



Photo Courtesy of George Andrejko

# NATURAL PATHWAYS

A Project of the Association of Fish and  
Wildlife Agencies North American  
Conservation Education Strategy

## FINAL REPORT

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Produced by the North American Conservation Education Strategy and the Wildlife Management Institute



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## North American Conservation Education Strategy

The mission of the North American Conservation Education Strategy is “To unify and strengthen conservation education efforts of the Association of Fish and Wildlife Agencies (AFWA) member agencies and partners in a manner that effectively advances the Association’s Strategic Plan and the North American Model of Fish and Wildlife Conservation.”

The Natural Pathways Project was conducted to meet the overarching objectives of the CE Strategy to maximize states’ investments in their conservation education programs as well as recruitment and retention programs; achieve excellence in conservation education; build NGO and community partnerships; and ultimately, enhance public understanding and appreciation of fish and wildlife management while shaping long-term conservation and sustainable enjoyment of natural resources.

### Project Intent

The purpose of this project is to build on the significant in-roads made by the Association’s North American Conservation Education Strategy in unifying and strengthening state fish and wildlife agencies’ conservation education efforts—specifically in terms of outdoors skills development—that effectively advance the North American Model of Wildlife Conservation. This project meets the overarching objectives of the CE Strategy to maximize states’ investments in their conservation education programs and recruitment and retention programs; achieve excellence in conservation education; build NGO and community partnerships; and ultimately, enhance public understanding and appreciation of fish and wildlife management while shaping long-term conservation.

State fish and wildlife agencies are interested in recruiting, retaining, and reactivating outdoor participants and the specific role conservation education can play to accomplish this. This work is expected to inform the degree to which specific conservation education programs can achieve state agency recruitment, retention, and reactivation objectives and are consistent with the theoretical framework of the outdoor recreation adoption model (ORAM). This task will also qualitatively establish the efficacy and applicability of conservation education programs to recruit, retain, and reengage hunters, anglers, and boaters; and capture and present research findings in a format that is tailored to the intended target audience of conservation education practitioners at the state level.

The project has now concluded, results synthesized and made available through this report in a way that provides advice to all state fish and wildlife agencies as they refine their partnerships and program alignment to result in successful progression of individuals through the ORAM.

### Introduction

The financial, political, and conservation support generated by outdoor recreationists has long been the cornerstone of North American wildlife conservation implementation. Unfortunately, several segments of the outdoor user group (hunters, anglers, trappers, recreational shooters)

have experienced persistent declines, aging demographics, and/or high churn rates in the last two decades. These trends, along with shifting societal values, have led to recruitment, retention, and reactivation (R3) efforts becoming focal points for many state fish and wildlife agencies looking at long-term viability and relevance. Conservation education, a solution-oriented discipline with a long history of addressing the social aspects related to outdoor recreation and resource management, has much to offer in organizational efforts to stabilize or increase outdoor recreation participation. However, a better understanding of the ways in which conservation education can help reverse current declines is needed. The purpose of this project is to examine, through the tracking of R3 pilot programs, how outdoor skills and knowledge training can serve as a starting point for the establishment of a “natural pathway” for participants to enter the population of outdoor recreationists.

## Background

It has been long recognized that communities and, by extension, individuals adopting new ideas only do so through a progression of recognizable attitudinal stages on their pathway to acceptance (Rogers 1962; Rogers and Shoemaker, 1971). This idea has been modified and adapted to explain the process individuals go through as they adopt new outdoor activities. (Byrne and Dunfee, 2018). Within the outdoor R3 communities of state fish and wildlife agencies, non-governmental organizations, and the outdoor industry, this process is frequently labeled the “natural pathway.” This pathway was first referenced in research done by Responsive Management in 2011 which suggested that successful R3 efforts were those that incorporated a “natural path” approach; an approach that incorporated the introduction and progression of skills, the social community and adult involvement with youth, and the value of promoting activities with crossover appeal.

Formally, the sequence of stages necessary for the successful adoption of an outdoor activity is known as the “Outdoor Recreation Adoption Model” (ORAM) and is the conceptual model that encapsulates much of the current thinking and theory of outdoor recreation R3 and conservation education (Byrne and Dunfee, 2018). Many state fish and wildlife agencies, conservation organizations, and even outdoor industries are using this model to develop or improve their ongoing and planned R3 efforts. In recognition of this, the Association of Fish and Wildlife Agencies (AFWA) Conservation Education working group (CE working group) secured an AFWA Multi-State Conservation Grant and contracted the Wildlife Management Institute (WMI) to explore how this model might be used to increase the effectiveness and impact of outdoor education efforts by planning, implementing, and evaluating of a suite of pilot R3 programs.

## Approach to Pilot Project Selection and Implementation

A steering committee was assembled to assist in the development of a logical approach and the necessary methodology to guide the selection and design of 6-8 case-specific pilot studies in accordance with the outdoor adoption model and the specific goals of the multi-state grant. This steering committee (Natural Pathways Committee) was comprised of volunteers from the larger CE Strategy working group who were interested in the concept of the project and were willing to commit their time and expertise. The Natural Pathways Committee distributed an RFP in June

2014 to all 50-state fish and wildlife agencies soliciting proposals for Natural Pathways pilot projects designed to recruit new audiences into three forms of outdoor recreation; hunting, fishing, and shooting sports. In exchange for their cooperation, the pilot program coordinators were awarded \$6,000 to help defer the costs of implementing their programs in coordination with the requirements needed to evaluate the effectiveness of their efforts in establishing a “natural pathway” for their participants. Of 13 proposals that were received, 6 were selected by the working group. These included two angler recruitment programs (one of which included kayaking), three hunter recruitment programs, and one recreational shooter recruitment program. Programs were selected that, a) could be completed and evaluated in one year (as required by the Multi-State Conservation Grant deadline), b) targeted non-traditional or novice audiences, and c) had pre-existing agency and external partner support. WMI assisted the steering committee in preparing the questions and making decisions to narrow the field of state proposals.

Utilizing results-chain logic modeling, the WMI representative worked with the Natural Pathways Committee and pilot project leaders to define measurable outcomes for programs that address the desired intervention points and provided the framework of evaluation (objectives, indicators, and participant questions) for the selected programs.

Following the selection of pilot programs by the Natural Pathways Committee, the pilot project leaders attended a one-and-a-half-day workshop in August 2014. At this workshop, WMI provided training and tasked the project leaders with building evaluation frameworks for their programs. These evaluation frameworks allowed the Natural Pathway project leaders to determine how the pilot efforts impacted the desired ultimate outcome this project was exploring, i.e., how a progression of skills and knowledge training can establish a natural pathway leading to a new participant. Additionally, project leaders were encouraged to develop a results chain (see page 8 for a description) to be used to help them document who their target audience was, what measurable objectives were needed to guide their program’s outcomes, and establish a logic model approach to developing program participant pre- and post-surveys.

Pilot programs were delivered over the course of 2015. The Natural Pathway project leaders participated in regular conference calls with the Natural Pathways Committee to assess progress and request assistance throughout the grant implementation. Due to the varying outdoor activity focus of the pilot programs (hunting, fishing, and shooting), they did not all complete their implementation and post-program evaluations simultaneously. Some pilots continued into the early months of 2016 before final evaluation results could be submitted.

Following the completion of each pilot, the project leaders drafted summary reports following guidelines provided by WMI. These reports, along with survey results and person-to-person interviews were used to draft the final pilot program case studies found in Appendix A.

## Results

The intended purpose of the Natural Pathways project was to explore the degree to which existing and new conservation education programs can move individuals through the process of becoming a hunter, angler, shooting sports participant, or other outdoor recreationist. Given that conservation education is a solution-oriented discipline with a long history of addressing the

social aspects related to outdoor recreation and resource management, it is reasonable to assume that the CE Strategy has much to offer organizations and agencies wishing increase the participation rates of outdoor users from within their constituents.

Although not specifically formalized in peer reviewed research, the idea of a “natural pathway, i.e. the initiation of outdoor experiences leading to the recruitment of a long-term participant by a progression of skills, knowledge, and experience events, is generally represented in the concepts of adoption theory (Byrne and Dunfee, 2018) and community and skill progression models (rooted in the Dreyfus model of skill acquisition). Early in the discussions of the Natural Pathways project by the CE working group emerged the idea that perhaps those who were already outdoor participants might be easier to recruit as participants of other outdoor activities than those who were not. Or, perhaps those who have experienced a conservation education program might be more likely to advance toward the trial of an outdoor activity than those who have not participated in an education event or program. The likelihood of one audience’s adoption of an outdoor activity over another’s is not well researched or understood, aside from the anecdotal evidence provided by various conservation education practitioners. As noted in numerous past studies, surveys, and research related to R3, a persistent and historical lack of evaluation of R3 efforts makes determining priority audience selection difficult to justify with data alone.

However, considering the results of the pilot projects reviewed in this study, it appears that the pre-existing motivations, values and expectations of an audience may be more influential to the success of an R3 effort (or series of efforts) than simply the audience’s past or present level of outdoor participation. Given the very short timeline under which the pilot administrators were required to implement their programs (approximately one year due to grant timing restraints), there was not opportunity for them to implement their projects across multiple audiences with varying degrees of outdoor or conservation education experience. Therefore, the lessons learned from these pilots should be viewed as a first step in understanding the challenges and opportunities available to agencies and organizations wishing to construct natural pathways to outdoor participation for their constituents.

The specific results of each pilot effort are included within Appendix X along with the materials, implementation steps, and administrative details that may be of use to other R3 professionals wishing to create or improve efforts to increase outdoor participation.

Below is a summary of the primary recommendations that emerged from the experiences and results of the pilot programs.

- 1. Programs must be designed with a specific audience in mind.**

In general, pilot projects focused on providing participants with sufficient skills, knowledge, and experience to increase their motivation to a) acquire new skills and knowledge related to the target activity until b) they begin participating in the target activity on their own. In order to efficiently achieve those outcomes, project leaders noted that the target audiences’ existing motivations, social preferences and specific participation barriers must be identified and built into the program design and delivery. Thus, project leaders and program developers recommended that those designing a

program or effort should first sample a selection of the target audience to determine their existing preferences, motivations, and barriers before the program is designed and implemented. If the actual motivations of the individual sparking their interest in an outdoor activity is not known and then selected for in a program audience, the likelihood that an R3 program will have a long term impact is greatly diminished. A program or education strategy must be developed in response to a particular set of motivations and barriers expressed by the target audience. Building a program, and then trying to find an audience for it is backwards, unproductive, and may only result in selecting for participants who simply want to attend scheduled events rather than those who are truly interested in finding a pathway to the outdoors. The lack of designing a program (and implementation steps) with the specific needs of a target audience in mind negatively impacted the results of several pilot projects.

**2. All, or the large majority, of program participants must represent the target audience.**

Several pilot project leaders noted that diluting the pool of program participants with individuals whose preferences, motivations, and barriers did not align with the target audience greatly reduced the overall impact of the program. They also noted that securing participants from the target audience takes more time than expected. They all emphasized that additional time is needed to ensure that program participants represent the target audience and that the time limitations of their allowed implementation period impacted their ability to do so. Those project leaders who had a month or less to select program participants reported that the ability of their program to achieve desired results was reduced because either a) they had to accept fewer participants due to an inability to find the enough qualified individuals or, b) they accepted participants who did not represent the target audience. Future research efforts to learn more about Natural Pathways will require a grant with a longer timeline for completion.

**3. Partnership with other organizations is key to increased success.**

Nearly all pilot efforts relied upon the resources and expertise of partnership organizations (like community organizations). Project leaders noted that building a natural pathway to outdoor participation requires multiple interactions over time and is simply too onerous for one organization to implement. Additionally, several administrators noted that the variability of individual participant desires, preferences, perspectives, and needs necessitates the diversity of approaches presented by different organizations or agencies. Having multiple organizations contribute to the steps of a natural pathway provides participants with a wide array of perspectives that can allow them to discover and express their unique outdoor values in a way that increases their likelihood of long-term participation.

**4. Build natural pathways within a social support framework.**

Project leaders noted that participants who had no social support group capable of encouraging their participation in the target outdoor activity following a Natural Pathways program were more likely to indicate a low probability of future participation. However, they pointed out that those individuals who attended an event with members of

their social group were more likely to continue down a natural pathway. Project leaders recommended that Conservation Education/R3 program participants should either attend the event with members of their social group or that time should be built into and after the effort for participants to form a social support group from among their fellow attendees. This is likely easier to do if the participants are similar in age, demographic, geographical location, and lifestyle.

**5. The low-hanging fruit are those who already have a foot on a natural pathway.**

This recommendation may seem to contradict the above statement that pre-existing motivations, values and expectations of an audience may be more influential to the success of an R3 effort (or series of efforts) than the audience's past or present level of outdoor participation. However, project leaders clarified that individuals who were already expressing their personal values by spending time outdoors appeared more likely to adopt other outdoor recreation activities that may or may not be related to their existing activities. This is not to say that audiences who have little to no outdoor experience or education should be avoided as R3 program participants, it simply indicates that the pathway for those individuals is longer, may be more nuanced, and will take more steps than someone who has already decided that outdoor recreation aligns with their motivations and values. Again, individuals whose motivations and values already align with outdoor activities are the most likely to respond positively to a Conservation Education/R3 effort.

**6. Evaluation is time consuming, expensive, and invaluable**

Time and human resources for evaluation were identified by all project leaders as an added capacity element that *must* be built into the design and delivery of Conservation Education/R3 programs or efforts. However, they cautioned that without consideration being given to the demands of evaluation delivery, collection, and synthesis in a Conservation Education/R3 effort's implementation, it is unlikely that that adaptive improvement of the effort over time will occur, and the effort will likely be destined to underperform. Project leaders recognized that the historical avoidance of evaluation-based adaptation of R3 efforts has led many organizations, including their own, to omit the resources and time needed to incorporate evaluation systems into their education and R3 programs. Consequently, many of the project leaders indicated that they struggled with developing evaluation questions and collecting data in a way that would allow changes in participant motivations or behaviors to be detected over time. They recommended strongly that additional budget resources and human dimension researcher expertise be incorporated into any R3 effort development and/or implementation so that it can improve its effectiveness in achieving its desired outcomes.

## A Natural Pathways Framework for Designing and Evaluating CE/R3 Efforts

Surveys and research previously completed by WMI, the Aquatic Resources Education Association, the Recreational Boating and Fishing Foundation (RBFF), and Responsive

Management documented that among the numerous and diverse hunting, shooting sports, and fishing R3 programs implemented annually in the United States is a systematic lack of evaluation to document ultimate R3 outcomes (i.e., the number of new participants or the amount of increased participation by existing users). Additionally, these studies revealed a broad absence of evaluation structures capable of gathering participant and staff feedback to help R3 implementers improve their program over time. Perhaps most surprising, this research also indicated that the majority of R3 efforts being implemented were not strategically designed to overcome documented and specific barriers to participation influencing a particular target audience. Rather, these efforts appeared to be designed according to the perceptions, expectations, or personal experiences of the program administrators (or volunteer instructors), and not heavily informed by target audience's needs, desires, or preferences.

While current R3 best practices place a large emphasis on program or effort evaluation as a path to effectiveness, one of the lessons learned from the Natural Pathways project is that perhaps the most influential factor contributing to the ultimate effectiveness of an R3 effort is its specificity in addressing and overcoming barriers that are restricting a specific target audience from participating in a particular outdoor activity. Simply put, in order for an R3 effort to be fully effective, a target audience should be researched or queried BEFORE the effort is designed to discover why that particular audience is not participating and use that information to develop the tactics and education elements implemented by the effort. Without understating the needs of the audience an R3 administrator wishes to impact, there is a high probability that they will, at best, design an effort that is only partially effective at activating that audience and at worst, create an effort that selects for an entirely different and un-intended audience in less need of the effort (Responsive Management, 2011).

Given this documented lack of strategic program design within R3 efforts, the leaders of the Natural Pathway projects required that the project leaders of the chosen pilot programs identify the specific barriers to participation that their effort was addressing for its intended audience. To achieve this, project leaders encouraged the use of results-based logic models ("results chains") to map the pilot programs and the steps each were taking to address the participation barriers of their target audience.

Following the August 2014 training where the Natural Pathways project leaders were tasked with developing results chains for the programs they would implement under the guidance of the CE working group and WMI, an unexpected (and ultimately valuable) consistency in program logic emerged across all pilot programs. Regardless of the specific tactics implemented or target audience identified, all project leaders independently created results chains that shared a similar core logic. That is, the specific sequence of steps that the programs incorporated for their participants were virtually the same. To understand the significance of this, it is helpful to first discuss how a results chain outlines and documents the elements of a program, activity, or effort.

In simple terms, a results chain identifies the sequential changes in the outside world produced by an effort or program, and it does so by listing those changes in an "if, then" logic flow.

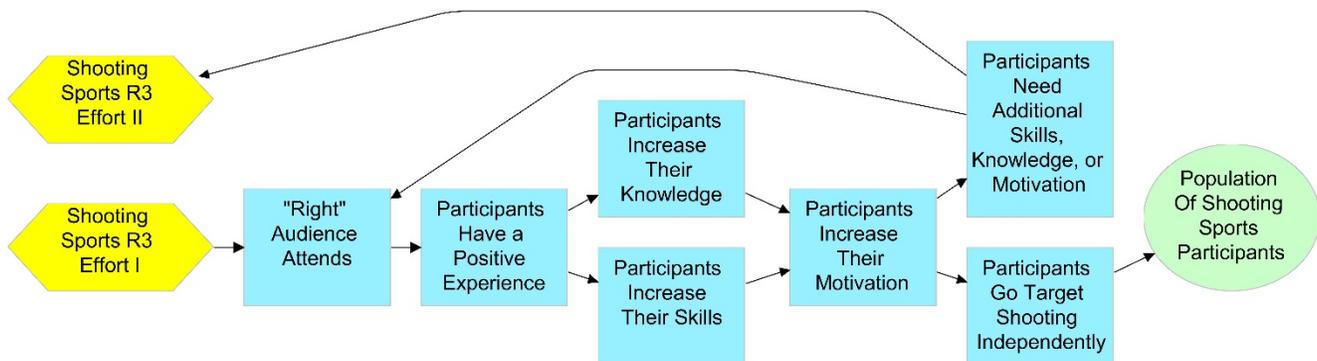
These changes, or steps, break down an R3 effort in a way that frames each step as a "result" that occurs as a function of the step before it. In other words, each step must occur before the

subsequent result can be achieved. If one of the results is missing or poorly delivered in a program’s implementation, then the “results” that follow are far less likely to be achieved, and the ultimate outcome of increasing an audience’s participation will likely remain unrealized.

Using this type of logic to construct a new R3 effort or de-construct an existing effort is critical to understanding the core theory of how the effort is designed to change the short and long-term behavior of its participants. There are, of course, a multitude of theories of how an effort or program is best designed to change a participant’s behavior, and there are likely numerous theories that, if correctly researched and implemented, share similar success in changing the ultimate behaviors of a target audience. This makes the results of the August 2014 Natural Pathway training particularly interesting. Among the professional outdoor educators contributing to the Natural Pathways project, the core theory of participant change present in their programs appeared to be generally the same. It is unclear why this similarity existed across the diversity of programs, organizations, and experiences of the pilot administrators, but the trend was consistent and the logic behind it sound. Interestingly, work done by WMI, the National Hunting and Shooting Sports Action Plan Workgroup, and the RBF Angler R3 Working Group on hunting, shooting sports, and angler R3 effort evaluation reinforces that this basic theory of change is at the core of a majority of successful R3 efforts being implemented in the United States.

Figure 1 illustrates this core theory in a simple results chain, using shooting sports R3 as an example focus. Note that this theory is applicable to hunting and fishing as well and likely any other outdoor activity R3.

**Figure 1. Basic shooting sports R3 effort results chain.**



Understanding the logic of the above results chain is best done by simply walking through the chain with an “if, then” perspective. To begin, consider for argument’s sake that the example effort presented in Figure 1, “Shooting Sports R3 Effort 1,” is designed primarily to recruit new shooting sports participants. The logic of how this program achieves that outcome is represented by the sequence of steps the participants move through, illustrated by the blue boxes. Each step is actually a result that must be experienced by the participants in a sequence of results that are needed in total to bring about the ultimate change in participant behavior desired by the program administrators; in this case, that participants go target shooting and thereby increase the population of shooting sports participants.

The first step of this R3 effort (and a critical step to all efforts designed to change the behavior of a target audience) requires identifying the unique barriers that are restricting a particular audience from participating in the target activity; in this case, target shooting. Ideally, the effort should be specifically designed to address these barriers (and only these barriers) and incorporate the unique learning needs of the target audience. If the effort is designed without an understanding of the audience and their barriers to participation, it may deliver an experience that is enjoyable, but one that does not ultimately address the audience's needs and may not motivate them to become independent participants.

Moving from left to right, we can begin looking at each result in the “if, then” logic. **If** an audience in need of a shooting sports R3 effort is targeted, and their barriers to recreational shooting are understood and addressed by the effort, **then** the target audience will benefit from the effort. Again, selecting participants exclusively from the target audience and understanding their specific barriers to participation are likely two of the most crucial factors contributing to the effectiveness of an R3 effort.

**If** the right audience attends, **then** they can have a positive experience because the effort was designed with their specific needs, desires, and barriers to recreational shooting in mind.

**If** the participants have a positive experience, **then** they can gain knowledge and/or skills.

**If** the participants gain more knowledge and skills, **then** their motivation (as well as confidence and interest) to go target shooting will increase.

**If** their motivation to go target shooting increases sufficiently, **then** participants will likely be faced with two different paths forward. Either the R3 effort provided them with sufficient skills, knowledge and most importantly, motivation to go target shooting on their own, or it made them realize they need more skills and knowledge (or additional tools like social support) before having the confidence or motivation to go target shooting themselves.

If the effort succeeds in motivating its participants to go target shooting on their own, then it has achieved the ultimate outcome (increasing the population of shooting sports participants). If, however, the participants only express a desire to learn more shooting sports skills and knowledge, program implementers are faced with a choice of either re-designing the effort to better address the audience's needs or providing participants with next steps by directing them to another existing R3 effort (e.g., the Shooting Sports R3 Effort II) that can sufficiently motivate to target shooting independently.

This logic appears to be commonly used in R3 effort development and, according to research supporting the Outdoor Recreation Adoption Model, is sound and likely effective if implemented completely. Expressly stated, if an R3 effort is designed to address known barriers, is populated by the target audience, increases participant motivation by fun and the transfer of knowledge and skills, and provides an opportunity for the participants to go out on their own if ready or participate in another R3 effort to increase their confidence, a natural pathway to participation is likely to be established.

However, if the program is not created to specifically address audience barriers and does not provide an opportunity for participants to take the next step (either go try it on their own or attend another effort that can teach them more and increase their confidence), a pathway to participation is less likely to form.

Understanding how this process of participation through an R3 effort and where it can be improved or made more efficient is a current challenge for outdoor educators and R3 implementors alike. Given that the core logic guiding the implementation of most R3 efforts (including the pilot projects of the Natural Pathways project) is supported by recreation adoption research (Byrne and Dunfee, 2018) and the experience of the aforementioned, R3-focused workgroups, it is recommended that R3 administrators use this framework to design, evaluate, and improve or complete the natural paths to outdoor recreation adoption.

Therefore, the basic results chain illustrated above can serve as a starting point for R3 implementers to design, plan and evaluate numerous types of R3 efforts. Below are two examples of how this basic logic can be customized for recruitment, retention or reactivation-type efforts. These examples are adapted from previous work done by WMI and its partners in developing R3 evaluation toolkits and best practices for hunter, angler, and shooting sports R3 efforts (Council to Advance Hunting and the Shooting Sports, 2016; Recreational Boating and Fishing Foundation, 2016).

### Example 1: Basic Angling Skills Training with Fishing

**Definition:** An event or class that includes only basic angler education (e.g. casting, fish ID, regulations, basic tackle, knots, fish cleaning, cooking, aquatic education, fisheries management, etc.) with on-the-water fishing experience. The target of the training could be youth, urban residents, ethnic groups, families, etc. Partners may include: schools, parks, church groups, day-camps, youth organizations, conservation/service organizations, etc.

As with any R3 effort, the need for the effort should be clearly identified BEFORE an effort is developed. More specifically, for this example, a need for skills training and a first fishing trial experience should be identified as a participation barrier for a particular target audience before the effort is developed.

In general, R3 planners should identify the type and content of the effort needed using the following steps:

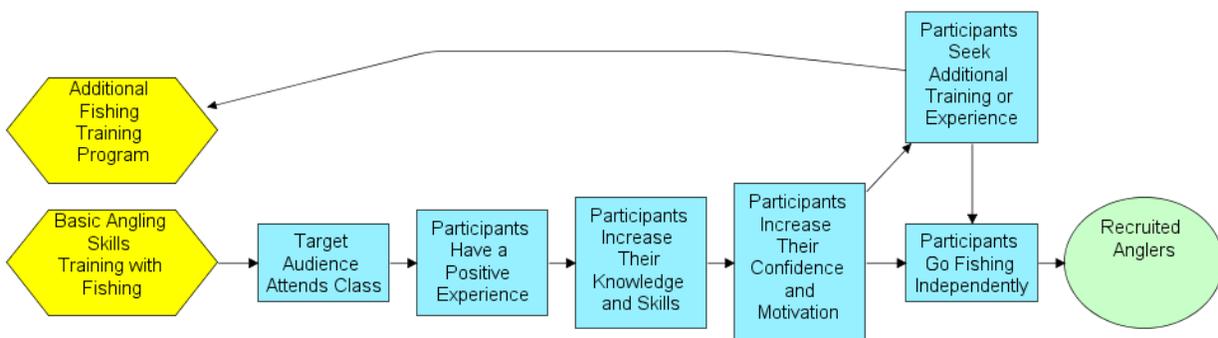
1. Confirm that more anglers are needed or desired. This can be assessed using license purchasing data, a review of the demographics and ages of current anglers, or other existing data or needs assessments.
2. Identify and select a specific target audience(s) in need of, and receptive to, an angler recruitment effort.
3. Using existing data, surveys, focus groups, or other reliable human dimensions research, conduct an initial assessment of the target audience's barriers to fishing and what may motivate them to try fishing.

4. Based on identified barriers and motivations, determine the most appropriate recruitment effort for the target audience (class, self-learning tool, targeted communication, etc.), and design it to address the audience’s specific barriers and increase their motivation to go fishing.
5. Use a results chain to plan the effort and set up a framework to measure the recruitment of the target audience (i.e., their future fishing participation) and the effectiveness of the effort in addressing the audience’s barriers to fishing.

For the purposes of this example, we will assume that steps one through four above were completed and revealed that a basic angling skills training with fishing class is the best way to meet the initial needs of the target audience. Note that this is a simplified example; it is likely that a needs assessment may reveal that multiple efforts over time are needed to address the audience’s barriers to fishing and establish a complete pathway to independent participation.

A results chain for this effort could be customized from the basic results chain in Figure 1 as in the below:

**Figure 2: Results chain for a basic angling skills training with fishing class.**



The results, or “if, then” statements in this results chain are very similar to those in Figure 1. The primary difference is that these were drafted to be slightly more specific in what it is assumed the audience needs to experience in order to become anglers. Thus, each result is a hypothesis of sorts that can be measured. If each result is assessed for its impact on participants, class implementers will have the information needed to determine which elements of the class are effective, which need to be improved or omitted, and ultimately, which elements of the class are most critical to creating new anglers.

In order to understand which elements of the class are effective and which may need improvement, one or more objectives must be developed to assess each result. These objectives must be time-sensitive, contain a metric that can be validated, be specific to the audience, and be stated as simply as possible. For the results chain in Figure 2, the following are examples of how objectives could be written to measure each result:

**Result:** Target Audience Attends Class

**Objective:** X% of the participants who attend the class represent the target audience.

**Result:** Participants Have a Positive Experience

**Objective:** At the end of the class, at least X% of participants indicate that they had a positive experience.

**Result:** Participants Increase Their Knowledge and Skills

**Objective 1:** At the end of the class, at least X% of participants indicate that their fishing skills increased.

**Objective 2:** At the end of the class, at least X% of participants indicate that their fishing knowledge increased.

**Result:** Participants Increase Their Confidence and Motivation

**Objective 1:** At the end of the class, at least X% of participants indicate that the skills and knowledge they gained at the class sufficiently prepared them to go fishing on their own.

**Objective 2:** At the end of the class, X% of participants indicate they have a greater interest in going fishing. Note: “Interest” is used here as an indicator of “motivation.”

**Result:** Participants Go Fishing Independently

**Objective 1:** After attending the class, at least X% of the target audience indicate that they went fishing independently.

**Result:** Participants Seek Additional Training or Experience

**Objective:** At the end of the class, X% of the participants indicate that they need additional skills, knowledge or experience before they will go fishing independently.

Using the above objectives, class implementers can draft simple participant surveys that include questions necessary to assess how well each objective was met. Note that, depending on the objectives, a pre- and post-class survey may be necessary. Or, as in the case of the “Participants Go Fishing Independently” objective, a survey is not necessary if the participant’s license purchases can be documented by the state fish and wildlife agency license sales database. It is recommended that class administrators develop surveys with the assistance of a human dimension specialist in order to develop questions that can collect accurate and un-biased participant opinions and experiences.

Using the above combination of pre-class planning, results chain development, and measurable objectives, implementers can create an evaluation system that will allow them to assess the degree to which their class is having the desired impact on its participants or ultimate outcome, as well as identify specifically where their class is in need of improvement.

## Example 2: Electronic Self-Learning Tools

**Definition:** Self-learning, "how-to" information tools on hunting. These may be electronic and print media, video, etc. Topics might include: game ID and biology; maps; gear selection; effective hunting techniques; where-to-hunt; etc.

In this example, as with the previous, a need to develop self-learning tools should be identified BEFORE the effort is developed, and an assessment of the resources, tools or support needed by the target audience should be completed.

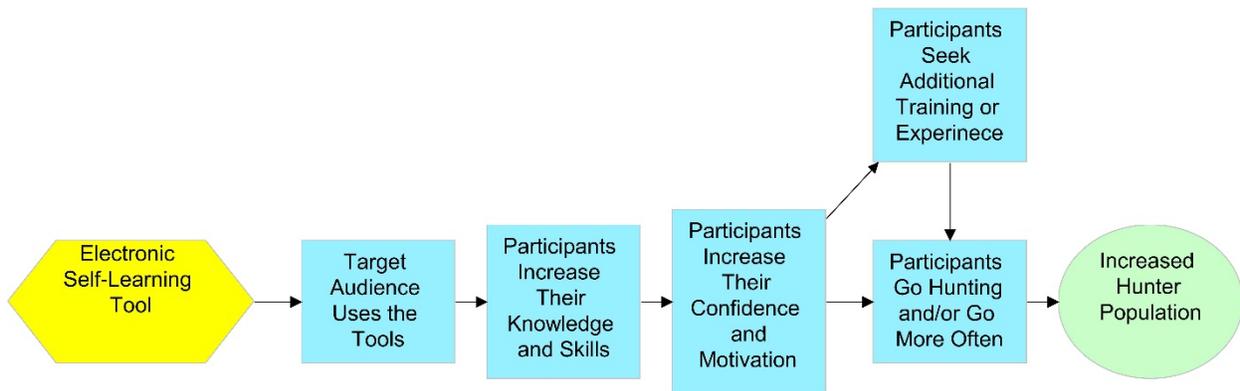
In general, implementers should identify the needed type and content of this form of R3 resource using the following steps:

1. Use hunting license databases, focus groups, surveys and other methods to identify first-time license buyers and assess information resources they need in order to start or continue hunting.
2. Based on the assessment of the target audience's information needs (where to hunt, how process game, which gear to use, where to go, etc.), identify self-learning tools best suited to provide that information (videos, emails, mobile apps, websites, etc.).
3. Design the tool(s) to specifically address the target audience's information needs and preferred delivery method(s).
4. Promote the tools to the target audience using their preferred communication medium.

For the purposes of this example, assume that steps one through three above have been completed, and the results indicated that the best way to meet the target audience's needs are through a web-based self-learning tool that provides local information on where to go hunting for different species, where local shooting ranges are located, how to field dress game, where public hunt access is located, and how to cook game, and searchable rules and regulations.

A results chain for this effort could be customized from the basic results chain (Figure 1) as in the below:

**Figure 3: Results chain for an electronic self-learning tool.**



When compared with Figure 1, the above results chain is very similar but somewhat simplified in that skills and knowledge are combined into one result, as are confidence and motivation. This is a perfectly acceptable modification of the core results chain. If the results (skills and knowledge; confidence and motivation) are measured, effort-specific customization is encouraged if it provides clarity and utility to implementers.

As with all other R3 efforts, objectives should be developed for each result in the results chain. These objectives must be time-sensitive, contain a metric that can be validated, be specific to the

audience, and be stated as simply as possible. For the above results chain, examples of how measurable objectives could be written are as follows:

**Result:** Target Audience Uses the Tools

**Objective:** X% (or X number) of the users represents the target audience.

Note: Publicly available web content cannot be driven to only one specific audience. However, the target audience must be among those accessing and using the web-based tools and be in sufficient numbers to validate the success of the tools' development.

**Result:** Participants Increase Their Knowledge and Skills

**Objective 1:** After using the tools, at least X% (or X number) of the target audience indicate that their hunting skills increased.

**Objective 2:** After using the tools, at least X% (or X number) of the target audience indicate that their hunting knowledge increased.

**Result:** Participants Increase Their Confidence and Motivation

**Objective 1:** After using the tools, at least X% (or X number) of the target audience indicate that they have greater confidence in their hunting -related skills.

**Objective 2:** After using the tools, at least X% (or X number) of the target audience indicate that they have greater motivation to go hunting.

**Result:** Participants Go Hunting Again and/or More Often

**Objective 1:** After using the tools, at least X% (or X number) of the target audience indicate that they increased their hunting activity as a result of using the tools.

**Result:** Participants Seek Additional Training or Experience

Though not required to measure the effectiveness of this effort, this result recognizes that there will likely be individuals who want or need additional resources or training beyond the scope of this tool(s). These individuals should be directed to other self-learning tools or R3 efforts that address their learning needs. In this way, their "natural pathway" can be extended. An embedded "Want to learn more?" questionnaire could be used to collect their contact information and identify their needed resources.

Measuring the above results could require a combination of website analytics, embedded surveys (with response incentives), sample target audience surveys, and hunting license sales database queries. It would be unrealistic to attempt surveying all users, but the above objectives must be measured in a significant sample of the target audience in order to improve and justify the tool(s) over time.

## Summary

While it may be reasonable to identify an individual's journey to outdoor participation as a pathway, it appears that such a path is likely non-linear. In other words, the path may branch or loop before returning to its main directional progressions toward independent participation. This more complicated (and likely difficult) conceptual pathway incorporates the reality that participants who are not ready to advance toward independent participation must be given the

opportunity to learn additional skills, knowledge or experiences before being presented again with the option of independent participation. This is reflected in the results chain in Figure 1 where, at the end of the chain, participants express their increased motivation by two different behaviors; participation in the target activity or participation in additional learning and experience. In a practical sense, this means that at the end of every R3 effort in a natural pathway, participants should be presented with a binary choice; a) am I ready to go and independently participate in the activity or b) do I need more knowledge, skills, and experiences before you go and independently participate in the activity? The number of steps (i.e., R3 efforts) in the pathway needed before an individual is ready to participate independently is likely highly variable across factors like participant age, gender, social system, financial situation, risk-averseness, previous experience, learning-style, etc. However, if the individual is always presented with a suite of next step options within the two choices of independent participation or additional training and experience, it is likely that the participation will be able to construct his or her unique (and thus more successful) personal pathway to outdoor recreation.

## References

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## Appendix A: Pilot Project Reports

# Pilot Program Case Study Summary: Wyoming Game and Fish Department Forever Wild Families

**Pilot Administrators:** Tasha Sorensen, Hunter and Angler Recruitment, Retention and Reactivation Coordinator, Wyoming Game and Fish Department

**Program Implementation Period:** May 2014 to December 2015

**Number of Staff Required:** Between two and eight, depending on the program event.

**Project Budget Including Direct Costs and Staffing:** ~\$14,000

**Desired Program Outcome:** Recruit or retain hunters as indicated by increased license sales.

## Target Audience

Families whose members a) have never purchased a hunting license, b) have not purchased a hunting license in the last five years, or c) already participate in other outdoor recreation activities. Additionally, families must have some experience in outdoor recreation (camping, hiking, fishing, shooting sports, etc.)

## Program Overview

- a. *Audience Selection.* Ten families (40 individuals) from the Laramie/Cheyenne region of Wyoming were selected to participate in the Wyoming Game and Fish Department (WY GFD) Forever Wild Families program. Participants were selected using data gathered from a pre-program survey (Appendix A) made available online at the WY GFD website. Potential participants were driven to the website through advertising pieces placed in the local area, recommendations from agency staff and educators, and word of mouth. Pilot administrators used survey responses to determine the potential participant's family structure, motivations for participating in the program, and their ability to participate over the course of 12 months.
- b. *Program Logic.* The WY GFD Forever Wild Families program used a multi-generational approach to hunting recruitment and retention. The underlying assumptions of the program design are a) skills and knowledge training tailored to a family unit rather than an individual will increase the likelihood that each individual in the family will remain motivated to continue participating in the long-term, b) multiple interactions over an extended time period are needed to move participants along the adoption process, c) providing participants with training and experience in multiple skills related to hunting increases their motivation and ability to continue hunting post program, and d) selecting families that live close to each other and share similar interests and motivations facilitates the growth of a social support system that provides continued motivation for long-term participation.

Administrators developed a detailed program results chain (Appendix B) that maps out the program steps and allows the evaluation of each step to determine its impact on the participant's training and mentoring process. Using this tool, administrators developed a suite of surveys that were administered to participants before and after every program event. For a sample of these surveys, see Appendix C.

- c. *Program Process.* During the 12 months that families were enrolled in the program, they were asked to participate in as many as 13 events. Many of these events were repeat activities to ensure that each family had ample opportunity to participate in the particular event being offered. For example, program

administrators introduce participants to outdoor skills by first taking them fishing and may host two or three fishing events in the summer to allow all families to attend at least once. Attending multiple events is encouraged.

Overall, there are 5 steps that participant families in the Forever Wild Families program are asked to complete:

1. **Orientation.** At this event, families participate in fun group activities to begin building a social support network. In addition, they are presented with the schedule of program events and expectations of program time commitment and participation. Finally, all participants are issued a Wyoming Sportsman Identification card. The number on this card becomes linked to the WY GFD license sale data system. This allows program administrators to track the future license purchasing habits of the program participants.
2. **Fishing Event.** Participants become familiar with fishing gear and have the opportunity to try angling.
3. **Pre-hunting Skills Workshops.** In this series of skills and knowledge workshops, participants take hunter education, engage in shooting sports activities, and receive instruction on how to find and join a local shooting range in order to be prepared for the upcoming training hunts. Participants also receive assistance in maneuvering through the sometimes complicated hunting license application process and hunting regulations structure.
4. **Training Hunts.** Participants are given a suite of trial hunt options that include small game, upland birds, waterfowl, and several big game species. Participants can self-select the type of hunts they are interested in or, more importantly, the series of low-pressure hunts they would prefer to attend in order to feel prepared for their often intimidating first big game hunt.
5. **Advanced Skills Training and Mentorship.** Following their training hunts, participants are invited to attend additional workshops and skills training camps to expand their introductory skills and cement their participation in outdoor recreation. Families are also given the opportunity to be paired up with a volunteer mentor for the next year in order to help them through any other difficulties they may encounter in adopting hunting as a long-term activity.

## **Results Summary**

The Forever Wild Families program administrators measure the ultimate desired outcome of the program by the number of “new” hunters it creates. These new hunters are defined as those individuals who would not have hunted or continued hunting if they had not participated in the program. Of the 10 families that attended this pilot effort, 27 individuals were of eligible license buying age at the start of the program. Prior to the program, those individuals had either never hunted before, or had not hunted big game in the last 5 years. One year after the end of the program, the Wyoming license sale data base showed that 20 of the eligible individuals purchased at least one hunting license, 25 had purchased either a hunting or fishing license, and 15 purchased both hunting and fishing licenses. Interestingly, license purchases for the entire cohort in the year following the program totaled 65 (these include hunting and fishing but do not include the licenses purchased during the program year). Data from the program surveys indicates that program participants under the eligible license age participated with the licensed adults and indicated that it was “likely” or “very likely” they will hunt and fish in the future.

## **Lessons Learned**

- a. All of the surveys administered to program participants were provided in hard copy. This required administrators to digitize hundreds of responses themselves or hire additional staff. This extra program work load often delays the analysis of survey data needed to determine critical program adjustments. Program administrators emphasized the need to utilize electronic survey delivery and collection. Using email surveys or on-site tablets for participants is preferable.
- b. Due to the extensive and frequent interactions with participants over the course of the program, administrators noted that external partners and their staff are greatly needed to reduce the resources required by the WY GFD. Effort should be made to involve these groups early in the program and work with them to establish “next steps” events that the participants can utilize to increase their outdoor recreation skills, knowledge, and experience.
- c. Administrators reported that the number of events provided through this program can likely be reduced while still retaining the program’s ability to achieve its desirable outcome. Further analysis of the survey data will be needed to determine which of these events can be streamlined or combined.

## Successes

- d. Administrators reported that designing a program to train a family rather than an individual results in the formation of a “micro-community” (a small number of individuals who represent most of the social values of a larger external group) that reduces the long-term resources needed to move these families from the “awareness” or “interest” stage of the adoption model to the “continuation without support” stage. Data from program surveys also indicates that a result of placing families who live close to each other and who share similar interests and motivations into the same cohort, those families continue participating in outdoor activities together after the program. Administrators note that this formation of a social support group with shared experiences is a particularly successful element of the program.
- e. Aside from the outcome of producing license purchasers, administrators reported that participant families also engaging in behaviors that indicate they become active stakeholders in the mission of the WY GFD. Since participating in the program, participants have engaged in writing testimonials, sharing their life-changing experiences on radio talk shows, Facebook and Google +, purchasing extensive gear and equipment, joining conservation organizations, and speaking with state political leaders about the program. While this information is largely anecdotal, administrators have noted that the diversity of these additional behaviors is not a typical by-product of outdoor recreation training and education programs.
- f. The license purchasing behaviors of program participants one year after the end of the program suggests that participants leave the program with sufficient knowledge, skills, and motivation to hunt multiple species over multiple seasons, and adopt additional activities like fishing. Administrators see this type of avid and robust outdoor recreationist as a more efficient outcome of a hunter recruitment and retention program than an individual who only hunts one species.

# Appendix A

## Forever Wild Families Application for 2015/2016 Program Year

Congratulations on your decision to apply for the Forever Wild Families program!

If your family is selected, we trust that you'll find the Forever Wild Families program a rewarding experience that broadens your knowledge of hunting, fishing and outdoor recreation in Wyoming.

---

### **Application**

Complete all portions of the application (please type if possible). If you need more space, please feel free to add pages.

### **Interviews**

Applicants will be screened by the Wyoming Game and Fish Department (WGFD). Eligible families will be interviewed and notified of their acceptance for the program.

### **Participant Fees**

The cost of the program for participants is FREE, except for the purchase of fishing and hunting licenses for program events.

### **Sportsperson Identification Number**

The information provided on this application will be used to provide each family member with an official WGFD Sportsperson Identification Number (SPID). The SPID will be used for tracking participation in our education programs and license-buying for as long as you fish and hunt in Wyoming. If you already have a SPID, please provide the number in the appropriate space on the application.

### ***Return completed application to:***

Tasha Sorensen  
Forever Wild Families Statewide Coordinator  
5400 Bishop Blvd  
Cheyenne, WY 82006  
Tasha.Sorensen@wyo.gov

---

*Please Print or Type - Attach Additional Pages if Necessary*

**Date:** \_\_\_\_\_

**1. Full Name:**

\_\_\_\_\_  
First Middle Last DOB  M  F

I already have a SPID, it is: \_\_\_\_\_

**2. Mailing Address:**

\_\_\_\_\_  
Address City State Zip Code

**3. Physical Address:**

\_\_\_\_\_  
Address City State Zip Code

**4. Telephone:** Home: \_\_\_\_\_ Office: \_\_\_\_\_ Cell: \_\_\_\_\_

Email: \_\_\_\_\_

**6. Family Members**

\_\_\_\_\_  
Name: First Middle Last DOB  M  F

I already have a SPID, it is: \_\_\_\_\_

\_\_\_\_\_  
Name: First Middle Last DOB  M  F

I already have a SPID, it is: \_\_\_\_\_

\_\_\_\_\_  
Name: First Middle Last DOB  M  F

I already have a SPID, it is: \_\_\_\_\_

\_\_\_\_\_  
Name: First Middle Last DOB  M  F

I already have a SPID, it is: \_\_\_\_\_

\_\_\_\_\_  
Name: First Middle Last DOB  M  F

I already have a SPID, it is: \_\_\_\_\_



**12. What is your family most excited to learn and/or experience in the Forever Wild Families program?**

|  |
|--|
|  |
|--|

**14. Please estimate your level of comfort or understanding by circling one of the following using a scale of 1-5, with 1 being poor and 5 being great. Candidates will be evaluated on potential for growth, so please provide an honest evaluation of your level of comfort. (In addition, the rankings below help program managers plan events that take into consideration the comfort level of participants.)**

| Poor |   |   |   |   | Great |  |
|------|---|---|---|---|-------|--|
| 1    | 2 | 3 | 4 | 5 |       | Recreating in large-carnivore (bear, wolf, lion) habitat     |
| 1    | 2 | 3 | 4 | 5 |       | Being in group settings                                      |
| 1    | 2 | 3 | 4 | 5 |       | Being in the presence of firearms                            |
| 1    | 2 | 3 | 4 | 5 |       | Committing one to two weekends per month                     |
| 1    | 2 | 3 | 4 | 5 |       | Awareness of WGFD programs and policies                      |
| 1    | 2 | 3 | 4 | 5 |       | Being in areas with limited mobile service                   |
| 1    | 2 | 3 | 4 | 5 |       | Processing game animals (rabbits, antelope, deer, elk, etc.) |
| 1    | 2 | 3 | 4 | 5 |       | Understanding of natural resource issues in Wyoming          |
| 1    | 2 | 3 | 4 | 5 |       | Food preservation techniques and safe food handling          |
| 1    | 2 | 3 | 4 | 5 |       | Touching a fish  |
| 1    | 2 | 3 | 4 | 5 |       | Ability to balance time commitments                          |
| 1    | 2 | 3 | 4 | 5 |       | Planning and preparing to spend the night in the wilderness  |
| 1    | 2 | 3 | 4 | 5 |       | Handling firearms  |
| 1    | 2 | 3 | 4 | 5 |       | Ecology and plant identification                             |

**13. How did you hear about the Forever Wild Families program?**

**15.** Full attendance at all events is required. Repeated lack of attendance may be grounds for dismissal from the program, as determined by WGFD. Program managers do their best to schedule events based on participants' availability, but they expect families to commit to one to two weekend events a month. Will you arrange to participate fully in the twelve-month program?       Yes       No

**16.** "I understand the expectations for my participation in the Wyoming Forever Wild Families Program. I hereby certify that all statements made in this application are true and complete. I agree and understand that any mis-statements or omission of material facts herein may cause disqualification of my application. I understand that selection of applicants is the sole responsibility of the Wyoming Game and Fish Department (WGFD). I agree to be available for a family interview at the time and place designated by the WGFD interview team to qualify for selection in the program."

Signatures (all family members) :

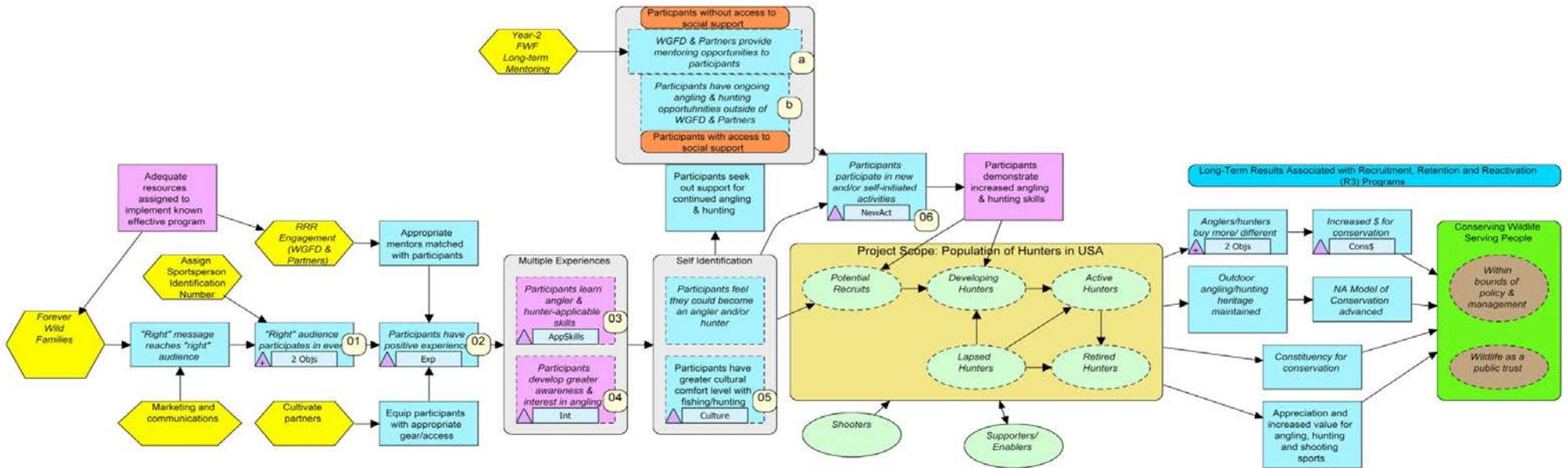
|       |             |
|-------|-------------|
| _____ | Date: _____ |

***Return completed application to:***  
Tasha Sorensen  
Forever Wild Families Statewide Coordinator  
5400 Bishop Blvd  
Cheyenne, WY 82006  
Tasha.Sorensen@wyo.gov



# Appendix B

Program results chain for Wyoming Game and Fish Department Forever Wild Families program.



## Appendix C

### Example 1. Pre- and post-event survey for the fishing event in the WY GFD Forever Wild Families program.

#### Pre-Event Questionnaire

Name of Event: Laramie Forever Wild Families Fishing

Date of Event: May 24, 2014

Thank you for participating in the Forever Wild Families program. Prior to beginning this event, we have a couple of questions to ask you that will help us learn from and improve this event over time. We will also be asking you several other questions at the close of this event. Thank you for your time and input.

#### Fishing Experience and Support

1. What is your experience fishing?

- Never fished
- Been with others who were fishing, but I didn't fish
- Fished a few times
- Never fished in WY
- Have no desire to fish
- Fish often/somewhat skilled
- Consider myself an expert at fishing

2. To what degree do you think your family, friends, and/or peers are supportive of fishing?

- Very supportive
- Supportive
- Not supportive
- Very unsupportive

3. Please indicate whether any of the following groups you know fish and, if so, approximately how often they fish. (**Check only one option per row**)

| Who  | How often they fish   |                       |                       |                       | Do not fish           |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | More than once a year | Once a year           | Once every 2 years    | Once every 5 years    |                       |
| Direct family (parents, siblings)                      | <input type="radio"/> |
| Extended family (aunts, uncles, grandparents, cousins) | <input type="radio"/> |
| Friends  | <input type="radio"/> |

4. If yes, what type of fishing have you participated in (*check all that apply*)?

- Cold water fishing (i.e. trout)
- Warm water fishing (i.e bass)
- Fly-fishing
- Spin cast fishing
- Ice fishing
- Deep sea fishing
- other \_\_\_\_\_

5. What type of fishing would you like to try?

6. How likely do you think it is that you will fish in the future?

- Very likely
- Likely
- Not likely
- Very unlikely

Why or why not?

7. How interested are you in learning to hunt?

- Very interested
- Somewhat interested
- Not interested

8. How did you hear about this program?

Background Data:

*Please note: Your responses will be kept **confidential** and only be used for administrative and program improvement purposes.*

Name:

Date of birth:

## Post-Event Questionnaire

Name of Event: Forever Wild Families Fishing, Twin Buttes

Date of Event: May 24, 2014

Thank you for participating in the Forever Wild Families program. Upon conclusion of your participation in this event, please answer the following in order to help us learn from and improve this program over time. Thank you for your time and input.

1. For each instructor you had, please answer the following questions:

How would you rate the characteristics of your instructor(s) for fishing?

| Instructor Name:<br>_____     | Very good | Good | Fair | Poor |
|-------------------------------|-----------|------|------|------|
| Knowledge of fishing          |           |      |      |      |
| Patience                      |           |      |      |      |
| Fishing skills                |           |      |      |      |
| Instruction skills            |           |      |      |      |
| Communication skills          |           |      |      |      |
| Approachable to ask questions |           |      |      |      |

If you answered "Fair" or "Poor" to any of the above questions, please explain:

How would you rate the characteristics of your instructor(s) for fishing?

| Instructor Name:<br>_____ | Very good | Good | Fair | Poor |
|---------------------------|-----------|------|------|------|
|                           |           |      |      |      |

|                                  |  |  |  |  |
|----------------------------------|--|--|--|--|
| Knowledge of fishing             |  |  |  |  |
| Patience                         |  |  |  |  |
| Fishing skills                   |  |  |  |  |
| Instruction skills               |  |  |  |  |
| Communication skills             |  |  |  |  |
| Availability to answer questions |  |  |  |  |

If you answered “Fair” or “Poor” to any of the above questions, please explain:

How would you rate the characteristics of your instructor(s) for fishing?

| <b>Instructor Name:</b><br>_____ | <b>Very good</b> | <b>Good</b> | <b>Fair</b> | <b>Poor</b> |
|----------------------------------|------------------|-------------|-------------|-------------|
| Knowledge of fishing             |                  |             |             |             |
| Patience                         |                  |             |             |             |
| Fishing skills                   |                  |             |             |             |
| Instruction skills               |                  |             |             |             |
| Communication skills             |                  |             |             |             |
| Approachable to ask questions    |                  |             |             |             |

If you answered “Fair” or “Poor” to any of the above questions, please explain:

How would you rate the characteristics of your instructor(s) for fishing?

| <b>Instructor Name:</b><br>_____ | <b>Very good</b> | <b>Good</b> | <b>Fair</b> | <b>Poor</b> |
|----------------------------------|------------------|-------------|-------------|-------------|
| Knowledge of fishing             |                  |             |             |             |
| Patience                         |                  |             |             |             |
| Fishing skills                   |                  |             |             |             |
| Instruction skills               |                  |             |             |             |
| Communication skills             |                  |             |             |             |
| Approachable to ask questions    |                  |             |             |             |

If you answered “Fair” or “Poor” to any of the above questions, please explain:

2. Overall, what was your impression of the following elements of your fishing experience?

| <b>Element or activity</b>                  | <b>Very Good</b> | <b>Good</b> | <b>Fair</b> | <b>Poor</b> |
|---|------------------|-------------|-------------|-------------|
| Location                                    |                  |             |             |             |
| Learning about fishing gear & what to bring |                  |             |             |             |

|   |  |  |  |  |
|---|--|--|--|--|
| Being in the field with friends and/or family |  |  |  |  |
|---|--|--|--|--|

3. How likely is it that you would recommend the Forever Wild Families program to a friend who may be interested in fishing?

- Very likely
- Likely
- Not likely
- Very unlikely

Why or why not?

4. How much additional mentoring support do you think you will need in order to pursue fishing in the future?

- A lot
- Some
- Very little
- None at all

5. What type of support would be most helpful to you?

6. What were your **three** favorite aspects of fishing experience?

---

7. What were your three least favorite aspects of fishing experience?

---

**Fishing Skills**

8. How much did this program help you develop the following skills?

| Fishing skill                            | A lot | Some | Very little | Not at all |
|--|-------|------|-------------|------------|
| Planning a fishing trip                  |       |      |             |            |
| Selecting the right clothing & equipment |       |      |             |            |

|                                       |  |  |  |  |
|---------------------------------------|--|--|--|--|
| Casting skills                        |  |  |  |  |
| Cleaning fish                         |  |  |  |  |
| Knot tying                            |  |  |  |  |
| Landing fish                          |  |  |  |  |
| Catch and release techniques          |  |  |  |  |
| Fish biology & behavior               |  |  |  |  |
| Knowing where to go                   |  |  |  |  |
| Awareness/safety bears, moose, etc... |  |  |  |  |
| Other (specify _____)                 |  |  |  |  |

9. How confident are you in the skills you learned to now be able to go fishing on your own?

- Very confident
- Confident
- Not very confident
- Not at all confident

10. Are there ways this program could better help you learn any of the above skills?

If so, please specify which skills and what help you would need.

11. Is there any additional fishing skills that you would like to have learned from this program? If so, what are they?

### Interest

12. To what degree did your participation in Forever Wild Families increase your interest in fishing in the future?

- Strongly increased my interest
- Somewhat increased my interest
- Neither increased nor decreased
- Somewhat decreased my interest
- Strongly decreased my interest

Why or why not?

13. What aspects of this program influenced your interest in fishing in the future?(Check all that apply)

- Modules/ information presented
- Skills learned (Please specify the most important skills learned \_\_\_\_\_  
\_\_\_\_\_)
- Mentors
- Friends I made
- Seeing someone like me doing this
- Spending time with friends/ family
- Being outdoors
- Having multiple experiences with the same instructor
- Having multiple experiences with different instructors
- Getting to participate in \_\_\_\_\_
- Getting to use equipment \_\_\_\_\_
- Other (specify) \_\_\_\_\_

**Motivation**

14. Based on your experience in Forever Wild Families, how likely do you think it is that you will fish in the future?

- Very likely
- Likely
- Not likely
- Very unlikely

Why or why not?

**Background Data:**

15. Name:

DOB:

Please note: Your responses will be kept **confidential** and only be used for administrative and program improvement purposes.

**Example 2. Post-event surveys for the mentored hunt event in the WY GFD Forever Wild Families program. One survey is to be completed by the mentor, the other by the mentee.**

**Post-Event Questionnaire (Mentor)**

Name of Event:

Date of Event:

Thank you for participating in Forever Wild Families program. Upon conclusion of your scheduled mentored event/ hunt, please answer the following in order to help us learn from and improve this program over time. Thank you for your time and input.

For each mentee, please answer Questions 1-4:

1. Please list the name of the mentee(s) on this event/hunt:

2. What type of event/ hunt did you plan?

3. Did you go hunting?

**If yes**, how many days?

**If no**, please explain why (check all that apply)

I had to cancel due to an unforeseen event.

The mentee had to cancel due to an unforeseen event.

The mentee lost interest in this type of hunt

I could not find the right place to take the mentee hunting

I did not feel I had enough knowledge or skills to mentor

Other (please explain) \_\_\_\_\_

4. In preparation for your event/hunt, please indicate how many hours you and your mentee spent doing the following.

| Skill or topic                                     | Hours of instruction |
|--|----------------------|
| Event/hunt planning & logistics                    |                      |
| Selection and use of proper clothing and equipment |                      |
| Scouting   |                      |
| Shooting safety                                    |                      |
| Practice with method of take (rifle, shotgun, bow) |                      |
| Game biology and behavior                          |                      |
| Tracking game                                      |                      |
| Game calling                                       |                      |
| Processing game                                    |                      |
| Shot placement                                     |                      |
| Spotting game                                      |                      |
| Other (specify )                                   |                      |

5. List anything you would change or do differently with this type of event/ hunt?

**Background Data:**

6. Name:

*Please note: Your responses will be kept **confidential** and only be used for administrative and program improvement purposes.*

## Post-Event Questionnaire (Mentee)

Name of Event:

Date of Event:

Thank you for participating in Forever Wild Families program. Upon conclusion of your scheduled mentored event/hunt, please answer the following in order to help us learn from and improve this program over time. Thank you for your time and input.

1. Type of event \_\_\_\_\_
2. For each mentor you had, please answer the following question:

How would you rate the characteristics of your mentor?

| Mentor Name: _____               | Very good | Good | Fair | Poor |
|----------------------------------|-----------|------|------|------|
| Knowledge of event               |           |      |      |      |
| Patience                         |           |      |      |      |
| Event/hunt planning skills       |           |      |      |      |
| Instruction skills               |           |      |      |      |
| Communication skills             |           |      |      |      |
| Availability to answer questions |           |      |      |      |

If you answered “Fair” or “Poor” to any of the above questions, please explain:

3. Overall, what was your impression of the following elements of your mentored event experience?

| Element or activity                           | Very Good | Good | Fair | Poor |
|---|-----------|------|------|------|
| Staying safe in the outdoors/preparedness     |           |      |      |      |
| Timing of event                               |           |      |      |      |
| Being in the field with friends and/or family |           |      |      |      |

4. How likely is it that you would recommend (Forever Wild Families program) to a friend who may be interested in these types of events?

- Very likely
- Likely
- Not likely
- Very unlikely

Why or why not?

5. How much additional mentoring support do you think you will need in order to pursue these types of events in the future?

- A lot
- Some
- Very little
- None at all

6. What type of support would be most helpful to you?

7. What were your three favorite aspects of your mentored event experience?

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8. What were your three least favorite aspects of your mentored event experience?

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### Hunting Skills

9. How much did this mentoring program help you develop the following skills?

| Hunting skill                            | A lot | Some | Very little | Not at all |
|--|-------|------|-------------|------------|
| Planning an event/hunt                   |       |      |             |            |
| Navigation                               |       |      |             |            |
| Selecting the right clothing & equipment |       |      |             |            |
| Spotting game                            |       |      |             |            |
| Finding game                             |       |      |             |            |
| Tracking game                            |       |      |             |            |
| Game biology & behavior                  |       |      |             |            |
| Game calling                             |       |      |             |            |
| Processing game                          |       |      |             |            |
| Shooting skills                          |       |      |             |            |
| Shooting safety                          |       |      |             |            |
| Shot placement                           |       |      |             |            |
| Other (specify _____)                    |       |      |             |            |

10. How confident are you in the skills you learned to now be able to do this type of event on your own?

- Very confident
- Confident
- Not very confident
- Not at all confident

11. Are there ways this mentoring program could better help you learn any of the above skills?

If so, please specify which skills and what help you would need.

12. Are there any additional skills that you would like to have learned from this mentoring program? If so, what are they?

## Interest

13. To what degree did your participation in Forever Wild Families increase your interest in this type of event in the future?

- Strongly increased my interest
- Somewhat increased my interest
- Neither increased nor decreased
- Somewhat decreased my interest
- Strongly decreased my interest

Why or why not?

14. What aspects of this mentoring program influenced your interest in participating in this type of event for the future? *(Check all that apply)*

- Modules/ information presented
- Skills learned (Please specify the most important skills learned \_\_\_\_\_ )
- Mentors
- Friends I made
- Seeing someone like me doing this
- Spending time with friends/ family
- Being outdoors
- Having multiple experiences with the same instructor
- Having multiple experiences with different instructors
- Getting to participate in \_\_\_\_\_
- Getting to use equipment \_\_\_\_\_
- Other (specify) \_\_\_\_\_

## Motivation

15. Based on your experience in Forever Wild Families, how likely do you think it is that you will hunt in the future?

- Very likely
- Likely
- Not likely
- Very unlikely

Why or why not?

16. What would increase the likelihood that you would hunt in the future?

**Background Data:**

17. Name:

*Please note: Your responses will be kept confidential and only be used for administrative and program improvement purposes.*

# Pilot Program Case Study Summary: Nebraska Game and Parks Commission Outdoor Family Adventure Program

**Pilot Administrators:** Christy Christiansen, Outdoor Education Specialist, Nebraska Game and Parks Commission

**Program Implementation Period:** September 2014 to April 2015

**Number of Staff Required:** Between one and six staff, and one to three volunteers depending on the program event.

**Project Budget Including Direct Costs and Staffing:** \$8,000

**Desired Program Outcome:** Recruit new hunters as indicated by increased license sales.

## Target Audience

Four families (at least one parent and one child) whose members a) had never purchased a license, b) were lapsed hunters (not hunted in the past 5 years), c) were novice (had been introduced to hunting in the past 2 years), or c) had already attended a Becoming an Outdoor Family Camp.

## Program Overview

- a. *Audience Selection.* Program administrators reviewed past participants of Nebraska Game and Parks Commission (NGPC) Becoming an Outdoor Family Camps and selected applicants based upon the above target audience criteria. These eligible families were sent a pre-event questionnaire to determine their suitability for program participation (Appendix A). Although four families were the target goal, only two families were recruited into the program.

*Program Logic.* In 2011, the NGPC began a new initiative titled the “Outdoor Families Program.” Since its inception, this program has implemented several camps that engage families in fishing, kayaking, camping, and shooting sports activities. However, program administrators noted that these events were missing the critical next steps needed to take families from the camps to actual participation in the field. As a result, administrators developed the Outdoor Family Adventure Program to take graduates of the Outdoor Families camps farther down a “natural pathway” by providing them with additional skills, knowledge, and experience that launch them into independent participation in hunting and other outdoor activities. The underlying assumptions of the program’s focus on family units is that skills and knowledge training tailored to a family unit rather than an individual will increase the likelihood that each individual in the family will remain motivated to continue participating in the long-term.

Administrators developed surveys that were administered to participants before and after each hunting event. For a sample of these surveys, see Appendix B.

- b. *Program Process.* Before participating in any trial hunts, all participants were required to attend a NGPC “Learn to Hunt” workshop. At these workshops, participants were taught introductory information about necessary hunting skills, strategies, and equipment. Following the completion of these workshops,

participants were scheduled to attend three training hunts; a fall pheasant hunt, a fall deer hunt, and a spring turkey hunt. Due to scheduling challenges, one family attended only the pheasant and deer hunts, while the other family attended only the deer and turkey hunts.

### **Results Summary**

Data from the NGPC license sale data base indicated that none of the individuals who participated in the Outdoor Families Adventure program purchased a hunting license the following year. Interestingly, half of the participants who completed the follow up program survey indicated that they were “likely” or “very likely” to go hunting after the program. Program administrators note that after the families had been selected and had completed the Learn to Hunt workshops, it became apparent that their fiscal and physical constraints would significantly impact their ability to participate in hunting and other outdoor activities.

### **Lessons Learned**

- a. Administrators stated that audience selection was a significant barrier to the success of this pilot. They noted that target families should be more thoroughly surveyed to ascertain if financial and/or physical restrictions might be barriers to their long-term participation. In addition, administrators stated that a more thorough survey of participant motivations should be conducted prior to participant selection. As this program was free to participants, administrators suspected that participant investment may have been low as a result of them being more motivated by “doing something fun for free” than a strong desire to hunt. Administrators recommended that, in addition to more time and resources being invested in screening applicants, the program should require a fee to participate. Thus, participants would have more “skin in the game,” and their motivations, interests, and specific barriers could be known and addressed in the program implementation.
- b. Administrators reported that time and timing were persistent factors restricting successful program implementation. Following the pilot administrator meeting hosted by the CE Strategy Natural Pathway’s Grant in early fall 2014, Outdoor Family Adventure Program administrators had only a few weeks to find, select, and survey potential participants. This resulted in fewer than expected participants, and participants who were not ideally suited to achieve the ultimate outcomes of the program. Additionally, the truncated implementation timeframe produced significant scheduling challenges for program staff, requiring them to expend additional time and resources on hosting the same event more than once.

### **Successes**

Administrators stated the support and partnering from intra-agency cooperation was a significantly important, secondary outcome of this pilot. Support from State Parks and Law Enforcement staff allowed program events to be implemented effectively and instilled in participants an appreciation of what the NGPC does. This new intra-agency cooperation will greatly improve future efforts to lead outdoor families down a natural pathway to outdoor participation.

## Appendix A

Dear Outdoor Families,

You have been selected to participate in our Natural Legacy Pathway Grant program; Outdoor Family Adventure Program. Your families have already participated in our Becoming an Outdoor Family camp and we have selected you based on your interest to pursue other outdoor activities. We will select 3-4 families to continue with this program based on your availability to attend all of the activities mentioned below.

The grant that we received is to mentor and provide opportunities to help you explore hunting. The grant will be providing the majority of the expenses for the programs and hunts. Staff from Nebraska Game and Parks will serve as mentors and will provide any needed equipment to assure a successful hunting adventure.

To determine what activities best fits your family, we need the following information from each of you.

1. Names and ages of all family members;
2. Family members who have completed hunter or bowhunter education;
3. Family members who have hunted in the past;
  1. What type of hunting did they participate in?
  2. How many times did they hunt?
    1. in the last year?
    2. in the last two years?
    3. in the last 5 years?
4. Would you be willing to attend each activity/event we host?
  1. September 27th –Upland Bird Hunt
  2. October 21st or 28<sup>th</sup>-Learn to Hunt Deer Hunting Workshop
  3. December 12-14 – Doe Hunt with a muzzleloader

4. April 18-19-Turkey Hunting Weekend

5. Are you willing to travel to these events? (Most will happen within a 50 mile radius of Omaha/Lincoln)

## Appendix B

### Pre-Event Questionnaire

Name of Event: Upland Bird Hunt and Hunter Education Field Day

Date of Event: Saturday, September 27, 2014

Thank you for participating in the Outdoor Family Adventure program. Prior to beginning this event, we have a couple of questions to ask you that will help us learn from and improve this event over time. We will also be asking you several other questions at the close of this event. Thank you for your time and participation.

### Familiarity with Topic(s) Being Presented

1. Have you ever hunted upland birds before?

Yes If yes, how often? \_\_\_\_\_

No

2. How much **knowledge** do you have of the following topics? (In other words, how much do you know about the topic even though you may or may not have applied what you know.)

| Topic                   | A lot | Some | A little | None |
|-------------------------|-------|------|----------|------|
| Bird biology & behavior |       |      |          |      |
| Hunting strategy        |       |      |          |      |
| Parts of a shotgun      |       |      |          |      |
| Zones of Fire           |       |      |          |      |
| Swing through shooting  |       |      |          |      |
| Dog handling            |       |      |          |      |

3. How confident do you currently feel in your **skills** related to the following topics?

| <b>Topic</b>                             | <b>Very confident</b> | <b>Confident</b> | <b>Somewhat confident</b> | <b>Not at all confident</b> |
|--|-----------------------|------------------|---------------------------|-----------------------------|
| Planning a hunt                          |                       |                  |                           |                             |
| Gun handling                             |                       |                  |                           |                             |
| Selecting the right clothing & equipment |                       |                  |                           |                             |
| Spotting game                            |                       |                  |                           |                             |
| Firearm selection                        |                       |                  |                           |                             |
| Correct Ammunition for game and firearms |                       |                  |                           |                             |

**Background Data:**

5. Name:

*Please note: Your responses will be kept **confidential** and only be used for administrative and program improvement purposes.*

## End-of-Event Questionnaire

Name of Event: Upland Bird Hunt and Hunter Education Field Day

Date of Event: Saturday, September 27, 2014

Thank you for participating in the Outdoor Family Adventure Upland Bird Hunt. Please take some time to fill out this questionnaire to help us learn from and improve this event over time. Thank you for your time and input.

### Skills Development

1. How much did this event help you to develop the following skills?

| Topic                                    | A lot | Some | A little | Not at all |
|--|-------|------|----------|------------|
| Planning a hunt                          |       |      |          |            |
| Gun handling                             |       |      |          |            |
| Selecting the right clothing & equipment |       |      |          |            |
| Spotting game                            |       |      |          |            |
| Firearm selection                        |       |      |          |            |
| Correct Ammunition for game and firearms |       |      |          |            |

2. How confident are you in the skills you learned to now be able to hunt upland game.
- Very confident
  - Confident
  - Not very confident
  - Not all confident
3. Since the event, do you feel confident you know where to look for additional information that will help you with future hunting opportunities?
- Very confident
  - Confident
  - Not very confident
  - Not all confident
4. Are there ways this event could better help you learn any of the above skills? If so, please specify which skills and what help you would need.
- Yes
  - No     If no, how so? \_\_\_\_\_
1. Are there any additional hunting skills that you would like to have learned at the event?
- Yes     If so what are they? \_\_\_\_\_
  - No

**Background Data:**

1. Name:

*Please note: Your responses will be kept **confidential** and only be used for administrative and program improvement purposes.*

### Follow-Up Questionnaire

Name of Event: Outdoor Family Adventure Program  
September 2014-August 2015

Thank you for participating in the Outdoor Family Adventure program. We hope your experience was a positive one. Please complete the survey below and return to us as soon as possible. Thank you for your time and participation.

### Impression of the Program

1. As a whole, what was your impression of each of the following?

| Aspect                     | Very good | Good | Poor | Very poor |
|----------------------------|-----------|------|------|-----------|
| Quality of training        |           |      |      |           |
| Logistics and organization |           |      |      |           |
| Sufficient equipment       |           |      |      |           |
| Timing of events           |           |      |      |           |
| Safety of events           |           |      |      |           |

If you answered "poor" or "very poor" to any of the above questions, please explain.

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2. What was your general impression of the following events/programs?

| <b>Event or Program</b> | <b>N/A</b> | <b>Very good</b> | <b>Good</b> | <b>Poor</b> | <b>Very poor</b> |
|-------------------------|------------|------------------|-------------|-------------|------------------|
| Hunter Safety           |            |                  |             |             |                  |
| Upland Bird Hunt        |            |                  |             |             |                  |
| Learn to Hunt Deer      |            |                  |             |             |                  |
| Muzzleloader Site-in    |            |                  |             |             |                  |
| Deer Hunt               |            |                  |             |             |                  |
| Learn to Hunt Turkeys   |            |                  |             |             |                  |
| Shotgun Sight-in        |            |                  |             |             |                  |
| Turkey Hunt             |            |                  |             |             |                  |

If you answered "poor" or "very poor" to any of the above questions, please explain.

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**Hunting Interest and Motivation**

3. To what degree do you think your family, friends and/or peers are supportive of hunting?

|                  |             |             |                  |
|------------------|-------------|-------------|------------------|
| <b>Very Poor</b> | <b>Poor</b> | <b>Good</b> | <b>Very Good</b> |
|------------------|-------------|-------------|------------------|

4. Please indicate whether any of the following groups you know hunt and if so approximately how often they hunt.

Direct Family

|                                |                      |                           |                           |
|--------------------------------|----------------------|---------------------------|---------------------------|
| <b>More than once per year</b> | <b>Once per year</b> | <b>Once every 2 years</b> | <b>Once every 5 years</b> |
|--------------------------------|----------------------|---------------------------|---------------------------|

Extended family

|                                |                      |                           |                           |
|--------------------------------|----------------------|---------------------------|---------------------------|
| <b>More than once per year</b> | <b>Once per year</b> | <b>Once every 2 years</b> | <b>Once every 5 years</b> |
|--------------------------------|----------------------|---------------------------|---------------------------|

Friends

|                                |                      |                           |                           |
|--------------------------------|----------------------|---------------------------|---------------------------|
| <b>More than once per year</b> | <b>Once per year</b> | <b>Once every 2 years</b> | <b>Once every 5 years</b> |
|--------------------------------|----------------------|---------------------------|---------------------------|

5. Other than this program, have you hunted **in the past**?  Yes  No
- If yes, how many times have you hunted?
  - How long has it been since you have gone hunting?
  - What reasons stopped you from continuing to hunt?

6. How interested are you in going hunting in the future?

|                        |                   |                     |                              |
|------------------------|-------------------|---------------------|------------------------------|
| <b>Very Interested</b> | <b>Interested</b> | <b>Uninterested</b> | <b>Not at all interested</b> |
|------------------------|-------------------|---------------------|------------------------------|

Why \_\_\_\_\_ or why not? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

7. How likely do you think it is that you will hunt in the future?

|                    |               |                 |                          |
|--------------------|---------------|-----------------|--------------------------|
| <b>Very Likely</b> | <b>Likely</b> | <b>Unlikely</b> | <b>Not at all likely</b> |
|--------------------|---------------|-----------------|--------------------------|

Why or why not? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

8. What would increase the likelihood that you would hunt in the future?

\_\_\_\_\_

\_\_\_\_\_

9. What aspects of this program have influenced your interest to continue to hunt?  
(check all that apply)

- Learn to Hunt Workshops
- Skills learned
- Instructors
- Friends I made
- Seeing someone like me doing this
- Spending time with friends/family
- Being outdoors
- The challenge of hunting
- Harvesting game to eat
- Traveling to new places
- Other (specify) \_\_\_\_\_

## Skills Development

10. To what degree did this program help or encourage you to develop new hunting skills?

|              |             |                 |                   |
|--------------|-------------|-----------------|-------------------|
| <b>A lot</b> | <b>Some</b> | <b>A little</b> | <b>Not at all</b> |
|--------------|-------------|-----------------|-------------------|

11. As a result of participating in this program, have you gone hunting, fishing, shooting or participated in any new hunting-related activities?  Yes  No

### If no....

Why didn't you participate in any new activities?

### If yes....please answer the following three questions

1. What activities?
2. What, if any, support of help have you received that encouraged you to participate in new hunting/fishing/shooting activities?
3. What additional support of help do you need to continue participating in hunting/fishing/shooting activities?

## License Purchases

12. As a result of participating in this program have you or will you purchase the following licenses or permits?

| <b>License type</b> | <b>Purchased</b> | <b>Plan to buy</b> |
|---------------------|------------------|--------------------|
| Park permit         |                  |                    |
| Fishing permit      |                  |                    |
| Habitat stamp       |                  |                    |
| Hunting permit      |                  |                    |
| Turkey tag          |                  |                    |
| Deer tag            |                  |                    |
| Waterfowl stamp     |                  |                    |

13. As a result of participating in this program have you or will you purchase the following equipment?

| <b>Equipment</b>  | <b>Purchased</b> | <b>Plan to buy</b> |
|---|------------------|--------------------|
| Fishing   |                  |                    |
| Firearms  |                  |                    |
| Ammunition  |                  |                    |
| Archery equipment   |                  |                    |
| Hunting accessories<br><i>(Be specific-blinds, calls,<br/>decoys, tree stands etc.)</i> |                  |                    |

**Background Data:**

**Name:**

*Please note: Your responses will be kept **confidential** and only be used for administrative and program improvement purposes.*

## Pilot Program Case Study Summary: Take A Kid Outdoors Fishing Programs

**Pilot Administrators:** Judith E. Joyce, Executive Director of Take A Kid Outdoors, Inc. (TAKO); Holly Schulte, Training Specialist with the Iowa Department of Natural Resources (DNR), Barb Gigar, Iowa DNR

**Program Implementation Period:** January 2015 to June 2015

**Number of Staff Required:** Varies widely, depending on the program event. However, two staff at ¼ FTE each are required to administrate the overall program.

**Project Budget Including Direct Costs and Staffing:** \$8,000

**Desired Program Outcome:** Recruit and retain 10 families to participate in at least three fishing programs over the grant period using the social support from TAKO's Facebook and webpage.

### Target Audience

"Family/team units." These units were defined as a group consisting of at least one individual over 18 and one individual under 18. Any family/team units that attended at least three of the 9 fishing programs offered over the course of the program period we considered the target audience.

### Program Overview

- a. *Audience Selection.* In this program, the audience was not selected prior to the event's start date. Rather, a series of community fishing events were held open to the public in the Iowa City area, and the participants who met the family/team unit criteria were tracked via a Take it Outside card number that was presented by returning participants at each event (rewards points were given to participants who used the card; see Appendix A). At the end of the program, 13 family/team units had met the audience criteria and were selected to complete post-program surveys (Appendix C).
- b. *Program Logic.* By providing scheduled, community based skills training and fishing trial events over an extended time period, families interested in fishing would attend multiple events and find social support for their activity by interacting with other groups of similar interest and proximity.

Administrators developed a program results chain (Appendix B) that maps out the program steps and allows the evaluation of each step to determine its impact on the participant's fishing participation. Using this tool,

administrators developed pre- and post- program surveys (Appendix C) for an adult member of the target family/team units to determine the program's impact on the fishing frequency of groups who were motivated to attend multiple events over time.

- c. *Program Process.* During the six months that TAKO offered this program, nine separate fishing events were implemented in the Iowa City area. The events were not sequential, but simply provided varied opportunities for participants to learn different fishing skills and be exposed to a suite of fishing options. Specific options included ice fishing, fly fishing, free fishing days, etc.

## Results Summary

Of the 12 adults from the family/team unit surveyed, all had fished before participating. However, most were lapsed or infrequent participants. Four had not fished in the previous twelve months, four fished 1-3 times per year, and three fished 4-6 times per year. 10 of the respondents were female and two were male. Seven were in their 30's and two were in their 40's. This program likely did not recruit new adult anglers, but re-activated about one-third of the family/team unit leaders, and provided local, scheduled opportunities to increase their angling avidity with their children. Nine of twelve family/team unit leaders indicated that, as a result of participating in a TAKO fishing event, they independently participated in fishing or some other outdoor activity (hiking, paddleboarding, kayaking). When asked how likely they were to continue fishing after the program was complete, 11 family/team unit leaders indicated that it was "very likely," and five indicated that they had already done so.

## Lessons Learned

- a. From the perspective of evaluation, it is very difficult to manage a large group of participants through multiple experiences. While 155 family/team unit leads completed the pre-survey, only 12 completed the post-survey. Program administrators noted that selecting a smaller subset of the target audience and offering specific incentives early in the program would likely increase participation in the evaluation, and perhaps impact on the angling population.
- b. Allowing open attendance likely appeals more to current or lapsed anglers than non-angler adults. Most of the family/team unit leaders surveyed indicated that the TAKO events increased their fishing avidity and participation in other outdoor activities, but the program likely does not *recruit adults* into fishing.

Administrators noted that current cultural trends that depend heavily on scheduling, structured "play" events are seeing increased attendance. The overall TAKO program (events beyond fishing) has seen a ten-fold increase in participation during the past year. However, from the perspective of immediately increasing license sales from angling, these programs likely have little direct impact.

- c. Administrators for the TAKO fishing program noted that additional time and/or staffing for evaluation and survey systems should be built into the program design, especially if surveys are done using paper.

## Successes

- a. Administrators reported that providing regular and scheduled events in close proximity to the participant's homes is a motivating factor for participation. Linking individuals in a local area via social networking and local advertising may also increase long term participation in the target activity and expand the types of outdoor recreation that participants are willing to try.

- b. A majority of the leaders of the family/team units who participated in multiple events and provided feedback were females in their 30s. This is a very important group for angler recruitment, retention and reactivation efforts.
- c. This program incorporated an incentivized participant tracking system that allowed administrators to identify repeat family/team units from a pool of hundreds. This system utilizes unique identification numbers issued through Take it Outside cards. These numbers are then linked to the TAKO Rewards program as an incentive for participants to attend other programs, use TAKO social media outlets, attend partner programs, etc. Card holders emails and information is collected, thus allowing administrators to market future TAKO events, partner events, and social media pages. Administrators report that this incentives-based approach to participant tracking is proving very effective in tracking program outcomes and fostering social support networks.

## Appendix A

*Helping you get outdoors by providing resources, tools, social support, and fun incentives*



# Take A Kid Outside TAKO Rewards

- 1) **Get a TAKO Rewards Membership card\***
- 2) **Starting Earning TAKO REWARDS points**
- 3) **Get Awesome Outdoor Stuff!**

### Ways to Earn Points!

| Do This.....   | Earn These Points! |
|--|--------------------|
| Attend TAKO sponsored events   | 75 points/event    |
| Complete Surveys   | 75 points/survey   |
| Attend partner Outdoor Events (County Conservation, Parks and Recreation, more)  | 75 points/event    |
| Go fishing and post photos on TAKO's Facebook page   | 50 points          |
| Recommend programs and events to friends and family  | 25 points          |
| Bring others to TAKO and partner outdoor events  | 50 points          |
| Post a photo holding your fishing license on TAKO's Facebook page  | 25 points          |
| "Like" TAKO's Facebook Page  | 50 points          |
| Take someone fishing and post it on TAKO's Facebook page   | 50 points          |
| Create a fishing team/club/meet up group   | 50 points          |
| Join a fishing team/club/meet up group   | 25 points          |
| Create/Host a team/club/meet up group outings  | 50 points          |
| Hike in the woods or in a prairie and post to Facebook about your experience   | 25 points          |
| Get the "First Fish Award" - <a href="http://www.iowadnr.gov/Fishing/MasterAnglerFirstFish.aspx">http://www.iowadnr.gov/Fishing/MasterAnglerFirstFish.aspx</a> | 25 points          |
| Become a "Master Angler" - <a href="http://www.iowadnr.gov/Fishing/MasterAnglerFirstFish.aspx">http://www.iowadnr.gov/Fishing/MasterAnglerFirstFish.aspx</a>   | 25 points          |

*Find more ways to earn points on Facebook, our website and at events.*

\*One (1) TAKO Rewards Membership Card per **TEAM**. A TEAM consists of at least one adult and one kid. A team can be:

- A family (as defined by YOU!)
- Grandparents/grandkids
- Aunt/Uncle with Niece/Nephew
- Big Brother/Big Sister with Little Brother/Little Sister
- Any adult / youth who want participate in fun outdoor events together!

Prizes to be determined....STAY TUNED!



Like us on Facebook!

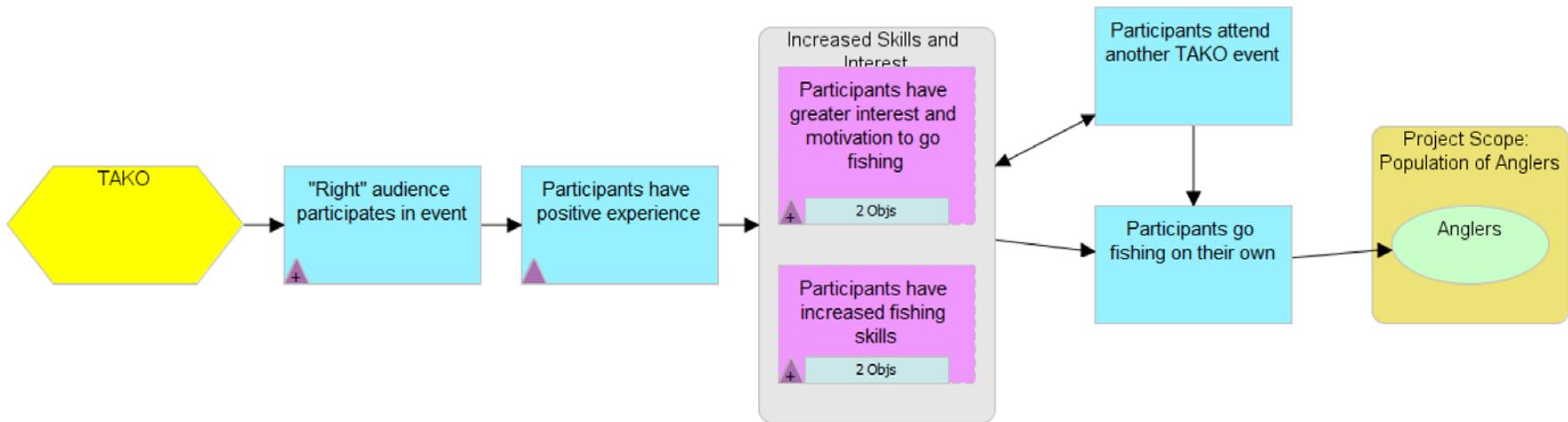


**TAKO is a 501-C3 non-profit organization founded in 2006. TAKO is dedicated to providing immersive outdoor experiences, activities, and education in the great outdoors to children and people of all ages!** "Like us" on FACEBOOK or visit our website at [www.takeakidoutdoor.org](http://www.takeakidoutdoor.org) for updates/cancellations. **Would you like to learn more about getting involved with TAKO?** Volunteers, sponsors, partners and donations are welcome! Please contact Judy Joyce at [garthview01@gmail.com](mailto:garthview01@gmail.com) or 319-330-3833.

*Sponsored in part by: Washington County Riverboat Foundation, Association of Fish and Wildlife Agencies – Natural Pathways Project, Iowa DNR Take It Outside Outreach Program Grant, and private donations.*

## Appendix B

### Program results chain for Take A Kid Outdoors Fishing Programs





## Appendix C



### Pre-Survey: TAKO Rewards! Fishing Series Targeting Adult/Youth (family) Groups

Thank you for participating in our survey. Your feedback is important.

**TAKO is embarking on a new adventure with the Iowa Department of Natural Resources and local partners to *Take it Outside* through a series of family friendly fishing activities. Please answer a few questions about *your* needs and what you would enjoy so that we can provide the best possible experiences.**

**In order to receive your TAKO Reward Points, we need your member number. This will only be used for tracking your points and providing information about upcoming events. It will not be shared.**

1. What is your TAKO Rewards - Take It Outside member number?

## What is Important to You?

2. Please rate how much each of the following affects your decision to participate in an outdoor activity.

|   | Not at All            |                       | Some                  |                       | A lot                 |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. Family friendly                              | <input type="radio"/> |
| 2. Near where I live                            | <input type="radio"/> |
| 3. My friends/family participate                | <input type="radio"/> |
| 4. Provides a challenge                         | <input type="radio"/> |
| 5. Easy to do on my own                         | <input type="radio"/> |
| 6. Have experienced individuals on hand to help | <input type="radio"/> |
| 7. Cost to participate                          | <input type="radio"/> |
| 8. I can learn something new                    | <input type="radio"/> |
| 9. How hot or cold it is outside                | <input type="radio"/> |
| 10. Scheduled so I can get on my calendar       | <input type="radio"/> |
| 11. Can be close to nature                      | <input type="radio"/> |

Other (please specify)

3. Please rate how interested you are in learning about the following fishing-related activities:

|   | Not at all interested |                       | Somewhat interested   | Extremely interested  |                       |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. Using right bait and lure to catch fish    | <input type="radio"/> |
| 2. Fishing technique (e.g., casting, reeling) | <input type="radio"/> |
| 3. Identifying places to fish (access)        | <input type="radio"/> |
| 4. "Reading the water" to locate fish         | <input type="radio"/> |
| 5. Cleaning fish                              | <input type="radio"/> |
| 6. Preparing and cooking fish                 | <input type="radio"/> |

4. Our events are typically on weekends so we can have volunteer assistance. Which time-frames work for you? (Rank all that apply. If all the options work, select "All options generally work" as your ranking #1.)

|                          |                          |                             |                              |
|--------------------------|--------------------------|-----------------------------|------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | All options generally work  | <input type="checkbox"/> N/A |
| <input type="checkbox"/> | <input type="checkbox"/> | Saturday morning            | <input type="checkbox"/> N/A |
| <input type="checkbox"/> | <input type="checkbox"/> | Saturday early afternoon    | <input type="checkbox"/> N/A |
| <input type="checkbox"/> | <input type="checkbox"/> | Saturday mid-late afternoon | <input type="checkbox"/> N/A |
| <input type="checkbox"/> | <input type="checkbox"/> | Sunday early afternoon      | <input type="checkbox"/> N/A |
| <input type="checkbox"/> | <input type="checkbox"/> | Sunday mid-late afternoon   | <input type="checkbox"/> N/A |

## Experience

5. Have you fished before?

- No  
 Yes

6. If yes, which of the following best describes how often you have fished? (Select one.)

- More than 5 years ago  
 More than 12 months ago  
 1-3 times in the last 12 months  
 4-6 times in the last 12 months  
 7-10 times in the last 12 months  
 11 or more times in the last 12 months

Not at all interested

|  | a year                | Once a year           | years                 | years                 | Do not fish           | Don't know            |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Your children  | <input type="radio"/> |
| Direct family (parents, siblings)                            | <input type="radio"/> |
| Extended family (aunts, uncles, grandparents, cousins, etc.) | <input type="radio"/> |
| Friends  | <input type="radio"/> |

8. Have you attended a TAKO fishing event before?

No

Yes

9. If yes, how many?

10. How interested are you in going fishing outside of a TAKO event?

Very interested

Interested

Not very interested

Not at all interested

11. Age

12. Gender

Female

Male

13. Do you have children under age 18 living in your household?

No

Yes

14. If yes, please list the age(s) of each:

15. What best describes where you live?

- Large city or urban area
- Suburban area
- Small city
- Rural area on a farm
- Rural area not on a farm

Other (please specify)

16. What is the highest level of education you have completed?

- Not a high school graduate
- High school graduate or equivalent
- Associate degree or trade school degree
- Bachelor's degree (B.S.)
- Advanced degree (e.g., M.S., Ph.D.)

17. Which of the following best describes your race/ethnic background? (Check all that apply)

- Asian
- Black
- Latino/Latina
- Native American
- White

Other (please specify)



## TAKO - Take it Outside! Final Event Survey

### Background

**Thank you for participating in the TAKO fishing events since January 2015. We want to make sure our events are helping you and your family get into fishing. This survey is part of a nation-wide evaluation of ours and similar efforts. Information will help us provide the best possible programs and support for getting kids (and adults) outdoors. Thanks for your help.**

**In order to receive your 150 TIO points (DOUBLE credit!), please enter your TIO number. This will only be used for tracking your points and providing information about upcoming events. It will not be shared.**

1. What is your Take It Outside member number?

Yes

No

## TAKO Events Attended

\* 2. Which of the following TAKO events did you attend since January 2015? (Mark all that apply.)

- Ice Fishing – Kent Park (January 10, 2015)
- Ice Fishing – Coralville (January 17, 2015)
- Ice Fishing – Kent Park (February 7, 2015)
- Kids Ice Fishing-Scheels (February 11, 2015)
- Freeze Fest- Terry Trueblood Recreation Area (February 21, 2015)
- Tracks and Trails- Coralville (March 14, 2015)
- Fish Fest – Scheels (March 27-29, 2015)
- Fly-Fishing – North Liberty (May 9, 2015)
- Free Fishing Event – North Liberty (June 6, 2015)
- Embrace Your Geekness - Terry Trueblood Recreation Area (July 18, 2015)

3. As a result of participating in the TIO-TAKO events you listed above, have you gone fishing or done any new outdoor activities?

- Yes
- No

4. If yes, what activities have you done?

5. If no, why not

## Impression of the Events

6. What was your impression of each of the following?

|                          | Very good             | Good                  | Poor                  | Very poor             |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Quality of instruction   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Facilities               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Logistics & organization | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Timing of events         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Safety of events         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

7. If you answered "poor" or "very poor" to any of the above questions, please explain:

8. What was your impression of the event sessions?

|   | Very good             | Good                  | Poor                  | Very poor             | Did not attend        |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Safety presentation(basic, ice, and/or fly) | <input type="radio"/> |
| Fishing Equipment (basic, ice, and/or fly)  | <input type="radio"/> |
| Fishing techniques demonstration(s)         | <input type="radio"/> |
| Fly casting                                 | <input type="radio"/> |
| Fly tying                                   | <input type="radio"/> |
| Actual Fishing (basic, ice, and/or fly)     | <input type="radio"/> |
| Staff/volunteers who helped with fishing    | <input type="radio"/> |
| Fish Iowa! Games Casting contest            | <input type="radio"/> |
| Fish Tasting                                | <input type="radio"/> |
| Snacks and refreshments                     | <input type="radio"/> |
| Live fish                                   | <input type="radio"/> |
| Prizes                                      | <input type="radio"/> |

9. If you answered poor or very poor to any of the above questions, please explain:

10. What were your three favorite aspects of the events?

11. What were your three least favorite aspects of the events?

## Knowledge and Skills Development

12. How much did TIO-TAKO events help you improve in the following areas?

|  | A lot                 | Some                  | A little              | None                  |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Basic techniques-setting the hook, taking fish off hook, tying knots | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Select the right equipment (rod/reel/line) for fish I want to catch  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Select the right bait/lure for fish I want to catch                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Know where I can go fishing  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Find fish (snags, structure, etc.)                                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Present bait/lures for fish I want to catch                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

13. Are there ways the TIO-TAKO fishing events could better help you learn any of the above skills? If so, which skills and what help you would need.

14. Are there any additional fishing skills that you would like to have learned at the events? If so, please list.

## Future Activities

15. How much did attending TAKO events increase your INTEREST in doing the following:

|                                       | A lot                 | Some                  | A little              | Not at all            |
|---------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Attend another TIO-TAKO fishing event | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Go fishing on my own                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Clean fish I catch                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Cook fish I catch                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other                                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Please specify other

16. If you answered "Not at all," please explain why.

17. After attending TIO-TAKO fishing event(s), how LIKELY ARE YOU to do the following?

|   | Already did it!       | Very likely           | Likely                | Not very likely       | Not at all likely     |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Attend another TIO-TAKO fishing event                                       | <input type="radio"/> |
| Recommend TIO-TAKO events to friends and/or family                          | <input type="radio"/> |
| Attend an outdoor event hosted by TAKO partner                              | <input type="radio"/> |
| Go fishing on my own  | <input type="radio"/> |
| Take someone else fishing   | <input type="radio"/> |
| Clean fish I catch  | <input type="radio"/> |
| Cook fish I catch   | <input type="radio"/> |
| Try other outdoor activities  | <input type="radio"/> |
| Apply for a "First Fish" award from the DNR (for myself or a family member) | <input type="radio"/> |
| Become a "Master Angler" through the DNR                                    | <input type="radio"/> |
| Share my fishing experience online (Facebook, Twitter, etc.)                | <input type="radio"/> |
| Other (please list below)   | <input type="radio"/> |

Please list other activities you plan to do as a result of attending:

18. If you answered "Not very likely" or "Not at all likely," please explain why.

19. Thinking about events you attended, how important were each of the following?

|  | Very Important        | Important             | Somewhat Important    | Not at All important  |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Scheduled (day/time/location) so I can get it on my busy calendar. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Having experienced anglers on hand to ask questions.               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Fishing presentations/demonstrations to improve my skills.         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Being able to talk to others with similar interests.               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Learning more about equipment needed.                              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Spending time with my family.                                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Other (please specify)

# Pilot Program Case Study Summary: Arizona Game and Fish Department Natural Pathways Project

**Pilot Administrators:** Eric Proctor, Wildlife Education Coordinator, Arizona Game and Fish Department; Nick Klakulak, Be Outdoors Arizona.

**Program Implementation Period:** November 2014 to March 2015

**Number of Staff Required:** Four

**Project Budget Including Direct Costs and Staffing:** \$8,000

**Desired Program Outcome:** Convert non-shooting, novice outdoor recreationists into shooting sports participants.

## Target Audience

Families (at least one parent and one child) with limited outdoor recreation experience and who were not opposed to recreational shooting. Target families were those who had previously demonstrated an interest in outdoor recreation and were already part of a social network. Families meeting these criteria were selected from two existing groups; the Arizona Game and Fish Department's (AZ GFD) Homeschool Program and an Active Arizona Family Meetup group (a collection of families who organize events in the Phoenix greater-metro area through the social media platform Meetup).

## Program Overview

- a. *Audience Selection.* Twenty families were selected to participate; ten from the AZ GFD Homeschool Program and ten from the Active Arizona Family Meetup group. Selection of these families was made using data gathered from a pre-program survey (Appendix A) that was sent via email to 205 families who were members of the above mentioned groups. This pre-survey allowed pilot administrators to determine the potential participant's family structure, their level of interest in shooting sports and other outdoor activities, and their ability to participate over the course of 4 months (December through March).
- b. *Program Logic.* The design of the AZ GFD Natural Pathways project was constructed with the assumption that if families who already showed an interest in outdoor activities were presented with a suite of outdoor recreation options over the course of several months, they would progress from one activity to the next until they selected a recreational shooting program. Pilot administrators wanted to determine a) if a "natural pathway" existed that could convert a non-target shooting outdoor recreationist to a shooting sports participant, and b) if such a pathway did exist, how many interactions with the programs were required to make the conversion. A program results chain (Appendix D) was designed to help administrators identify and track this process through their evaluation structure. Pilot administrators also used the program results chain to identify what questions they needed to ask to ensure that each program was being implemented in a way that met the expectations of the participants.
- c. *Program Process.* After being selected, each participant family was sent an email (See Appendix B for an example) in November that presented four activities or programs. Families were requested to participate in at least one program during the subsequent month. These programs covered a variety of outdoor recreation options including camping, bird watching, hunting, and target shooting. Upon completing a program,

participating families were sent an email with a link to a survey (Appendix C) that was designed to determine a) if the objectives of the program implementation steps were being met (see program results chain in Appendix D), b) how many skills and how much knowledge were being gained by participants, and c) when and why a family decided to start participating in recreational shooting. Along with the survey link, participating families were invited to attend four additional programs the following month that again included options for camping, bird watching, hunting, and target shooting. This process was repeated each month for the next four months, with the final program offerings concluding in March. At the end of March, participating families were invited to the AZ GFD Outdoor Expo with the hope that, after multiple interactions with the Natural Pathways project, they would voluntarily choose to participate in the target shooting activities offered at the expo. Finally, pilot administrators used data from all of the post-program surveys to determine if any of the participants began target shooting during or after their interactions with the Natural Pathways project.

### **Results Summary**

Data from all post-program surveys indicated that the Natural Pathways project did not succeed in creating new shooting sports participants. Although families participated in multiple activities over the course of the Natural Pathways pilot, their participation was most frequently determined by their schedule availability and the proximity of a particular activity to their home. Although all participating families indicated that they were “interested” in shooting sports on the program pre-survey, this interest did not translate into a behavior over the course of the program. Anecdotally, several families indicated that they were more “comfortable” with the concept of target shooting, but this, too, was insufficient to modify their behavior.

### **Lessons Learned**

- a. Pilot administrators reported that time and timing were persistent factors restricting successful program implementation. They indicated that, ideally, focus groups of the target audience should have been conducted prior to program development to determine what the *specific* motivations of the target audience were, and what social, fiscal, or time-related barriers might stop them from target shooting on their own post-program. They emphasized the importance of identifying participants’ existing motivations in order to tailor programs and processes that ultimately lead to their adoption of a new activity. Unfortunately, the schedule of the Conservation Education Strategy grant did not allow for this amount of pre-planning, and administrators used the best available information about their target audience to design and implement their program.

Additionally, administrators suspected that one interaction a month for four months was not a sufficient interaction period to allow families to develop the skills, knowledge and motivation needed to adopt new activities. Due to scheduling conflicts, many families were unable to participate each month and would have benefitted from a further continuation of program offerings. Not surprisingly, implementing a voluntary program over the holiday months significantly increased scheduling challenges.

- b. A passive offering of activities, even if they address participant interests, is not sufficient to facilitate the adoption of the target activity. In the AZ GFD Natural Pathways project, participants were never specifically asked to go shooting each time the program options were presented. Administrators noted that participants should have been encouraged to go shooting via marketing and messaging throughout the program’s duration. Additionally, as travel time and scheduling availability were the strongest drivers of program participation, participants would have benefitted from an offering of shooting activities and resources near their residence. Administrators suggested that participants should also be provided with “next steps” information that directs them to other organizations who can offer additional shooting sports opportunities.

## Successes

- g. Administrators reported that selecting participants from an existing social group was a critical element of the participant's involvement over the course of the Natural Pathways project. In order for participants to engage in activities that lie outside of their comfort zone, the need to be part of an existing individual social support group that they trust. If that system is not available, additional program infrastructure must be in place to build it.
- h. From the perspective of the AZ GFD, the most successful aspect of this first Natural Pathways pilot was the breakdown of inter-organizational silos. The goals and objectives of the program produced a large measure of support and partnering from organizations who came to the table because they supported the agency's focus. This broad base of support helped begin a process that may help a wide range of individuals to become interested in outdoor recreation, apart from just shooting sports. Administrators believe this consensus building between partners will pay significant long-term dividends toward increasing outdoor recreation in Arizona.
- i. While this first iteration of the Natural Pathways project did not result in producing new shooting sports participants, it did establish a successful model for increasing participation in other outdoor recreation activities. Administrators plan to expand the model to activities such as fishing, boating, and bird watching. With some adjustment, administrators believe that this program can move participants through the stages outlined in the adoption model and produce multiple types of outdoor users.

# Appendix A

## Natural Pathways Recruitment Tool

### Natural Pathways Project

The Arizona Game and Fish Department is currently exploring new ways to help Arizona families enjoy the amazing outdoor recreation opportunities our great state has to offer.

We are currently looking for families who may be interested in learning and experiencing exiting new outdoor skills. Selected families will be asked to participate in at least one outdoor recreation activity per month from December through March. All activities would be chosen from a list of approved options. They may be offered by the Department or one of our partner organizations. They will all take place in the central Arizona area. Some programs may have a small entry or participation fee. Upon completion of each activity, the families will be asked to complete a short survey.

If you are interested in participating, please complete the form below. We will review all of the submissions and select families based on a number of criteria. The chosen families will be notified by early December.

We hope to see you soon!

### General Information

Please provide us with some general information on your family in the following questions.

**\* 1. Which of these groups is your family associated with?**

**\* 2. Address**

Family Name

Address

Address 2

City/Town

State/Province

ZIP/Postal Code

Country

Email Address

Phone Number

**\* 3. How many adults in your family?**

**\* 4. How many children in your family?**

**5. What are the ages of your children?**

|             |                      |
|-------------|----------------------|
| Child 1 Age | <input type="text"/> |
| Child 2 Age | <input type="text"/> |
| Child 3 Age | <input type="text"/> |
| Child 4 Age | <input type="text"/> |
| Child 5 Age | <input type="text"/> |
| Child 6 Age | <input type="text"/> |

We will be providing a series of 2-3 activities each month. Below is a small sample of the types of activities that may be included. In order to make sure that we have a selection of activities that you are excited about, please answer the following questions.

**6. How interested would your family be in participating in each activity?**

|               | Not at all interested | Not very interested   | Interested            | Very interested       |
|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Bird Watching | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Camping       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Fishing       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Hiking        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Hunting       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Shooting      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**7. How often, if at all, does your family participate in the following activities?**

|               | Never                 | Once                  | Between one and five times | More than five times  |
|---------------|-----------------------|-----------------------|----------------------------|-----------------------|
| Bird Watching | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> |
| Camping       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> |
| Fishing       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> |
| Hiking        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> |
| Hunting       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> |
| Shooting      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> |

**\* 8. Do you have any conflicts that may prevent you from participating in at least one outdoor recreation activity per month from December through March? If so, please describe.**

Dear (*insert surname*) Family,

As you already know, you have been selected to participate in a study for the Arizona Game and Fish Department research grant in association with Be Outdoors Arizona!

I hope you are as excited as we are to get this project underway. So with no further ado, here are the list of programs you have to choose from for the month of December. We know that this is hitting the ground running, but there are several dates to choose from. Remember, while you are more than welcome to participate in multiple programs, you only have to participate in **one a month**.

*Please be aware that some of these programs may fill. Your participation in any particular event is not guaranteed because of your involvement with this project. If required, please make sure you register. Feel free to contact the event host with specific questions you may have. In addition, you should also know that the individuals who are putting on the programs may or may not be aware of this project. You should participate as if you are a regular member of the public.*

Click on the link for each for more information.

**[Picket Post Small Game Hunting Camp, December 6th and 7th All Day:](#)**

*Picket Post Small Game Hunting Camp geared toward new and novice hunters of all ages. Includes instruction and mentoring on small game hunting (dove, quail, rabbits and coyotes), and shooting techniques; food and firearms are provided.*

Hosted by: Red Bear Outfitters, Youth Outdoors Unlimited, Game and Fish  
Location: Superior, AZ  
Registration Information: [www.youthoutdoorsunlimited.com](http://www.youthoutdoorsunlimited.com)

**[Bird Walk, December 13th and 20th 8:00am-9:00am:](#)**

*Join Joe Willy, a resident bird enthusiast, for a relaxed birding foray into the Rio Salado Habitat Restoration Area. All ages are welcome and loaner binoculars are available.*

Hosted by: Audubon Arizona  
Location: 3131 South Central Avenue  
Phoenix, AZ 85040  
Registration Information: (602) 468-6470

### Ready, Aim, Shoot!, December 13th and 20th 11:00am-1:00pm:

*Bring the kids and give them a shot at our Daisy BB Gun Range. Stay on target with shooting etiquette and safety tips.*

Hosted by: Cabellas

Location: Cabellas

9380 W. Glendale Ave.

Glendale, AZ 85305

Registration Information: Open to Public

### Introduction to Geocaching and GPS, December 17th 9:30am:

*Geocaching is a popular outdoor hobby. Learn the basics of geocaching and how to use your GPS to find hidden treasures all around the world!*

Hosted by: Arizona Game and Fish Department

Location: Ben Avery Shooting Facility, I-17/Carefree Highway

REGISTRATION REQUIRED: Visit <http://goo.gl/fNNya1>. Hurry! This program is expected to fill up fast.

I hope you enjoy whichever program you choose and just as a reminder, I will be following up with you towards the end of each month with a survey. **It is imperative** that you complete this survey to remain a part of this study. It will be a short survey administered through [surveymonkey.com](http://surveymonkey.com) and it will come in an email from me, so be looking for it at the end of this month and at the end of each month after.

Thank you for your participation and I hope you enjoy each program you attend throughout the course of this study. If you have any questions or concerns, please contact me at (*insert email*) or you can call me at (*insert phone number*).

# Appendix C

## December Follow-up Survey

### Survey Outline

Hello!

If you are taking this survey, then you have hopefully just recently completed one of the specified activities listed in your monthly list of programs from Be Outdoors Arizona and Arizona Game and Fish.

Please fill out the following survey to help us understand your decision process as well as to help us better understand which programs to choose for you in the coming months.

We greatly appreciate your time. Thank you again!

**\* 1. Family Name:**

**\* 2. Which program did you participate in for the month of December?**

- Picket Post Small Game Hunting Camp
- Bird Walk
- Ready, Aim, Shoot!
- Introduction to Geocaching and GPS
- I did not participate in any of these activities.

**\* 3. Why did you choose that program?**

**\* 4. What was the reason you did not choose:**

|  |                      |
|--|----------------------|
| Picket Post Small Game<br>Hunting Camp   | <input type="text"/> |
| Bird Walk                                | <input type="text"/> |
| Ready, Aim, Shoot!                       | <input type="text"/> |
| Introduction to Geocaching<br>and GPS    | <input type="text"/> |
| To participate in any of the<br>programs | <input type="text"/> |

**\* 5. How would you rate your satisfaction for the program you participated in?**

|  | Very Dissatisfied     | Somewhat Dissatisfied | Somewhat Satisfied    | Very Satisfied        |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Picket Post Small Game<br>Hunting Camp | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Bird Walk                              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ready, Aim, Shoot!                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Introduction to<br>Geocaching and GPS  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other (please specify)                 | <input type="text"/>  |                       |                       |                       |

**\* 6. If you selected "Very Dissatisfied" or "Somewhat Dissatisfied," please explain why.**

**\* 7. Would you recommend this program to a friend?**

- Yes  
 No

**\* 8. If you selected "No," please explain why.**

**\* 9. After attending this program, how interested are you now in participating in the following types of programs?**

|               | Not at all Interested | Not Very Interested   | Somewhat Interested   | Very Interested       |
|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Bird Watching | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Camping       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Fishing       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Hiking        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Hunting       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Shooting      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**\* 10. How confident are you in the skills you gained at the event to now be able to do the activity on your own?**

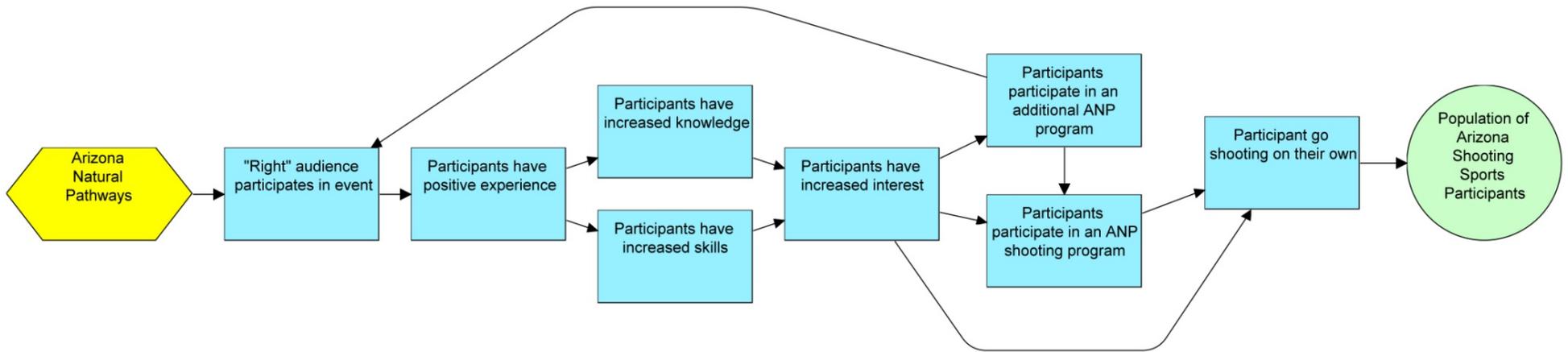
- Not at all Confident
- Not very Confident
- Somewhat Confident
- Very Confident

**\* 11. How much did this event help you develop new skills?**

- Not at all
- Not very much
- Somewhat
- A lot

## Appendix D

### Program results chain for Arizona Game and Fish Department Natural Pathways Project.



## Pilot Program Case Study Summary: Florida Fish and Wildlife Conservation Commission Summer Hunt Camp

**Pilot Administrators:** Rae Waddell, Florida Youth Conservation Centers Network (FYCCN) Director, Florida Fish and Wildlife Conservation Commission; Kelly Langston, FYCCN Operations Manager, Florida Fish and Wildlife Conservation Commission

**Program Implementation Period:** June 2015 to July 2015

**Number of Staff Required:** Seven

**Project Budget Including Direct Costs and Staffing:** \$24,000

**Desired Program Outcome:** Introduce youth to shooting sports and inspire support for conservation and the hunting heritage.

### Target Audience

Youth, ages 10-15, who a) were interesting in hunting/shooting sports/conservation, b) wanted to complete the Hunter Safety Course to receive their Hunter Safety Certification card, and c) wanted to attend a week-long summer day camp program.

### Program Overview

- d. *Audience Selection.* Camp registration began in March 2015. The Hunt Camp Overview (Appendix A) and registration material were provided on the agency website. Ninety-five youth registered and attended Hunt Camp during summer 2015. Participants were required to complete a pre-program survey (Appendix B) on the first morning of camp before instruction and activities began. The pre-survey allowed camp staff to determine the shooting experience of each camper as well as their interest in activities.
- e. *Program Logic.* Today's youth are not familiar with hunting, shooting sports and the outdoors in general. The negative connotations surrounding hunting and firearms are prevalent in today's society and we are striving to reach youth with conservation messages and safety procedures that will create informed users and future stewards of our fish and wildlife resources. The lack of hunter safety courses during the summer months led to a need for youth focused hunting and shooting sports programming. Pilot administrators wanted to determine if the week-long summer camp approach moved youth from the Recruitment stage to the Desire to Continue stage on the Outdoor Recreation Adoption Model (ORAM). Administrators wanted to know if participating in Hunt Camp a) increased skills, knowledge, and interest in shooting sports and hunting, b) gave youth the confidence to continue by providing them with exposure and opportunities to practice their new skills, and c) inspired youth to continue on to the Youth Hunting Program for hunting experience.
- f. *Program Process.* After completing the pre-program survey, campers spent extensive time on the ranges learning gun safety, safe loading and unloading of firearms as well as shooting. Shotguns, rifles, muzzleloaders, crossbows and compound bows were used during camp. Wildlife identification, survival, treestand safety, conservation, laws and ethics, and stewardship activities were covered during the camp week. The Hunter Safety Course was taught and the certification test was administered. On the final day of camp, a post-program survey was administered (Appendix C) to determine if youth a) had an increase in

their interest in hunting, b) reported an increase in their skill levels, c) felt confidence in their ability to hunt on their own, and d) increased their desire to participate in conservation stewardship activities.

### **Results Summary**

Data from post-program surveys indicated that Hunt Camp participants reported increased knowledge, skill and interest in shooting sports and hunting. Comfort level of shooting visibly increased for all participants as well. Over ninety percent of campers passed the Hunter Safety test and received their Hunter Safety Certification Card. However, very few campers enrolled in the Youth Hunting Program the following hunting season. Factors that contributed to lack of participation in the Youth Hunting Program included a) campers already had a location to hunt and someone to take them, b) campers were interested in hunting but parents were not willing to devote the time to participate in the Youth Hunting Program with them, and c) other activities such as football or school events took up all free time. While continuation to hunting was not a result of this camp, administrators felt the camp produced youth who had increased levels of skill and interest in shooting and hunting along with an understanding of conservation concepts. Repeated exposure to entry level shooting experiences might be required to cultivate a new crop of hunters.

### **Lessons Learned**

- a. In the summer camp format, the age range of ten to fifteen is best. This target age range reaches entry level shooters and teaches them correct safety procedures. This age group is able to comprehend the rules and regulations and physically handle firearms. Younger ages have been found to struggle with comprehension of the hunter safety written material. Older youth typically do not utilize summer programming.
- b. Selection of scholarship participants was challenging and camp staff struggled to overcome many issues such as transportation and logistics. In an effort to reach a more diverse audience, youth were selected based on the recommendations of community organizations. A significant issue with this approach was parents signed up youth that had little to no interest in the content. Parents wanted their children to attend camp but the children did not want to participate in camp activities. This led to behavioral issues and often resulted in dismissal from camp. Scholarships are valuable only when the target audience can be used as recipients.
- c. Hiring more diverse staff must be a priority as we continue this program. In order to reach a more diverse audience, staff must reflect the demographics of the program. Other FWC Hunt and Fish Camps around the state have had great success with recruiting diverse staff and have received many parent comments on how this has positively affected youth in the program.

### **Successes**

- j. Administrators reported that 92% of campers passed the Hunter Safety Certification exam. Also, many campers moved on to Fish Camp and Archery Camp summer programs as a result of being introduced to these sports during their Hunt Camp experience.
- k. This Natural Pathways project provided staff introduction to the ORAM model and spurred agency-wide interest in R3. Since this project, FWC has made R3 a strategic priority and has hired R3 coordinators for both fishing and shooting sports/hunting programs. Logic models are being created for agency conservation education programs and evaluations are being incorporated into all programs.

# Appendix A



## HUNT CAMP OVERVIEW

The Beau Turner Youth Conservation Center (BTYCC) offers a week-long summer day-camp program for youth ages 10 – 15 that are interested in hunting and shooting sports. Wildlife identification, survival, treestand safety, conservation, laws and ethics, and stewardship are just a few of the topics that are covered during hunt camp. Hunt camp participants spend extensive time on the ranges learning gun safety, safe loading and unloading of firearms as well as shooting. Shotguns, rifles, muzzleloaders, crossbows and compound bows are used during camp. Campers also learn how to use various game calls and get the opportunity to make their own calls. During hunt camp, youth have the opportunity to earn their hunter safety certification and learn about Florida's great hunting heritage.

### MONDAY

- ❖ Introduction to Fish and Wildlife Conservation Commission, Florida Youth Conservation Centers Network, Overview of Hunt Camp Rules and Expectations, Facility Overview, Weekly Overview
- ❖ Hunter Safety - Laws, Ethics and Hunter Responsibility, Safety and Proper Gun Handling, Firearms Nomenclature, Ammo and Marksmanship
- ❖ 22 Rifle Range

### TUESDAY

- ❖ Hunter Safety - Wildlife Conservation and Management - Activity 1.1 "Run for Your Life"
- ❖ Introducing Wetlands - Webfoot
- ❖ Ducking Hunting 101/ Waterfowl, Waterfowl Biologist Presentation, Duck Calls
- ❖ Shotgun Range

### WEDNESDAY

- ❖ Treestand Safety - Hunter Safety Systems DVD
- ❖ Introduction to Archery - NASP Rules and Guidelines
- ❖ Archery Range - Olympic Targets, 3D Course
- ❖ Bow Hunting - Activity 1.2 "Camo Hide and Seek", Activity 1.3 "Archery Challenge Course"
- ❖ Shoot Don't Shoot - "Skills Trail", HS Tools DVD

### THURSDAY

- ❖ Turkey Hunting 101 - Box Call Assembly, Calling Contest
- ❖ Survival / First Aid - Activity- Emergency Shelter Building, Life Flight E.M.T.s
- ❖ Black Powder Firearms – History, Types, Packing Techniques
- ❖ Range time
- ❖ Hunter Safety Exam

### FRIDAY

- ❖ Hunt Camp Challenge
- ❖ Family Cookout

## Appendix B



### FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION Hunter Safety Course



## Basic Hunt Camp Pre-Program Survey

To complete the survey:

- ✓ Answer each question in the way that best shows your own personal feelings. There are no “wrong” answers. The best answer is the one that shows how you feel or what you have done in the past.
- ✓ If you have any questions about the survey, please ask your Hunt Camp counselor.

Camper Initials: \_\_\_\_ \_\_\_\_ \_\_\_\_

Date of Birth: \_\_\_\_\_

### HUNTING ACTIVITY and EXPERIENCE

1. Have you ever been hunting before? (Please put a check [✓] in the box)

- No, I've **never** gone hunting before. (Please skip to Question 8)
- Yes, I've been hunting **a few** times.
- Yes, I've been hunting **many** times.

2. Who took you hunting and showed you how to hunt the **FIRST TIME** you went hunting? (Check all that apply)

- Family member
- Friend
- Youth Hunting Program of Florida
- Other (please list) \_\_\_\_\_

3. Before today, have you ever attended a camp where you had the opportunity to learn about hunting?

- No (Please skip to Question 5)
- Yes

4. During which years did you attend a camp with a hunting program? (Check all the years that apply)

- Never
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014

5. On average, how many days do you go hunting each year? (Check only one)

- None
- 1 – 5 times per year
- 6 – 12 times per year
- 13 – 24 times per year
- 25 or more times per year

6. Which type of land have you hunted on since you began hunting? (Check all that apply)

Private

Public

7. How would you rate your hunting skills, listed below **TODAY**. Please circle a number that represents your skill level.

| Type of Hunting Skill                                    | Very Weak Skills | Weak Skills | Average Skills | Strong Skills | Very Strong Skills |
|--|------------------|-------------|----------------|---------------|--------------------|
| Taking care of firearms and other hunting equipment..... | 1.....           | 2.....      | 3.....         | 4.....        | 5.....             |
| Firearms Safety and safe hunting rules.....              | 1.....           | 2.....      | 2.....         | 4.....        | 5.....             |
| Identifying game.....                                    | 1.....           | 2.....      | 2.....         | 4.....        | 5.....             |
| Marksmanship.....  | 1.....           | 2.....      | 3.....         | 4.....        | 5.....             |
| Tree-stand Safety.....                                   | 1.....           | 2.....      | 3.....         | 4.....        | 5.....             |
| Rules and Regulations.....                               | 1.....           | 2.....      | 3.....         | 4.....        | 5.....             |

8. How would you describe your interest in hunting **TODAY**, before attending this camp? (Circle one number.)

|                                  |             |             |                |               |               |
|----------------------------------|-------------|-------------|----------------|---------------|---------------|
| My interest in hunting TODAY is: | Very Weak   | Weak        | About Average  | Strong        | Very Strong   |
|                                  | <u>Weak</u> | <u>Weak</u> | <u>Average</u> | <u>Strong</u> | <u>Strong</u> |
|                                  | 1           | 2           | 3              | 4             | 5             |

9. Please put a check [ ✓ ] in one box that best describes your feelings about going hunting in the coming year.

- I don't want to go hunting in the next year.
- I might go hunting in the next year.
- I would like to go hunting a few times in the next year.
- I would like to go hunting a lot in the next year.

10. Besides you, does anyone living in your home like to go hunting?  No  Yes

11. Do you have family or friends not living with you that you can go hunting with?  No  Yes

12. Please circle one number for each item below to show how important each is to you personally.

| Importance of:   | Not at all Important | Slightly Important | Somewhat Important | Moderately Important | Very Important |
|--|----------------------|--------------------|--------------------|----------------------|----------------|
| Helping take care of places in your area where game species and wildlife live..... | 1.....               | 2.....             | 3.....             | 4.....               | 5.....         |
| Thinking about how things you do might affect game species and wildlife.....       | 1.....               | 2.....             | 3.....             | 4.....               | 5.....         |
| Standing up for what I believe about the environment.....                          | 1.....               | 2.....             | 3.....             | 4.....               | 5.....         |
| Helping protect wildlife conservation.....   | 1.....               | 2.....             | 3.....             | 4.....               | 5.....         |

13. If you were 16-years-old and legally able to hunt on your own, check one box [ ✓ ] that best describes your ability to hunt on your own without the assistance of an adult.

Knowing what I currently know about hunting, my ability to hunt on my own is:

- Very low (I need lots of help from an adult)
- Low (I need help about half of the time I'm hunting from an adult)
- Moderate (I need a little help from an adult).
- High (I need no help from an adult).

14. Are you? \_\_\_\_\_Male \_\_\_\_\_Female

# THANK YOU FOR HELPING US BY COMPLETING THIS SURVEY

## Appendix C



### Basic Hunt Camp Post-Program Survey

To complete the survey:

- ✓ Answer each question in the way that best shows your own personal feelings. There are no “wrong” answers. The best answer is the one that shows how you feel or what you have done in the past.
- ✓ If you have any questions about the survey, please ask your Hunt Camp counselor.

Camper Initials: \_\_\_\_ \_\_\_\_ \_\_\_\_

Date of Birth: \_\_\_\_\_

#### HUNTING ACTIVITY and EXPERIENCE

1. Please describe your interest in hunting TODAY, after attending this camp? (Circle one number.)

|                                  |             |             |                |               |               |
|----------------------------------|-------------|-------------|----------------|---------------|---------------|
|                                  | Very        |             | About          |               | Very          |
| My interest in hunting TODAY is: | <u>Weak</u> | <u>Weak</u> | <u>Average</u> | <u>Strong</u> | <u>Strong</u> |
|                                  | 1           | 2           | 3              | 4             | 5             |

2. Please put a check [ ✓ ] in one box that **best** describes your feelings about going hunting in the coming year.

- I don't want to go hunting in the next year.
- I might go hunting in the next year.
- I would like to go hunting a few times in the next year.
- I would like to go hunting a lot in the next year.

3. How would you rate your hunting skills, listed below **TODAY**. Please circle a number that represents your skill level.

| Type of Hunting Skill                                    | Very Weak Skills | Weak Skills | Average Skills | Strong Skills | Very Strong Skills |
|--|------------------|-------------|----------------|---------------|--------------------|
| Taking care of firearms and other hunting equipment..... | 1                | 2           | 3              | 4             | 5                  |
| Firearms Safety and safe hunting rules.....              | 1                | 2           | 2              | 4             | 5                  |
| Identifying game.....                                    | 1                | 2           | 2              | 4             | 5                  |
| Marksmanship.....  | 1                | 2           | 3              | 4             | 5                  |
| Tree-stand Safety.....                                   | 1                | 2           | 3              | 4             | 5                  |
| Rules and Regulations.....                               | 1                | 2           | 3              | 4             | 5                  |

4. If you were 16-years-old and legally able to hunt on your own, check one box [  ] that best describes your ability to hunt on your own without the assistance of an adult.

Knowing what I currently know about hunting, my ability to hunt on my own is:

- Very low (I need lots of help from an adult)
- Low (I need help about half of the time I'm hunting from an adult)
- Moderate (I need a little help from an adult).
- High (I need no help from an adult).

5. Please circle one number for each item below to show how important each is to you personally.

| Importance of:   | Not at all<br>Important | Slightly<br>Important | Somewhat<br>Important | Moderately<br>Important | Very<br>Important |
|--|-------------------------|-----------------------|-----------------------|-------------------------|-------------------|
| Helping take care of places in your area where game species and wildlife live..... | .....1.....             | .....2.....           | .....3.....           | .....4.....             | .....5.....       |
| Thinking about how things you do might affect game species and wildlife.....       | .....1.....             | .....2.....           | .....3.....           | .....4.....             | .....5.....       |
| Standing up for what I believe about the environment.....                          | .....1.....             | .....2.....           | .....3.....           | .....4.....             | .....5.....       |
| Helping protect wildlife conservation.....   | .....1.....             | .....2.....           | .....3.....           | .....4.....             | .....5.....       |

6. Are you?  Male  Female

**THANK YOU FOR HELPING US BY COMPLETING THIS SURVEY**

# Pilot Program Case Study Summary: Coastal Kayak Angling Program

**Pilot Administrators:** Kelle Loughlin, Education Coordinator, GBNERR; Jill Bartolotta, Kayak Program Director, GBNERR

**Program Implementation Period:** January 2015 to January 2016

**Number of Staff Required:** Kelle Loughlin oversaw and managed the project and Jill Bartolotta managed logistics and tracked financials. Two kayak angling guides were hired for assistance and training on the day of the program.

**Project Budget Including Direct Costs and Staffing:** \$8,000, Actual: \$7841

## **Desired Program Outcome:**

- a. *Short-term Outcomes:* Participants will a) purchase a salt-water fishing license annually, b) participants will purchase or acquire a kayak equipped for fishing, c) participants will purchase or acquire coastal angling equipment.
- b. *Mid-term Outcome:* Participants self-identify as kayak anglers.
- c. *Long-term Outcomes:* Participants will a) take others kayak fishing, b) become members of or subscribe to coastal angling conservation groups, and c) utilize and share ethical angling practices.

## **Target Audience**

Individuals over 18 with prior experience fishing and/or kayaking, but little to no experience kayak angling.

## **Program Overview**

- a. *Audience Selection.* The audience was selected prior to the event's start date through a public survey. Information about this course and how to access the survey was posted in public forums, in New Hampshire Fish and Game publications and sent to a list of email recipients showing interest in NH Fish and Game events (Appendix A). This survey was posted online through Survey Monkey and posed a variety of questions based on individuals' experience in fishing, kayaking and coastal kayak angling (Appendix B). Individuals who indicated experience in fishing and kayaking, but little to no experience kayak angling were chosen by Kelle Loughlin and Jill Bartolotta to participate in this program.
- b. *Program Logic.* By providing education and skills training on coastal kayak angling by licensed instructors, individuals who are comfortable kayaking and fishing will have the tools, knowledge and training needed to venture into a new, more difficult sport: kayak angling.

Administrators developed a pre-test (application) to select participants from their target audience (Appendix B) and a post-test to measure impact and outcome after the completion of the course (Appendix C).

- c. *Program Process.* Two one-day courses were offered, with space for 9 individuals in each course. These courses began at 6:00am and ended at 3:00pm. The first two hours licensed kayak angling guides taught participants about gear and equipment, outfitting an angling kayak, kayak and fishing safety and kayak strokes from land. The rest of the day was on-water instruction and practice.

## **Results Summary**

90 responses were collected in the online survey over a two month time-period, indicating a need in this area. Of the 90 individuals who completed the survey, 18 were chosen due to survey responses and availability. Of these 18 individuals only three indicated they had little to no kayak experience and hadn't kayaked at all since 2012. All other participants had both kayaking and fishing experience, but little to no experience kayak angling.

Of the 18 who participated, 13 responded to a follow-up survey several months after the classes. Of the 13 who responded, five indicated they plan to purchase a fishing specific kayak in 2016 and four indicated they purchased salt water angling equipment prior to the course. Twelve respondents indicated they plan to purchase a 2016 saltwater fishing license, and all 13 indicated they plan to buy a 2016 freshwater fishing license. Nine respondents indicated they had fished at least once since taking the course; two individuals said they considered themselves a "kayak angler" and 10 participants said their goal was to become a "kayak angler." Four respondents indicated they brought others kayak angling since the course, and all 13 respondents said the course gave them more confidence to fish from a kayak in a coastal environment.

### **Lessons Learned**

- a. The original plan was to have the course a two-day program. Tides and staff restrictions played a role in the decision to reduce it to one. Administrators felt that a class-room portion on a different day, as originally planned, would have produced better results. When participants are presented with kayaks, outfitted and ready to go with an ocean before them, it is hard to contain their excitement of getting on the water, and some of the more important pre-trip information may have been harder for participants to retain given the distraction of wanting to get on the water.
- b. Catching fish makes a difference. None of the participants caught fish either program day, and though participants felt they understood how to prepare for kayak angling, they missed the full experience of landing a fish while kayaking on the ocean. This is likely a significant hurdle for most ocean kayak anglers, so this could have some impact on participants' overall satisfaction or confidence being on the water.

### **Successes**

- a. Participants were very happy with the guides that taught the classes. One guide was a female who has a more simple and basic approach to salt water angling. The other guide, a male, utilized more high tech equipment and kayaks, allowing participants to see a variety of types of equipment to work with.
- b. Almost all the participants indicated they would purchase a salt water license, a short term outcome.
- c. Although only two participants indicated that they considered themselves as a kayak angler (mid-term outcome), it was still a relatively short time after the course that the survey was taken. In a fairly complex sport like salt-water kayak angling, experience over time often is necessary for the participant to self-identify.
- d. Based on the results of the survey, it appears that even the short course gave participants more confidence to fish on saltwater from a kayak. Four participants indicated they had already brought others kayaking, which was a long term outcome.

## Appendix A



# Learn to catch stripers from a kayak!

Apply through our survey today! One lucky participant will get the course for free (\$100 value).



# Take Our Survey!

The New Hampshire Fish and Game Department/Great Bay National Estuarine Research Reserve is offering a Coastal Kayak-Angling Program (NHCKAP) in May and June in Rye, NH.

This survey is being used to assist in the selection of course participants. NHCKAP is made possible with a grant from the Association of Fish and Wildlife Agencies through a multi-state grant of the Wildlife and Sport Fish Restoration Program and with support from the Great Bay Stewards.

Use the link below and share it with your friends.

<https://www.surveymonkey.com/s/NHCKAP>

For more information call the Great Bay National Estuarine Research Reserve at (603) 778-0015 and ask for Kelle or Jill.



## Appendix B

### New Hampshire Coastal Kayak Angling Program (NHCKAP) Application

**\* 1. Thank you for your inquiry into the New Hampshire Coastal-Kayak Angling Program (NHCKAP). At this time both courses are full. If you would like to receive emails about future kayak-angling courses to be offered this summer, please fill in the information below. **

Name:

Email Address:

Phone Number:

Next

Powered by



See how easy it is to [create a survey](#).

## **New Hampshire Coastal Kayak Angling Program (NHCKAP) Application**

The New Hampshire Fish and Game Department/Great Bay National Estuarine Research Reserve will be offering a Coastal Kayak-Angling Program (NHCKAP) in May and June in Rye, New Hampshire.

This survey is being used to assist in the selection of NHCKAP course participants. It will take you no more than 5-10 minutes to take this survey. Please answer questions as honestly as possible to assist us in our selection process.

Once course participants are chosen one person will be randomly chosen to win free tuition for this course (a value of \$100). This program is made possible with a grant from the Association of Fish and Wildlife Agencies with support from the Great Bay Stewards.

If you have any questions about the survey or NHCKAP please call the Great Bay National Estuarine Research Reserve at 603-778-0015 and ask for Kelle or Jill.

## New Hampshire Coastal Kayak Angling Program (NHCKAP) Application

**\* 2. Which dates are you able to attend the NHCKAP course held in Rye, NH?**

- Saturday, May 23 from 6 am - 3 pm
- Saturday, June 20 from 6 am - 3 pm
- Both
- Neither

**\* 3. Are you willing to participate in at least two more surveys during the summer of 2015 and winter of 2016?**

- Yes
- No

**\* 4. I currently own \_\_\_\_\_? (Fill in the blank and choose all the apply.)**

- a standard kayak
- a fishing specific kayak
- both
- neither

**\* 5. What is your experience level kayaking in a variety of conditions? (1 being no experience and 10 being very experienced.)**

|                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1                     | 2                     | 3                     | 4                     | 5                     | 6                     | 7                     | 8                     | 9                     | 10                    |
| <input type="radio"/> |

**\* 6. On average, how many times a year have you kayaked since 2012?**

|                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|
| Never                 | 1-3 times             | 4-10 times            | More than 10 times    |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**\* 7. What is your experience level fishing in a variety of conditions? (1 being no experience and 10 being very experienced.)**

|                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1                     | 2                     | 3                     | 4                     | 5                     | 6                     | 7                     | 8                     | 9                     | 10                    |
| <input type="radio"/> |

**\* 8. On average, how many times a year have you fished since 2012?**

|                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|
| Never                 | 1-3 times             | 4-10 times            | More than 10 times    |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**\* 9. How willing are you to spend money on the sport of kayak-angling?**

|  | Not Willing           | Somewhat Willing      | Willing               | Very Willing          |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Purchase of kayak-angling equipment (\$500 and up) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Annual license fees (up to \$46 per year for NH)   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**\* 10. Are you willing and able to acquire and pay for a saltwater fishing license (\$11) before the course start date? (Note: License required to participate in course.)**

- Yes
- No

**\* 11. Are you willing and able to pay the course fee of \$100?**

- Yes
- No

**\* 12. Please briefly explain why you want to take a course in coastal kayak-angling.**

**\* 13. Thank you for your application to NHCKAP. Please fill in your contact information so we can notify you of acceptance decisions and the free tuition raffle winner.**

Name:

Email

Address:

Phone

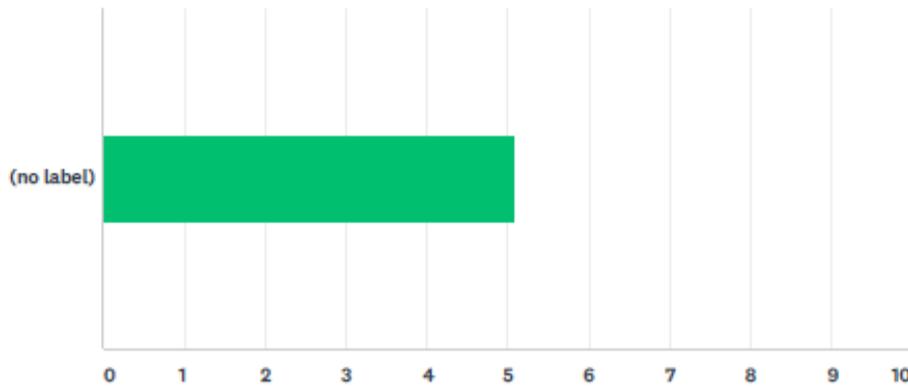
Number:

# Appendix C

## New Hampshire Coastal Kayak Angling Program (NHCKAP) Post Survey

Q1 What was your level of kayak angling experience before taking the NH Coastal Kayak Angling Course this summer? (1 being no experience and 10 being very experienced)

Answered: 13 Skipped: 0

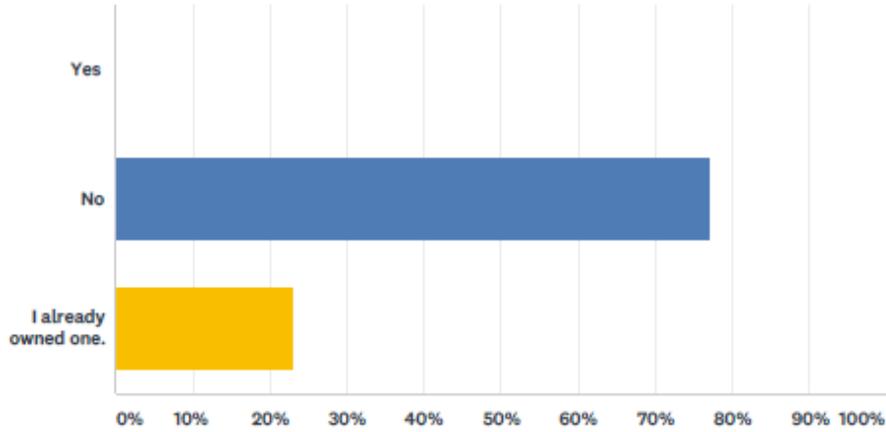


|            | 1           | 2          | 3          | 4          | 5           | 6          | 7           | 8          | 9          | 10         | TOTAL | WEIGHTED AVERAGE |
|------------|-------------|------------|------------|------------|-------------|------------|-------------|------------|------------|------------|-------|------------------|
| (no label) | 23.08%<br>3 | 0.00%<br>0 | 0.00%<br>0 | 7.69%<br>1 | 30.77%<br>4 | 7.69%<br>1 | 15.38%<br>2 | 0.00%<br>0 | 7.69%<br>1 | 7.69%<br>1 | 13    | 5.08             |

New Hampshire Coastal Kayak Angling Program (NHCKAP) Post Survey

## Q2 Did you purchase a fishing specific kayak after taking the course?

Answered: 13 Skipped: 0

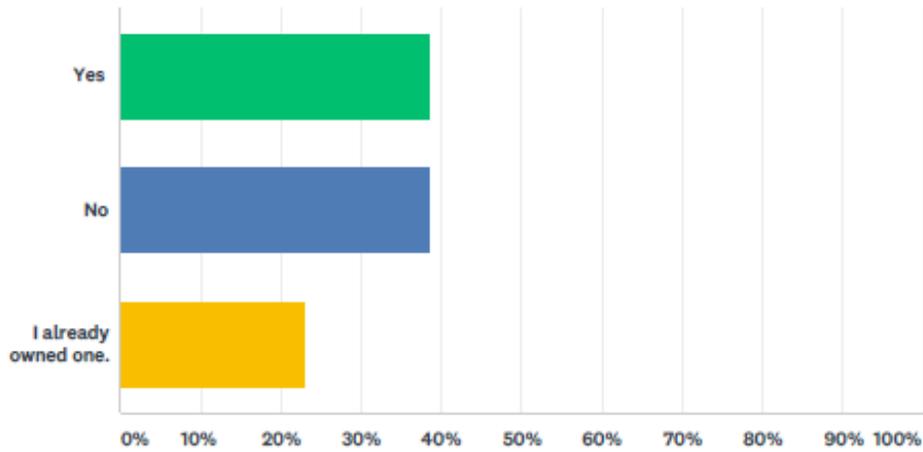


| ANSWER CHOICES       | RESPONSES |
|----------------------|-----------|
| Yes                  | 0.00% 0   |
| No                   | 76.92% 10 |
| I already owned one. | 23.08% 3  |
| <b>TOTAL</b>         | <b>13</b> |

New Hampshire Coastal Kayak Angling Program (NHCKAP) Post Survey

Q3 If no, do you plan on purchasing a fishing specific kayak in 2016?

Answered: 13 Skipped: 0

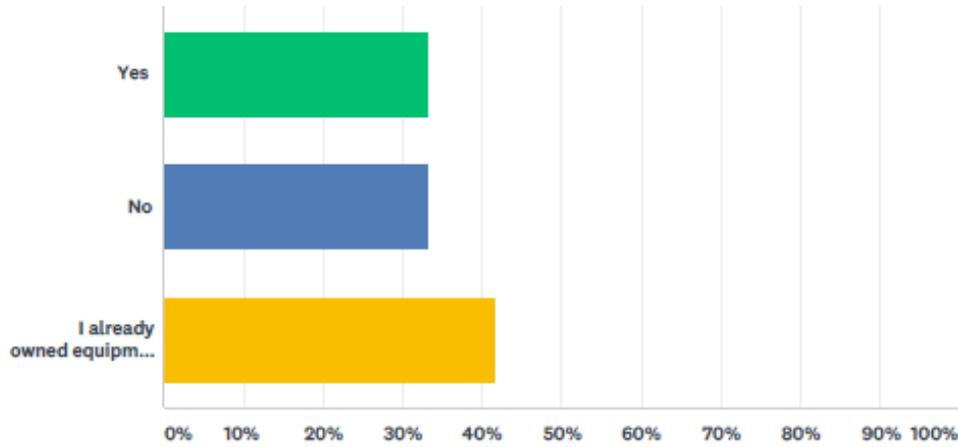


| ANSWER CHOICES       | RESPONSES |           |
|----------------------|-----------|-----------|
| Yes                  | 38.46%    | 5         |
| No                   | 38.46%    | 5         |
| I already owned one. | 23.08%    | 3         |
| <b>TOTAL</b>         |           | <b>13</b> |

New Hampshire Coastal Kayak Angling Program (NHCKAP) Post Survey

Q4 Did you purchase any salt water angling equipment after the course?

Answered: 12 Skipped: 1

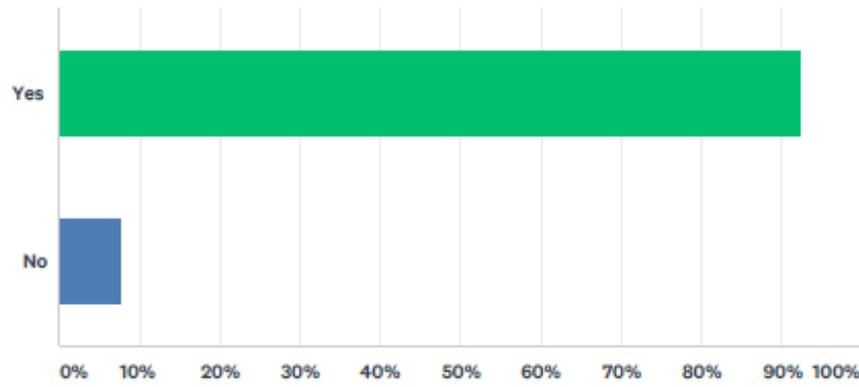


| ANSWER CHOICES  | RESPONSES |   |
|---|-----------|---|
| Yes   | 33.33%    | 4 |
| No  | 33.33%    | 4 |
| I already owned equipment needed for saltwater angling. | 41.67%    | 5 |
| Total Respondents: 12                                   |           |   |

New Hampshire Coastal Kayak Angling Program (NHCKAP) Post Survey

Q5 Will you purchase a 2016 saltwater fishing license?

Answered: 13 Skipped: 0

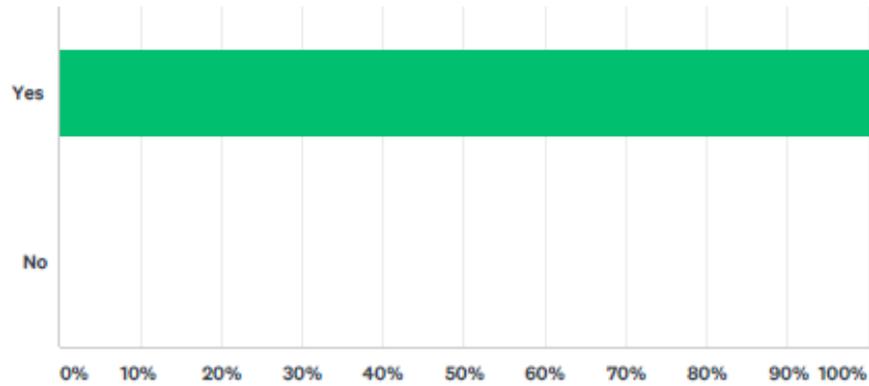


| ANSWER CHOICES | RESPONSES |    |
|----------------|-----------|----|
| Yes            | 92.31%    | 12 |
| No             | 7.69%     | 1  |
| TOTAL          |           | 13 |

New Hampshire Coastal Kayak Angling Program (NHCKAP) Post Survey

### Q6 Will you purchase a 2016 freshwater fishing license?

Answered: 13 Skipped: 0

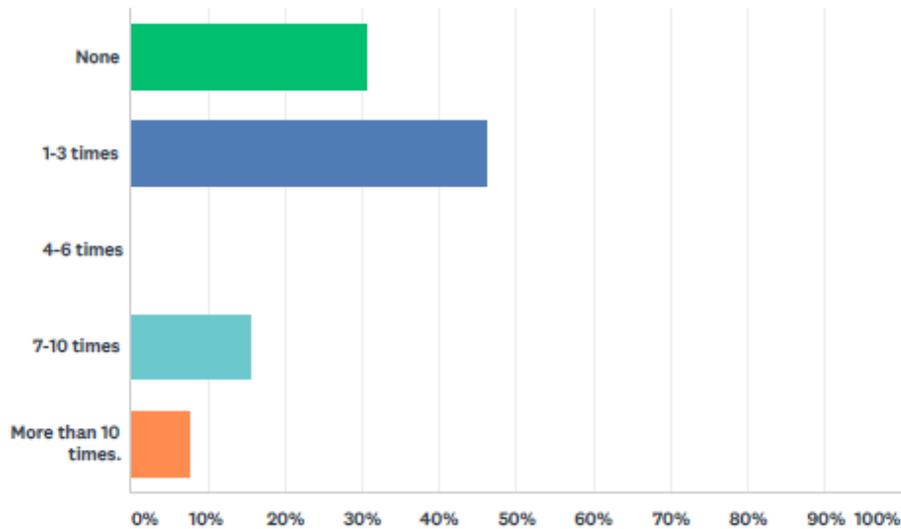


| ANSWER CHOICES | RESPONSES |    |
|----------------|-----------|----|
| Yes            | 100.00%   | 13 |
| No             | 0.00%     | 0  |
| TOTAL          |           | 13 |

New Hampshire Coastal Kayak Angling Program (NHCKAP) Post Survey

### Q7 How many times have you fished from a kayak since taking the course?

Answered: 13 Skipped: 0

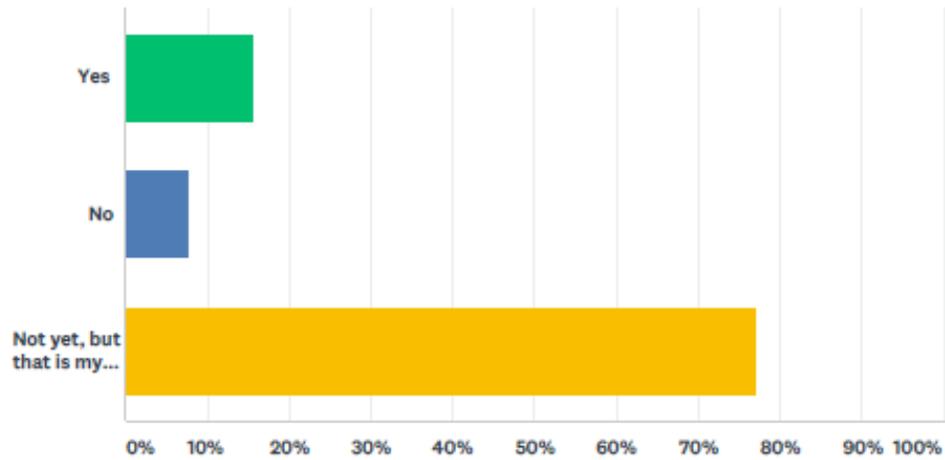


| ANSWER CHOICES      | RESPONSES |           |
|---------------------|-----------|-----------|
| None                | 30.77%    | 4         |
| 1-3 times           | 46.15%    | 6         |
| 4-6 times           | 0.00%     | 0         |
| 7-10 times          | 15.38%    | 2         |
| More than 10 times. | 7.69%     | 1         |
| <b>TOTAL</b>        |           | <b>13</b> |

New Hampshire Coastal Kayak Angling Program (NHCKAP) Post Survey

### Q8 Would you consider yourself to be a "kayak angler"?

Answered: 13 Skipped: 0

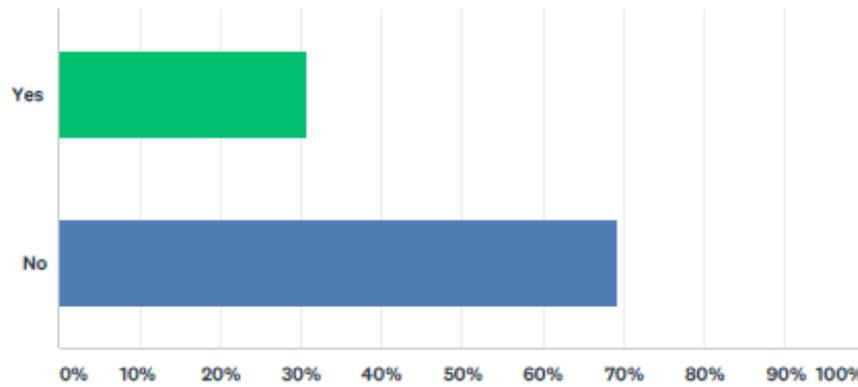


| ANSWER CHOICES                | RESPONSES |    |
|-------------------------------|-----------|----|
| Yes                           | 15.38%    | 2  |
| No                            | 7.69%     | 1  |
| Not yet, but that is my goal. | 76.92%    | 10 |
| TOTAL                         |           | 13 |

New Hampshire Coastal Kayak Angling Program (NHCKAP) Post Survey

Q9 Have you taken others out kayak angling since taking the course?

Answered: 13 Skipped: 0

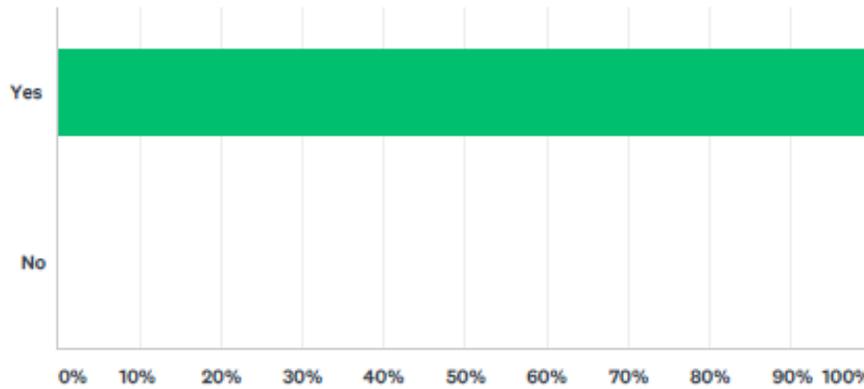


| ANSWER CHOICES | RESPONSES |    |
|----------------|-----------|----|
| Yes            | 30.77%    | 4  |
| No             | 69.23%    | 9  |
| TOTAL          |           | 13 |

New Hampshire Coastal Kayak Angling Program (NHCKAP) Post Survey

Q10 Would you say the course gave you more confidence to fish in a coastal environment from a kayak?

Answered: 13 Skipped: 0



| ANSWER CHOICES | RESPONSES |    |
|----------------|-----------|----|
| Yes            | 100.00%   | 13 |
| No             | 0.00%     | 0  |
| TOTAL          |           | 13 |