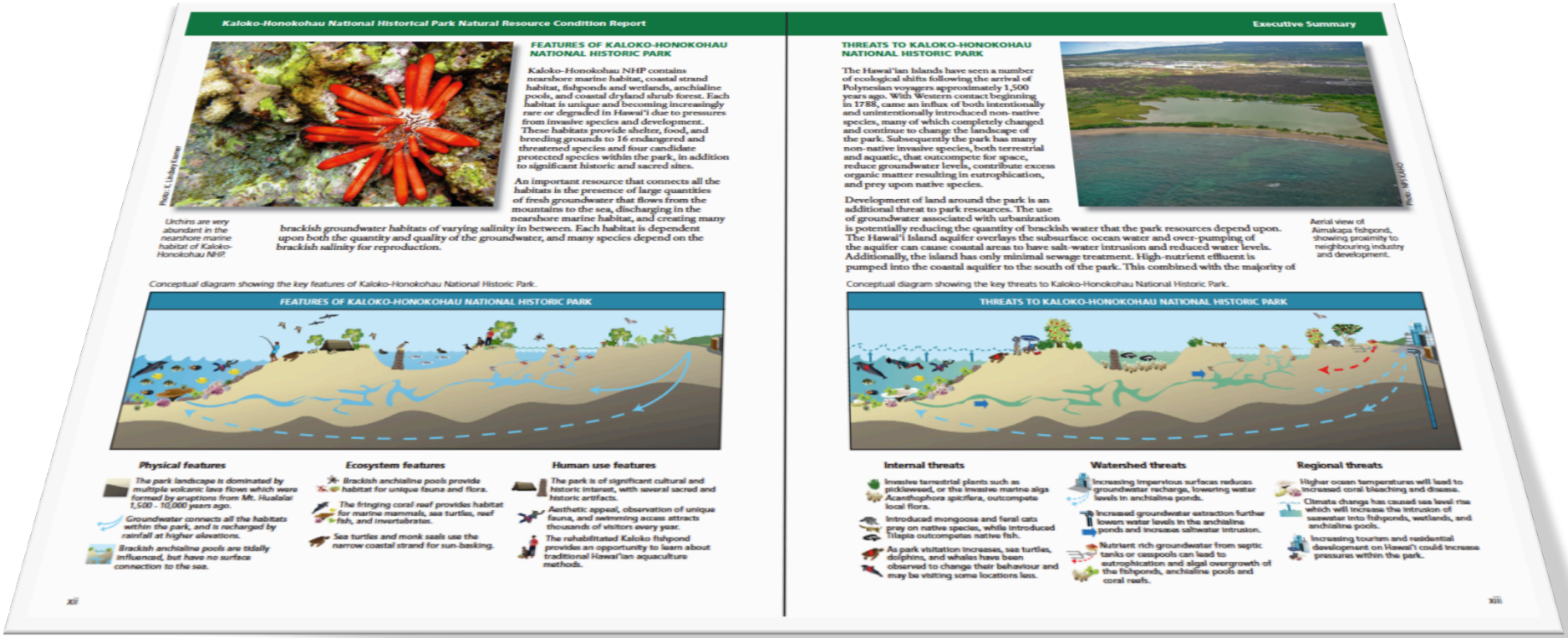


5. Conclude and recommend

- Work towards making it not just “another report”
- Make it attractive to pick up and read
- Spend adequate time on the executive summary and let it stand alone (we design it so that it can be used as a brochure independent of the rest of the report)

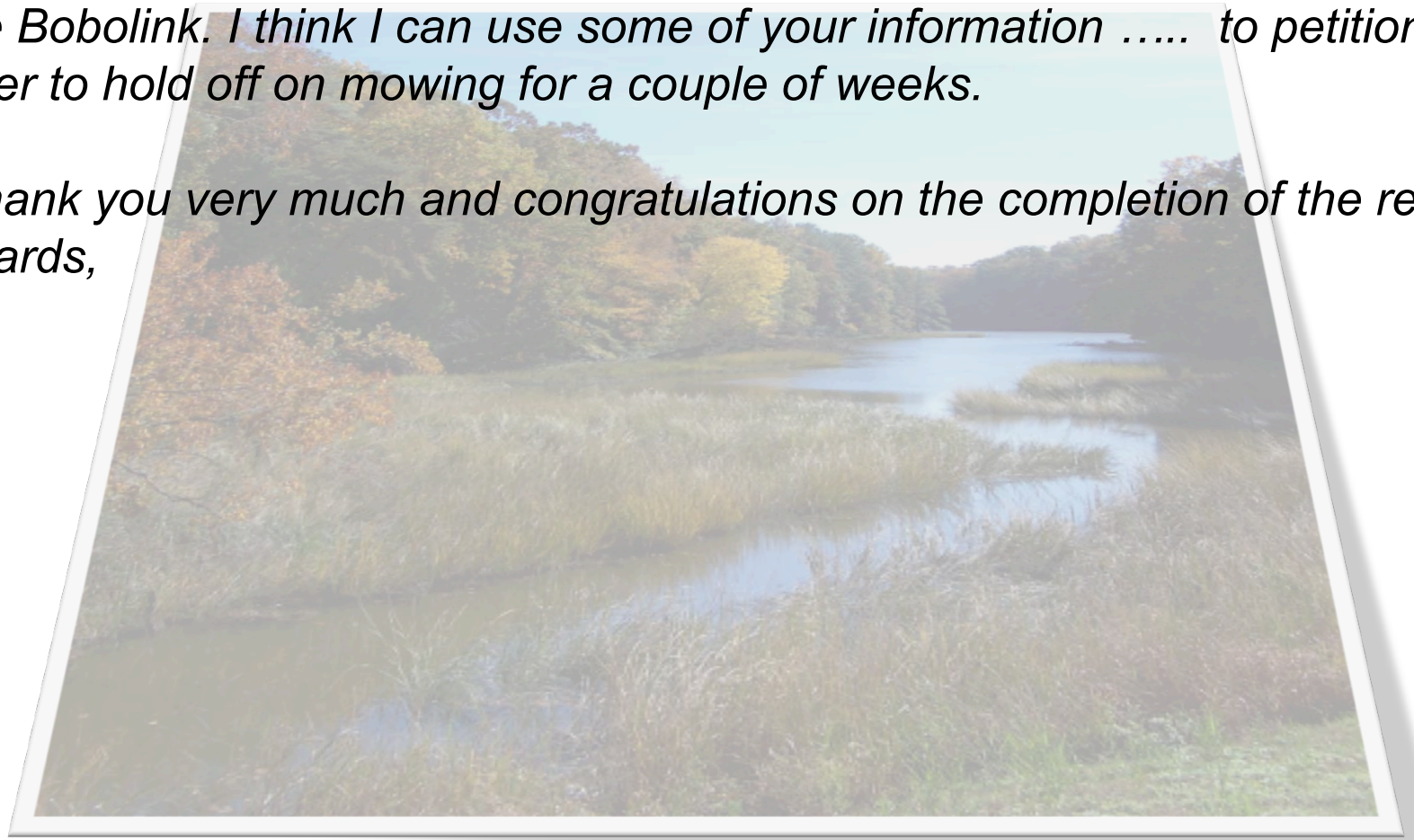


6. TAKE-UP AND USE

“Hi Tracey,
Thank you very much for using my photo ……..

…….I have recently gotten into a kerfuffle with a local landowner ……. who every year mows a field in which Bobolink are breeding, destroying the nests and young …. I noted the report discusses hectare requirements and decline of ground nesting birds like Bobolink. I think I can use some of your information ….. to petition the landowner to hold off on mowing for a couple of weeks.

Again, thank you very much and congratulations on the completion of the report.
Best regards,
Kelly”



7. Design NRCAs so that they can be repeated to assess change

- NRCAs report the condition up until a certain point of time, but parks are not static.
- Controllable and difficult-to-control pressures continue to exist
- Future NRCAs need to build upon current NRCAs
    - try not to use indicators that are no longer monitored
    - strengthen monitoring of indicators that have been useful in assessment
    - begin monitoring indicators that will be useful based on predictions of change