Introduction

This Waterfowl Hunter Recruitment and Retention Strategy (Strategy) is the result of a collaborative effort among waterfowl managers interested in and concerned about the future of waterfowl hunting in the U.S. (for more background on the effort, see Appendix A).

This version of the Strategy is still in draft form, and is being distributed to the Flyway Councils and Technical Committees for review, comment and revision before distribution to the broader waterfowl management and hunting community.

There is a tremendous amount of content here—some of it technical in nature. The Strategy was written to be as accessible as possible to the diverse audiences that care about waterfowl hunting. However, it still contains a lot of jargon and technical terms unique to the human dimensions and hunter recruitment and retention communities. When the content and general direction of this Strategy is approved by the waterfowl management and hunting community, additional products that summarize the concepts presented here will be prepared for more general consumption.

This Strategy includes the following sections:

- A Call to Action—makes the case for why the Strategy is needed (briefly describes the social and economic trends that demand action)
- Vision—gives the over-arching purpose of the Strategy
- Problem/Issue Statement—clarifies the primary issue that the Strategy addresses
- Foundation—shows how this proposed Strategy is modeled after and built upon the successful foundation laid by the North American Waterfowl Management Plan (NAWMP)
- Guiding Principles—the factors and issues that have guided development of the Strategy and that should guide implementation as well
- Conceptual Model—visual and written description of the model that has been developed to help guide waterfowl hunter recruitment and retention efforts
- Goals and Objectives—what the Strategy is designed to achieve at the national level (recognizing that there will be local level goals and objectives as well)
- Measuring Success at the National Level—sample measurable outcomes that could be used to determine if the efforts undertaken as part of the Strategy are successful
- Implementation Framework—overview of how the Strategy will be stepped down to the local level and coordinated to achieve national goals and objectives
A Call to Action

The history of waterfowl management is brief, spanning only five or six generations. However, it is a rich past filled with stories of success, as the waterfowl management community repeatedly stepped outside the confines of the status quo and reinvented the institution of waterfowl management to meet the challenges of each generation. The pioneers in waterfowl management fought against the status quo in the early twentieth century to take back wildlife from the market economy and to entrust it to the public. In its infancy, the waterfowl management community – agencies, conservation organizations, and passionate individuals – imposed regulations to manage the resource for the benefit of all. Seeing that regulations were not enough, succeeding generations led the fight to form the national refuge system, the Flyway System and the North American Waterfowl Management Plan.

The common theme in this short history is that at critical junctures, waterfowl managers—hunters, conservationists, and management professionals—had the vision to challenge the status quo, courageously fight battles on behalf of waterfowl, and reinvent the institution of waterfowl hunting and waterfowl management. Today, we are at another critical juncture with new threats to waterfowl habitat, weakened wetland regulations, declining hunter numbers, and an uncertain future for waterfowl populations. Each generation before us rose up to meet the challenges of their day, and now the question becomes whether we as a management community will follow a similar path and provide the leadership, foresight, and tenacity to reinvent the institution of waterfowl management once again to ensure the future of waterfowl and waterfowl hunting.

The Challenges Today

There are tremendous challenges facing waterfowl and the wetland and grassland habitats on which they depend, including:

- Development (housing, businesses, golf courses, etc.)
- Energy exploration (oil, gas, wind)
- Agriculture (increased demand for biofuels, food)
- Climate change

Coupled with these tremendous physical challenges are unprecedented changes in the social landscape. Fewer people are living in rural areas than ever before in history and many North Americans have lost all connection to the rural landscape (Figure 1).
These social changes are having great impacts on the choices people make regarding where they spend their recreational time and money, and what they consider valuable in their communities, their lifestyles, and in the issues that receive their political support.

Crisis in Hunting Participation

The unique tradition of waterfowl hunting in North America came of age in small towns and rural landscapes. It provides an expression of freedom and independence; a way to acquire and assess personal skills, a mechanism for building strong social bonds with friends and family; a means of communing with wild things and wild places.

Physical and social changes over the past several decades have caused a decline in the number of waterfowl hunters (Figure 2). One obvious indicator of this decline is the reduced sales of the migratory bird hunting and conservation stamp (“duck stamp”), which have gradually but steadily dropped from the all-time high of 2.4 million sold in 1972 to less than 1.5 million in 2005. The small increase in sales between 1990 and 2000 is not expected to be sustained without active intervention because of the challenges listed above.
Hunter Numbers

Figure 2. Decline in number of U.S. hunters.

Other types of small game hunting have shown similar trends. Although there are some types of big game hunting and/or specific areas where participation is stable or slightly increasing, hunting participation in general is gradually declining across the continent. This declining trend in hunter numbers does not bode well for waterfowl or wildlife conservation in general. Fewer waterfowl hunters mean fewer dollars and less political support for conservation, and a weakening of the waterfowl hunting tradition. It begs the questions: will there be waterfowl hunting in the future, and if so, will it only be a privilege of the wealthy? Or will there even be any waterfowl left to hunt, or any wetland habitats to sustain them?

Rising to the Challenge

The physical and social foundations on which hunting was built are changing rapidly, but it doesn’t mean that hunting cannot or should not change with them. Over the years, hunters and wildlife managers have faced many challenges, and have left a long string of success stories as their legacy. Under the current and hugely successful North American Model of Wildlife Conservation, hunters play a critical role in conservation of all wildlife. They provide large sums of money that directly support wildlife conservation, as well as businesses and rural communities. They provide social and cultural support for rural lifestyles and a connection to the land, which is rapidly disappearing in the post-modern age. They are the backbone of political support for outdoor recreation and conservation of natural resources.

Now is the time for the waterfowl management and waterfowl hunting communities to step up once again to meet the challenges that lie ahead.
Vision

The over-arching vision of the Waterfowl Hunting Recruitment and Retention Strategy is:

To sustain waterfowl hunter numbers at levels necessary to preserve the North American heritage of waterfowl hunting and the unique ties between hunters and conservation through partnerships guided by sound science to provide public support and funding to sustain waterfowl populations and their habitat.

Problem/Issue Statement

A person must develop and then maintain a personal identity as a waterfowl hunter in order to remain a lifelong participant. Broad socio-cultural changes on a landscape scale have diminished the cultural processes that lead to production of a waterfowl hunter identity. This difficulty in creating a strong identity has decreased waterfowl hunter abilities to negotiate constraints (maintain active hunter status), introduce new individuals to hunting, and sustain the institutions that support waterfowl conservation and waterfowl hunting.

Foundation

The framework of this Strategy is modeled after the North American Waterfowl Management Plan (NAWMP). The 1980s were a time of fencerow to fencerow farming, drought, declining wetland numbers, and low duck numbers. While many recognized the crisis at hand, much of the work at the time was fragmented, with little coordination or shared vision on how to address the systemic problems the entire conservation community faced. While some likely felt the task too daunting, others rose and developed a shared vision to work in partnership to sustain waterfowl populations and the tradition of waterfowl hunting. Through partnerships, these individuals and organizations created a shared vision expressed in the NAWMP Plan, and played an instrumental role in the passage of the North American Wetland Conservation Act, more stringent wetland regulations, and key conservation provisions in the Food Security Act of 1985 (Farm Bill).

This Strategy recognizes that the stakes are as high as they were in the 1980s, and that without constituency support and solid partnerships similar to the 1980s, the ability to fight the battles to protect wetlands and waterfowl and preserve the legacy of waterfowl hunting will be lost. The challenges faced today require a similar magnitude of coordination, action, and partner commitment. Like NAWMP, this is a model-based Strategy that explicitly identifies guiding principles and provides strategic guidance and an implementation framework. A model-based plan provides a shared vision that will enable partners to work together to develop coordinated Hunter Recruitment and Retention strategies while simultaneously improving our understanding of hunter participation. The goals, strategies, and monitoring recommendations are explicitly linked to the model. Similar to NAWMP, this Strategy calls for a stepped down approach that will involve coordination, partnership, and action at the local, state, regional and national levels.
This plan uses an adaptive approach that over time will result in two living documents – the conceptual model of hunter participation and a best practices document. The conceptual models represent our current understanding of what drives hunter participation based on social science theory, past research, and the experiences of the waterfowl management community. As we learn more through research and hunter recruitment and retention (HRR) efforts, this model will be updated to reflect the current state of knowledge about HRR. The second document will consist of a periodically updated version of the Best Practices Handbook that was produced by the National Shooting Sports Foundation. The updates will be based on the monitoring efforts associated with HRR efforts.

**Guiding Principles**

Following are the principles that have guided development of this Strategy and that should be used to guide waterfowl hunting recruitment and retention efforts.

- Recruitment and retention efforts should reflect and sustain the heterogeneity of the waterfowl hunting community and public (one size does NOT fit all).

- This Strategy will use an *adaptive approach* to implement HRR efforts. The first step has been development of conceptual models that represent the processes through which waterfowl hunters are recruited and retained, and which acknowledge the breadth of temporal, spatial, and social scales involved in those processes. From this step, a set of specific objectives to achieve has been identified. Additional steps in the adaptive approach will be development and testing of predictive models, monitoring of strategy outcomes, and use of those results to improve the models (and reduce uncertainty) in the future.

- The framework for this Strategy has been developed at the national level, but success is dependent on implementation at the regional, state, and local levels.

- Development and implementation of specific objectives and actions will require active engagement across the waterfowl conservation/hunting community; state and federal agencies cannot implement all the necessary tasks.

- Partners working on this Strategy have a responsibility to develop the capability to track and communicate progress/needs with waterfowl hunters.

- Participatory methods should be used to engage the public and the waterfowl hunting community at every stage of Strategy implementation.

- Partners working on this Strategy should define and attain the political, social, economic, and environmental conditions needed to sustain waterfowl hunting.

- Partners working on this Strategy should forge broad alliances with other conservation and HRR efforts and communities to achieve objectives.
Partners working on this Strategy should continually improve the conceptual foundations of hunter participation and recruitment efforts.

**Waterfowl Hunter R&R Conceptual Model**

The current model of waterfowl management is based on the assumption that if we effectively manage habitat and populations, we will maintain hunter numbers at desired levels. In other words, if we have enough waterfowl habitat we’ll have waterfowl, and if we have waterfowl we’ll have waterfowl hunters.

This assumption is reflected in the NAWMP and in Adaptive Harvest Management (AHM). NAWMP indicates, “The goals in the plan should be sufficient to maintain populations of ducks of various species and their habitats at levels acceptable to people who use and enjoy them.” It goes on to suggest, “Meeting these goals would provide the opportunity for 2.2 million hunters in Canada and the United States to harvest 20 million ducks annually.” Similarly, AHM objectives are established to maximize harvest over the long-run with the constraint of the NAWMP objective based on the assumption that this matches hunter desires. In turn, waterfowl management is based on the assumption that hunters will be the primary constituency to provide the political, economic, social, and cultural support to maintain waterfowl habitat, waterfowl populations, and management organizations.

Although implicit in the objectives, it is less clear how habitat and population management affect hunter participation; and perhaps more importantly, how declining hunter numbers will influence waterfowl management. The question arises: If you have half the hunters, how large of a population objective do you need? Or put another way, if you have half the wetlands, how many hunters can you support? Without explicitly identifying potential links between population, habitat, and hunters, it is difficult to evaluate the impacts of harvest regulations and habitat management on hunter numbers, or on the level of support for waterfowl management as hunter numbers change.

Similarly, the existing model does not account for the social factors that may influence hunter participation and support for conservation (in addition to population numbers and available habitat). While many organizations and agencies have implemented various HRR strategies (e.g., youth hunting days, hunting clinics, and marketing), they often are based on personal experiences rather than a shared vision. The danger of this approach is that the experiences of an aging hunting public that was introduced to hunting in a different era may not effectively engage individuals that face an entirely different social and environmental reality.

This Strategy contains a model that expands the traditional waterfowl management model and calls more attention to the link between population, habitat, and hunter numbers (Figure 3). The model draws from theoretical perspectives of social-psychology, anthropology, and sociology, as well as from research on hunter participation and the experiences of the waterfowl management community. Through an iterative process, this model was developed by human dimensions experts, technical representatives from each of the Flyways, the U.S. Fish and Wildlife Service, and Ducks Unlimited. The Flyway Councils, Ducks Unlimited, and the Strategy Team provided
additional input in creating the shared vision expressed in this model. The model should help clarify management issues, create a shared vision of the problem, and provide insights about potential strategies to address management problems. It should be noted that these are not *predictive* models such as those used in AHM. The processes that lead to hunter participation are not yet understood well enough to support such a model.

This Strategy is based on three sub-models, that when taken together can help improve our understanding of the trends influencing hunter vital rates (retention, recruitment, etc.). These models can be thought of in a “joint venture” (JV), regional, or state level that can be “rolled up” to provide a national perspective. The more explicit linkages between harvest, habitat and hunters is drawn from the Joint Task Group report.

![Proposed Hunter Participation Model](image)

Figure 3. Proposed Hunter Participation Model.

The right side of Figure 3 depicts the traditional model of waterfowl management. Expanding the Joint Task Group’s emphasis on linking habitat and population objectives by focusing on increasing carrying capacity, this model provides the opportunity to also think about hunter capacity and the potential need to consider different strategies based on potential carrying capacity of waterfowl and habitat for hunters. Habitat provides a carrying capacity for waterfowl...
populations, but similarly, habitat also provides a carrying capacity for duck hunters or other users. At some point, hunter utilization of the habitat will depend on their level of satisfaction with their experiences.

Figure 4 shows that at some point, hunter satisfaction likely decreases as hunter numbers increase in proportion to the habitat available. Depending where a region is located on this curve, strategies would need to focus on social factors driving participation, distribution of hunters, or the creation of additional habitat or access. In regard to distribution, habitat may provide a certain density of hunters that will maintain satisfaction levels.

![Figure 4. Potential Carrying Capacity for Hunters.](image)

Figure 5 depicts the relationship between the Capacity, Identity, and Decision Sub-models that are also represented on the left side of Figure 3. The **Decision** Sub-model focuses on short-term processes that individuals go through when making recreational choices. The **Identity** Sub-model focuses on the ingredients necessary for individuals to develop an identity as waterfowl hunters. The **Capacity** Sub-model focuses on the role of social organizations, institutions, and culture providing the social and environmental capacity for hunting to take place. It describes the long-term changes in social organization influencing hunter participation.

Together, the three sub-models provide a shared vision of short-term, mid-range, and long-term factors that influence hunter participation. In order to affect long-term change in hunter participation rates, it is assumed that strategies will need to target elements from each of these sub-models. The actual weight or importance of the relationships described in each of the sub-
models will depend on the unique social and environmental circumstances found in different regions of the country.

![Diagram of Hunter R&R Sub-models](image)

Figure 5. Three Hunter R&R Sub-models.

**Decision Sub-model**

The Decision Sub-model, based on literature from social-psychology, focuses on decision-making processes. Non-hunters first need to be aware of hunting and perceive it as an acceptable activity before moving to the stage of becoming a potential hunter. A potential hunter may hunt if they feel hunting will fulfill their motivations for some unfilled psychological need. These motivations are influenced by an individual’s general attitudes. If a person is motivated to go hunting, they will choose a place or setting to hunt, but they may still face constraints that prevent them from participating. In this case, they will only participate if they are successfully able to negotiate through this constraint. Finally, their participation will lead towards a level of satisfaction or dissatisfaction with hunting in fulfilling their psychological needs. Based on these experiences and their assessment of hunting as provided by others, individuals will go through an iterative process of weighing the opportunities to fulfill psychological needs against the challenges of negotiating constraints to either hunt or choose other activities.
Figure 6. The Decision Sub-model.

At each stage, individuals may decide not to hunt. For example, if a person is surrounded by individuals who do not support hunting, they may not as readily view hunting as a potential activity choice. Similarly, once aware of the potential of hunting to fulfill a psychological need, they may still not participate if they perceive the constraints to going hunting outweigh the potential benefits, or if they can fulfill those psychological needs with other activities. Once they have gone hunting, if they have a bad or unfulfilling experience in satisfying their unmet psychological need, they may be less inclined to make a future decision to go hunting.

Most empirical research on outdoor recreation and hunting is based on this sub-model. This research has focused on identifying motivations and constraints for hunting, as well as measuring hunter expectations and satisfaction. Examples of motivations include enjoying nature, spending time with friends and family, escape from social pressures, and achievement. Individuals face intrapersonal constraints (e.g., not enough time, poor health), interpersonal constraints (e.g., household constraints, lack of hunting partners), and structural constraints (e.g., lack of access, complex regulations, lack of ducks).
Potential strategies based on this model focus on presenting hunting in a positive light so individuals will consider it an acceptable activity, identifying motivations for hunting and opportunities to fulfill these motivations, removing constraints, and developing narratives to enable individuals to more effectively negotiate these constraints. Success in this model can be evaluated through behavioral indices (e.g., licenses sold, days hunting), since they would reflect the discrete decisions.

The strength of this sub-model is that it is based on a broad research tradition within recreation and leisure behavior. Application of this sub-model to hunting is built on numerous scholars and studies applied in other recreational contexts. Many existing recruitment strategies are implicitly based on this model. However, this sub-model alone does not adequately describe or predict participation. Although research has suggested linkages between approval, motivations, constraints, and satisfaction with hunting, the relationships have often been weak. The focus on social relationships and social organization in the next two sub-models provide additional insights regarding about hunter participation.

See Appendix B for additional information.

**Identity Sub-model**

A main premise of this sub-model is that people become recruited into the population of waterfowl hunters through a process of identity development (Figure 7). Over several years, a person may progress from being a non-hunter, to a potential hunter, to an apprentice, to a recruit, and finally to a retained hunter. Although awareness of waterfowl hunting, determination of individual motivations and various constraints, and hunting satisfaction all are important concepts in the Identity sub-model as in the Decision sub-model, these concepts are interpreted and applied differently in the Identity sub-model. Overall, the Identity sub-model suggests that it is not *what you do*, but rather *who you are*, that defines you as a hunter. Different definitions undoubtedly give rise to different waterfowl hunter identity types.

*Non-hunters* are not aware that someone may have an identity as a waterfowl hunter although they likely are aware of the activity of waterfowl hunting. *Potential hunters* know that hunting is more than an activity for some, and that it can be a “way of life” or even a “state of being.” This awareness arises through interactions with retained waterfowl hunters and other members of the hunting culture (i.e., sources of productive power) who also make them familiar with the characteristic attributes of waterfowl hunters (e.g., self-sufficient, in-tune with season rhythms of wildlife, conservation-minded, ethical). When potential hunters believe consistency exists between their personal motivations and the characteristic attributes of waterfowl hunters, potential hunters become interested in “trying it out.” In recent decades, loss of the cultural processes through which non-hunters and potential hunters become aware of and interested in waterfowl hunting has become a major constraint on recruitment.

*Waterfowl hunting apprentices* start developing an identity as a hunter by typing-out the activity. At this stage, retained hunters and other mentors help apprentices develop the technical competencies (e.g., how-to skills) and social competencies (i.e., norms and values) needed to develop a hunter identity. Technical competence develops through repeated participation in
hunting rituals that build skill and understanding about how to apply that skill in different situations. Social competence is built over time through transformative behaviors and experiences (referred to as “rites-of-passage”) that help apprentices attain the characteristic attributes of being a waterfowl hunter. Most contemporary hunter recruitment programs focus on building technical competence, but lack specific interventions to develop social competencies.

Figure 7. Identity Sub-model.

*Waterfowl hunting recruits* are recognized, both in terms of self-perceptions and by others, as having “made it” as waterfowl hunters because they successfully have attained the characteristic attributes of a hunter. *Retained waterfowl hunters* sustain their identity by remaining satisfied that they hold and express the characteristic attributes of a hunter (e.g., as ethical as I want to be, as knowledgeable, as respectful). As long as cultural capacity exists, retained waterfowl hunters are likely to interpret dissatisfaction (i.e., less than desired levels of characteristic attributes) as a threat to their hunter identity, and will act politically and financially to make sure that the threat is addressed.

Potential strategies based on the Identity sub-model focus on inter-personal interactions between retained waterfowl hunters and people in the other stages as well as restoration of the cultural processes through which non-hunters become aware of hunter identities, potential hunters
become interested in developing a hunter identity, and apprentices learn the technical and social competencies associated with being a waterfowl hunter.

The Identity sub-model highlights roles for retained hunters in helping others pass through the various stages of identity development. This model also provides a bridge between the individual Decision Sub-model and the Capacity Sub-model.

See Appendix C for additional information.

**Capacity Sub-model**

The Capacity Sub-model, based on sociological literature, emphasizes the role society, institutions, and social organizations play in providing the cultural, social, economic, and political capitals that support the institutions of waterfowl hunting and waterfowl and wetland conservation. A transition from a national, material-based economy to a global, information-based economy, as well as the on-going revolution in communication has put new pressures on these institutions.

Land-use is increasingly defined by consumptive relations rather than productive relations (e.g., productive farms replaced by recreational property, urbanization). As communication and transportation overcome bounds of space and time, community relations are becoming less embedded within localities and more disconnected from the natural landscape. Nature is increasingly a space or place to visit, rather than an extension of family and community relations. Similarly, school, family, and community are increasingly disconnected from daily and seasonal rhythms and are now more governed by time measured by satellites rather than the sun and seasons.

The tradition of waterfowl hunting and wetland conservation represented one of many ways in which individuals connected to a particular place/landscape, celebrated the changing of seasons manifested in fall migration, experienced community, and sustained relations with one another and their natural surroundings. As a consequence, the unique local traditions of waterfowl hunting are gradually being replaced with more universal expressions defined by the community of interests involved with waterfowl hunting.

The growing importance of “communities of interest” versus “communities of place” is fundamentally challenging the institutions that originated alongside the unique place-based communities in America (e.g., hunting, farms, schools, downtowns, etc.). Communities of interests are defined by shared goals, values, and interests rather than participation in a community of place where work, recreation, family, and nature were once much more interwoven. As individuals and the social relations they maintain become less tied to place, informal recreation is being replaced by more formal forms of recreation and interactions with nature mediated by local social norms are increasingly defined by economic or state relations. In turn, appropriate interactions with nature are more contested as “communities of interests” each attempt to define appropriate interactions with nature according to their own values and goals.
From a strategic standpoint, this model suggests the need to invest in long-term actions that will strengthen the social organizations that support waterfowl hunting and foster new ways to communicate the characteristic attributes of hunting as traditional methods resonate with fewer people. Purposeful actions will likely be needed to maintain the positive attributes associated with the culture of hunting as hunting itself continues to change in tandem with the broader social and cultural changes. Success in this model is measured by the viability of the institutions that support waterfowl hunting.

Figure 8. Capacity Sub-model.

The strength of this sub-model is that it provides a framework to consider broader social and cultural factors that affect waterfowl hunter participation. In combination with the Identity Sub-model, it also provides a framework to consider the role individuals and organizations play in shaping the institution of waterfowl hunting. The weaknesses of this sub-model are that it has had very limited application to hunting and wildlife management issues and that changes in social organization and culture are difficult to measure.
Model Summary

Each of the three sub-models overlap and provide a hierarchical vision of hunter participation with a foundation rooted in the social institutions that make hunting possible leading up to individual decisions to go hunting (Figure 9). In essence, the Capacity sub-model provides perspectives on how we may create a time and place for hunting to take place while also strengthening the cultural foundation of waterfowl hunting and conservation. An important premise is that adequate cultural and social capital will spur identity development and lead to increased economic and political capital. Adequate capacity will help restore and facilitate processes of identity production.

Figure 9. Connections between the Sub-models.

Further, identity production will result in greater certainty about and consistency in personal decisions related to waterfowl hunting and conservation. The Identity Sub-model depicts how mentors can play a role in exposing new people to hunting and teaching them how to negotiate the constraints that may prevent them from going hunting or becoming a waterfowl hunter. In turn, this sub-model suggests that change is possible and that trends in hunter numbers are not already sealed by fate. The initial decision to try waterfowl hunting can serve as a first step in developing a waterfowl hunting identity. The retained hunters with a strong waterfowl hunting
identity provide the time, commitment, passion and money to maintain the legacy of waterfowl hunting and its institutional and cultural foundations.

**Goals and Objectives**

Achieving desired increases in waterfowl hunter recruitment and retention necessarily will require meeting the following goals and objectives that have emerged from our understanding and integration of the three conceptual sub-models. Meeting these goals and objectives will result in: building capacity, producing identity, and facilitating individual decisions with respect to waterfowl hunting. This Strategy includes goals and objectives at the national and local level. These goals and objectives are presented to provide guidance and will be revised as regions and states refine the specific goals and objectives to pursue at more local levels.

**National Level Goals**

1. Define and foster the social conditions needed to sustain waterfowl hunting (*Capacity sub-model*).

2. Foster the cultural processes needed to enable the formation of waterfowl hunter identity (*Capacity and Identity sub-models*).

3. Foster appreciation of the benefits of being a waterfowl hunter (*Decision and Identity sub-models*).

4. Develop an approach for helping current and potential waterfowl hunters to fulfill motivations and negotiate constraints to participating in waterfowl hunting (*Decision sub-model*).

**National-Level Objectives [Please review questions in cover letter]**

A. Increase the number of people who participate in waterfowl hunting by 10% over the next five years (*Decision Sub-model*).

B. Increase the number of people who identify themselves as a waterfowl hunter by 10% over the next five years (*Identity Sub-model*).

C. Increase funding and participation in waterfowl management by x% over the next five years (*Capacity Sub-model*)
Measuring Success at the National Level

A. Measure hunter participation through HIP (Decision Sub-model)
B. Measure numbers of individuals with waterfowl hunting identity through a survey question (Identity Sub-model)
C. Measure sales of federal duck stamps, membership in national waterfowl and waterfowl conservation organizations, and contributions to conservation organizations (Capacity Sub-model).


To be successful, this Strategy must be accepted, adopted, and adapted for use by local stakeholders at the local level. The adage that “it takes a hunter to make a hunter” is only partially true. In reality, it takes an entire community of hunters. The social support needed to engender a personal identity as a hunter is best (and perhaps only) provided by local folks working locally.

This national Strategy is built upon the understanding that efforts addressing the three sub-models described in previous sections must be implemented in a coordinated fashion at the local level, and then results (positive and negative) shared throughout the hunting and management community. That is the essence of the adaptive approach – learning from success as well as failure.

Stepping it down to the local level

Precisely how the effort is stepped down (and to what level of organization) will need to be discussed at all levels before decisions are made, but following are some proposed steps by which this could be accomplished.

A. At the regional level (e.g., “joint ventures” or something similar) training workshops could be provided to state and local partners, to describe the Strategy and facilitate development of state-level objectives that would contribute to national goals.

B. State agencies conduct assessment/situation analyses of HRR programs and trends in their states and identify where current programs fit relative to the HRR model.

C. States conduct workshops with local partners to gain support for the Strategy and reach consensus on where their specific efforts fit relative to the Strategy and its application.

D. Workshop participants refine local goals and objectives based on their specific interests and the needs of the overall Strategy.
E. Stakeholder groups (agencies, refuges, conservation organizations, clubs, etc.) identify strategies and actions they can undertake to achieve goals and objectives (local, state, and national).

F. Stakeholder groups reach consensus on evaluation metrics to ascertain whether their programs achieved specific state/local objectives.

Rolling it up to the national level

Most of the work would be done most effectively at the local level, but overall success can only be achieved if successes and failures are shared with all interested parties across the continent.

A. State-level plans could be integrated at the “joint venture” or other similar, regional level. States and their partners report program objectives, activities, and results to the regional level.

B. Regional plans then would be synthesized into a national document. Regional reports would be compiled and combined into a national/international report.

Some national entity would need to be charged with collecting status information from all the states and regions and reporting it widely. This could be an annual, national report, perhaps the “Annual Waterfowl Hunter Participation Status Report.”

Regional/State Goals and Objectives

The following goals, objectives, and implementation steps provide strategic guidance and will be further refined at the local, state and regional levels through the processes outlined above. These goals and objectives are also based on elements of the three sub-models.

Goal 1: Increase the number of individuals who make the decision to go waterfowl hunting.

While increasing the number of retained hunters with a waterfowl hunting identity will likely contribute more to sustaining the institution of waterfowl hunting, influencing individuals’ decisions to go hunting should not be overlooked. Individuals who don’t identify themselves as waterfowl hunters, but who occasionally participate in the activity still provide a source of revenue for conservation and eventually may develop identities as waterfowl hunters.

Sub-goal 1A: Provide a range of experience opportunities for potential and active waterfowl hunters that closely match the desired motivations/benefits of different segments of waterfowl hunters.

Objective 1.1: A minimum of x% of waterfowl hunters participate in waterfowl hunting over a 5 year period (Decision Sub-model).

Sub-goal 1B: Decrease the level of perceived constraint and increase the negotiation competency of potential and active waterfowl hunters.
Objective 1.2: A minimum of x% of the potential and active waterfowl hunters report reduced constraints or heightened ability to negotiate constraints within a given area (Decision Sub-model).

Goal 2: Increase the cultural capital available for sustaining management of waterfowl populations, habitats and hunters.

Culture provides the lens through which we attach meaning to the landscape and to wildlife. It shapes our values and social norms and ultimately gives shape and meaning to waterfowl hunting and waterfowl conservation. Within the dominant American culture, lack of awareness that an identity as a waterfowl hunter is acceptable and obtainable prevents some non-waterfowl hunters from becoming potential waterfowl hunters. Awareness emerges from the waterfowl hunting culture communicating the characteristic attributes of what it means to be a waterfowl hunter to the broader public.

Sub-goal 2A: Restore and facilitate the cultural processes through which non-waterfowl-hunters become aware, by interacting with sources of identity-producing power\(^1\), that being a waterfowl hunter is as much of an expression of who one is as it is a recreational pursuit.

Objective 2.1: In the target area, move x% of non-waterfowl hunters into the potential waterfowl hunter category (decision sub-model and identity sub-model).

Sub-goal 2B: Restore and facilitate the cultural processes through which potential waterfowl hunters become interested in becoming a waterfowl hunter by assessing the consistency between their personal motivations (i.e., what kind of person they want to be) and the characteristic attributes associated with being a waterfowl hunter.

Objective 2.2: In the target area, move x% of potential waterfowl hunters into the waterfowl hunter apprentice category (identity sub-model).
Objective 2.3: In the target area, move x% of retained hunters into the waterfowl hunter mentor category (identity sub-model).

Sub-goal 2C: Restore and facilitate the cultural processes through which waterfowl hunting apprentices develop technical\(^2\) and social competencies\(^3\) with respect to being waterfowl hunters.

\(^1\) Possible sources of productive power include, but are not limited to, family members, hunting companions, state and national waterfowl management agencies, state and national waterfowl hunting organizations, local hunting and fishing clubs, manufacturers and retailers associated with the hunting industry, and waterfowl hunting writers, publishers, bloggers, and/or others associated with the outdoor press.

\(^2\) Technical competencies pertain to “how-to skills” associated with the activity of waterfowl hunting. These competencies usually are developed through repeated exposure to hunting rituals done the same way time after time.
Objective 2.3: Move x% of waterfowl hunter apprentices into the waterfowl hunter recruit category (identity sub-model).

Sub-goal 2D: Ensure that waterfowl hunting recruits have year-round opportunities to continue to express desirable and satisfying levels\(^4\) of the characteristic attributes associated with their identity as waterfowl hunters, and minimize situations leading to intolerable and dissatisfying levels\(^5\) of identity-destroying attributes.

Objective 2.4: Retain x% of recruited waterfowl hunters in the target area (identity sub-model).

Objective 2.5: A minimum of x% of waterfowl hunters within a given area across all stages of identity formation express satisfaction with the most important aspects of their waterfowl hunting experience (decision and identity sub-models).

Sub-goal 2E: Restore and facilitate the cultural processes that lead retained waterfowl hunters to continue to support the identity producing power that links hunting to conservation.

Objective 2.6: Move x% of retained waterfowl hunters into retained waterfowl conservationists category (identity and capacity sub-models).

Sub-goal 2F: Assist apprentice waterfowl hunters and waterfowl hunting recruits to develop realistic expectations about their waterfowl hunting experiences.

Objective 2.7: Maintain satisfaction with experience outcomes for a minimum of x% of apprentices and recruits in the target area (identity and decision sub-models).

Sub-goal 2G: Develop consistent narratives and practices that reflect, refine, and reinforce the social norms and values associated with hunting and the role it plays in sustaining waterfowl, wetlands, and their associated social and environmental values.

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3 Social competencies pertain to norms and values reflected in having an identity as a waterfowl hunter, and are measured through development of the characteristic attributes associated with being a waterfowl hunter. These competencies are developed through transformative events and activities that serve as “rites-of-passage” marking the successful transition from apprentice to recruit.

4 Examples of satisfying levels of characteristic attributes might include: I can continue to be as ethical as I want to be, I can continue to be as respectful to other hunters as I want to be, I can continue to be as knowledgeable about waterfowl habits in my area as I want to be, etc.

5 Examples of dissatisfying levels of identity-destroying attributes might include: I find the other hunters who use the same marsh to be untrustworthy, I am too unfamiliar with the private wetland owners in my area, I lose too many birds with the kind of shot I have to use, etc.
Objective 2.8: Target area will observe an X decline in waterfowl hunter associated problems and x% increase in the number of positive messages associated with waterfowl hunting in X communication/media outlets (Decision, Identity, and Capacity Sub-models).

Objective 2.9: Target area will observe x increase in the amount of hunter led conservation or waterfowl hunting promotion activities (Capacity Sub-model.)

Objective 2.10: Assist local sources of productive power by using mass media to communicate to the non-waterfowl hunter public about the characteristic attributes associated with being a waterfowl hunter, in the context that being a waterfowl hunter is more about who you are and not just what you do.

Goal 3: Increase the social capital available for sustaining management of waterfowl populations, habitats, and hunters by increasing the number and strength of waterfowl-related social networks of people in the various stages of waterfowl hunter identity development.

Social capital pertaining to waterfowl hunting and conservation has diminished in recent decades as evidenced by a decrease in the number and strength of social networks of non-waterfowl hunters, potential waterfowl hunters, and waterfowl hunting apprentices that also contain waterfowl hunting recruits and retained waterfowl hunters. Social capital is produced through participation at community events to expose people to hunting and provide opportunity to develop social networks necessary to facilitate social change.

Objective 3.1: Increase by x% the proportion of waterfowl hunters that participate in waterfowl conservation/hunting organizations (Identity and Capacity Sub-models).

Objective 3.2: Increase by x% the number of waterfowl hunters that potential hunters apprentices and recruited hunters maintain in their social networks (Identity and Capacity Sub-models).

Objective 3.3: Increase by x% the contacts that waterfowl conservation leaders have with outdoor, shooting, hunting, or angling leaders (Capacity Sub-model).

Goal 4: Increase the economic capital available for sustaining management of waterfowl populations, habitats, and hunters.

Financial support for waterfowl management efforts will remain a critical need. Economic capital is needed to sustain the institution of waterfowl hunting, but also to maintain public access to waterfowl hunting opportunities to fulfill characteristic attributes associated with waterfowl hunting identity or the motivations to fulfill psychological needs.

Objective 4.1: Increase sale of mandatory state/federal “duck stamps” and state waterfowl hunting licenses by x% (Capacity Sub-model).
Objective 4.2: Increase voluntary financial contributions to state/federal management programs and non-governmental habitat and hunter management efforts by x% (Capacity Sub-model).

Objective 4.3: Maintain opportunities for waterfowl hunting at a rate comparable to previous years (Decision, Identity, and Capacity Sub-models).

Goal 5: Increase the political capital available for sustaining management of waterfowl populations, habitats and hunters.

In addition to direct financial support, political support for waterfowl management and hunting will remain a critical need. Another aspect of political capital exists within wildlife agencies. Wildlife professionals play a key role in sustaining the connection between waterfowl hunting and conservation. However, the capacity of the profession to do so in the future is challenged by a declining number of professionals participating in waterfowl hunting or other consumptive activities.

Objective 5.1: Increase participation of individuals by x% and non-governmental organizations by y% in local, state, and national policy discussions that affect management of waterfowl populations, habitats, and hunters (Capacity Sub-model).

Objective 5.2: Maintain x% of resource professionals that possess the social and technical competencies associated with waterfowl hunting (Identity and Capacity Sub-models).

Objective 5.3: Maintain leadership in natural resource agencies that actively works with the waterfowl hunting community to sustain the contributions of waterfowl hunters to waterfowl and wetland conservation (Identity and Capacity Sub-models).

Goal 6: Increase the human capital available for sustaining management of waterfowl populations, habitats and hunters.

Informal recreation is being replaced by more formal forms of recreation. Further, formal education programs for pre-school and elementary school children are becoming more focused on academic achievement than on providing opportunities for children to engage in unstructured imaginative and creative play, which are critical needs for children to integrate nature into their social worlds. Partnerships with educational institutions must be developed to ensure they can facilitate development of positive norms and values relating to the conservation and stewardship of nature, especially waterfowl management and hunting.

Sub-goal 6A: Engage educational institutions to facilitate development of a connection to nature, and improve opportunities for interpreting one’s personal motivations in the context of the characteristic attributes associated with being a waterfowl hunter.
Objective 6.1: Engage x% of primary school teachers in in-service training focused on the benefits of providing students with frequent, informal, unstructured, outdoor exploration experiences through which they can develop the imagination and creativity necessary to interpret and understand the characteristic attributes associated with being a waterfowl hunter and conservationist (Capacity Sub-model).

Sub-goal 6B: Engage community planners and developers to facilitate development of a connection to nature, and improve opportunities for interpreting one’s personal motivations in the context of the characteristic attributes associated with being a waterfowl hunter.

Objective 6.2: In the target area, increase by x acres or places, locations where people can explore and experience natural processes in a way that enable people to interact and experience nature and not simply “visit” nature (Capacity Sub-model).

Sub-goal 6C: Reconnect individuals to the landscape and seasonal processes that sustain waterfowl hunting, waterfowl and wetlands.

Objective 6.3: Engage x% of non-waterfowl hunter youth in frequent, year-round, informal, unstructured, outdoor exploration experiences through which they can develop the imagination and creativity necessary to interpret and understand the characteristic attributes associated with being a waterfowl hunter and conservationist (Capacity Sub-model).

Situation Analysis

Similar to other rapid assessment techniques, an initial step in HRR strategy development and implementation will be to determine current trends as they relate to the Decision, Identity, and Capacity Sub-models as well as the current status of waterfowl populations and habitat availability. Through this process, stakeholders should identify the elements from the three different sub-models that are likely influencing hunting participation patterns in their respective regions. These steps do not all need to be completed before implementing HRR strategies, but likely will improve the effectiveness of such efforts.

A. Decision Sub-model status

1. Determine the general motivations (i.e., behavioral outcomes) that are achievable through waterfowl hunting that resonate with non-waterfowl hunters and potential waterfowl hunters.

2. Identify and categorize the constraints to waterfowl hunting participation for potential and active waterfowl hunting segments.
3. Identify and categorize the constraints to waterfowl hunting participation for potential and active waterfowl hunting segments.

4. Determine present participation patterns (e.g., POS data analysis).

B. Identity Sub-model status

1. Determine the sources of productive power that play important roles in producing waterfowl hunter identity types\(^6\) in the targeted area.

2. Determine the characteristic attributes\(^7\) associated with being a waterfowl hunter for those identity types in the target area.

3. Determine the characteristic attributes and outcomes of waterfowl hunting that are perceived as positive (i.e., acceptable) by non-waterfowl hunters and potential waterfowl hunters.

4. For each major waterfowl hunter identity type in a target area, determine the necessary technical and social competencies needed to attain the characteristic attributes associated with that identity.

5. Determine the mechanisms through which apprentices in the various identity types are recognized as having attained an identity as a waterfowl hunter, and facilitate those mechanisms.

6. Determine the desired hunting experiences and expectations about those experiences for waterfowl hunting apprentices and recruits.

C. Capacity Sub-model status

1. Identify potential partners.

2. Identify unique cultural characteristics of waterfowl hunting and waterfowl conservation in the target area.

3. Review trends in conservation organization participation

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\(^6\) Multiple waterfowl hunter identity types are likely at the state and even local level, based on the specific combinations of groups and individuals who are important sources of productive power.

\(^7\) Characteristic attributes associated with being a waterfowl hunter are the terms and phrases one uses to describe a “real” waterfowl hunter from someone who “just goes duck hunting.” Some of these attributes may overlap among waterfowl hunter identity types, but will be developed differently by the various sources of productive power. Examples of characteristic attributes are being ethical, being respectful, being knowledgeable about waterfowl behavior, being a skilled wing-shot, etc.
4. Identify level of economic, social, political, cultural and human capital in the target area.

**Measuring Success**

State- and local-level stakeholders will set specific, measurable objectives for their programs and efforts to achieve, and they will measure against those objectives to determine success or failure. Decision Sub-model metrics focus on behavioral measures such as increased license sales, reduced churn rate, or lower drop-out rates. Proportions of individuals in various stages of identity formation can be determined through survey results. Evaluation of steps to increase capacity will be the most difficult to measure since change will often be slow and difficult to detect through traditional behavioral or survey measures. Instead, likely metrics will include changes in social organization as reflected in membership size, economic status, strength and size of social networks, political activism, and quantity and quality of messages disseminated to targeted audiences.

**Building upon Success**

*Updating the hunter participation model*

Linking vision, action, and monitoring provides the opportunity to improve our understanding of hunter participation while we move forward with HRR initiatives. Through the process outlined in this Strategy, stakeholders will have opportunity to identify key uncertainties about hunter participation. Some of these uncertainties will be addressed through research and others through monitoring and evaluation of HRR strategies.

*Updating the Best Practices Workbook*

In June 2008, the National Shooting Sports Foundation, in cooperation with the Association of Fish and Wildlife Agencies, produced the *Best Practices in Hunting and Shooting Recruitment and Retention*. This comprehensive Workbook and a suite of other tools were designed to help stakeholders be more effective at planning, implementing, and evaluating HRR efforts of all types. These tools contain the best practices currently available, based on research and field experience. As more and more HRR efforts are assessed and evaluated against specific objectives, these best practices can and should be updated.

1. New practices should be added if they are shown to be effective.
2. Existing practices should be modified as appropriate as more is learned and/or as the needs of stakeholders or target audiences change.
Institutional Relations – Commitment – Building Capacity

[Please provide input]

A. National
   1. Who will coordinate?
   2. What forum will facilitate plan management among stakeholder groups?

B. State
   1. Who will coordinate?
   2. What forum will facilitate plan management among stakeholder groups?

C. Partnerships
   1. Who will coordinate?
   2. What forum will facilitate management of the Strategy among stakeholder groups?

Proposed Time-Line [Please Provide Input]

September 2008: National Commitment
   1) MOU
   2) Formal Standing of Strategy Team…(new name?)
   3) Endorsement of Plan from Sporting Conservation Council

State Commitment
   1) Announcements from states willing to commit to the process

National Conservation Commitment
   1) Announcement for NGO committed to process

Release Final Draft

September – December 2008: Regional training in facilitation process
   States begin planning for state summits

January – May 2009: State summits to develop coordinated efforts at the state level

September 2009: Annual Hunter Participation Status Report
Appendix A

Background on Development of the Waterfowl Hunter Recruitment and Retention Strategy

In its 2005 final report, the AHM Task Force recommended that the National Flyway Council in partnership with Wildlife Management Institute (WMI) and the U.S. Fish and Wildlife Service convene a Strategy Team to further the communications efforts articulated in their final report. This Strategy Team met in May 2005 and identified seven initial strategies—strategies constituting a systematic and sustained conversation with waterfowl hunters:

1. Conduct a national survey of duck hunters,
2. Conduct panels/surveys of avid-influential waterfowl hunters,
3. Establish waterfowl hunter focus groups,
4. Conduct waterfowl hunter “point-of-sale” data-mining,
5. Communicate results of strategies 1 to 4 to waterfowl stakeholders,
6. Update and implement of the AHM communications strategy,
7. Develop a waterfowl hunter recruitment and retention strategy.

The four Flyway Councils reviewed these proposed strategies in 2005, and continue to work with the Strategy Team to refine and implement them.

At its July 2006 meeting, the Strategy Team reaffirmed its commitment to working with the Flyway Councils, the Service, NGOs and the waterfowl management community to develop a long-term recruitment and retention strategy for waterfowl hunters (Strategy 7).

To that end, the Strategy Team met in May 2007 in Amarillo, Texas, to begin scoping a process for development of a waterfowl hunter recruitment and retention strategy. Following the May meeting, an initial draft of the R&R Strategy was distributed for comment to the Flyway Councils, Technical Committees, Service, and other stakeholders. Suggestions for additions and changes to this draft were collected and reviewed by the Strategy Team. Many of the comments were incorporated directly. Others initiated considerable discussion and debate. Part of the discussion centered around the realization among the Strategy Team that the Team did not have the technical expertise needed to address some of the sociological (human dimensions) issues and concerns necessary to successfully address hunting R&R.

Based on this realization, the Strategy Team agreed to pursue the Mississippi Flyway Council’s recommendation that a Human Dimensions Work Group (HDWG) be established to develop a conceptual model that could link “hunter management” with population and habitat management.

Through a series of meetings and conference calls starting in January 2008, the HDWG has worked with the Strategy Team to develop a series of models that have been incorporated into this working draft of the Waterfowl Hunting Recruitment and Retention Strategy. The Strategy Team is now requesting additional comments and input on the following draft Strategy.
Appendix B

Decision Model Summary

- Recreation is more than just an activity. It is something we do to have important social psychological experiences that produce benefits for us that are essential to our well-being as humans.
- Waterfowl hunting is a recreation activity similar to other outdoor recreation activities.
- People are motivated to participate in waterfowl hunting because they hope to achieve specific personal outcomes from their waterfowl hunting experiences.
- Only some of these experiences are actually directly related to the harvest of waterfowl.
- One primary constraint to recruiting potential waterfowl hunters is lack of awareness that waterfowl hunting will provide these important experiences and that waterfowl hunting opportunities are available.
- Another primary constraint concerns beliefs about whether or not other people perceive waterfowl hunting as a socially acceptable activity.
- An individual has the potential to be recruited into waterfowl hunting if they can negotiate these two constraints.
- An individual will choose a recreation activity and setting that they believe will most likely lead to outcomes that match their motivations for participating in recreation.
- If an individual is aware of waterfowl hunting opportunities and believe that those opportunities will lead to recreation experiences that match their motivation they will choose to participate in waterfowl hunting.
- Most individuals are constrained by intrapersonal, interpersonal and structural factors that affect whether or not they can and will participate in waterfowl hunting even if they have a desire to do so. If the individual can negotiate these constraints they will participate in waterfowl hunting.
- We an individual participates in waterfowl hunting they have a recreation experience that either match or fail to match their desired experiences. These actual experiences are either satisfying or dissatisfying and are pooled together over time as a “reservoir of experience”.
- The reservoir of past experience with waterfowl hunting that an individual holds helps to form expectations of or beliefs about what a waterfowl hunting experience will be in the future (tomorrow, next week, next season, etc.).

These expectations influence an individual’s attitude toward waterfowl hunting based on the expected outcomes of going waterfowl hunting. Expectations of relatively dissatisfying experiences will discourage participation in waterfowl hunting.
Appendix C

Identity Model Summary

General description

- Differs from motivations-constraints model in being at a slightly longer temporal scale, and broader spatial and social scales.
- Involves determination of individual motivations, but in the currency of the kind of person one wants to be (e.g., self-sufficient, knowledgeable of seasonal rhythms of nature, etc.) rather than in terms of what a person wants to do (e.g., hunt for food, hunt to spend time with friends, hunt to get close to nature).
- Acknowledges constraints, not only on behavior choice, but also on “natural” cultural processes that lead to identity development
- A main premise is that people become recruited into the population of waterfowl hunters through a process of identity development.

Figure 1. Process of identity development for waterfowl hunters from persons who are not waterfowl hunters to eventually waterfowl hunting recruits and retained waterfowl hunters.

- Although behaviors, like going hunting, are important, the foundation for both recruitment and retention within THIP is socio-cultural, and THIP acknowledges that being a waterfowl hunter is largely an emotional enterprise based on an almost unbreakable psychological and cultural attachment to waterfowl and wetlands. It’s not what you do, but who you are that defines you as a waterfowl hunter.
- **Non-waterfowl hunters** are persons who, although they may be aware of waterfowl hunting as an activity, are unaware of the possibility that waterfowl hunters may have a self-perception or identity as a waterfowl hunter.
- **Potential waterfowl hunters** are persons who are aware that waterfowl hunting is more than an activity for some people, that it can be a “way of life,” a “state of mind,” or even a “state of being.”
- **Non-waterfowl hunters** become **Potential waterfowl hunters** through interactions with retained waterfowl hunters and other members of the hunting culture (referred to as “sources of productive power” and become aware of the possibility of developing an identity as a waterfowl hunter. Most importantly, they become familiar with the characteristic attributes that waterfowl hunters in their area associate with being a
waterfowl hunter (e.g. patient, tenacious, conservation-minded, ethical). These characteristic attributes undoubtedly differ from area to area.

- It’s the context that is important. It’s not “I want to hunt for food,” or “I want too hunt to spend time with family and friends,” or “I want to hunt to get away from work pressures.” Rather, it is “a hunter is self-sufficient,” or “a hunter is aware of seasonal rhythms of wildlife,” etc.

- Communication between specific sources of identity producing power in the hunting culture and non-hunters about the characteristics attributes associated with being a waterfowl hunter has diminished greatly in recent years, and needs to be re-established as a cultural process.

- *Potential waterfowl hunters* become *Waterfowl hunting apprentices* when they develop an interest in developing an identity as a waterfowl hunter. Developing interest necessarily requires one to learn to evaluate their personal motivations in the currency of the characteristic attributes of being a waterfowl hunter.

- Learning to evaluate personal motivations in the currency of the characteristic attributes of being a waterfowl hunter requires interaction between potential waterfowl hunters and specific sources of productive power. The interactions that result in one learning how to evaluate whether personal motivations are consistent with the characteristic attributes of being a waterfowl hunter have largely been lost and need to be re-established as a cultural process.

- *Waterfowl hunting apprentices* act on their interest in developing a self-perception or identity as a waterfowl hunter by actively trying-out waterfowl hunting, and developing technical and social competencies in waterfowl hunting.

- Technical competence occurs through repeated hunting rituals that build hunting skills and help apprentices learn how to apply those skills and hunting techniques in different situations. The building of technical competence usually is the cornerstone of most hunter recruitment and retention programs.

- Social competence as a hunter occurs through transformative events and behaviors, referred to as rites-of-passage that are necessary to attain the characteristic attributes of being a waterfowl hunter. The building of social competence is absolutely necessary in the context of identity development, yet is usually lacking from recruitment and retention programs. This element needs to be re-established as a cultural process.

- *Waterfowl hunting recruits* are persons who have attained minimum levels of characteristic attributes associated with being a waterfowl hunter. Recruits are recognized, both in terms of self-perceptions and by others, as having “made it” as waterfowl hunters.

- *Retained waterfowl hunters* are people whose hunting satisfaction is measured in the currency of the characteristic attributes they associate with being a waterfowl hunter. “I am continuing to be as ethical of a waterfowl hunter as I want to be,” or “I am continuing to be as patient as a hunter as I want to be,” or “…as knowledgeable,” or “…as respectful.”

- As long as cultural capacity still exists, retained waterfowl hunters are not likely to stop thinking of themselves as (or acting like) a waterfowl hunter even if their satisfaction is diminished. Rather, they will see that diminished satisfaction as a threat to their identity as a waterfowl hunters, and will act politically and financially to make sure that the threat is addressed.
Strengths of the Identity Model

- Identifies the role of retained hunters in recruiting new hunters by helping people move from the non-hunter to potential, to apprentice stages.
- Addresses long-term processes that are needed to sustain cultural capacity for helping people overcome constraints and match their motivations to waterfowl hunting.
- Thus, provides a bridge between the individual decision model and the capacity model.

Weaknesses of the Identity Model

- Few empirical studies have been conducted using this theoretical framework.
- Need to develop and measure new metrics of success in terms of existing and minimum desired levels of characteristic attributes, transformative rites-of-passage, and self-perceptions.
Appendix D

Key elements of the capacity model

Society level changes influencing the way we interact with each other and nature.

- A transition to a national, material-based economy to a global, information-based economy places new pressures on rural landscapes, businesses, and new opportunities for individuals to participate in economic and consumptive activities less tied to place.
- A shift from productive to consumptive relations defining land use patterns places new demands on the rural landscape (e.g. growth in ex-urbia, increases fragmentation and loss of habitat, and favors land-use policy and development patterns (e.g., urban sprawl and recreational homes at the expense of places to hunt, farm, and ??)
- Improved transportation and changes in communication have overcome bounds of space and time with individuals becoming more connected to “community of interests” and less tied to “community of places.”
- Work, family, recreation, and residence are now more isolated from one another and from their natural surroundings.

The institution of waterfowl hunting and its connection to conservation historically tied to regions and community of places.

- People are seeking new ways to interact with one another through community of interests rather than community of place.
- Community is increasingly defined by shared goals, values, and interests rather than participation a community of place where work, recreation, family, and nature were once much more interwoven.
- Nature is much less embedded in the community, family, and work relations that once defined appropriate uses and relationships with the landscape.

People experience community in a fundamentally different way that has challenged the connections

Individuals are now connected more to community of interests than place-based communities. Community relations are becoming less embedded within localities and more disconnected spatially and temporally from the natural landscape. Nature is becoming a space or place to visit, rather than an extension of family and community relations. Similarly, school, family, and community are increasingly disconnected from daily and seasonal rhythms an governed by time measured by satellites rather than the sun and seasons. The tradition of waterfowl hunting and waterfowl and wetland conservation represented one of many ways in which individuals connected to a particular place/landscape, celebrated the changing of seasons manifested in fall migration, experienced community, and sustained relations with one another and their natural surroundings.

Plan partners define and foster the social landscape conditions needed to sustain waterfowl hunting. Building capacity will entail efforts at the level of interpersonal relations (family,
friends, and associates), communities of place, states, and mass society (and/or community of interests). Capacity largely consists of economic, social, political, cultural, and natural resource (wetlands and waterfowl) capital that supports the institution of waterfowl hunting and waterfowl and wetland conservation.

As individuals and the social relations they maintain become less tied to place, informal recreation is being replaced by more formal forms of recreation. As this change is occurring, and as individuals become more isolated from one another at the local level, educational institutions will play an increasingly important role in creating awareness, communicating social norms and cultural values, as well as shaping behavior, recreational choices, and environmental responsibility.

Wildlife professionals play a key role in sustaining the connection between waterfowl hunting and conservation. However, the ability of the profession to do so in the future will be challenged by a declining number of professionals participating in waterfowl hunting or other consumptive activities and an advancing age among resource agency leadership.

The capacity of different regions to support waterfowl hunting will depend on the social landscape, waterfowl population levels, and habitat available. Increasing hunter numbers beyond the habitat and population carrying capacity may reduce waterfowl hunter retention.