

Adaptive Harvest Management Task Force International Association of Fish & Wildlife Agencies

Final Report

March 11, 2005 DRAFT

This draft report has been sent to the AHM Task Force and the IAFWA Executive Committee for final review. The final report will be submitted to IAFWA Executive Committee on March 17.

Background

Brent Manning, then president of the International Association of Fish and Wildlife Agencies (IAFWA), established the Adaptive Harvest Management (AHM) Task Force (Task Force) in December 2002.

The AHM Task Force mission and tasks were:

Mission

The mission of the AHM Task Force is to foster understanding and support for continued strategic development and implementation of AHM. The Task Force will focus primarily on policy issues, recognizing of course that strategic direction must be consistent with capabilities for science-based monitoring and assessment of the waterfowl resource. Any strategic guidance for AHM also will acknowledge the dependency of waterfowl population abundance on both harvest and habitat availability, the need for direct involvement of the Flyway Councils, and the need for comprehensive, integrated approaches to migratory bird conservation.

Tasks

The AHM Task Force will focus on the following key policy topics:

- (1) Harvest-management objectives: Currently, the basic management objective of the AHM process is to maximize cumulative harvest over an infinite time horizon (recognizing that long-term resource conservation is required to accomplish this objective). In one case (midcontinent mallards), an additional objective is to maintain population size at or above the goal of the North American Waterfowl Management Plan (NAWMP). Are the size of the harvest and NAWMP population goals sufficient for defining the objectives of duck harvest management, or should the objectives be broadened to include other interests such as hunter satisfaction, the distribution of hunting opportunity, or the frequency of regulatory changes?
- (2) The set of regulatory alternatives: Because AHM helps ensure resource protection through an optimal use of specified regulatory alternatives (whatever they may be), proposals to modify the set of regulatory alternatives primarily involve social trade-offs. In this light, how many regulatory alternatives should there be? Among the alternatives,

what are desirable or acceptable ranges of season lengths, bag limits, and framework dates? How often should the set of regulatory alternatives be reviewed and what are appropriate criteria for modifying them?

- (3) The specification of management scales: The harvest potential of duck populations is highly variable among years, across space, and among species. The degree to which AHM accounts for these sources of variation is largely a subjective decision, but one that can strongly influence both the benefits and costs of management. The challenge for managers is to decide what level of management resolution is appropriate given extant monitoring and assessment programs, acceptable regulatory mechanisms, the desires of hunters, and legal mandates for species conservation.
- (4) Communications: The other major element of the Task Force's agenda will involve communication efforts designed to facilitate the development of useful policy guidance. Pro-active communication efforts have been critical to the success of AHM and were the principal focus of the original AHM Task Force in 1995. The Task Force would be responsible for helping to identify stakeholders and target audiences, key messages, necessary actions, and required funding to enhance the long-term success of AHM.

The Task Force was to review alternative approaches to these issues and make recommendations to the U.S. Fish and Wildlife Service (Service) and Flyway Councils for further consideration.

Task Force Composition

Individuals were appointed to the Task Force based on their ability to contribute to the group's mission. Experience with the history and institutional mechanisms of waterfowl management were prerequisites. The Task Force was relatively small, open-minded, and able to embrace a nationwide perspective. The Task Force looked for strategic approaches that could be embraced across Flyways. Members included:

- *Wayne MacCallum*, Atlantic Flyway (MA Division of Fish & Wildlife)
- *Roy Grimes*, Mississippi Flyway (KY Dept. Fish & Wildlife Resources)
- *John Cooper*, Central Flyway (SD Game, Fish & Parks Department)
- *Don Childress*, Pacific Flyway (MT Fish, Wildlife & Parks)
- *Ken Babcock* (Ducks Unlimited)
- *Rollie Sparrowe* (Wildlife Management Institute, retired)
- *Ken Williams* (USGS Cooperative Research Units)
- *Ralph Morgenweck* (U.S. Fish and Wildlife Service)

Dave Case (D. J. Case & Associates) served as facilitator for the Task Force and *Fred Johnson* (U.S. Fish and Wildlife Service) and *Mike Johnson* (North Dakota Game and Fish Department) served as technical representatives from the AHM Working Group

Operating Procedures

The Task Force was analogous to the AHM technical Working Group, in that it was an advisory body without decision-making powers. Like the AHM Working Group, the Task Force

assembled information, reviewed and discussed alternative approaches, and made non-binding recommendations to the IAFWA and Flyway Councils. The Task Force relied heavily on the AHM Working Group and technical/study committees of the Flyway Councils for help in assessing the biological and regulatory implications of alternative policy choices. The Task Force worked closely with the IAFWA and Flyway Councils to establish priorities and timetables for deliverables.

Development of Strategic Guidance for AHM

In Status Report #1 (September 2003), the Task Force recommended that the IAFWA, the four Flyway Councils (both Technical Committees and Councils) and the Service hold a special conference to discuss the strategic direction of AHM. More than 100 members of the waterfowl management community attended the conference, which was held on January 14, 2004 in Denver, Colorado. In its first Status Report and at the conference, the Task Force presented the waterfowl management community with a number of policy questions and challenges concerning the future direction of AHM for regulating duck hunting.

In Status Report #2 (February 2004), the Task Force posed some more specific questions to the Flyway Councils, with the intent of using the Councils' responses to help formulate a set of strategic alternatives for the future direction of AHM.

Status Report #3 (June 2004) detailed seven strategic recommendations for future development of AHM. The report was distributed to the Flyway Councils for their review and to seek their comments.

Status Report #4 (September 2004) included a compilation of responses from the Flyway Councils to Status Report #3 and a request to the AHM Working Group for technical assessments.

Status Report #5 (January 2005) included the Task Force final recommendations regarding the regulatory aspects of AHM.

This Final Report of the Task Force includes:

- The recommendations from Status Report #5 along with additional explanation; and
- Observations and recommendations regarding communications.

All of the Status Reports can be found in full at:

<http://migratorybirds.fws.gov/mgmt/ahm/taskforce/taskforce.htm> and
<http://www.iafwa.org/publications.htm>

Final Recommendations Regarding the Regulatory Aspects of AHM

Following are the final recommendations of the AHM Task Force as detailed in Status Report #5. Some additional explanatory information has been included.

Recommendation A.

The Task Force believes that harvest and habitat management are inextricably linked, and the objectives of both AHM and the NAWMP should explicitly reflect that linkage (Runge et al. 2004; <http://migratorybirds.fws.gov/reports/ahm04/ReuniteNAPlanAHM.pdf>). However, the Task Force agrees with Runge et al. (2004) that population objectives of the NAWMP cannot be interpreted without the context provided by a specified harvest policy and by specification of “average” environmental conditions (e.g., precipitation). The Task Force therefore suggests that managers use the understanding of environmental and harvest dynamics of ducks derived from AHM and other research as a basis to help clarify the nature of the NAWMP population objectives. Certainly, the understanding of population dynamics will continue to evolve, and thus there needs to be an ongoing, joint AHM-NAWMP effort to periodically review population objectives. Ultimately, managers need to be clear about whether NAWMP population objectives represent the optimal level for maximizing harvest yield, a habitat carrying capacity, or something else.

The Task Force therefore recommends that the process articulated by Anderson et al. in their December 22, 2004 memo (Appendix A) be followed. Anderson et al. recommended the establishment of a joint AHM/NAWMP technical group to explore useful ways in which to interpret the NAWMP goals for planning and evaluation in both habitat and harvest management. A report (possibly including recommendations) regarding the implications should be submitted to the NAWMP Plan Committee and Task Force and ultimately forwarded to the Flyway Councils and the SRC by January 2007.

In light of this recommended process, the Task Force recommends the continued use of NAWMP goals in the AHM process.

Recommendation B.

The Task Force recommendations below are based on the following assumptions:

Biological/Technical

- Because hunting regulations provide imprecise control over harvest rates, attempting to implement too many precisely aimed regulatory alternatives is impractical and most often results in the use of prescriptive extremes.
- Some species have a greater ability to sustain harvest than others. A less liberal alternative is a risk averse effort to provide additional protection for species with less harvest potential than mallards. This could help minimize the need for restrictions for some species within the regular duck season.

Policy/Social

- The Task Force feels a component of the hunting public believes that regulations under AHM have been too liberal. Although the best available biological information does not suggest this is the case, this perception may serve to undermine support for the AHM process and management agencies and points to the need to take stakeholder concerns into consideration when dealing with waterfowl harvest.

- Although recent, broad-scale data on hunter perceptions of AHM have not yet been gathered, the Task Force believes that concerns voiced among some hunters should be reflected in its recommendations.

The Task Force recommends:

1. The development of only two regulatory alternatives (in addition to a closed alternative):
 - a. A “standard” alternative, which would:
 - i. Be approximately 15% less in season length from the current liberal season;
 - ii. A 1 duck reduction in bag limit from the current liberal season; and
 - iii. Include the current liberal season framework dates.
 - b. A “conservative” alternative, which would:
 - i. Be approximately 1/3 less in season length than the “standard;”
 - ii. A 1 duck and 1 mallard reduction in bag limit from the “standard;” and
 - iii. Include framework dates of the Saturday closest to October 1 to the Sunday nearest January 20.
2. The use of these regulatory alternatives (standard, conservative, and closed) would be accompanied by the “one-step constraint.” The one step constraint would largely eliminate the chance of moving from a standard to a closed season or vice versa in one year and would greatly reduce the frequency of closed season prescriptions.
3. The set of regulatory alternatives should be reviewed no more often than every five years, coincident with the current review schedule for zone and split-season configurations.
4. Regulatory alternatives should reflect Flyway differences, the preferences and skills of hunters, and law-enforcement capabilities. Flyway differences in packages should be periodically reviewed, but the Task Force believes this assessment is not a high priority at this time.

Recommendation C.

The Task Force supports the effort of the Service to define three breeding populations of mallards, with regulations in each Flyway governed by their respective derivation of birds. This has never been attempted before, and it is not clear that extant monitoring and assessment capabilities can support this degree of spatial resolution. Therefore, the Task Force believes it is necessary to demonstrate the feasibility of this approach before considering further spatial resolution in harvest management.

Recommendation D.

The Task Force recognizes that establishing general duck seasons based on the status of mallards will continue to present difficult challenges for managing the harvests of other stocks with lower harvest potential. Therefore, independent season lengths, bag limits, and framework dates should be considered only for those stocks with relatively low harvest potential (e.g., canvasbacks) or for those stocks with small or declining population sizes (e.g., pintails).

However, such regulations should be practicable and effective in light of extant monitoring programs, administrative burden, regulatory complexity, the ability of hunters to shoot selectively, and enforcement capabilities. The Task Force recommends that partially closed seasons be used only when absolutely necessary.

Recommendation E.

The Task Force was briefed on the Central Flyway's Hunter's Choice experiment by the AHM Working Group. The Task Force did not take any formal action. However, the Task Force recognizes the value of an informed and systematic approach to the communications and human dimensions aspects of waterfowl management by undertaking the Hunter's Choice experiment.

Final Recommendations Regarding Communications

The Task Force recognizes the vital role of communications in enhancing the long-term success of AHM as the process by which waterfowl hunting regulations are set in the U.S. Significant efforts have been made (and will continue to be made) by states, the Service, the outdoor media and NGOs to communicate about waterfowl hunting regulations in general and AHM specifically.

As important as communications is to AHM, it is just as important to the broader area of waterfowl management and indeed wildlife management. It is becoming increasingly difficult to separate issues pertaining to harvest regulation, habitat management, waterfowl populations levels, hunter satisfaction, and both short- and long-term hunter participation.

The work of the Task Force over the past two years has made this point crystal clear. The Task Force feels that the waterfowl management community is at a critical juncture in how we manage waterfowl and their associated habitats on one hand and how we manage hunting (and hunters) on the other hand. It's clear to the Task Force that there is less room today than ever to separate these.

The Goal

The Task Force believes the waterfowl management community must come together to develop and implement a collaborative effort to:

- Better understand waterfowl hunters and constituents;
- Increase the credibility of and support for waterfowl management processes;
- Retain existing and recruit new waterfowl hunters; and
- Build on the success of waterfowl hunters as a force for conservation.

The Approach

This effort should be:

- Integrated—the elements of the goal statement above are intimately related and communications efforts should be reflective of that.

- Data-driven—communications efforts can and should be as data-driven as are management efforts.
- Adaptive—communications efforts should be directed by explicit objectives and implemented in such a way as to be both effective and informative.
- Multi-scale—at national, flyway, state, and local levels.
- Multi-disciplinary—involve researchers, managers, and administrators in waterfowl management, human dimensions, and communications.
- Synergistic with related efforts such as the:
 - Hunter’s Choice experiment in the Central Flyway;
 - Future of Hunting effort being developed by the Wildlife Management Institute; and
 - The Service’s migratory bird hunting Environmental Impact Statement (EIS) process.

Some Considerations

Better Understand Waterfowl Hunters and Constituents

The Wildlife Management Institute’s (WMI) Waterfowl Hunter Satisfaction Think Tank Final Report [<http://www.wildlifemanagementinstitute.org/images/ThinkTank.pdf>] was released in May 2004 and articulates the need for a better understanding of waterfowl hunter perceptions, satisfactions, motivations for (and barriers to) participation, and involvement in conservation activities.

Opportunities and needs exist for new surveys and tools, especially at broader national and regional levels. However, tremendous gains in understanding could be made through coordinated use of existing or planned surveys and other efforts.

An immediate need is a systematic, genuine dialogue or “conversation” with waterfowl hunters across the country. This should be built around face-to-face discussions between waterfowl hunters and managers. Although “presenting” should be part of it, the focus should be on listening, learning, and collaborative discussion. The Service is working on this process in the Central Flyway and perhaps other Flyways. The Service’s EIS process for migratory bird hunting may offer an important opportunity as well.

Increase Credibility and Support

Waterfowl managers perceive that waterfowl hunters lack understanding of how surveys are conducted, the regulations-setting process, AHM, waterfowl dynamics (for example, the relative role of harvest versus habitat in determining population status) and that this lack of understanding results in diminished credibility and support for management activities.

A critical need is for managers to embrace hunter experiences and observations in the field. In other words, managers should listen to concerns that hunters express based on their hunting experiences, acknowledge the concerns, and make efforts to address them through communications and/or other means.

Retain and Recruit Waterfowl Hunters

The effect of various regulatory or management actions on retention or recruitment of waterfowl hunters is often invoked as reasons to support (or oppose) those actions. However, as pointed out in the WMI Think Tank Final Report, relatively little is known about those relationships:

“Without more systematically gathered and appropriate information to guide regulatory decisions, changes to regulations (or other management actions) may not have the intended consequences in terms of waterfowl hunter satisfaction, participation or involvement in conservation. Moreover, we don’t have the information (particularly at the national level) to predict with reliability what the consequences might be and no monitoring tools in place that would allow us to discern changes after the fact.”

Better information is needed on which to base a host of management decisions related to hunter recruitment and retention—from regulatory choices to management of hunting areas to promotion efforts. Managers must also recognize that “long-term participation is primarily influenced by broad-based changes in an individuals’ social and cultural values, many of which are beyond the natural resource manager’s control (WMI Think Tank Final Report).”

Force for Conservation

Waterfowl hunters individually and through various organizations have been a powerful force for waterfowl and waterfowl habitat conservation for decades. The most effective strategy for building on this success is for waterfowl managers to collectively pursue this collaborative effort.

Recommendation F.

The Task Force recognizes that the collaborative communications effort described above reaches beyond AHM and waterfowl hunting regulations. However, the Task Force believes that the long-term health of AHM and the harvest management process will be well served by this type of broad-based effort.

By definition, the list of partners who should be part of this effort is a long one— waterfowl hunting and conservation organizations (local, state, regional, and national), state fish and wildlife agencies, Flyway Councils, the Service, U.S. Geological Survey, universities, outdoor media, etc.

The Task Force recommends that the National Flyway Council (NFC) in partnership with the WMI and the Service convene a strategy team to further this effort. WMI is well positioned to play a coordinating role in this effort as it fits with the “Future of Hunting” effort they have initiated.

Using this final report as a framework, the strategy team should:

1. Identify the immediate next steps to further develop and implement the components of the effort. In particular, gathering systematic information on waterfowl hunters as articulated in the WMI Think Tank Final Report.

2. Identify and pursue sources of funding for carrying out the work. The Task Force believes that funding is available from a variety of sources.
3. Provide an update of their efforts at the IAFWA annual meeting in September 2005.

Recommendation G.

This final report represents the completion of the Task Force work as assigned by the President of the IAFWA in December 2002. The Task Force recommends that the role the Task Force has played over the past two years be assumed by NFC. The NFC may want to consider broadening its representation by including ex officio members appointed by the president of IAFWA.

Appendix A

MEMORANDUM

TO: NAWMP CO-CHAIRS, IAFWA AHM TASK FORCE
FROM: MIKE ANDERSON, FRED JOHNSON, MARK KONEFF, SETH MOTT, ERIC REED AND MIKE RUNGE
SUBJECT: HARMONIZING HABITAT AND HARVEST MANAGEMENT
DATE: DECEMBER 22, 2004

Thoughts about a Process for Clarifying NAWMP Goals and Resolving Their Use in Harvest Management

Waterfowl managers should act soon to clarify NAWMP population goals and resolve their use in harvest management. We have the opportunity now to build on the debates stimulated by recommendations from the IAFWA AHM Task Force and the Runge *et al.* discussion paper on “reuniting” waterfowl management. We need to bring together the two main streams of waterfowl management to resolve the putative conflict between NAWMP and AHM, while recognizing that the Plan Committee “owns” the NAWMP goals and the harvest management agencies “own” oversight of AHM and other harvest policies.

We, the *ad hoc* group of NAWMP Science Support Team (NSST) and Adaptive Harvest Management Working Group (AHMWG) members that have been working on this problem so far have agreed to develop a brief options paper in early 2005 as requested by the Plan Committee. Soon, however, this work should be handed off for further development to a larger and more formally constituted task group on NAWMP goals. We recommend tackling this by something like the process outlined schematically in Figure (1).

Specifically, we urge that the Plan Committee and the IAFWA AHM Task Force sanction and appoint a time-limited Joint Task Group (JTG, a provisional name), consisting of NSST and AHM Working Group members, whose charge it will be to explore more fully the options presented by our *ad hoc* group, and perhaps other options of their own creation, and recommend a preferred alternative solution. By June 2005, the JTG would solicit from their respective full technical committees (NSST and AHMWG) peer review of a preferred solution. Following that technical review, those ideas would be

reconciled and reported by the JTG to the Plan Committee, the IAFWA Task Force and the federal wildlife services responsible for waterfowl population management.

When provisionally agreed upon by the Plan Committee, the Task Force and the federal oversight agencies (CWS and USFWS), the proposed resolution then would be vetted with waterfowl management stakeholders from both the harvest and habitat arenas (e.g., the Joint Ventures, Flyway Councils) during the summer of 2005. This schedule presumes that Plan Committee members and harvest managers converge quickly around a proposed solution; if there are important differences to resolve, the broader consultation might be delayed somewhat.

Following this stakeholder review, the JTG would work with and between the Plan Committee and the harvest management community to reconcile stakeholder input and recommend a final course of action by October, 2005. The Plan committee would then finalize the clarification of NAWMP goals, and the harvest management authorities would reconcile the use of NAMWP goals in AHM, by the end of November.

This ambitious timeline is important because of the need for clarification of Plan goals early in the nascent NAWMP Continental Progress Assessment, the desirability of reconciling use of Plan goals in AHM before the 2006 regulatory cycle, and the desire of the IAFWA Task Force to complete its work early in 2005.

The JTG would be disbanded following completion of this work but the NSST and the AHM Working Group should ensure continuing technical communication. Some minimal overlap of members (2-3?) going forward would be advisable.

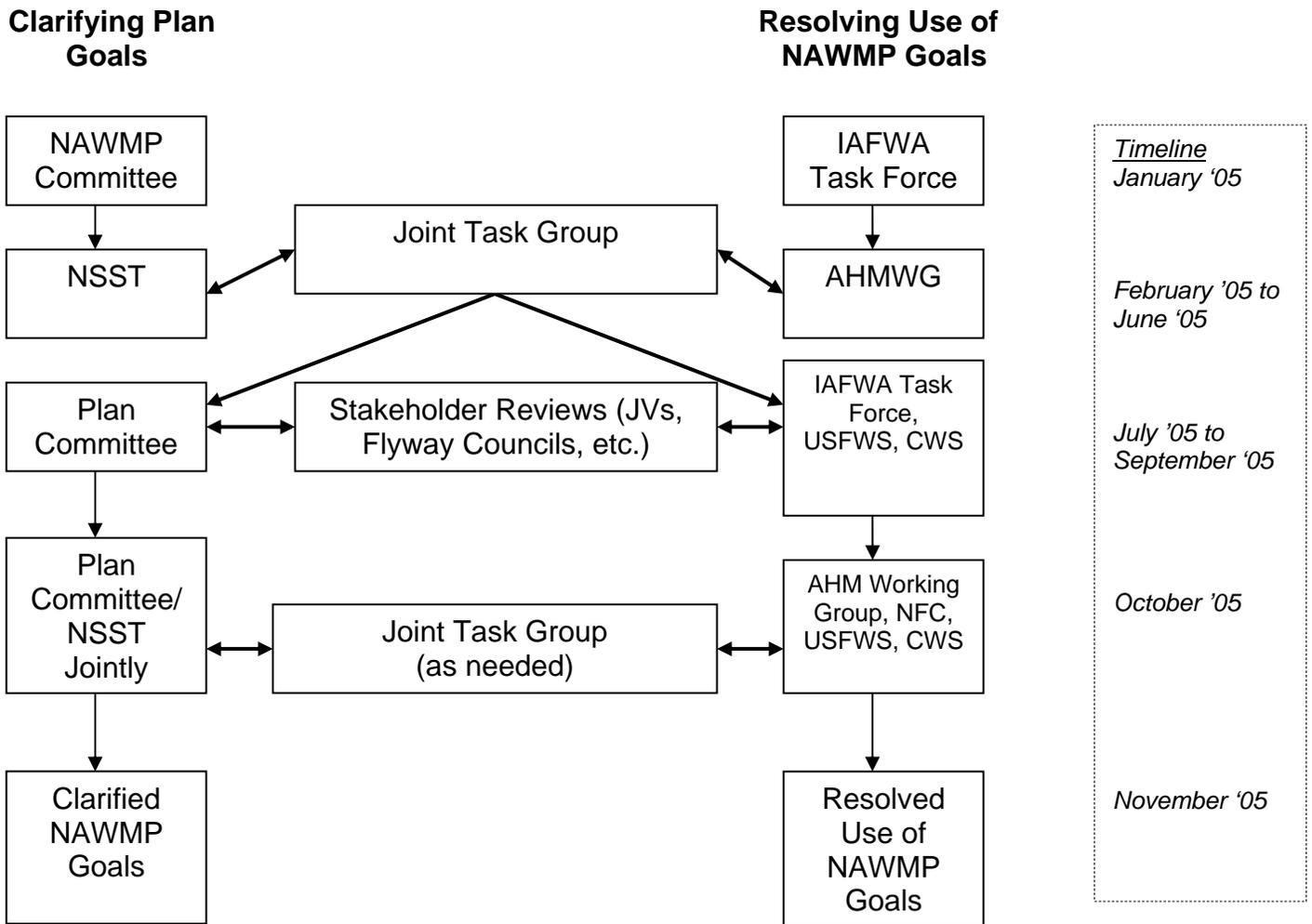


Figure 1. A schematic representation of a dual-track coordinated process for clarifying NAWMP goals and the use of those goals in adaptive harvest management.