

Engaging People:

A toolkit for human dimensions in shorebird conservation



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Introduction

The solutions to many shorebird threats are rooted in collaborations with local communities. But when should communities be engaged? And how should they be engaged?

The WHSRN Executive Office has compiled recommendations and tools to help site partners select, design, implement, and evaluate the human dimension strategies that are the best fit for the threats at their site. This user friendly toolkit provides a step-by-step process that will allow you to quickly, efficiently, and effectively develop human dimension programs. Case studies, sample tools, and examples from published research are provided to assist with the development of your program.

Once you determine that the community will be needed to solve a threat, consider four main strategies: *social marketing* for behavior change, *volunteer programs* for support of conservation actions, *education* to build a broader base of supporters, and *advocacy* to engage that base of supporters in the decision-making process. While typically only described in social marketing, all types of human dimension programs can and should include social research for audience segmentation, barrier identification, and motivators for change to ensure that you develop an effective program with measurable outcomes.

We recommend this process based on Douglas McKenzie-Mohr's community-based social marketing approach (McKenzie-Mohr 2011):

- » Define the threat and actions needed
- » Define the audience
 - Identify key characteristics
 - Identify barriers to change or action
 - Identify motivators for change or action
- » Develop clear and direct strategies
- » Implement
- » Evaluate

LEARN MORE

The social marketing process here is based on Douglas-McKenzie Mohr's Community-based Social Marketing.

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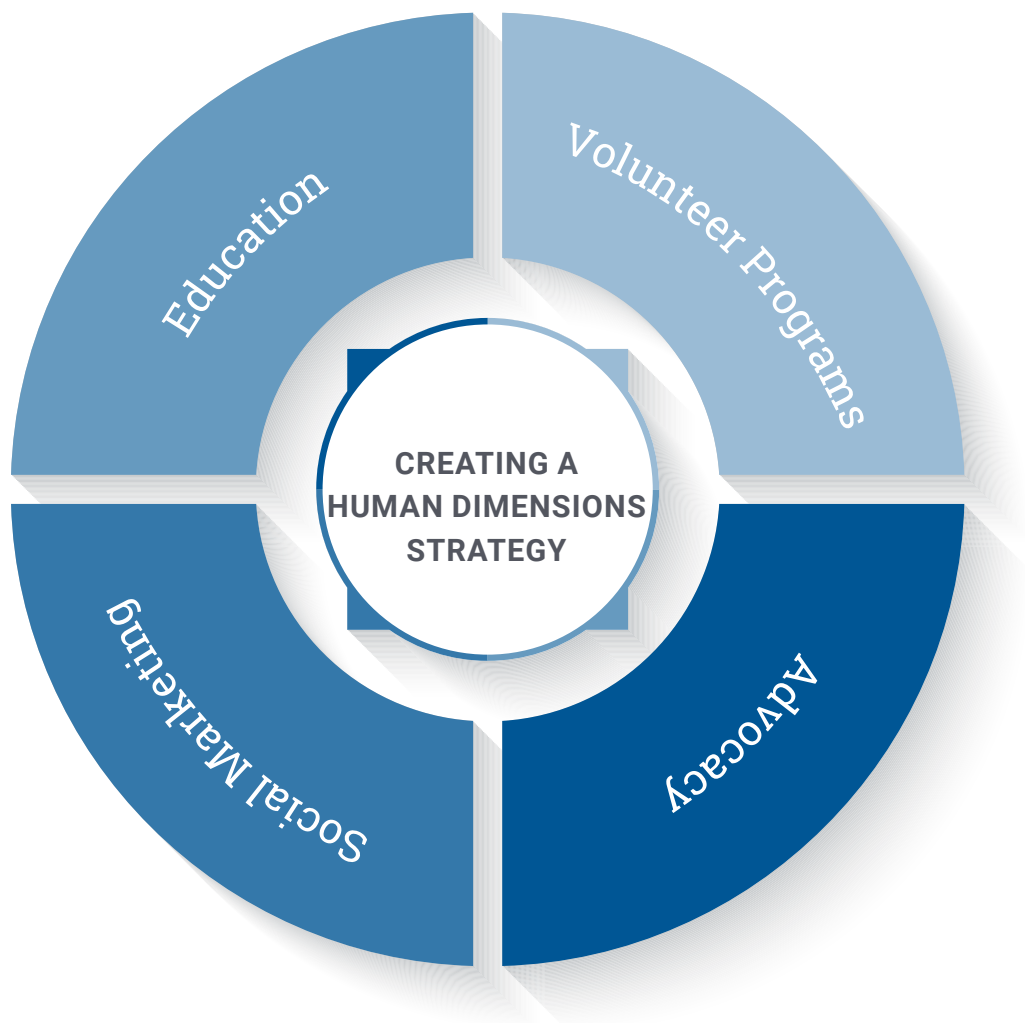
Not every threat needs an extensive human dimensions strategy. Before investing time, resources, and funds in a program, carefully consider if it is truly what is needed for your site and its threats.

Incorporating Human Dimensions in Conservation Planning

Social Marketing

Social marketing uses traditional marketing techniques to motivate behavior change for social good (Dinan and Sargeant 2000, McKenzie-Mohr 2011, Rothschild 1999). Kotler and Roberto define social marketing as “a program planning process that promotes the voluntary behavior of target audiences by offering benefits they want, reducing barriers they are concerned about, and using persuasion to motivate their participation in program activity” (1989). Like traditional marketing, social marketing includes significant audience segmentation with identification of the target audience’s characteristics, their barriers to change and the benefits that will motivate a change in their behavior (Dinan and Sargeant 2000, Martinez et al. 2013, McKenzie-Mohr 2011). It can be helpful to think of the desired behavior change as the product that you are trying to sell.

Good social marketing addresses the barriers to behavior change and motivates the audience to change behavior by providing a benefit to the audience. This is different from traditional education. With education



you are increasing knowledge and creating an environmental ethic, but education alone cannot deliver the benefits that will change behavior (Rothschild 1999). A campaign that is strictly focused on increasing knowledge as a means of changing opinions, values, and behavior is best for people who are less firm in their beliefs (Rothschild 1999). To move beyond education to achieve social marketing, it is necessary to have an exchange, with the target audience receiving benefits for behavior change (Rothschild 1999).

Social marketing can also play an important role in achieving better implementation of management objectives with increased compliance for regulation or management programs (Kennedy 2010, Rothschild 1999, Verissimo 2013). The regulation can define the necessary behavior, but social marketing will ensure that people will participate in the behavior.

When to choose Social Marketing:

When the threat is directly related to human activity and a behavior change is needed to resolve the threat.

Volunteer Programs

Volunteer programs, like stewardship and citizen science have long been a part of community engagement activities for conservation. There is a great deal of work and volunteers provide extra hands to get it done. Volunteer stewardship typically refers to people “who give their time and effort on a voluntary basis with the common purpose to preserve, protect, and work for the betterment of a specific geographic area,” (Lerner 1986 in Hancock 2007). Citizen science “engages non-professionals in authentic scientific research,” (Dickinson et al. 2012). Volunteer-based stewardship and citizen science programs can provide much-needed assistance to land managers, biologists, and conservation organizations to support restoration and monitoring for shorebird conservation (Dickinson et al. 2012). Often, the target audiences are already passionate about shorebird conservation or the environment in general and are looking for an opportunity to take action.

Citizen science projects increase the knowledge of participants and contribute to larger research efforts (Becker-Klein et al. 2016, Evans et al. 2005), but just as important, this type of community engagement can also cultivate a deeper connection, making participants more motivated to support other conservation actions (Dickinson et al. 2012, Miller 2005, Weston et al. 2003). Volunteer activities can increase acceptance of management decisions, motivate behavior change, increase support to fund activities like large-scale restoration, and improve recruitment of new volunteers to maintain programs over the long term (Antos et al. 2006).

When to choose Volunteer Programs:

When you need to build a constituency of supporters and the site has management activities or monitoring with predictable timing and easy-to-learn protocol.

LEARN MORE

[Citizen Science: Public Participation in Environmental Research](#), Edited by Janis L. Dickinson and Rick Bonney is a near comprehensive resource on citizen science.



Photo by Arne Lesterhuis

Education

Conservation issues occur when a person's environmental ethic does not motivate them to act for conservation. Values are formed in childhood, and can take a long time to change those values, often multiple generations (Manfredo et al. 2003). Long-term conservation is only possible when these ethics and values are shifted to support conservation.

Environmental education has always been an important part of building environmental ethics and values, which are the guiding force behind environmental decisions. Education, particularly personal interaction, can form a strong connection and increase knowledge of shorebirds and their habitats, and over the long term can create an environmental ethic for conservation (Miller 2005). Measuring the impact of this strategy is difficult, but if there is an opportunity to educate and raise awareness, the long-term benefits of a passionate and engaged community will be evident (Miller 2005).

If the goal is to change a person's values or behavior quickly by increasing knowledge, education is only an option if the target audience is less firm in their beliefs (Meadow et al. 2005). If someone is simply not aware of a conservation issue, then education can increase that awareness. If someone is already supportive, then education can strengthen that support (Meadow et al. 2005). Education should usually be implemented with a combination of other activities like social marketing or advocacy to solve immediate threats. Remember, on its own it might not be enough to change behavior (Rothschild 1999).

When to Choose Education:

When there is low awareness of shorebirds at your site, and you need to build a constituency of people.

Photo by María Jesús Martínez Contreras.



Advocacy

Advocacy can be a scary word, but really all it means is to influence public policy. Sometimes regulation and policy become necessary when the audience is not responding to the benefits of a social marketing initiative (Rothschild 1999). In order to take action on regulatory and management actions that are important for shorebird conservation, local leaders often need to know that the community supports their efforts or may need to know how they will react (McCleery et al. 2006, Phillips et al. 1998). Advocacy provides the opportunity for communities to have their voices heard. The interests of the public need to be considered as management authorities will need to meet both the needs of communities and shorebirds¹ (Mankin et al. 1999).

Advocacy can also be in the form of a stakeholder or participatory approach. A stakeholder approach works with all the people who have an interest in the management decisions to develop policy and design interventions, giving the stakeholders a voice (Burger and Niles 2017, Jorgenson and Brown 2015, Newton 2001, Steg and Vlek 2009). One example of this is WHSRN's Good Governance approach for conservation action which covers the rules and procedures of decision-making and includes access to information and participation in decision-making processes. Potential good governance mechanisms and tools include multi-stakeholder management committees, management plans developed through participatory processes, local authority bylaws that regulate the use of an area, development of proposals for official protected area status, and the development of projects that integrate site conservation efforts with local development.

For advocacy to be successful, it helps to build a base of support with volunteer programs and education. With a targeted community engagement strategy, you will build and make vocal that community voice. If you have a constituency that supports an initiative, it will encourage leaders to take conservation action, but will also provide a balance to other stakeholders who do not support conservation actions. When called upon, this constituency of people can show support for conservation action that you need whether that be approval of beach closures, funding for a project, change in land management on a refuge, or new regulation, like in fisheries.

When to choose Advocacy:

When you have a management authority that needs to interact with stakeholders on a policy decision.



Photo by Patricia González.

Working Together

Most likely your human dimension program will combine several different types of community engagement to reach different audiences and different aspects of the threat you are focusing on. They may share messages, tools, or materials; or they may function separately with targeted strategies for each audience.

For example, good governance techniques could be used to work with local stakeholders to develop a new management program for their beaches, but community members may not follow the new regulations. A social marketing program would encourage people not to use the beach near important critical habitat by providing trails and viewing platforms at a safe distance. A volunteer stewardship project would then engage supportive people to serve as stewards to help people understand the new management protocol.



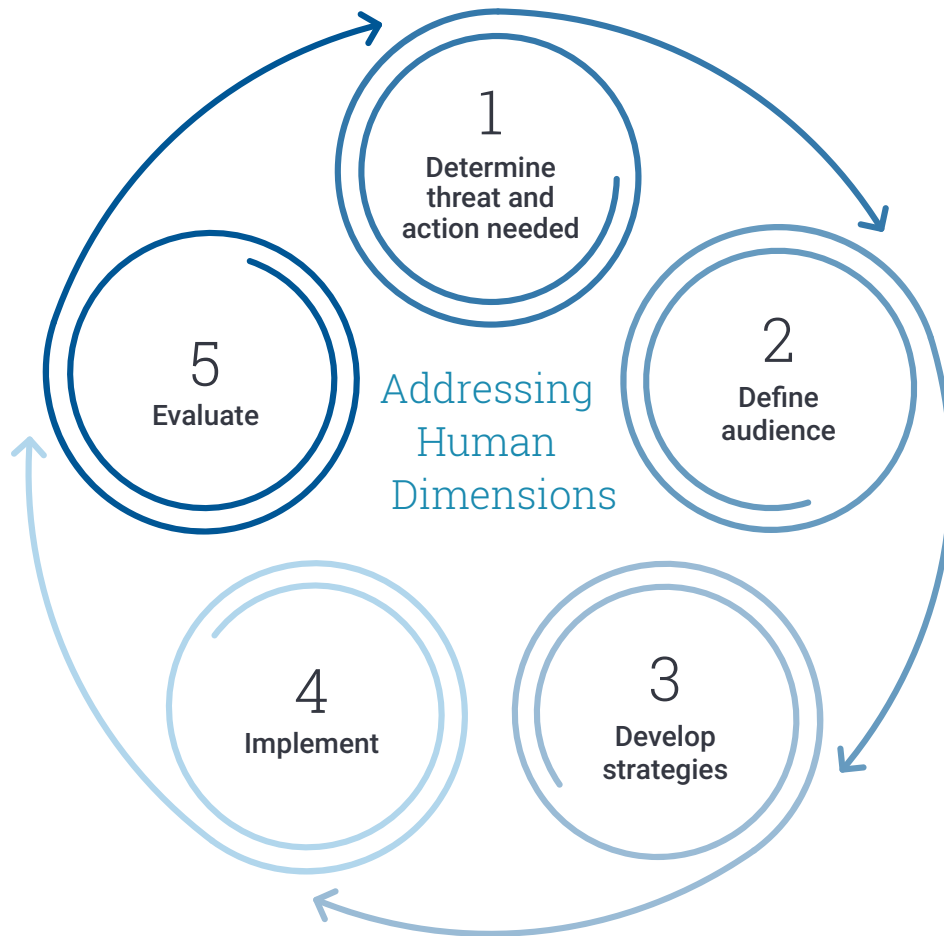
Design a Human Dimension Strategy

In each of the following steps, we have included a description, questions you should answer to help you develop your program, and an example case study that we will follow as we move through each step. The example is from a fictional shorebird site and the research and results are hypothetical.

This framework is based on that of Douglas McKenzie-Mohr's community-based social marketing (2011). There are other similar frameworks for a theory of change, like Rare's Pride campaigns (Butler et al. 2013, Jenks et al. 2010) or Tools of Change (Kassirer 2019). The precise structure and terminology of the framework is not important, but the framework should ensure that specific audiences and threats are targeted and human behavior is monitored along with biological outcomes.

GOT PARTNERS?

If your site has a complex network of organizations, people, and agencies involved in conservation, you may consider forming a partnership for development of the community engagement program. The earlier you engage partners, the more buy-in and support they will provide as you move forward.



The basic five step process for addressing human dimensions in shorebird conservation.

Step 1: Identify Threat and Action Needed

This may seem obvious, but it is perhaps the most important.

It is critical to clearly define the threat and the desired action that will resolve that threat. For WHSRN sites, it will often be done through the Site Assessment Tool (SAT). In the absence of a SAT, management plans where threats have been clearly defined will often be used. A participatory session with stakeholders may also be useful and can then be used as the team of stakeholders to support community engagement activities (Andriamala et al.2013). Two additional tools for defining threats are the Atlantic Flyway Shorebird Initiative Business Plan and the Pacific Americas Shorebird Conservation Strategy. The Atlantic Flyway Shorebird Initiative Business Plan highlights seven key threats, plus climate change/sea level rise, which need to be addressed for shorebird conservation (AFSI 2015). The Pacific Americas Shorebird Conservation Strategy highlights eleven key threats in the Pacific Flyway (Senner et al 2016).

Next, you will identify the extent of the threat and the biological/ecological impact to understand the specific needs for conservation action. This data will provide the baseline measurements for evaluation through the duration of the project. This baseline data will be specific to the site and will depend on if the shorebirds are

resident, migrating, or nesting. Possible metrics might include number of shorebirds using a site, shorebird weight gain during stopover, acres of shorebird habitat, number of nesting pairs, or another specific metric that is appropriate for your site. *Remember you will need to conduct this monitoring over the long term, so be sure you will have the capacity to maintain a monitoring program that will give you the data you need.*

Finally, identify the actions needed to resolve the threat. This can be either the behavior change needed or other conservation needs like improved monitoring or assistance with management activities. Community engagement can often play a role in the solution, and it may be an opportunity to build your constituency through citizen science or stewardship activities or to activate that constituency through advocacy.

Final Thoughts:

Define your threat and management needs as specifically as possible. Design your biological monitoring program so that it can be maintained over the long term.

The Atlantic Flyway Shorebird Initiative (AFSI) Business Plan highlights seven key threats, plus climate change/sea level rise that need to be addressed for shorebird conservation (Table 1). The business plan highlights the need for “outreach or community engagement as a recommended strategy for all threats except incompatible coastal engineering. Thus community engagement is needed for most types of threats. Table 1 includes recommendations for the types of engagement that might be effective, but ultimately they will be unique for each site.

THREATS	OUTREACH NEEDED	POTENTIAL TYPES OF COMMUNITY ENGAGEMENT
Disturbance from Recreation	Yes	Social Marketing, Education, Volunteer Programs, and Advocacy
Shorebird Hunting	Yes	Social Marketing, Education, Advocacy
Predation	Yes	Volunteer Programs, Education
Incompatible coastal engineering	Not likely	
Incompatible residential and commercial development	Yes	Education, Advocacy
Incompatible natural resource management	Yes	Education, Advocacy
Invasive species	Yes	Volunteer Programs, Education
Climate Change/Sea Level Rise	Yes	Education, Advocacy, Social Marketing

Table 1. Atlantic Flyway Shorebird Initiative threats and community engagement considerations.

The Pacific Americas Shorebird Conservation Strategy lists eleven threats that need to be addressed for effective shorebird conservation in the Pacific Flyway. All eleven threats will need outreach and thus community engagement to be resolved. Table 2 includes recommendations for potential strategies that might be effective, but ultimately they will be unique for each site.

THREATS	OUTREACH NEEDED	POTENTIAL TYPES OF COMMUNITY ENGAGEMENT
Development	yes	Education, Volunteer Programs, and Advocacy
Agriculture and Aquaculture	yes	Social Marketing, Education, Volunteer Programs, and Advocacy
Energy Production and Mining	yes	Education, Advocacy
Transportation and Corridors	yes	Education, Advocacy
Biological Resource Use	yes	Social Marketing, Education, Volunteer Programs, and Advocacy
Human Disturbance	yes	Social Marketing, Education, Volunteer Programs, and Advocacy
Water use and management	yes	Education, Advocacy
Storm/Flood Control	yes	Education, Advocacy
Invasive species and problematic native species	yes	Volunteer Programs, Education
Pollution	yes	Volunteer Programs, Social Marketing, Education
Climate Change	yes	Education, Advocacy, Social Marketing, Volunteer Programs

Table 2. Pacific Americas Shorebird Conservation Strategy threats and community engagement considerations.

Identify the threat and action needed

What is the key threat?

What behavior change or action is needed?

What is the desired shorebird impact for the action?

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Is the community needed to achieve this action? |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Is the action a behavior change by a specific audience? |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Do you need to collect data, but don't have the budget for staff? |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Do you need extra hands to complete a conservation or management activity? |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Do you foresee a long-term need to have a strong base of support in community? |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Does it involve regulation, public funds, or management decisions and is community support needed to move these actions forward? |

IN ACTION

Threat: Off-road recreationists drive vehicles on beaches where shorebirds are foraging.

Action: Behavior change and possibly regulation will be needed.

Shorebird Impact: The number of flocks/birds that initiate flight (from a disturbance agent) is reduced.



Photo by Diego Luna Quevedo.

Step 2: Define the Audience

IDENTIFY TYPES OF AUDIENCES

Know your audience. Easier said than done.

The next step is to identify the types of audiences who need to be involved. Be specific, but don't assume that you need to work with everyone. Common audiences will include elected officials, natural resource/tourism/recreation agency staff, residents in close proximity to critical habitat, salt producers, aquaculture farmers, tourists, off-road recreationists, subsistence hunters, ranchers, business owners, birders, sportsmen, and nature-lovers. Focus on the audiences that are necessary to resolve your threats or contribute to conservation actions. Table 3 provides potential considerations to segment audiences.

Often the challenge with addressing human dimensions is that program is too broad and attempts to reach many audiences with one message and strategy. Audience segmentation can avoid this challenge, but on the flip side, it is tempting to segment the audiences to extreme detail with individualized strategies for each audience. This can lead to challenges. As one campaign highlighted, they had so many target audiences it was difficult to manage the campaign, particularly collecting information, monitoring, and evaluation (Adriamala et al. 2013). However, that same campaign noted that they missed opportunities to segment their audiences further and address certain critical leaders and business owners more directly. Learning from this, **determine the most important actions needed and the most important audiences to achieve those actions.** Then focus on those audiences.

AUDIENCE ANALYSIS

- » Social difference (religion, ethnic group, language)
- » Age (young/old)
- » Land ownership (owners/tenants/landless)
- » Household size and availability of labor
- » Household wealth and asset ownership
- » Occupational status (e.g., primarily agricultural or diversified)
- » Migration status (permanent residents, temporary residents, and/or transhumant/nomadic groups)
- » Level of education
- » Recreation activities

Table 3. Considerations for segmentation of audiences.

Define the Audience

What types of people are interacting with this site?

Yes No Are they necessary to resolve the threat?

Yes No Are they the root cause of the threat?

Yes No Does their behavior need to change?

If not the cause of the threat, can they do something to support a conservation action to solve a threat, like participate in a stewardship project or voice their support of a regulation?

IN ACTION

Key Audiences: Off-road recreationists, other beach users, birders/nature-lovers, elected officials, natural resource agency staff.

IMPORTANT NOTE:

'Stakeholder' can be used interchangeably with 'audience'. Stakeholder will be the preferred term when development of the strategy will involve collaboration with the audience/stakeholder. All of the techniques for understanding audiences can be used when understanding stakeholders.

IDENTIFY CHARACTERISTICS

Now let's understand these audiences better with a social research.

You need to understand the audiences' demographics, existing knowledge, opinions, and values. You also need to understand how they obtain information, what community activities they participate in, where they live, what leaders or community members they respect, activities that they enjoy, and their values on family or community.

McKenzie-Mohr (2011) suggests four components for research: literature review, observational studies, surveys, and focus groups. If funds allow, it can be useful to engage a social research firm to conduct third-party research to reduce bias, prepare and conduct surveys with appropriate sample size, and complete analysis.

A good governance process can help determine the relationships between key stakeholders and how each is held accountable. Potential stakeholders include municipalities, government ministries, communities, and local leaders, nongovernmental organizations, businesses, private landowners, administrators and managers of protected areas, and universities and research centers.

Stakeholder Interviews

Interested stakeholders are interchangeable with target audience. Stakeholder is often the preferred term when development of the strategy will involve collaboration with the audience/stakeholder. Interviews are an opportunity to fully understand impressions, experiences, or objectives. An interview will provide in-depth information and spark follow-up collaboration, but will have significant quantitative analysis. They are best used when you want to have continued collaboration with the stakeholder and the interview will support development of a relationship.

Literature Review

A literature review will always be the first step in the process. You can find what has worked, what has not, tips for how to conduct evaluation, and results from audience segmentation. Literature reviews have limitations as there is often limited published information available, as is the case for community engagement for shorebird conservation activities. (McKenzie-Mohr 2011)

Observational Studies

Observational studies are particularly important for a social marketing campaign since during the evaluation of the program, we will need to measure behavior change and thus will need to measure a baseline of behavior. Do not skip this research if your goal is to change behavior.

Tips for Observational Studies (McKenzie-Mohr 2011)

- » Conduct observational surveys if it is possible to observe unobtrusively.
- » Observe people who are engaging in the desired behavior and people who are not.
- » If possible have two or three people conduct observations of desired behaviors to remove bias.
- » Stop conducting observations once you have learned everything you can.

HELP NEEDED

A table that details each of these methods for data collection is found in Appendix XII.



Photo by Laura Chamberlin,

Survey

Surveys are going to be one of the most important techniques for understanding your audience. There are many different ways to survey your audience including phone-based opinion polls, intercept surveys, online surveys, and door-to-door (Mckenzie-Mohr 2011). Surveys should include questions on the audience demographics, their existing knowledge/values/opinions, why they don't engage in the behavior, their perceived benefits to engaging in the behavior, identification of trusted messengers, and how they get information. Surveys can be expensive and time consuming to implement, but valuable information can be obtained for understanding the audience, development of the message, and evaluation. A survey can also be very direct in the form of a stakeholder interview.

Tips for Surveys

- » Keep the survey as short as possible five minutes for in-person, ten minutes for over the phone.
- » Need to define what you want to know and what you want to predict.
- » Make questions specific to avoid vague answers (Mcleery et al. 2006).
- » Avoid questions that guide people to the 'correct' answer.

Focus groups

Focus groups typically are 6-10 individuals, usually paid to participate in a facilitated discussion about the topic. They can be a random sample or they can be from a particular user group. Focus groups require strong facilitation to help people feel comfortable speaking to prevent domination from one person (McKenzie-Mohr 2011).

When limited funds exist, focus groups are likely the first component that can be dropped. The in-depth information from a focus group is valuable, but it is also only anecdotal since it is a small sample size. If a focus group is difficult to facilitate, similar information can be obtained from individual stakeholder interviews.

HELP NEEDED

Survey templates and more in-depth resources for creating a survey are included in the Resource section.

Identify Characteristics

How do people obtain information?

What community activities do they participate in?

Where do they live?

Who are their respected leaders or trusted messengers?

What are the demographics, education level?

What is their opinion of birds or nature?

WHAT TOOLS WILL YOU NEED?

- » Stakeholder interviews or meetings
- » Literature review
- » Observation
- » Survey: phone, in-person, online, interviews
- » Focus groups

IN ACTION

Using surveys, we learn that the off-road recreationists drive on the beach because it is a challenging, adventurous area with large open space which is hard to find in that region. They do not have an appreciation for shorebirds, but they do feel strong community pride. There is a local club, but some of the people that use the beach are tourists. Visitors and locals participate in a Facebook group about riding in the area.

With stakeholder interviews, we learn that local leaders and land managers support shorebird conservation, but they are afraid that the community won't back their decision to close a portion of the beach. Leaders in the off-road club are strong supporters of the mayor.

With intercept surveys, we learn that there are people who also come to the beach to see wildlife, spend time with their families, and enjoy the tranquility of the beach. They do not enjoy the sound or presence of the vehicles. They have a general appreciation for wildlife. They have some appreciation of shorebirds, but most had limited knowledge. Mostly are local, but there is a small number of tourists too. Nature-based tourism is a growing industry in the area.

IDENTIFY BARRIERS FOR CHANGE OR ACTION

What prevents people from changing behavior or taking action? What are those barriers?

You will use the same social research instrument that was used to identify characteristics to identify barriers to change and motivators for change. First, identify their existing opinion or perception of the conservation issue. Then look at what is preventing the target audience from changing their behavior or taking action—is it lack of knowledge, apathy, inconvenience, lack of financial incentive, or just forgetting?

COMMON BARRIERS	DESCRIPTION
Lack of Motivation	People tend to hold on to their values very strongly, and motivation is linked to a person's values, beliefs, or maybe financial incentive.
Forget to Act	The values are in place. The knowledge is in place. But a person is forgetting to act
Lack of Social Pressure	Everybody else is doing it so I can too? Or nobody else is doing it so why should I bother?
Lack of Knowledge	A lack of knowledge may be the only barrier that prevents a behavior change.
Structural Barriers	It must be easy to act, or people won't change their behavior. Sometimes this means that infrastructure may be the problem or an alternative behavior needs to be presented.

Table 4. Common barriers to behavior change (McKenzie-Mohr 2011).

Other barriers might include engrained habits, political system, or economic, social, or cultural factors (Kollmuss and Agyeman 2002). When these are the barriers you will still need to identify the motivators for change.

IDENTIFY MOTIVATORS FOR CHANGE OR ACTION

What benefits will motivate people to change their behavior?

Conservation will only be successful when the broader cultural conditions, like behaviors associated with a threat, are considered and addressed (Manfredo et al. 2003). Motivating someone to change an ingrained behavior, like taking their afternoon walk on the beach, is not easy and depending on the person, may feel impossible. However, this can be done by identifying the motivators for change. Motivators for change will be specific to the audience.

Start by thinking about the benefits that they will receive when they change their behavior. People will usually make the choice that has the lowest effort/money/decision making versus the highest amount of benefit (Steg and Vlek 2009). Your job is to make sure the behavior you seek achieves this. Benefits might include economic, health, cultural, safety, or greater community good. For example, Rare's Pride Campaigns are 'selling' pride in the communities where they operate (Butler et al. 2013).

Finally, don't vilify your audience. Remember that people do not like to be told they are wrong and will often strengthen their values and beliefs when they are challenged (Center for Research on Environmental Decisions 2009, Meadow et al. 2005). But just because it is difficult to change values and beliefs doesn't

mean we shouldn't try (Meadow et al. 2005). Focus on the benefits, not on telling people they are wrong. It's also important to maintain commitment from those who already support.

Audiences with Volunteer Programs, Education, and Advocacy

Most of the audience segmentation that is applied to social marketing can be used by other community engagement programs. However, the expense and time that it takes to do extensive research may not be possible. It will likely be more realistic to use social research that is focused on pre- and post-activity evaluation that will collect information about knowledge, opinions, and perceptions to measure changes after participating in a program. This will be discussed in the evaluation step.

If you are recruiting for a volunteer activity and need special skills, be sure your recruitment targets volunteers with those skills. If you are seeking broad participation, make sure that volunteers with various skills can be trained in the task. Likewise, understanding what your target audience already knows is a critical part of planning an education program.

In the case of advocacy, if managers are interested in understanding how the general public or a specific audience will react to a management decision, opinion surveys can be conducted (McLeery et al. 2006). Opinion surveys can also compare people who have experience with the subject to those who do not have experience to determine how people might respond to a particular policy or action (McLeery et al. 2006). This information can help leaders make decisions based on the public opinion.

FINAL THOUGHTS

- » It is important to take the time to conduct social research understand your unique audiences, *but the reality is that funding and time often do not allow for a full social research component.*
- » Use existing research, local knowledge, and best practices when time and funds are short.
- » While conducting research or compiling information, think like your audience to appreciate their perspective.
- » Think creatively about how to conduct social research, for example maybe Volunteers can also help you conduct person-to-person surveys.

Photo by Roberto Carmona.



Barrier Identification

What is their existing opinion or perception of the conservation issue?

What prevents the target audience from changing their behavior or taking action?

Is the barrier external or internal?

Is it apathy, inconvenience, lack of financial incentive, lack of an alternative, lack of awareness, or lack of knowledge on actions?

IN ACTION

- » Off-road recreationists lack the motivation to change their behavior because they do not care about shorebirds and they enjoy their driving.
- » Leaders and land managers lack the social pressure to implement restrictions because they don't hear from other people who also don't like the driving.
- » General beach users don't have knowledge or understanding of the issue and even if they did, they wouldn't know how to tell leaders about their concerns.

Motivators for Change or Action

What benefit will they see when they change their behavior or take action?

What are the possible benefits? Will it be safer, less expensive, easier, good for their community, good for their family, and/or good for the economy?

How can this benefit be achieved?

IN ACTION

- » Off-road recreationists need an alternative area with an equal level of challenge to truly change their behavior. We also learn they have a great deal of community pride, so they may respond to social norms on support for shorebirds.
- » Leaders and land managers need to hear from the wider community that they support shorebird conservation. Letters and participation in a public hearing are the most likely way to show this community support.
- » General beach users need information about the threats to shorebirds. They also need guidance on how to write a letter and when to participate in the public hearing to show their support.

Step 3: Develop Clear and Direct Strategies

You understand your audience; now how will you engage them?

Each audience should have a clear strategy that resolves the barriers and provides the motivators for change or action. While strategies can overlap, each audience should be considered separately.

1) What are your existing programs and stakeholders?

Create an asset map to outline the existing activities and stakeholders related to threat and potential activities that you might conduct. An asset map should include information on all stakeholders, their connection to the site, and relevant activities. Stakeholders might include NGOs, businesses, natural resources agencies, government entities, recreation/tourism, and faith-based organizations. Other information to include is management documents, programs and events, facilities, and media. This information will help you know who you should be working with and what existing programs there are in order to maximize effort and reduce redundancy.

HELP NEEDED

An asset map template is provided in the resource section.

2) Which type of community engagement will you need: social marketing, volunteer program, education, and/or advocacy?

Determine what kind of engagement will be needed. As a reminder, here are quick tips on what circumstances each type of activity might be needed.

COMMUNITY ENGAGEMENT TOOL	BEST USED WHEN
Social Marketing	<ul style="list-style-type: none">• Need to change behavior• Audience's value may or may not align with the goal behavior
Volunteer Program	<ul style="list-style-type: none">• Need assistance with a management or monitoring activity from non-professional volunteers.• Audience is already supportive and is willing to take action.• Need a constituency of supporters for management or policy.
Education	<ul style="list-style-type: none">• Need long-term community support for conservation.• Audience is not firm in their values.• Audience already supports, but isn't taking action.
Advocacy	<ul style="list-style-type: none">• Need management authority to hear from stakeholders on a policy decision.• Audience is supportive of your conservation efforts, i.e. you have a base of supporters, but they don't know how to take action.

3) What types of tools do you need?

Each strategy will rely on several tools for deployment. In McKenzie-Mohr's (2011) structure for community-based social marketing several types of tools are described—commitment, social norms, social diffusion, prompts, communication, convenience, and incentives. A program should not attempt to utilize all of these techniques, but select the most effective for their needs. These social marketing tools for behavior change can also be used for volunteer programs, education, and advocacy programs.

Commitment

Commitment creates a system where people commit to a particular behavior or activity which sets up the behavior expectations, making them more likely to follow through (McKenzie-Mohr 2011). Consistency is considered an important trait, so if they say they are going to do something, people are more likely to follow through (McKenzie-Mohr 2011). It is useful to set goals on individual and community levels as people are more likely to participate in activities if they have a goal to reach. We can see commitment in action right now. As a WHSRN site, you have made a commitment to protect shorebird habitat and you are now seeking assistance to improve your community engagement to improve conservation at your site.

COMMITMENT IN ACTION: Work with user groups to create a code of ethics for driving on the beach.

Social Norms

Creating social norms around a behavior means that it is understood to be the common behavior that your community participates in (McKenzie-Mohr 2011). 'Community' could be people that participate in the same recreation activity, your neighbors, or even broader to include all people. Personal experience and peers are important factors in influencing attitudes (Meadow et al. 2005). Essentially, "Other people are doing it; I should too."

SOCIAL NORMS IN ACTION: Capitalizing on the social norm of purchasing bird-friendly coffee, a bird-friendly brand is created for aquaculture products.

The best way to achieve a social norm is to actually see someone else actively doing the behavior. For instance, if you see someone actively avoiding an area marked off for shorebird habitat, you are more likely to participate in the behavior. This can also have the wrong effect; if people see others doing the wrong behavior, they will think that's acceptable because others are doing it.

Peer to Peer

Strategies that include peer to peer will focus on the interaction between people in the community, especially those in the same peer groups or people they trust such as family, friends, or colleagues (McKenzie-Mohr 2011). People are more likely to support ideas from people they trust. Face-to-face interaction is an important part of this peer to peer (Butler et al. 2013). While similar to social norms, the key difference is that peer to peer strategy is sharing knowledge through a community as a means of changing behavior, whereas a social norms strategy is demonstrating or creating a behavior for people to follow. Peer to peer is a useful strategy for recruiting volunteers and encouraging advocacy.

PEER TO PEER IN ACTION: Rice farmers talk to other rice farmers about a new technique for managing water on their fields.

Prompts

When forgetting to act is the main barrier, the main tool is prompts (McKenzie-Mohr 2011). Prompts are often incorporated with other elements that help emphasize benefits

PROMPTS IN ACTION: Birders understand that they shouldn't disturb feeding shorebirds, but they forget, so a simple prompt on the beach can reduce disturbance.

like social norms and convenience. The prompt is the reminder of the desired behavior. We have already discussed that knowledge on its own cannot change behavior, but when combined with a prompt it may be more effective in changing behavior (Steg and Velk 2009). In the case of prompts, short and brief is more effective than an overload of detail (Zeidenitz et al. 2007).

Convenience

It's not uncommon to think that social marketing is all about the message and the tools used to deploy those messages. But sometimes social marketing can be based solely on infrastructure. Strategies that use convenience focus on overcoming external barriers and making it easy to change behavior or take action (McKenzie-Mohr 2011). When these strategies make it easier to throw away trash or provide better viewing opportunities, they will provide further benefit to the audience and encourage use. (Zeidenitz et al. 2007).

CONVENIENCE IN ACTION: Make it easy for people to reduce disturbance of shorebirds by having easy to find and use observational platforms, trails, or access points.

Incentives

Incentives, sometimes known as payments for ecosystem services, are used when monetary benefits are the best tool for motivating conservation behavior (Ramsdell et al. 2015). In shorebird conservation, this is often land conservation or management, but incentives have also been used to reduce shorebird hunting. One of the challenges of incentives is that once they are gone, the participants may no longer engage in conservation behavior. However, Ramsdell et al. found that participants reported that they would be willing to continue even after incentives were gone, showing that through participation they had gained a personal motivation to participate (2015). Incentives should be carefully considered when incorporated into a program, but if incentives are incorporated, a few best practices will contribute to a successful program. Best practices include ensuring that participants connect with the organization, good support is provided to participants, and there is consideration of their needs (Ramsdell et al. 2015).

INCENTIVES IN ACTION: Traditional shorebird hunters are paid not to hunt shorebirds. They are then able to invest that money in developing alternative sources of income or food.

Communication

Every strategy will need to be combined with communication tools in order to emphasize the benefits and engage people. Mckensie-Mohr outlines several helpful tips for successful communication. The most important thing to remember is the target audience. Don't stray too far from what that audience already believes. Messages should be empowering, but dire descriptions, like shorebirds have declined by 80% can be included, as long as you include empowering messages with direct action. Make the steps clear, for example say where to walk on the beach, not where not to walk. (McKenzie-Mohr 2011)

COMMUNICATION IN ACTION: A successful volunteer monitoring program uses a variety of communication tools to communicate regularly with volunteers via email newsletters, special recognition events, and infographics about their data.

Messages should be vivid and include illustrative examples or comparison. At Delaware Bay, an effective communication tool has been small plush shorebirds stuffed with beads/rocks/pebbles to correspond with the weight of the birds at wintering time, during migration, and after time at a stopover site. This tactile example of weight helps illustrate the importance of the stopover site for the survival of the birds. When linked to a message of action, this can be motivational.

The message should be easy to remember, a simple slogan that can be recalled with a

prompt. They should also be delivered by a trusted messenger. For example, would it be better to have a message delivered by a community member or an outside entity? Who does the community trust more—local or federal government? Personal contact is more likely to influence behavior than media; thus it is especially important that the trusted messengers and others are modeling the desired behavior.

Finally, provide feedback to the audience to motivate them and keep them involved. A good example of this is preparing data reports for volunteers.

Choosing the Tools

Now it's time to select which of these types of behavior change tools you will use. You did your research and you know the barriers of your community and what might motivate them to change. Table 4 provides guidance to determine what will be the best types of tools for the barrier. Lack of motivation is one of the most difficult barriers to overcome and a multi-pronged approach will be necessary. An example of this can be seen in a Rare campaign in Veracruz, Mexico, where they

used creative communication and education to increase the number of landowners adopting a payments-for-ecosystem services program (Green et al. 2013). Examples of types of tools are shared in Appendix I. Common Strategies, Tools, and Examples. These can all be adapted for a variety of threats.

BARRIERS	TOOLS
Lack of Motivation	<ul style="list-style-type: none"> • Commitment • Norms • Incentives • Convenience
Forget to Act	<ul style="list-style-type: none"> • Prompts
Lack of Social Pressure	<ul style="list-style-type: none"> • Norms
Lack of Knowledge	<ul style="list-style-type: none"> • Communication • Peer to peer
Structural Barriers	<ul style="list-style-type: none"> • Convenience

Table 4. McKenzie-Mohr's suggests these tools to address these barriers.

VOLUNTEER PROGRAMS, EDUCATION, AND ADVOCACY

Communication is the key tool for successful stewardship and citizen science, education, and advocacy. Weston et al. (2013) found that people volunteer because they want to participate in conservation, but people select a project based on the communication they receive such as how goals are set, supervision, and feedback. Social marketing tools can also be used for stewardship, citizen science, education, and advocacy. For example, convenience can be utilized in advocacy by creating template letters for constituents to send or sharing the public hearing schedule. Peer to peer was a key component of a volunteer horseshoe crab rescue program on Delaware Bay, where volunteers were teaching and recruiting others because they were so enthusiastic about the program (Ferguson et al. 2017). Tips for volunteer management are included in Appendix III.

FINAL THOUGHTS:

- » Remember to keep it simple.
- » Use direct, specific appeals that emphasize the desired behavior.
- » Brief information can encourage the desired behavior, but information only works best when people have the same value system.
- » Provide infrastructure that will make it easy to achieve the behavior or to engage people.
- » Often multiple approaches are needed to achieve the desired behavior (Zeidentiz et al. 2007).

Strategies

What is already being done in the region?

Which type of community engagement will you use: social marketing, volunteer program, education, and/or advocacy?

What similar strategies are used to solve this threat in other regions?

What specific tools will be used based on the known or assumed barriers? How will they be deployed?

Are volunteers needed to help with deployment or monitoring? Yes No

Who is the right messenger? Who does the target audience respect?

IN ACTION

- » **Good Governance (utilizing another WHSRN site service):** Work with local officials, land managers, and user groups to create a management plan for the beach which allows for multi-use, including providing an alternative place for off-road recreationists to ride. Ensure that local officials are hearing from community members who are supportive of multi-use zones.
- » **Social Marketing:** Using social norms, conduct a campaign to empower off-road recreationists to use an alternative area. Message should be positive and not disparage the activity they enjoy. It could focus on the families that use the beach and their safety and comfort to enjoy the beach. Interaction with the facebook group and the club leaders may be a useful way to engage users in the campaign.
- » **Education:** Provide an engagement program to inspire local pride in the shorebirds, which will build a constituency of residents who will be supportive of programs that protect shorebirds- like closing sections of the beach to vehicle traffic. Link this education with an advocacy campaign and call-to-action for people to contact local officials to show their support. Specific instructions on contacting officials should be provided.

Step 4: Implement

Now it's time to get to work.

First, consider the existing programs and incorporate or collaborate with these programs. Minimize redundancies or mixed messages between programs.

Second, consider the brand. Most campaigns, even volunteer programs, education, and advocacy campaigns should create a brand. Branding is a marketing tool that allows people to easily recognize a particular organization or campaign (Verissimo 2007). Elements of the brand will include a message, design, colors, and fonts which should be consistent across all tools and communications. This does not need to be overly designed, just have a consistent look for recognition.

Pilot your campaign and monitor success. Conduct adaptive management as you go; if things are not working, adjust the campaign. For social marketing, you will monitor the behavior change and adjust if it isn't working. For stewardship, citizen science, and advocacy this means starting small and building momentum with the community and stakeholders. When confident that your program is working, expand to a broader scale.

Time is needed for a social marketing or any community engagement campaign to be successful (Butler et al. 2013). Implementing partners should be prepared to work at the site over the long term, at least four years (Butler et al. 2013). In many cases a community engagement program may need to be continuous, for the desired behavior to continue.



Photo by Laura Chamberlin.

FINAL THOUGHTS

- » Consider existing programs to minimize redundancies or mixed messages.
- » Design a brand for the program for easy recognition and recall of the program in different circumstances.
- » Pilot, monitor, and adapt before expanding.
- » Plan for the long term. Behavior change and consistency building takes time, and it may even need to be ongoing or the behavior will return.

Implement

Will there be a unifying brand between tools and strategies? Yes No

What is the main message(s)?

How long do you have funds to coordinate this project? How will you maintain funding?

IN ACTION

- » **Good Governance:** No brand or message needed here, but this will kick-off the social marketing campaign.
- » **Social Marketing Campaign** for ATV riders
 - *Message:* Use ATV Challenge Area for extreme rides
 - *Messengers:* Other riders, especially those that participated in Good Governance workshop; stores where they purchase supplies
 - *Tools:* Prompts will be used to remind riders of Challenge Area.
- » **Education Campaign** for general beach users
 - *Message:* Learn how you can help our wildlife visitors!
 - *Messengers:* Prompts or beach educator
 - *Tools:* With social diffusion, beach educators will be used to tell beach users how they can help by contacting their leaders.



Photo by Laura Chamberlin.

Step 5: Evaluate

Evaluation starts at the beginning of project planning.

Before you start your program, determine what you what changes you want to measure. Start in the planning stages to collect strong baseline data on your audiences and on the shorebirds that you are looking to impact (Kanter and Paine 2012, Dewan et al. 2013). You will then be able to measure changes in knowledge, attitudes, behavior (Dewan et al. 2013), along with changes in habitat and shorebird population. Evaluation should incorporate indicators for behavior change or actions taken, as there may be social, economic, psychological, or infrastructure barriers that prevent changes in behavior even if knowledge has increased and attitudes have changed (McKenzie-Mohr 2011). Evaluation can give a better understanding of those barriers and a path for resolving them.

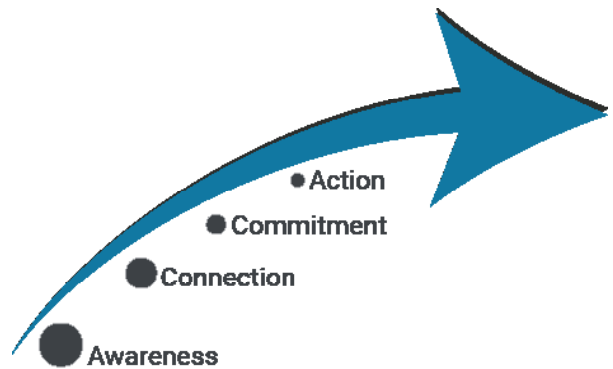
It can be helpful to think about the one or two most important things you want to evaluate. Focus on one threat or behavior you wish to understand if/how it changed. It's better to have a small data set over a longer time, than a large data set that can't be sustained over time. (Wilkerson 2018)

Most of the social research tools described in Step 2, observation studies, surveys, and stakeholder interviews are common methods for evaluation. One common technique is to do before and after implementation surveys. Surveys, while a useful tool, also have limitations as people will often report what they know they are supposed to do, not what they actually do (Steg and Velk 2009). For example in a survey in Victoria, Australia, more people reported an obligation to leash their dog than was actually seen in observations (Williams et al. 2009). Another evaluation technique to consider is a control group, i.e.

two beaches with similar visitation rates, implement an intervention at one and not the other (Ferraro and Pattanayak 2006). Education and volunteer programs can conduct pre- and post-activity evaluations that will collect information about knowledge, opinions, and perceptions to measure changes after participating in the program.

If the behavior change you seek is participation in a program, for example rice farmers adopting a new water management regime, then Manomet's framework for evaluation can be a helpful place to start (Wilkerson 2018). The framework includes these indicators:

1. **Engagement indicators** measure how well the programs are reaching and motivating the target audiences. Engagement indicators are based on a four-step Ladder of Engagement: 1) build awareness of programs among the target audience, 2) connect audiences to program elements and opportunities, 3) gain a commitment to participate in programs, and 4) document action taken as a result of participation in programs. It is likely that the largest number of people will be engaged at the *awareness* level, with only a portion of those who increase their awareness moving to the next level on the ladder. As people move along the ladder not everyone will continue to engage, with the smallest number of people engaging in *action*. Surveys, interviews and follow-up can be used to track these indicators.



2. **Resource impact indicators** are focused on measurable change in habitat or shorebird population. Impact indicators typically measure the long-term objectives of the project and impact indicators are linked to action, the final step of the engagement model.

3. **Evaluative indicators** measure the effectiveness and utility of the programs and are used to help continuously improve the programs. These indicators are largely based on feedback from our partners on how programs are executed.

FINAL THOUGHTS:

- » Be realistic and start small.
- » Develop an evaluation plan that you will be able to maintain with time.
- » Look at existing study design to save time on developing surveys.
- » Remember that an increase in knowledge doesn't necessarily mean attitudes and behavior will change.
- » There are sample templates for evaluation included in the resources.

Evaluation

What are the one or two most important things to measure?

What research was used to build the program?

- Yes No Will you be able to easily compare pre- and post- implementation?
- Yes No Do you need to measure along a ladder of engagement?
- Yes No Will you be able to maintain this evaluation plan over time, even with limited funds?

IN ACTION

- » Observation studies were conducted on the beach to measure vehicle use before and after campaign.
- » Pre- and post- intercept surveys are conducted with off-road vehicle users.
- » Opinion poll of local residents can measure awareness and appreciation for shorebirds and conservation.
- » A ladder of engagement is used to track leaders and land managers as they shift management strategies for the site.

Getting Started - Resources

We have provided a variety of sample tools and templates that can be adapted for your site. There are also additional in-depth resources. Remember, if you did not have the funds to conduct full research, it is possible to use best practices and to make assumptions about your audience based on past research.

STRATEGIES AND TOOLS

Appendix I: Common Strategies, Tools, and Examples (*coming soon*)

Appendix II: Festival Planning Checklist

Appendix III: Tips for Volunteer Management (*coming soon*)

SAMPLE RESEARCH/EVALUATION TOOLS

Appendix IV: Intercept survey for beach user

Appendix V: Teacher training survey

Appendix VI: Environmental education evaluation surveys

Appendix VII: Volunteer survey

Appendix VIII: Webinar participant survey

Appendix IX: BMPs for conducting stakeholder interviews

PLANNING TOOLS

Appendix X: Planning worksheets template

Appendix XI: Types of data collection table

ADDITIONAL RESOURCES

For more information on the Atlantic Flyway Shorebird Initiative Business Plan:

<https://atlanticflywayshorebirds.org/>

For more information on the Pacific Flyway Strategy:

<https://pacificflywayshorebirds.org/>

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APPENDIX II.

SHOREBIRD FESTIVAL BEST PRACTICES

- ☑ Define objectives and audience for your festival.
- ☑ Identify partners including non-traditional stakeholders.
- ☑ Initiate planning meeting with all partners.
- ☑ Create and deploy a logistic plan.
- ☑ Create and deploy a marketing plan.
- ☑ Create and deploy an evaluation plan.
- ☑ Enjoy the festival!

Objectives and Audience

Before embarking on the festival, first determine the objectives of the festival – education to build a constituency of support, connecting to non-traditional audiences, recruiting and training volunteers, increasing organizational members, or any other objective. Your objectives will play a role in your target audience, the structure of the agenda, and the tone of the presenters. Consider the motivations, existing knowledge, and interests of your audience to design a festival that will effectively engage them.

Virtual advice: Many organizations find that virtual festivals have allowed them to continue to reach new stakeholders, create long-term connections through social media, or expand newsletter mailing lists. If the objective is to bring tourists to your community, sharing photos and stories from the field or from past festivals or hosting education webinars will help you maintain a virtual presence and interest for potential future tourists.

Partners

More partners will bring more resources, skills, and people power. Virtual or not, having a diverse set of partners brings together the networks of many and ensures that the right set of participants are invited, including non-traditional stakeholders. Partners to consider collaborating with include government agencies including business or tourism agencies, local businesses, community groups, elected officials, schools, and artisans.

Keep in mind, the more diverse your team, the more thoughts, ideas, and opinions you will have. That's a good thing, but it can add to the planning time, so make sure to build your team early in the process. Set a kick-off meeting with everyone to establish expectations. Not all partners are able to contribute equally, so ensure that each partner is able to make realistic contributions based on their interests, objectives, and capacities.

Planning and Timeline

Setting the agenda and activities aside, the logistics for a festival will be different for each one, especially if it is virtual. Below is a checklist of things to consider.

1. *Logistics*

- » Tents, chairs, tables, speakers, screen
- » Online webinar/event service
- » Restrooms
- » Volunteers
- » Program Book
- » Insurance

2. *Vendors*

- » Food
- » Selling crafts or other items

- » Educational booths
- » Entertainment
- » Nonprofits and businesses

3. *Budget and funding*

- » Marketing
- » Sponsorships
- » Products to sell
- » Charging for the festival

4. *Leader invitations*

Marketing and Promotion

Standard marketing techniques can be used to promote festivals. The checklist below can be used to assist with planning promotional activities. Aside from standard marketing, creativity will be necessary to expand your pool of participants. In-person festivals often use music, games, food, vendors, or cultural connections to attract new stakeholders, as the birds may not be a strong enough draw. To bring in new stakeholders, consider co-hosting the festival or one of the events with a non-traditional partner. For example, if you would like to reduce disturbance from kite surfing, host an event that celebrates the magnificent migration of shorebirds with the extreme feats of local kite surfing leaders. Special guests or community leaders can be another way to bring participants to your festival.

Virtual advice: Even when 'getting there' is as simple as turning on the computer, getting people to come to your festival is still one of the greatest challenges you will face. Many of the same promotion tools will also be relevant for a virtual festival.

Checklist for promotion

- Social media – passive engagement, paid and targeted ads
- Newspaper/magazines – press release in advance
- Flyers
- Website
- Schools
- Partner networks
- Local businesses

Activities

One of the unifying features of bird festivals is they want people to connect to birds. Field trips to observe birds are usually a crucial element of a festival. However weather, timing, and difficulty in access to habitats can make shorebirds challenging for connection. For an in-person event, there is no shortage of fun and interactive games that can be used to teach kids (and adults) about shorebirds and the environment, even when access to birds isn't possible. Special events like signing of a pledge or celebrating the designation of protected area can also draw participants to your festival. Other ideas to increase engagement includes a social media contest, educational/training webinars, or an interview with an expert biologist or conservation leader. Do you have an artist or art teacher on your festival team? A 'painting birds' tutorial can be done and is great way to bring art into the festival.

Virtual advice: When we move the festival online, engagement becomes a bit more challenging when we lose hands-on opportunities for stronger connections. However, there are quite a few online activities that can be used. Many online festivals also create opportunities for families to get outside, and hopefully see birds by creating a scavenger hunt, nature journal challenge, or a bingo card that can be specific to shorebirds and wetlands. Live events on Facebook or prerecorded field trips will allow you to share expertise with your community virtually. Creating a map and self-guided trail can allow participants to check out the site on their own. Self-guided tools should provide information on accessibility, timing with tides, and best window of dates.

Potential Activities

- | | |
|---|--|
| <input checked="" type="checkbox"/> Conservation presentations/panels | <input checked="" type="checkbox"/> Mascot or other special activity |
| <input checked="" type="checkbox"/> Keynote presentation | <input checked="" type="checkbox"/> Contest/Raffle |
| <input checked="" type="checkbox"/> Leadership event | <input checked="" type="checkbox"/> Hands-on educational activities for kids |
| <input checked="" type="checkbox"/> Music | <input checked="" type="checkbox"/> Self-guide maps |
| <input checked="" type="checkbox"/> Art exhibit | <input checked="" type="checkbox"/> Scavenger hunt |
| <input checked="" type="checkbox"/> Art classes | <input checked="" type="checkbox"/> Bingo card |
| <input checked="" type="checkbox"/> Field trips | |

Evaluation

Objectives for a festival can be variable so establishing metrics and targets in advance will ensure that appropriate tracking strategies are developed. Participation numbers are one of the most common metrics, but a common goal for a festival is to build a constituency of support. In this case, you will also want to understand the experiences of the participants, and any changes in opinions, perceptions, or willingness to take action to protect shorebirds. More detailed questions and surveys can also help to understand the response to logistics, vendors, marketing, or activities. If one of your objectives is to stimulate the local economy include

local businesses in your planning process and develop a tracking mechanism for festival participants visiting local businesses like a 'Birder's Bucks' coupons, business-based raffle, or stamp book. Below are ideas on metrics, survey strategies, and sample survey questions to assist in planning evaluation programs.

Virtual advice: When evaluating a virtual festival there are a couple of simple tools that are available. Basic social media metrics will monitor participation in the activities - number of views, likes, and clicks. Reviewing the higher numbers of participation will help you build successful programs with activities of interest and skipping activities that were less popular. Zoom online meeting tools allow for live poll, where a few brief questions can be asked throughout a presentation. A more detailed (but still simple!) survey can be created and sent directly to festival participants or share on social media. Survey tools like Google Forms or SurveyMonkey are useful this.

Survey Questions

It can be challenging to get people to answer questions when they are in the moment of enjoying the festival. The most important thing is to keep any survey short, at five questions or less. It will also be useful to have an activity that gives them a fun way to be involved in the survey like answering questions to enter a raffle, an engaging artistic display, or simple way to agree or disagree with a question.

Sample questions:

- 1) Was this your first time at this festival?
- 2) How did you hear about it?
- 3) RANKING, On a scale of one (not true at all) to five (very true)
 - » I learned something new about this site and it's importance to environment.
 - » I learned something new about shorebirds.
 - » I learned about things I can do to help shorebirds and this site.
 - » I care more about this site and shorebirds because of this festival.
 - » I want to help this site and shorebirds.
- 4) How are you willing to take action?

METRIC	HOW TO OBTAIN	NOTES
# of adults who attended	Clicker at gate, gate fees	
# of youth who attended	Clicker at gate, number of participants in one particularly popular activity	
# of people who learned about site/shorebird/conservation	Ask at the gate- are you familiar with this site/shorebirds/conservation?	If people answer no or maybe, then after attending the festival it can be assumed that they learned something.
Increase in knowledge	Exit interview, online survey, create game to attract people to answer questions	This will only be answered by a sample. Sample size will depend on size of festival and response rate.
Change opinion	Exit interview, online survey, create game to attract people to answer questions	This will only be answered by a sample. Sample size will depend on size of festival and response rate.
Willingness to act	Exit interview, online survey, create game to attract people to answer questions	This will only be answered by a sample. Sample size will depend on size of festival and response rate.
Other information: How did you hear about this? Was this your first time?	Ask at the gate, Exit interview, online survey, create game to attract people to answer questions	If conducting a survey consider other planning metrics that might be useful.
# participants that visited business	Distribute festival-specific coupons for participants to use at businesses, festival participants can enter prize raffles at each business	Works best for a festival that includes registration to provide the terms of the business engagement in advance of festival.

Final Thoughts

Start small, how to target your audience and activities, keep your local culture, be creative and think out of the box especially when targeting new-to-shorebirds stakeholders. Plan evaluation from the start.

APPENDIX IV.

SAMPLE INTERCEPT SURVEY TO UNDERSTAND USE AT RÍO GALLEGOS

Goal: Beach visitors and their behavior will be observed and intercept surveys will assess opinions and perceptions of conservation in the region.

Survey Days: Thursday-Monday through peak season, holidays when possible

Survey goal: 100-150 interviews

Setup:

- » Station yourself in a way that you and your clipboard are inconspicuous and you can observe without standing out. Reading book is recommended.
- » Complete the overview datasheet. Record weather, date, start and end time, time of high tide, unusual observations, number of visitors, number of people that declined, and total number of interviews.

Survey Protocol

- » Track each group as they come into the beach area. Record the number in the party, general description and activity, if possible arrival time and departure time or estimate time on beach. Select every other group that leaves the beach to interview. Only interview one person per group. If multiple people in group answer questions, count as one person. If someone declines to participate, this does not count as an interview.
- » Before they leave the beach area politely intercept them for the interview. If they move further down the beach away from you, try to speak to them before they move away.
- » Conduct the interview, completing all questions.
- » Be sure to thank them for their time.

Tips

- » It is not your job to enforce rules or intercept bad behavior. Do not inform them of regulations or the work that is proposed as this can affect the respondent's answers.
- » Allow them to go about their activity with no interference after you interview them.
- » If someone is interested in learning more, provide them with a business card.
- » If someone asks who is conducting the survey say "I work on conservation for the Urban Reserve and we are researching what works to help people share the beach with birds."

Date _____	Interview ID Number _____
What year were you born? _____	

Greet the beach user and make a little small talk: *I am conducting research to better understand our community and the natural areas near it. Would you be willing to help me by sharing your opinion about these natural areas?*

Why are you visiting the Reserva Costera Urbana Río Gallegos today? Free answer, please do not read. Check all that apply.

<input type="checkbox"/>	Fishing for fun	<input type="checkbox"/>	Fishing for food
<input type="checkbox"/>	To see wildlife	<input type="checkbox"/>	Looking around
<input type="checkbox"/>	Visit the nature center	<input type="checkbox"/>	Walk/run dog
<input type="checkbox"/>	Running	<input type="checkbox"/>	Relax
<input type="checkbox"/>	Walking	<input type="checkbox"/>	Other

From here forward, we will refer to the Reserva Costera Urbana Río Gallegos as the Reserva.
Why do you like visiting the Reserva? Free answer, please do not read. Check all that apply.

<input type="checkbox"/>	They are nice to visit.	<input type="checkbox"/>	My dog can get good exercise here.
<input type="checkbox"/>	They are a good place for wildlife.	<input type="checkbox"/>	It's an open area where I have freedom.
<input type="checkbox"/>	We feed our family with the fish caught here.	<input type="checkbox"/>	They make it a nice place to live.
<input type="checkbox"/>	It's a fun place to ride an ATV.	<input type="checkbox"/>	That is always how it has been here.
<input type="checkbox"/>	They are not important at all.	<input type="checkbox"/>	I want my kids to understand the natural world.
<input type="checkbox"/>	Other:	<input type="checkbox"/>	Other:

When you visit the Reserva, what don't you like about it? Free answer, please do not read. Check all that apply.

<input type="checkbox"/>	Driving	<input type="checkbox"/>	Trash
<input type="checkbox"/>	Too many fishermen	<input type="checkbox"/>	People letting their dogs run off leash
<input type="checkbox"/>	Too many people	<input type="checkbox"/>	Feral/stray dogs
<input type="checkbox"/>	Too many birds	<input type="checkbox"/>	Too many restrictions
<input type="checkbox"/>	It seems dangerous because of dogs.	<input type="checkbox"/>	It seems dangerous because of vehicles.
<input type="checkbox"/>	Other:	<input type="checkbox"/>	Other:

Can you name at least three types of wildlife here? Be as specific as possible.

On a scale of 1-3, tell me how you feel about these statements, with 1 being strongly disagree, 2 being agree, and 3 being strongly agree.

1 2 3	I enjoy on the beach.
1 2 3	I enjoy spending time at the beach with my family and friends.
1 2 3	I enjoy seeing wildlife on the beach.
1 2 3	The best exercise for my dog is to run on the beach.
1 2 3	Birds are safe from my actions because they can fly away.
1 2 3	The Reserve is important for our quality of life.
1 2 3	The Reserve is important for wildlife

Do you have a dog?

- Yes
- No

Have you ever noticed how birds react to you or your dog?

- Birds ignore me/my dogs.
- Birds move away from me/my dogs.
- Birds fly away from other people/other dogs.
- Not sure

Do you think that birds here in the Reserva are threatened?

- Yes
- No
- Not sure

On a scale of 1-3 (where 1 not important, 2 being important, and 3 being very important), how important do you think it is to _____:

1 2 3	Restrict all driving on the Reserve.
1 2 3	Create a specific area for vehicles to drive.
1 2 3	Take care of the beach at the Reserve for the conservation of birds.
1 2 3	Take care of the beach at the Reserve for my family.
1 2 3	Restrict dog access on the beach.
1 2 3	Create a specific area for people to have dogs.
1 2 3	Increase enforcement of regulations.

Do you have anything else you would like to share here about the Reserva?

APPENDIX V.

SAMPLE PRE-SURVEY FOR TEACHER TRAINING

Please share your levels of belief or feelings about each of the following statements.
Please choose a number to rank your opinions as described below:

- 1= Very Low
- 2= Low
- 3= Fair
- 4= Good
- 5= Excellent

Questions	Response
What is your knowledge of local environmental issues?	
Your level of interest in local environmental issues?	
Your interest in teaching environmental issues?	
Your level of confidence in teaching science or ecology?	
Your level of confidence in teaching shorebird conservation?	
Your interest in teaching shorebird conservation?	
Your knowledge of action strategies that students (or you) can take to improve shorebird conservation?	
Your interest in learning about action strategies you or your students can engage in to improve shorebird conservation?	
Your level of skills to guide students in taking action to improve the shorebird conservation?	

On the back of this sheet please comment on any of your responses.

SAMPLE POST-SURVEY FOR TEACHER TRAINING

Please share your levels of belief or feelings about each of the following statements.

Please choose a number to rank your opinions as described below:

1= Very Low

2= Low

3= Fair

4= Good

5= Excellent

Questions	Response
What is your knowledge of local environmental issues?	
Your level of interest in local environmental issues?	
Your interest in teaching environmental issues?	
Your level of confidence in teaching science or ecology?	
Your level of confidence in teaching shorebird conservation?	
Your interest in teaching shorebird conservation?	
Your knowledge of action strategies that students (or you) can take to improve shorebird conservation?	
Your interest in learning about action strategies you or your students can engage in to improve shorebird conservation?	
Your level of skills to guide students in taking action to improve the shorebird conservation?	

On the back of this sheet please comment on any of your responses.

Value of Institute Components

<p>Shorebird identification</p> <p><input type="radio"/> No Value</p> <p><input type="radio"/> Little Value</p> <p><input type="radio"/> No Opinion</p> <p><input type="radio"/> Moderately Valuable</p> <p><input type="radio"/> Very Valuable</p>	<p>Shorebird ecology</p> <p><input type="radio"/> No Value</p> <p><input type="radio"/> Little Value</p> <p><input type="radio"/> No Opinion</p> <p><input type="radio"/> Moderately Valuable</p> <p><input type="radio"/> Very Valuable</p>	<p>Action project planning</p> <p><input type="radio"/> No Value</p> <p><input type="radio"/> Little Value</p> <p><input type="radio"/> No Opinion</p> <p><input type="radio"/> Moderately Valuable</p> <p><input type="radio"/> Very Valuable</p>
<p>Shorebird conservation</p> <p><input type="radio"/> No Value</p> <p><input type="radio"/> Little Value</p> <p><input type="radio"/> No Opinion</p> <p><input type="radio"/> Moderately Valuable</p> <p><input type="radio"/> Very Valuable</p>	<p>Migration and flyways</p> <p><input type="radio"/> No Value</p> <p><input type="radio"/> Little Value</p> <p><input type="radio"/> No Opinion</p> <p><input type="radio"/> Moderately Valuable</p> <p><input type="radio"/> Very Valuable</p>	<p>Interactions with other educators</p> <p><input type="radio"/> No Value</p> <p><input type="radio"/> Little Value</p> <p><input type="radio"/> No Opinion</p> <p><input type="radio"/> Moderately Valuable</p> <p><input type="radio"/> Very Valuable</p>
<p>Interactions with instructors</p> <p><input type="radio"/> No Value</p> <p><input type="radio"/> Little Value</p> <p><input type="radio"/> No Opinion</p> <p><input type="radio"/> Moderately Valuable</p> <p><input type="radio"/> Very Valuable</p>	<p>Field trips</p> <p><input type="radio"/> No Value</p> <p><input type="radio"/> Little Value</p> <p><input type="radio"/> No Opinion</p> <p><input type="radio"/> Moderately Valuable</p> <p><input type="radio"/> Very Valuable</p>	<p>Curricula materials</p> <p><input type="radio"/> No Value</p> <p><input type="radio"/> Little Value</p> <p><input type="radio"/> No Opinion</p> <p><input type="radio"/> Moderately Valuable</p> <p><input type="radio"/> Very Valuable</p>

Please let us know some of your overall thoughts and feelings. The most helpful aspect of the institute was... The least helpful... I would recommend the following changes... Things I learned that were unanticipated....

My perspective about _____ changed because of the training.

Things I will do differently in the classroom or when visiting natural areas as a result of the training:

Please describe how you will use the curricula in your classroom.

Other Comments: Please let us know any other comments or final thoughts you may have.

APPENDIX VI.

SAMPLE PRE OR POST-ACTIVITY STUDENT SURVEY

Note for Educator: Adjust for the age of the student and curriculum content. Pre and post survey are the same to measure change in the students. You can also add a small number of questions about the activity, if you would like feedback on that. There are designed to be anyomous so students don't feel pressure on the pre-survey.

School: _____ Teacher: _____

Grade: _____ Date: ____/____/____

	Yes!	Huh?	Nope
When I go outside, I like to see wildlife.			
I think shorebirds are an important part of the environment.			
I think about the things I do and the ways I think I can help protect wildlife.			
It is important to me that we protect the environment.			
I can help others learn how to reduce their impact on wildlife by being careful when we visit natural areas, especially beaches.			
I have a role to play in how shorebirds survive on the XX.			

1. What is the BEST description of the spring migration path of the Red Knot?
 - a. In the spring, Red Knots fly from California to the Delaware Bay and then to the Arctic
 - b. In the spring, Red Knots fly from South America, making one or two stops, before they reach the Delaware Bay. They will nest on Delaware Bay.
 - c. In the spring, Red Knots fly from South America, making one or two stops, before they reach the Delaware Bay. They will then fly on to the Arctic to nest.**
 - d. In the spring, Red Knots fly from the Arctic, stop on the Delaware Bay and then eventually fly to South America to nest where it is warm.
2. List three types of habitat where shorebirds like to live.
3. Circle the list that best describes what an organism needs to have in its habitat so that it can survive:
 - a. Water, food, electricity, a bed
 - b. Shelter, food, clean water, space
 - c. Food, predators, clean water, trees

4. List three sources of food for shorebirds.

5. If one link in a food chain disappears, _____
 - a. Other organisms are not affected
 - b. Some of the organisms might be affected
 - c. All of the other organisms are affected

6. Circle all of the following that are threats to migrating shorebirds.
 - a. Humans walking on the beach when they are eating
 - b. Overharvesting of horseshoe crabs
 - c. Invasive species taking over their habitat
 - d. Bad storms destroying the beach
 - e. Hunting
 - f. Dogs chasing them
 - g. Climate change and sea level rise

7. Which of these pictures below shows a shorebird?

8. What is the most important thing you can do to help shorebirds?

APPENDIX VII.

SAMPLE MONITORING VOLUNTEER SURVEY

Note for Volunteer Coordinator: It is important to include a combination of qualitative and quantitative questions so you are able to summarize and compare responses, but also give volunteers the freedom in their responses. Checkboxes, dropdowns, and other similar style questions are also easy to respond to, for those individuals that do not like completing surveys.

Volunteer surveys are best deployed via email with online surveys tools like Google Forms or Survey Monkey.

Shorebird Monitoring Program Volunteer Survey

We want to hear from you! Tell us about your experiences so we can continue to improve the program.

1. Zipcode (for your home) [Or another simple identifier to help determine where the volunteer is from]
2. What site(s) do you survey? [checklist or open answer]
3. I conduct my survey _____ [check all that apply]
 - Alone
 - With the same partner(s) every time
 - With new friends
 - Other
4. Please check all the years that you have participated. [dropdown of all years of program]
5. Approximately how many surveys did you conduct this year? [open answer]
6. Why do you participate in the volunteer program? [open answer or specific answers if you want to summarize reasons for participating]
7. Check all that are true about your experience with this program? [check all that apply]
 - I expanded my knowledge of shorebird biology and ecology.
 - I have increased my understanding of the conservation issues facing shorebirds and other waterbirds.
 - Before participating in this program, I was unlikely to take action for and shorebirds.
 - I would now like take further action, beyond surveying shorebirds, to protect and shorebirds.
 - I enjoy sharing my experiences with friends and family.
 - Other _____
8. If you are willing to take action, what would you consider doing? [check all that apply]
 - Participate in a restoration project to improve habitat.
 - Contact decision-makers about shorebird conservation issues.
 - Conduct educational activities for schools, scouts, nature clubs, and other organized groups.
 - Volunteer to support behind-the-scenes program management like data entry or communication with other volunteers.
 - Donate to support coordinating organizations.
 - Assist with volunteer training
 - Other _____

9. I understand that the regulations, like the beach closures are important mechanisms for protecting wildlife. [1-5 where 1 is strongly disagree and 5 is strongly agree]
10. I am confident in my use of the protocol. [1-5 where 1 is strongly disagree and 5 is strongly agree]
11. I am confident in my shorebird identification skills. [1-5 where 1 is strongly disagree and 5 is strongly agree]
12. What do you need to help you make your volunteer experience better? [check all that apply]
- Outreach materials
 - Directions to the monitoring locations
 - Better guidance on how to conduct walks
 - Better support from the coordinator
 - Interaction with other volunteers
 - Shorebird identification resources
 - Shorebird identification trainings
 - Protocol trainings
 - Modifications to the datasheet
 - Easier data entry
 - Social media interaction
 - Newsletter
 - Other _____
13. Please expand on the needs that you have? [open answer]
14. Would you like to see _____ communications from the coordinator? [dropdown]
- More
 - Less
 - Same
 - Currently not receiving any
15. Are you part of the Facebook group for the program? [dropdown yes/no]
16. Please list any locations that should be added to our survey work. [open answer]
17. What is the greatest challenge in participating in this program? [open answer]
18. What is your favorite thing about participating in this program? [open answer]
19. Will you return next year? [dropdown yes/no]
20. If no, why not? Are there programmatic changes that would change your response? [open answer]
21. Do you have anything additional to add?

APPENDIX VIII.

SAMPLE WEBINAR SURVEY

1) Why do you visit Georgia's public beaches? (multiple choice, add more choices that are needed)

- See wildlife
- See birds
- Walk
- Run
- Spend time with family/friends
- Relax
- Exercise dog(s)
- I don't live near the Georgia beaches

2) Which beaches do you visit? (Multiple choice question for places they visit.)

3) Prior to participating in this webinar, how would you rank your interest in wildlife (or birds depending on what you want to ask) on Georgia's beaches? 1 is not at all interested and 5 is very interested

4) On scale of 1-5, before participating in this webinar how concerned were you about recreational disturbance on wildlife. 1 is not at all concerned and 5 very concerned

5) On a scale of 1-5, after participating in this webinar how concerned were you about recreational disturbance on wildlife. 1 is not at all concerned and 5 very concerned

6) On a scale of 1-5, how important do you think it is to create signage and messaging to highlight important areas for wildlife at public beaches. 1 is not at all important and 5 is very important

7) Which activities would you be willing to do to protect wildlife (or birds)? (multiple choice)

- Walk around birds
- Stay below tideline
- Dogs on leashes
- Volunteer
- Talk to your elected officials
- Donate to conservation campaign

8) What is the zipcode of your primary residence?

APPENDIX IX.

BEST MANAGEMENT PRACTICES WHEN CONDUCTING STAKEHOLDER INTERVIEWS

Pre-Interview

- » Know and understand in depth the objective ecosystem services assessment and the interviews.
- » It is very important to know the exact limits of the WHSRN site or the location for which ecosystem services are being assessed, since many questions of the interview refer to ecosystem services within those limits.
- » Be clear about the sensitive, controversial points and the terminology that should not be used during the interviews.
- » Sometimes it may not be apparent why a question or set of questions was asked in a particular way. The interviewers will need to understand the rationale for how the questionnaire was constructed.
- » Have several rehearsal sessions with the interviewer team. If possible, videotape rehearsal interviews to discuss how the trainees responded in difficult situations. The interviewers should be very familiar with the entire interview before ever facing a respondent.
- » After rehearsing, discuss any changes that may be needed to improve clarity or remove bias.

At the interviews

- » Dress professionally and in a manner that will be comfortable to the respondent. The way the interviewer appears initially to the respondent has to communicate some simple messages -- that you're trustworthy, honest, and non-threatening.
- » When respondent opens the door or greets you, smile and be brief. State why you are there and state what you would like the respondent to do. Don't ask -- state what you want. Instead of saying "May I come in to do an interview?", you might try, "I'd like to take a few minutes of your time to interview you for a very important study."
- » Introduce yourself indicating your name, surname and affiliation.
- » Clearly present the goal of the interview.
- » Request the respondent's permission to conduct the interview. Explain the estimated length of the interview.
- » Explain how the interview will be conducted. Interviewer has to be motivated and communicate that motivation to the respondent. This means that you must understand the importance of the assessment.
- » You may need to ask a series of filtering questions before determining whether the respondent meets the sampling needs since some studies require respondents who meet specific criteria. For instance, your study may require that you speak with a male head-of-household between the ages of 30 and 40 who has children under 18 living in the

same household. It may be impossible to obtain statistics in advance to target such respondents.

Conducting the interview

- » Interviews should be carried out as a conversation, not as a bombardment of questions.
- » DO NOT improve on the tone of a question by altering a few words to make it simpler or more “friendly.” You should ask the questions as they are on the questionnaire. If you had a problem with a question, the time to raise it was during the training and rehearsals, not during the actual interview.
- » Respondents may raise objections or concerns that were not anticipated. Respond candidly and informatively.
- » You are in the best position to judge the quality of the information that is being received, based on how seriously the respondent took the task, or any gestures or body language that were evident.
- » Avoid bias. Do not share your own opinions or make statements to sway questions towards the ‘right’ answer or your own opinions. Doing so could jeopardize the entire study.
- » Sometimes you’ll be tempted to omit a question because you thought you already heard what the respondent will say. Don’t assume that.
- » Don’t finish sentences. If you finish their sentence for them, you imply that what they had to say was unimportant or that you don’t want to give them the time to express themselves in their own language.

Encouraging responses

- » The most effective way to encourage someone to elaborate is to do nothing at all - just pause and wait. This is referred to as the “silent” probe. It works (at least in certain cultures) because the respondent is uncomfortable with pauses or silence. It suggests to the respondent that you are waiting, listening for what they will say next.
- » At times, you can encourage the respondent directly. Try to do so in a way that does not imply approval or disapproval of what they said (that could bias their subsequent results). Overt encouragement could be as simple as saying “Uh-huh” or “OK” after the respondent completes a thought.
- » You can encourage more information by asking for elaboration. For instance, you can ask questions like “Would you like to elaborate on that?” or “Is there anything else you would like to add?”
- » Sometimes, you can elicit greater detail by asking the respondent to clarify something that was said earlier. You might say, “A minute ago you were talking about the experience you had. Could you tell me more about that?”
- » You can also say something without really saying anything new. For instance, the

respondent just described an experience they had recently. You might say “What I’m hearing you say is that you found that experience very enriching.” Then, you should pause. The respondent is likely to say something like “Well, yes, and it affected the rest of my family as well. In fact, my daughter...”

Collecting responses

- » Try to fill in the questionnaire as you conduct the interview and keep space in an additional notebook to make notes that help clarify the answers, or to provide additional information that could be used in the final report.
- » Although we have the capability to record a respondent in audio and/or video, most interview methodologists don’t think it’s a good idea. Respondents are often uncomfortable when they know their remarks will be recorded word-for-word. They may strain to only say things in a socially acceptable way. In general, personal interviews are still best when recorded by the interviewer using pen and paper.
- » The interviewer should record responses as they are being stated. This conveys the idea that you are interested enough in what the respondent is saying to write it down. You may want to record certain key phrases or quotes verbatim.

Wrapping up the interview

- » Allow for a few minutes of winding down conversation. The respondent may want to know a little bit about you. They may be interested in how the results will be used. Use these kinds of interests as a way to wrap up the conversation. As you’re putting away your materials and packing up to go, engage the respondent. You don’t want the respondent to feel as though you completed the interview and then rushed out on them -- they may wonder what they said that was wrong. On the other hand, you have to be careful here. Some respondents may want to keep on talking long after the interview is over. You have to find a way to politely cut off the conversation and make your exit.
- » Even if the respondent was troublesome or uninformative, it is important for you to be polite and thank them for their time.
- » Tell them when you expect to send results.

After the interviews

- » Immediately after leaving -- write down any notes about how the interview went. Sometimes you will have observations about the interview that you didn’t want to write down while you were with the respondent.
- » Meet with the other interviewers every day after the round of interviews to discuss how the day went and what adjustments or changes need to be made on the questionnaire, methodology, etc.
- » If possible, input every day the data of the interviews that were conducted that same day.

APPENDIX X.

PLANNING WORKSHEETS

These worksheets can be used to compile responses to the worksheets in each sheet.

Identify the Audience

Threat	
Desired behavior change or action	
Desired shorebird impact	

Audience	Characteristics	Behavior change	Barriers to change	Motivators to change	Research tools needed
<p>Are they necessary to resolve the threats?</p> <p>Are they the root cause of the threat?</p> <p>Does their behavior need to change?</p> <p>Can their support impact implementation of action?</p>	<p>Where do they get information?</p> <p>What types of community activities do they participate in?</p> <p>Where do they live?</p> <p>Trusted messengers?</p> <p>Demographics, education level?</p>	<p>Be specific to what it is that you want them to do, not the overall project.</p>	<p>Existing opinion or perception of the conservation issues?</p> <p>What prevents them from changing behavior?</p> <p>External or internal barrier?</p>	<p>What benefit will they receive from changing behavior?</p> <p>How can this be achieved?</p>	<p>Review the data collection table.</p> <p>How will you collect more information about your audience?</p>

Implementation

Threat	
Desired behavior change or action	
Desired shorebird impact	

Audience	Strategy/tools	Materials/resources needed	Message	Responsible staff/Pprtner	Timeline	Cost
	<p>What is already be done? Does it need improvement?</p> <p>Social marketing, Volunteer program, education, or advocacy?</p> <p>What has worked in other areas?</p> <p>What specific tools will be used based on the known or assumed barriers?</p> <p>How will they be deployed?</p>	<p>What specific tools will be used based on the known or assumed barriers?</p> <p>How will they be deployed?</p>	<p>Will there be a unifying brand between tools and strategies?</p> <p>How will the message deliver the motivators effectively?</p>		Be realistic.	<p>How long do you have funds to coordinate this project?</p> <p>How will you maintain funding?</p>

Evaluation

Threat	
Desired behavior change or action	
Desired shorebird impact	

Audience	Strategy/Tools	Engagement indicator	Resource indicator	Evaluation indicator	Responsible Staff/Partner	Cost
	What is already be done? Does it need improvement? Social marketing, Volunteer program, education, or advocacy? What has worked in other areas? What specific tools will be used based on the known or assumed barriers? How will they be deployed?	How many people became aware, connected, committed, and took action? How did the audience change? Increased knowledge?	How did the threat change? How did the behavior change? How did the birds/ habitat respond?	Is there program feedback? Did we achieve objective?		Will you be able to maintain this evaluation plan over time, even with limited funds?

APPENDIX XI.

USES, BENEFITS, AND LIMITATIONS OF DATA COLLECTION METHODS FOR EVALUATION

Methods	Purpose	Advantages	Challenges	Audience
Stakeholder Interviews	To fully understand someone's impressions, experiences, or objectives.	<ul style="list-style-type: none"> • Provides full range and depth of information • Promotes relationship with respondent • Allows follow-up questions and collaboration 	<ul style="list-style-type: none"> • Can be time consuming and costly • Can be hard to analyze and compare • Interviewers can bias responses • Generalization may be limited 	<ul style="list-style-type: none"> • Community leaders • Agency staff • Elected Officials • Key Business Owners
Focus Groups	To explore a topic in depth through group discussion, e.g. reactions to an experience or suggestion, understanding common complaints or behaviors.	<ul style="list-style-type: none"> • Can quickly and reliably produce collective impressions • Can be efficient way to gather range and depth of information about projects • Can convey key information about projects 	<ul style="list-style-type: none"> • Can be hard to analyze responses • Need good facilitator for safety and closure • Difficult to schedule 6-8 people together • Can be difficult to recruit appropriate participants 	<ul style="list-style-type: none"> • Specific user groups, i.e. dog walkers, kite-surfers, ATV riders • General public • Local residents • Business owners
Questionnaires/ Intercept Surveys/ Opinion Polls	To quickly and/or easily get information on knowledge, skills, behaviors, or attitudes from people in a nonthreatening way.	<ul style="list-style-type: none"> • Can be completed anonymously • Inexpensive to administer • Easy to compare and analyze • Can be administered to many people • Can get lots of data • Easy to create: many sample questionnaires already exist 	<ul style="list-style-type: none"> • Might not get careful feedback • Wording can bias responses • Impersonal • Surveys may require sampling and statistical expertise • Doesn't get full story 	<ul style="list-style-type: none"> • Wide range of user groups • General public including supporters and non-supporters • Local residents • Tourists
Observation	To gather more information about a behavior.	<ul style="list-style-type: none"> • Allows viewing behaviors as they are actually occurring 	<ul style="list-style-type: none"> • Can be difficult to interpret behaviors • Can be difficult to combine with intercept surveys • Observations can be difficult to categorize • Can influence participants' behaviors 	<ul style="list-style-type: none"> • Wide range of user groups • General public • Local residents • Tourists
Literature Review	<p>To gather information on the audience and/or the issue.</p> <p>To identify what previous investigations have found out about the states of the knowledge, skills, behaviors, or attitudes of the intended audience on relevant issues.</p>	<ul style="list-style-type: none"> • Can provide information in relatively little time • Makes use of already gathered information • Helps to sort changes over time • Provides evidence about the problem 	<ul style="list-style-type: none"> • Can be out-of-date or from a different community or culture • Data synthesis can be difficult • May not address specific questions of concern • Data restricted to what already exists • Statistical data may not address perceptions/causes of the problem • Reports may be incomplete 	<ul style="list-style-type: none"> • Potential for all audiences

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