

**A 2023 Survey of Waterfowl Professionals:
Insights in Support of the 2024 Update of the North American
Waterfowl Management Plan**

**FINAL REPORT
Update Steering Committee
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Executive Summary

We administered an online survey to waterfowl professionals in April of 2023 to gather input to support the 2024 update of the North American Waterfowl Management Plan (NAWMP). The questionnaire replicated several questions previously asked in 2017. Overall, we received a low response rate resulting in a small sample which limited the ability to: 1) compare results to look for trends; and 2) perform many crosstabulations to segment the audience based on respondents' individual characteristics. Still, the results provide some clear direction and guidance for the 2024 plan update.

- Most of the respondents (82%) were from the United States. Many of the responses came from biologists/scientists (43%), providing context for the results, which tend to prioritize habitat and population assessment over other strategies (e.g., relationship building, policy, etc.) as observed in response to several survey questions.
- Two-thirds of respondents were very or somewhat familiar with NAWMP. Early career professionals and those working for state agencies were less familiar than others and represent a target audience for information and ways to become more engaged with NAWMP.
- A strong majority endorsed all three of the plan's goals as important to continue forward, and generally assigned some improvement in progress towards the seven attributes evaluated under each goal, though few people thought significant progress has been on any goal in any area.
- Seven of the eight recommendations from the 2018 NAWMP Update were also endorsed as important to include in the 2024 update.
- While survey respondents expressed general support for the plans' goals and recommendations on Likert scale ratings of importance, the survey comments suggest a more nuanced assessment among professionals. Numerous comments pointed out that the current wording of goals and recommendations is:
 - Vague
 - Imprecise
 - Double-barreled (and in some cases conflicting)
 - Lacking prioritization or actionable steps
- Most of the survey respondents rated the performance of the Flyway system and Joint Ventures as "Excellent" or "Good", yet three-quarters (75%) also said improvements were needed in coordination of the two bodies. Some survey comments elaborate on this theme.
- A majority rated the performance of Waterfowl Monitoring, the Adaptive Harvest Management system, and collaborations between the U.S. and Canada as "Good" or "Excellent". When asked to rate collaborations between Canada and Mexico or Mexico and the U.S., a majority of respondents selected "Don't Know."
- Habitat management and technical support were two areas where respondents saw the most progress in the implementation of NAWMP, yet when asked, they also wanted greater emphasis placed on these areas.
 - Habitat management was the most highly ranked strategy among a list of 16 for greater

- emphasis going forward.
- Survey comments suggest there remains a need to monitor and evaluate the connection between habitat work and waterfowl population response at multiple spatial scales.
- Survey respondents identified collaborations with stakeholders as the biggest area in need of change to advance waterfowl management. Half of the respondents said a moderate amount of change was needed in collaborations with stakeholders. Yet when asked to rank which priorities needed more emphasis in the 2024 Update, various stakeholder strategies ranked near the bottom.
- From survey comments, it appears there is a lack of conceptual understanding and agreement about what Human Dimensions or Social Science can and should do with respect to plan implementation.
 - Most seem to think they need it but are not sure for what.
 - Others expressed lack of capacity or expertise on how to pursue it.
 - Still other comments reflect an assumption that meaningful behavioral change at individual or societal levels will occur if people are presented more information about the value of wetlands.
- The respondents to this survey were less engaged with service on waterfowl and bird conservation committees than in the 2017 survey. It is hard to say whether this represents a real trend, a difference in audience composition compared with 2017, or an anomaly, but it should be monitored.

Background

The North American Waterfowl Management Plan (NAWMP) was signed in 1986. It has been updated at approximately five-year intervals as required by the NAWMP Plan Committee. The plan was most recently updated in 2018.

The NAWMP Update Steering Committee engaged DJ Case & Associates (DJ Case) to conduct a survey of waterfowl and bird conservation professionals to help evaluate the progress made on the 2018 NAWMP recommendations. Survey results will be used to inform the 2024 NAWMP Update.

The questions included here parallel questions asked in 2017. They are intended to help identify changes, over the past five years, in waterfowl management perspectives, community characteristics, and familiarity and involvement with NAWMP.

Methods

The questionnaire used in this study replicated many of the questions used in the 2017 survey.¹ The questions were developed by a NAWMP steering committee and modified slightly over the years to address plan updates or to remove items that are no longer relevant. We programmed the questionnaire into Qualtrics and invited participants to complete it through emails.

Working closely with the steering committee co-chairs, we compiled a list of waterfowl and bird conservation professionals. This list pulled names and emails from the various NAWMP committee rosters; AFWA's waterfowl working group and bird conservation committee; the North American Wetlands Conservation Council; Joint Ventures' staff, technical committees, and management boards; and the North American Flyways Directory. We sent invitations to 602 individuals on March 30, 2023. Twenty-two of those bounced back as undeliverable. Two follow-up email reminders were sent to non-respondents during April. Two-hundred and forty people clicked on the survey, and 67 percent of those chose to complete it (n=164). This generated an overall response rate of 28 percent.

Limitations

We received a relatively low response rate to the survey resulting in a small sample size (n=164), approximately half of the number received from the survey conducted during the previous plan update in 2017. There are two major factors that likely contributed to the low response to this survey. One, response rates to all surveys regardless of subject or mode of administration have eroded significantly in the past five years as survey fatigue has increased across the population. Survey fatigue has grown as the use of surveys for customer feedback has become ubiquitous in society. Two, survey length, complexity and repetitiveness may have created a large respondent burden reducing participant motivation to complete the effort (related to survey fatigue). The relatively high percentage of people who opened but did not complete the survey suggests that some were put off by its length.

The small sample size precludes the ability to make statistical comparisons on common questions. We do provide side by side comparisons of responses for some questions, and make observations when numbers appear to be different in magnitude. The sample size also prevented us from replicating many

¹ Future of Waterfowl Management Workshop Steering Committee 2017. A Survey of Waterfowl Professionals: Insights in Support of the 2017 Future of Waterfowl Management Workshop and the 2018 Update of the North American Waterfowl Management Plan. Accessed online at <https://nawmp.org/nawmp-udpate/survey-waterfowl-professionals>.

of the crosstabs found in the previous report because doing so would violate assumptions of the Chi-square test.

Results

Respondent Profile

Those who completed the 2023 survey were most likely to come from U.S., work for a state agency, and have 11 or more years' experience in the waterfowl profession (Figures 1-4).

We had a relatively even balance in participation from across the flyways with the exception of the Pacific flyway that comprised 12% of respondents. We observed a slightly higher survey response from waterfowl professionals in the Central and Mississippi flyways.

Compared with the previous survey in 2017, we had a slightly higher proportion of responses from those living in the U.S. and slightly fewer from Canada; Mexico representation remained unchanged and very low.

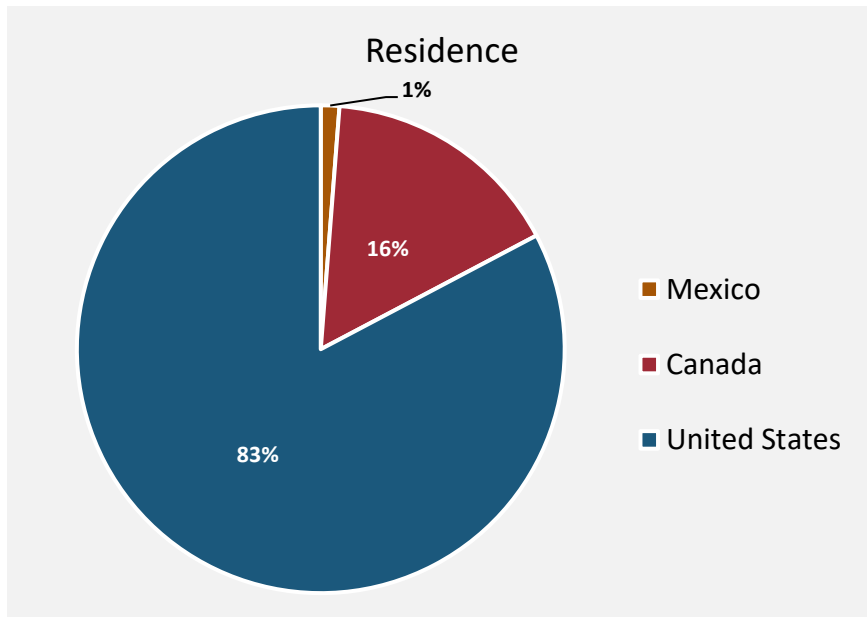


Figure 1: Respondents' country of residence

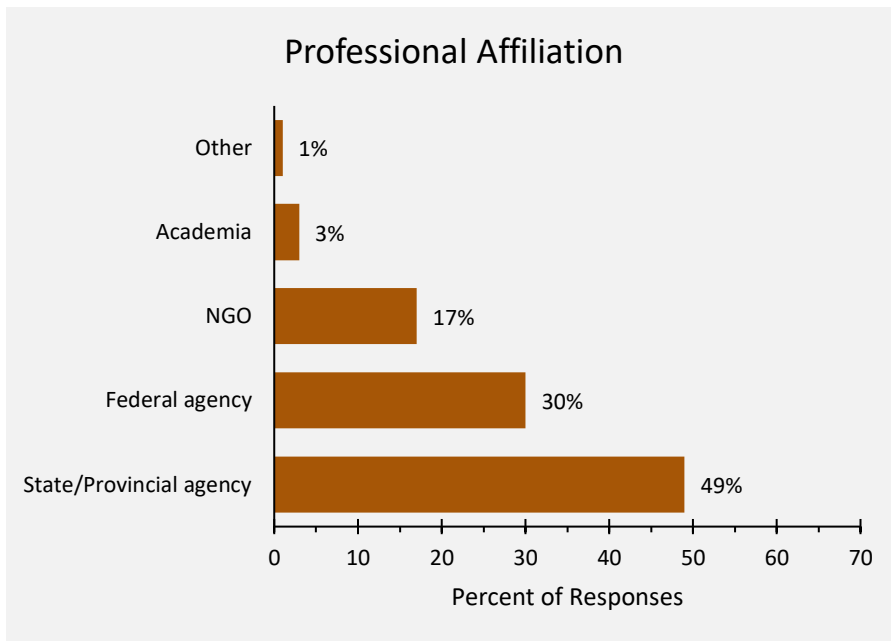


Figure 2: Respondents' professional affiliation

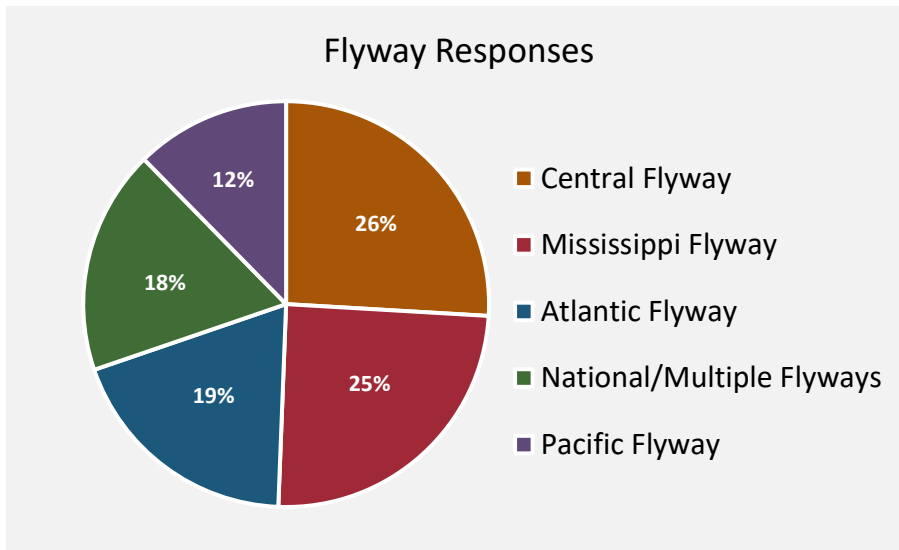


Figure 3: Proportion of responses by flyways

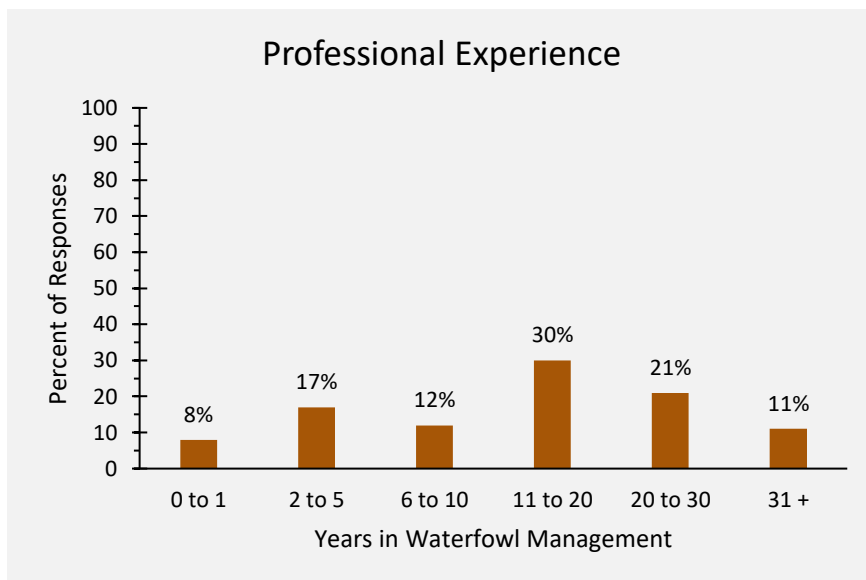


Figure 4: Respondents' professional length of professional experience

Employment affiliation seemed to increase in 2023 for state agency professionals with a corresponding decline in the proportion of respondents from NGOs. State employees made up nearly half (49%) of the response pool this time. The proportion of employees from federal and university segments was similar to the 2017 survey.

It does not appear that there was any difference in years of experience between 2023 and 2017. About two-thirds of the 2023 respondents had 11 or more years of experience. Similarly, respondents reported spending about the same percentage of their time working on waterfowl management as part of their job. The modal response was 1-25 percent of work time on waterfowl, though around a quarter (27%) spent a significant amount of their time, 75 to 100 percent, on waterfowl management (Table 1).

However, the composition of the primary job title of the respondents appears to have shifted somewhat in the 2023 survey (Table 1). Only 6 percent of the current respondents classified their position as Director/ Executive Director, down from 17 percent in 2017. Only eight directors completed the survey this time compared to 51 individuals in 2017. A higher percentage of biologist/ scientists (44%) completed the 2023 survey than did in 2017 (37%).

One third (34%) of the 2023 survey respondents reported they attended the Future of Waterfowl Management Workshop 2 in West Virginia in 2017. Participating in Flyway, Joint Ventures or other meetings about the proposed 2018 update was the most frequently reported (62%) activity. Few respondents served directly on NAWMP committees or provided reviews of the draft 2018 documents (Table 2).

Decline in professional service?

The percentage of respondents who reported currently serving on various waterfowl committees appears to be lower than reported in 2017 (Table 2). For example, there were 15 percent declines in the proportion of respondents' serving on the Joint Ventures Staff or Technical Committee and on the Joint Ventures Management Board. There were 10% fewer members of the Flyway Technical Section and the

Flyway Council in 2023 compared with 2017. There was also a double-digit (12%) decrease among respondents serving on the North American Bird Conservation Initiative. Given the low response rate to the 2023 and the potential for non-respondent bias, it is not possible to determine whether the change in percentages represent a real trend toward declining service or whether we simply captured a different set to professionals this time. However, the lower participation from Directors/Executive Directors – people who are typically most engaged – may be influencing results related to service.

Table 1: Comparison of survey respondents' characteristics, 2023 and 2017

How long have you been active in waterfowl management?				
	2017 Responses	2017 Percent	2023 Responses	2023 Percent
0 to 1 Year	19	6%	13	8%
2 to 5 Years	46	14%	28	17%
6 to 10 Years	53	16%	19	12%
11 to 20 Years	110	32%	49	30%
21 to 30 Years	65	19%	34	21%
31 or More Years	47	14%	18	11%
Many of us wear several hats, but which ONE hat do you most frequently find yourself wearing when it comes to waterfowl management?				
	2017 Responses	2017 Percent	2023 Responses	2023 Percent
Agency Director or Executive Director	58	17%	8	6%
Administrator or Coordinator of a program	129	38%	51	36%
Strategic/Policy Advisor	NA	NA	4	3%
Biologist or Scientist	124	37%	61	44%
Conservation Manager or Technician	NA	NA	2	1%
Researcher/Academic	23	7%	8	6%
Regulations Committee Member*	5	1%	NA	NA
Communications Specialist	NA	NA	2	1%
Social Scientist	NA	NA	4	3%
What is your primary employment affiliation? If you have more than one affiliation, please select the one where you spend more time.				
	2017 Responses	2017 Percent	2023 Responses	2023 Percent
Federal agency	97	29%	49	30%
Non-Government Organization	96	28%	29	17%
Private business	2	1%	NA	NA
State or Provincial Agency	132	39%	80	49%
University	11	3%	5	3%

Table 1 (continued): Comparison of survey respondents' characteristics, 2023 and 2017

Which one best describes the geography where you work?				
	2017 Responses	2017 Percent	2023 Responses	2023 Percent
Atlantic Flyway (including Canada)	69	20%	31	19%
Mississippi Flyway (including Canada)	66	19%	40	24%
Central Flyway (including Canada)	70	21%	42	24%
Pacific Flyway (including Canada and Mexico)	54	16%	20	12%
National/Multiple Flyways	77	23%	29	18%
Mexico and Latin America	5	1%	NA	NA
On average, about what percentage of your duty time do you usually spend on waterfowl management?				
	2017 Responses	2017 Percent	2023 Responses	2023 Percent
0 percent	9	3%	7	4%
1 to 25 percent	141	41%	69	42%
26 to 50 percent	43	13%	22	13%
51 to 75 percent	59	17%	20	12%
76 to 100 percent	90	26%	44	27%
Currently, you reside in which country?				
	2017 Responses	2017 Percent	2023 Responses	2023 Percent
Canada	74	23%	26	26%
Mexico	4	1%	2	1%
United States	237	75%	134	82%

Table 2: Comparison of respondents' involvement in waterfowl and bird committees, 2023 and 2017

Are you currently serving on any of the following?	2017	2023	% Change
Joint Venture Staff or Technical Committee	41%	26%	-15
Flyway Game Technical Section	28%	18%	-10
Joint Venture Management Board	25%	10%	-15
Flyway Nongame Technical Section	16%	7%	-9
Flyway Council	16%	6%	-10
NAWMP Human Dimensions Public Engagement Team (HDPET)	7%	4%	-3
NAWMP Science Support Team (NSST)	9%	4%	-5
AFWA Waterfowl Working Group	NA	4%	NA
AFWA Bird Conservation Committee	NA	4%	NA
NAWMP Harvest Management Working Group (HMWG)	10%	3%	-7
NAWMP Plan Committee	6%	3%	-3
North American Waterfowl Professional Education Plan (NAWPEP)	NA	3%	NA
North American Wetlands Conservation Council (NAWCC)	7%	3%	-4
NAWMP Communications Committee	NA	2%	NA
NAWMP Integration Steering Committee (ISC)	NA	2%	NA
North American Bird Conservation Initiative (NABCI)	14%	2%	-12

Familiarity with NAWMP

Two-thirds of the survey respondents in 2023 were “somewhat” or “very” familiar with NAWMP (Figure 5). It appears the overall level of familiarity among 2023 respondents was slightly lower than those who completed the survey in 2017. Again, it is difficult to know whether this represents a real decrease in awareness across the profession or if the results reflect two slightly different populations.

Among the respondents this time, familiarity increased with the length of career in waterfowl management. Eighty-five percent of those with 30 or more years of experience were “very” or “somewhat familiar.” Among early career professionals – those with 10 or fewer years in the field – 55 percent reported being “slightly” or “not at all” familiar (Table 3).

Seven out of ten professionals said they familiarized themselves with the NAWMP plan update in 2018. Half of the respondents worked within their agency or organization to integrate NAWMP goals in conservation planning. One in five (20%) respondents served on a working group to implement the 2018 plan update.

As one might expect, we see higher levels of NAWMP familiarity among professionals engaged in NAWMP committees (Tables 4). Degree of familiarity lagged somewhat among those involved in flyway councils; 45% of these individuals said they were “slightly” or “not at all” familiar with NAWMP.

Three out of four respondents, with at least 26% of their job duties spent on waterfowl management, were “somewhat” or “very” familiar with NAWMP (Table 7). Six of eight Directors/Executive Directors were “somewhat” or “very” familiar. We were unable to repeat crosstabulations based on job duty, as has been done in the past, due to the low sample size. This low sample size results in smaller than expected cell sizes, which violates the assumptions of the Chi-square test.

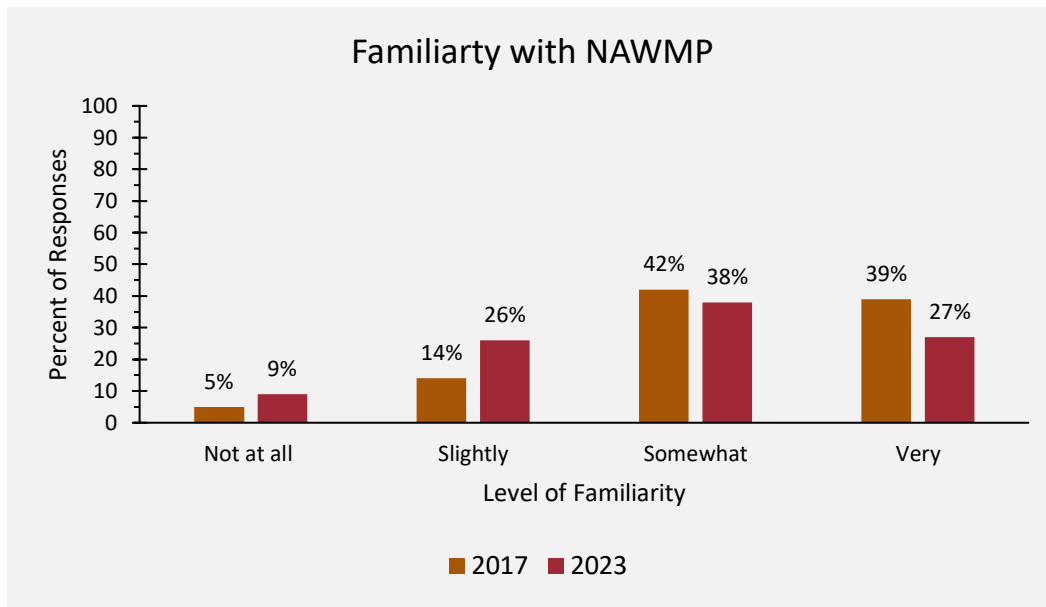


Figure 5: Comparison of respondents' familiarity with NAWMP, 2023 and 2017

Table 3: Crosstabulation for level of familiarity with NAWMP and professional experience

Years of Experience	Not at all familiar	Slightly familiar	Somewhat familiar	Very familiar
0 to 10 years of experience	17%	39%	31%	14%
11 to 20 years of experience	4%	27%	39%	31%
21 or more years of experience	6%	10%	46%	39%

χ^2 (6, N=160), 23.648, $p < 0.001$, Cramer's $V = 0.27$

Table 4: Crosstabulation of level of familiarity with NAWMP by committee type

Committee Type	Not at all familiar	Slightly familiar	Somewhat familiar	Very familiar
NAWMP	0%	10%	40%	50%
Joint Venture	10%	34%	34%	22%
Flyways	12%	33%	40%	15%
Other	25%	17%	33%	25%

χ^2 (6, N=160), 27.34, $p < 0.001$, Cramer's $V = 0.24$

Table 5: Crosstabulation of level of familiarity with NAWMP by waterfowl management duty time

Waterfowl Management Time	Not at all familiar OR Slightly familiar	Somewhat familiar OR Very familiar
0%	100%	0%
1 to 25%	42%	58%
26 to 50%	24%	76%
51 to 75%	25%	75%
76 to 100%	25%	75%

χ^2 (4, N=160), 18.360, $p < 0.001$, Cramer's $V = 0.34$

Assessing the Performance of Waterfowl Management

Most survey respondents attributed success to NAWMP on most of the desired outcomes in waterfowl management over the past five years (Table 6). Large majorities rated NAWMP's success as "High" or "Medium" on the following:

- 95% on Conservation of waterfowl habitats
- 85% on Funding for waterfowl conservation and management
- 82% on NAWMP organizational arrangements that will support achieving NAWMP objectives
- 80% on Goals for harvest and habitat management that are complimentary and consistent
- 78% on Engaging the waterfowl hunting community in conservation behaviors
- 76% on a Clear process for setting/revising population goals
- 68% on Monitoring waterfowl hunters' expectations and satisfaction

Respondents were evenly split on the degree of success NAWMP has had understanding private landowners' expectations. Fifty-two percent of respondents thought NAWMP has facilitated high or medium success with landowners, but 46 percent rated the plan's success over the past five as "low" or "none".

Among desired outcomes, it appears that most professionals do not believe the Plan has had much success engaging, monitoring, and incorporating the non-hunting recreationists (e.g., birdwatchers) in waterfowl management and conservation. Fewer than one in ten respondents rated NAWMP's success as "high" on several measures related to these non-traditional audiences. The modal response on those measures attributed "low success" to the plan.

Fifty-six percent of respondents said NAWMP has had a significant impact on habitat conservation and protection over the past 5 years (Table 7). Four in ten respondents felt that awareness of the need for wetland/upland conservation improved because of NAWMP, but 47 percent said there was No Change. When asked about the degree of impact through NAWMP in other areas, majorities of respondents said there has been "No change" in the following areas:

- Interest in outdoor recreation related to wetlands (56%)
- Waterfowl populations (55%)
- Hunter, viewer, and public support for wetland conservation (53%)
- Interest in waterfowl hunting (51%)

Table 6: NAWMP ratings of success on desired outcomes over the past five years

How successful, if at all, do you think NAWMP has been at encouraging each of the following regarding waterfowl management in North America?	No Success	Low Success	Medium Success	High Success	Total N
Conservation of waterfowl habitats	0%	5%	52%	43%	141
Funding for waterfowl conservation and management	1%	14%	54%	31%	139
Clear process for setting/revisiting waterfowl population goals	2%	22%	50%	26%	133
Goals for harvest and habitat management that are complementary and consistent	2%	18%	59%	21%	130
NAWMP organizational arrangements that will support achieving NAWMP objectives	1%	17%	63%	19%	110
Engaging the waterfowl hunting community in conservation behaviors	2%	19%	60%	18%	125
Monitoring waterfowl hunters' expectations and satisfaction	3%	29%	51%	17%	125
Incorporating hunter satisfaction metrics into waterfowl management goals	7%	33%	48%	12%	118
Engaging landowners in conservation behaviors	3%	36%	52%	9%	122
Fostering broader public awareness, support, and involvement in NAWMP conservation efforts	7%	39%	47%	8%	133
Understanding private landowners' expectations	6%	42%	46%	6%	108
Monitoring birdwatchers' expectations and satisfaction	10%	58%	26%	5%	110
Incorporating birdwatcher satisfaction metrics into waterfowl management goals	21%	58%	16%	5%	104
Monitoring outdoor recreationists' (other than hunters and birdwatchers) expectations and satisfaction	13%	65%	20%	2%	101
Engaging birdwatchers in conservation behaviors	16%	52%	30%	2%	110
Incorporating outdoor recreationist satisfaction metrics into waterfowl management	19%	53%	27%	0%	103

Table 7: Level of impact of waterfowl management through NAWMP over the last five years

Areas of Impact	Significantly Declined	Moderately Declined	No Change	Moderately Improved	Significantly Improved	Total N
Habitat conservation & protection	1%	6%	37%	51%	5%	156
Waterfowl populations	1%	10%	55%	28%	6%	156
Hunter, viewer, and public support for wetland conservation	2%	10%	53%	33%	3%	156
Awareness of the need for wetland/upland conservation	3%	10%	47%	36%	5%	156
Interest in waterfowl hunting	5%	29%	51%	13%	2%	156
Interest in outdoor recreation related to wetlands	2%	15%	56%	23%	4%	156

The performance of the Flyway system over the past five years was rated as “Excellent” or “Good” by 85 percent of the respondents. Many respondents (49%) rated the need for changes in the system as “Minor;” 15 percent said none, and 15 percent thought “moderate” changes were needed (Figure 6).

Joint Ventures received similarly strong reviews. Nine out of ten respondents rated the five-year performance of Joint Ventures as “Excellent” or “Good.” Many respondents (49%) rated the need for changes in the system as “Minor;” but approximately one-quarter did think “moderate” changes were necessary (Figure 7).

Eighty-two percent of respondents rated waterfowl monitoring as “Excellent” or “Good.” Thirty-seven percent believed that “moderate” changes to monitoring were needed, and another one-third (35%) said minor changes were needed (Figure 8).

The Adaptive Harvest Management (AHM) System received “Good” ratings from 41 percent of respondents and “Excellent” from 22 percent. As far as changes needed to AHM, about one-third (35%) answered “Minor” and 24 percent said “Moderate.” Twenty-nine percent did not know whether changes were necessary (Figure 9).

The five-year performance of the U.S. collaborations with Canada was rated as “Good” or “Excellent” by over three-quarters (77%) of respondents. Four in ten felt that only minor changes were needed, and 20 percent said moderate changes were in order (Figure 10). Most respondents did not know enough about U.S. or Canadian collaborations with Mexico to offer assessments (Figures 11 and 12). When it comes to collaborations with stakeholders, most thought the 5-year performance was “Good” (42%) or “Excellent” (18%). However, a majority said that changes were needed (Figure 13).

Figure 6: Flyway System role in successful waterfowl management and need for changes

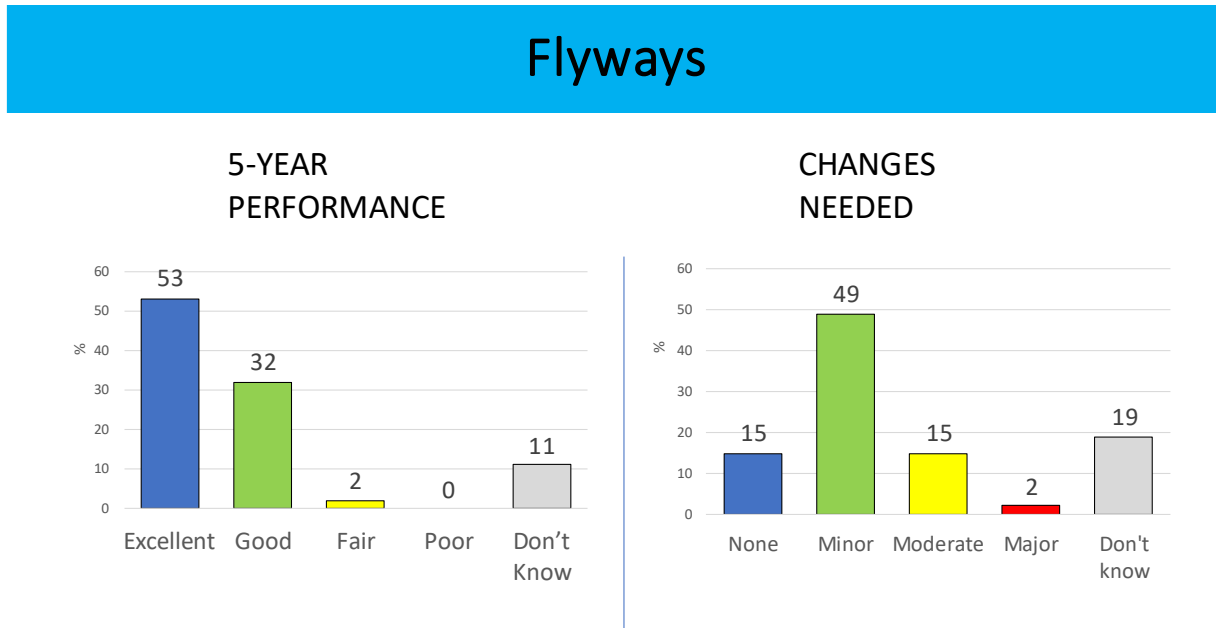


Figure 7: Joint Ventures' role in successful waterfowl management and need for changes

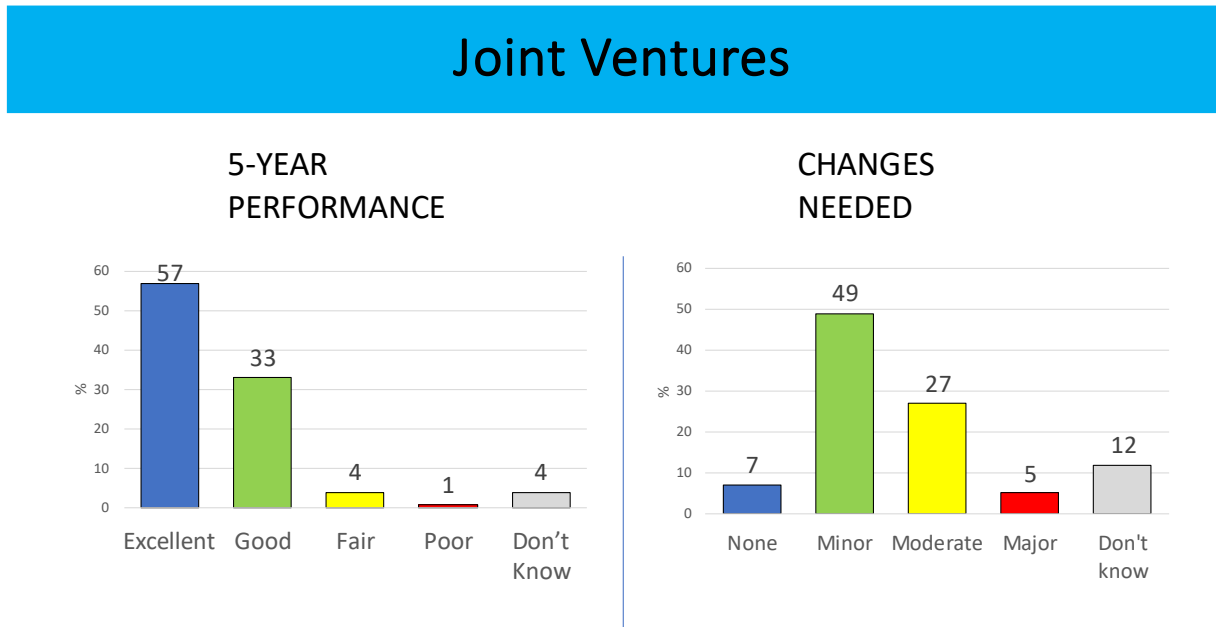


Figure 8: Waterfowl Monitoring role in successful waterfowl management and need for changes

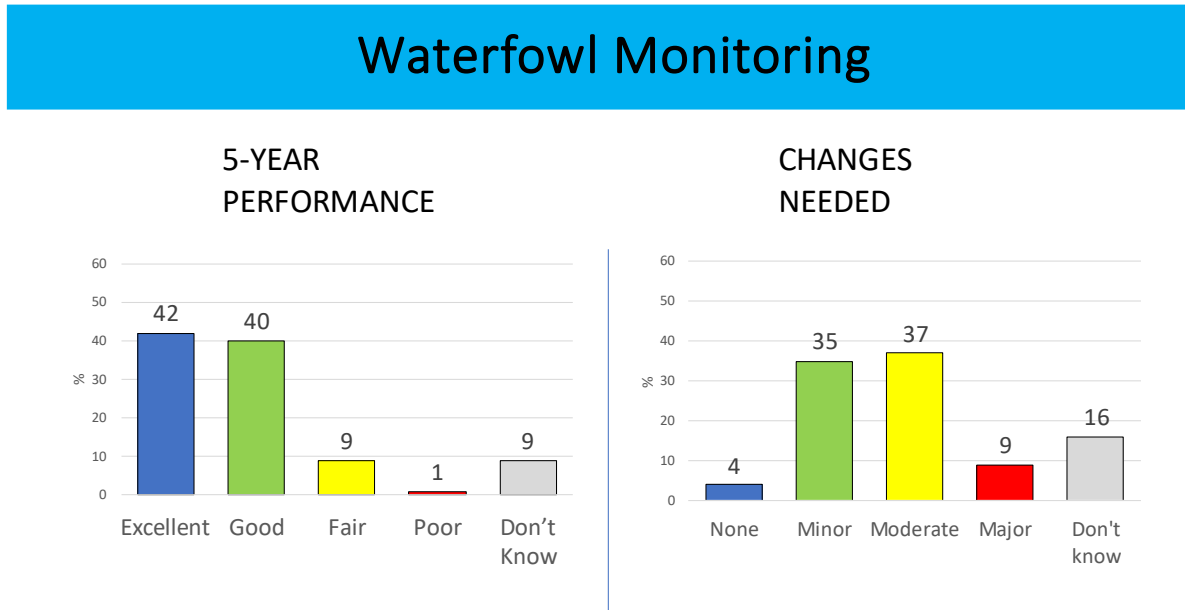


Figure 9: AHM system role in successful waterfowl management and need for changes

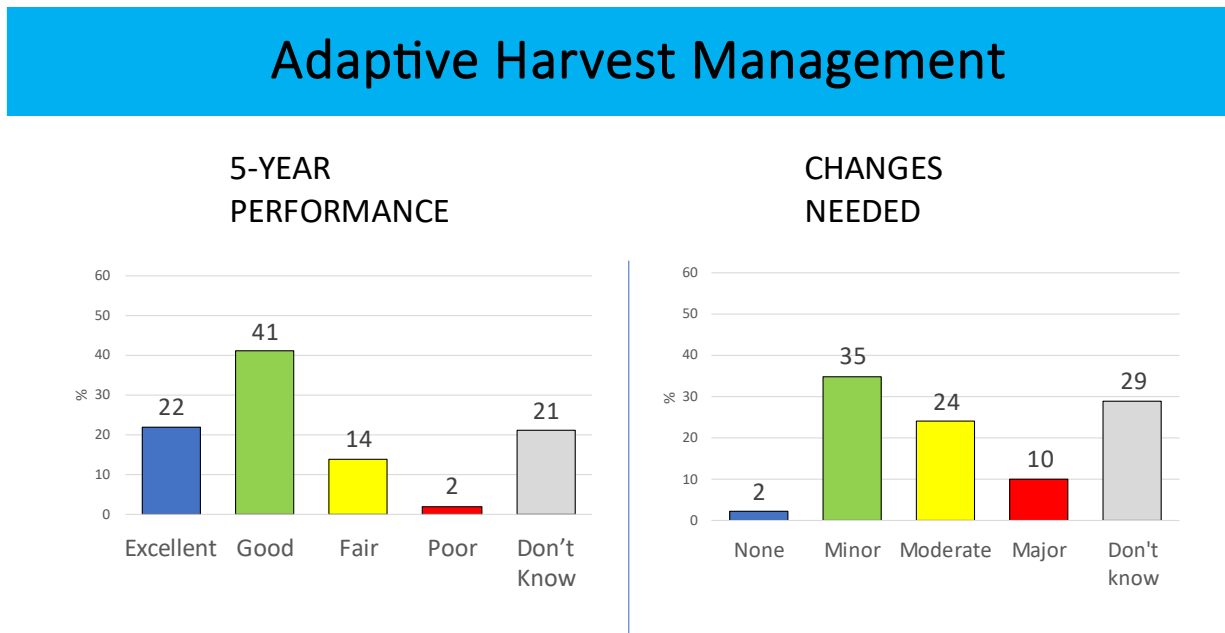


Figure 10: U.S./Canada collaborations' role in successful management and need for changes

Collaborations between U.S. and Canada

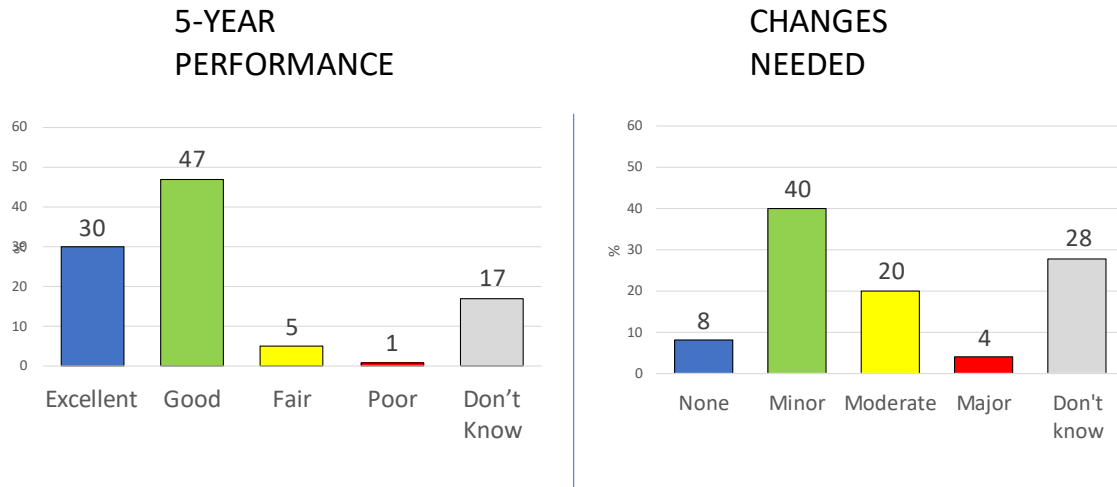


Figure 11: Canada/Mexico collaborations' role in successful management and need for changes

Collaborations between Canada and Mexico

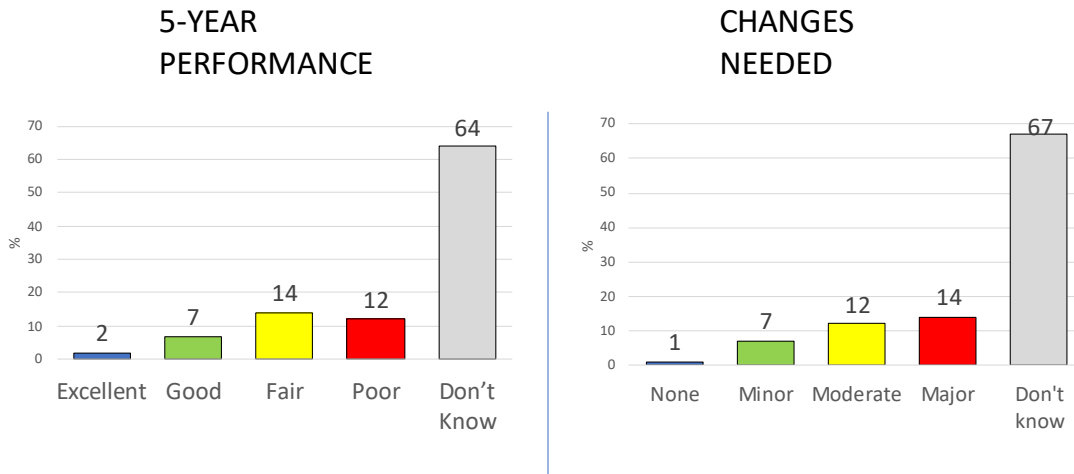


Figure 12: U.S./Mexico collaborations' role in successful management and need for changes

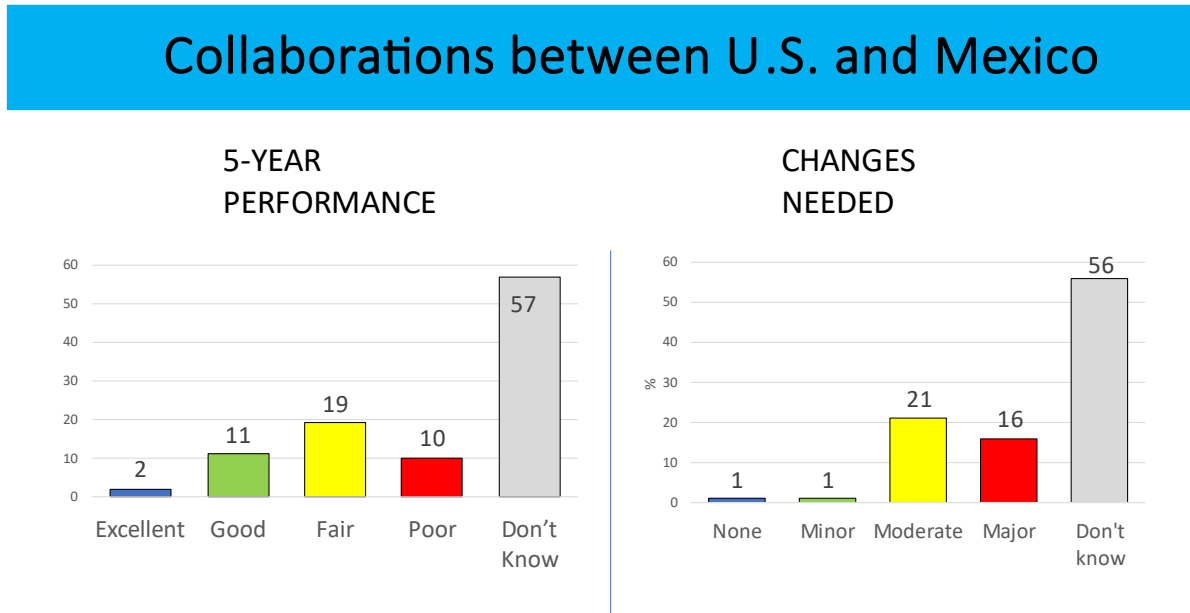
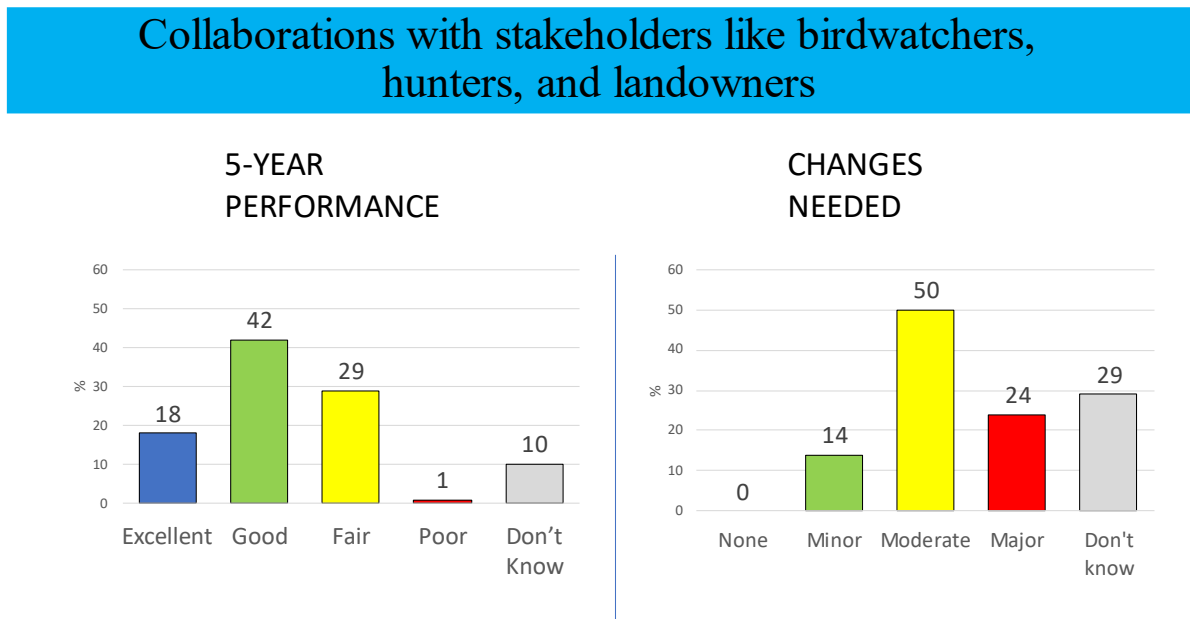


Figure 13: Stakeholder collaborations' role in successful management and need for changes



NAWMP Goal Progress

The 2018 NAWMP Update affirmed the following three overarching goals:

Goal 1: Abundant and resilient waterfowl populations to support hunting and other uses without imperiling habitat.

Goal 2: Wetlands and related habitats sufficient to sustain waterfowl populations at desired levels, while providing places to recreate and ecological services that benefit society.

Goal 3: Growing numbers of waterfowl hunters, other conservationists and citizens who enjoy and actively support waterfowl and wetlands conservation.

In the 2023 survey, we replicated the 2017 survey questions that assessed progress toward these three goals on seven different attributes:

- Habitat management
- Technical/science support
- Coordination across working groups (e.g., HDWG, NSST, HMWG, PET)
- Coordination across policy groups (e.g., NAWMP Committee, NABCI, NAWCC)
- Coordination between working groups and policy groups
- Adaptive management and evaluation
- Funding support

Goal 1: Abundant and resilient waterfowl populations to support hunting and other uses without imperiling habitat.

With respect to achieving abundant and resilient waterfowl populations, 63 percent of respondents rated the progress since 2018 as “significant” or “moderate” with respect to habitat management and technical and science support (Table 8). Ratings for both items appear to be higher than when asked in 2017.

Coordination across working groups also received slightly more favorable progress rating than in 2017 but success toward goal 1 was more measured. Forty-four percent rated progress “significant” or “moderate,” while 38 percent said it was “limited or no progress was apparent”. There was a much lower percentage of respondents who responded “Don’t Know” on this item than in 2017.

Progress toward coordination across policy groups under goal 1 also showed slight improvement between 2017 and 2023, yet a relatively high percentage of respondents opted for “Don’t Know.” The percentage of those choosing “No progress is apparent” fell from 15% to 4% in 2023.

A majority of respondents in both years of the survey think little or no progress has been made on funding, the percentage of who rated progress as “moderate” increased from 16 percent to 25 percent in 2023.

Table 8: Progress made toward NAWMP Goal 1

Goal 1: Abundant and resilient waterfowl populations to support hunting and other uses without imperiling habitat.					
Habitat Management	No Progress	Limited Progress	Moderate Progress	Significant Progress	Don't Know
2017 Survey (n=339)	5%	24%	46%	9%	16%
2023 Survey (n=160)	4%	20%	52%	11%	13%
Technical/Science Support	No Progress	Limited Progress	Moderate Progress	Significant Progress	Don't Know
2017 Survey (n=339)	5%	27%	42%	9%	17%
2023 Survey (n=160)	3%	24%	49%	14%	11%
Coordination across working groups (e.g., NSST, HMWG, HDPET)	No Progress	Limited Progress	Moderate Progress	Significant Progress	Don't Know
2017 Survey (n=339)	9%	35%	23%	2%	31%
2023 Survey (n=160)	5%	33%	38%	6%	19%
Coordination across policy groups (e.g., NAWMP PC, NABCI, NAWCC)	No Progress	Limited Progress	Moderate Progress	Significant Progress	Don't Know
2017 Survey (n=339)	15%	35%	18%	1%	31%
2023 Survey (n=160)	4%	37%	24%	3%	33%
Coordination between working groups and policy groups	No Progress	Limited Progress	Moderate Progress	Significant Progress	Don't Know
2017 Survey (n=339)	12%	37%	18%	1%	32%
2023 Survey (n=160)	6%	37%	23%	4%	31%
Adaptive management and evaluation	No Progress	Limited Progress	Moderate Progress	Significant Progress	Don't Know
2017 Survey (n=339)	9%	32%	30%	5%	24%
2023 Survey (n=160)	5%	30%	37%	4%	23%
Funding support	No Progress	Limited Progress	Moderate Progress	Significant Progress	Don't Know
2017 Survey (n=339)	37%	27%	16%	1%	18%
2023 Survey (n=160)	20%	33%	25%	3%	19%

Goal 2: Wetlands and related habitats sufficient to sustain waterfowl populations at desired levels, while providing places to recreate and ecological services that benefit society.

Respondent rating of progress on Goal 2 attributes show a similar pattern of results as Goal 1 progress ratings; there appears to be a slight increase in progress on most items, other than for habitat management which was similar (Table 9). The relatively high percentage of professionals who responded “don’t know” to many of these items suggests that they are not engaged enough to offer an opinion.

The modal response (45%) indicates that “moderate progress was made on habitat management under Goal 2. Twenty-nine percent of respondents said that habitat management progress was limited. A majority (54%) of 2023 survey respondents said that science and technical support progress was “moderate or significant” compared with 46 percent in these categories in 2017.

Opinions about progress toward coordinating across working groups was evenly divided in 2023 – 32 percent rated progress as “moderate” and 35 said it was “limited.” One in four respondents didn’t know.

Most respondents (60%) either thought moderate progress was made working across policy groups or they selected “don’t know.”

Table 9: Progress made toward NAWMP Goal 2

Goal 2: Wetlands and related habitats sufficient to sustain waterfowl populations at desired levels, while providing places to recreate and ecological services that benefit society.					
Habitat Management	No Progress	Limited Progress	Moderate Progress	Significant Progress	Don't Know
2017 Survey (n=339)	5%	30%	43%	6%	16%
2023 Survey (n=160)	4%	29%	45%	9%	13%
Technical/Science Support	No Progress	Limited Progress	Moderate Progress	Significant Progress	Don't Know
2017 Survey (n=339)	6%	29%	40%	6%	20%
2023 Survey (n=160)	4%	27%	47%	7%	17%
Coordination across working groups (e.g., NSST, HMWG, HDPET)	No Progress	Limited Progress	Moderate Progress	Significant Progress	Don't Know
2017 Survey (n=339)	10%	32%	22%	1%	35%
2023 Survey (n=160)	4%	35%	32%	4%	25%
Coordination across policy groups (e.g., NAWMP PC, NABCI, NAWCC)	No Progress	Limited Progress	Moderate Progress	Significant Progress	Don't Know
2017 Survey (n=339)	15%	31%	18%	0%	35%
2023 Survey (n=160)	4%	34%	24%	2%	36%
Coordination between working groups and policy groups	No Progress	Limited Progress	Moderate Progress	Significant Progress	Don't Know
2017 Survey (n=339)	13%	31%	18%	0%	37%
2023 Survey (n=160)	5%	35%	22%	3%	35%
Adaptive management and evaluation	No Progress	Limited Progress	Moderate Progress	Significant Progress	Don't Know
2017 Survey (n=339)	13%	32%	23%	3%	29%
2023 Survey (n=160)	6%	39%	22%	2%	29%
Funding support	No Progress	Limited Progress	Moderate Progress	Significant Progress	Don't Know
2017 Survey (n=339)	33%	29%	17%	1%	20%
2023 Survey (n=160)	14%	24%	25%	5%	22%

Goal 3: Growing numbers of waterfowl hunters, other conservationists, and citizens who enjoy and actively support waterfowl and wetlands conservation.

Like the previous two goal assessments, respondents were slightly more positive about the progress made toward growing waterfowl hunters and conservationists than they were in 2017 (Table 10). That said, almost no one thinks there has been significant progress made on any of the attributes. Most ratings lean toward “limited progress” or “don’t know.” Technical and science support was the attribute where respondents felt most progress was made for Goal 3, this may be a result of recognizing the growing implementation and evaluation of R3 programs. One consideration in interpreting these results is the potential for the link between this goal and the seven attributes to be less intuitively clear.

Table 10: Progress made toward NAWMP Goal 3

Goal 3: Growing numbers of waterfowl hunters, other conservationists, and citizens who enjoy and actively support waterfowl and wetlands conservation.					
	No Progress	Limited Progress	Moderate Progress	Significant Progress	Don't Know
Habitat Management					
2017 Survey (n=339)	22%	36%	16%	2%	23%
2023 Survey (n=160)	14%	45%	24%	1%	19%
Technical/Science Support					
2017 Survey (n=339)	19%	36%	19%	2%	23%
2023 Survey (n=160)	9%	37%	34%	1%	17%
Coordination across working groups (e.g., NSST, HMWG, HDPET)					
2017 Survey (n=339)	18%	31%	14%	1%	36%
2023 Survey (n=160)	14%	38%	21%	1%	27%
Coordination across policy groups (e.g., NAWMP PC, NABCI, NAWCC)					
2017 Survey (n=339)	19%	31%	11%	1%	39%
2023 Survey (n=160)	16%	35%	14%	1%	36%
Coordination between working groups and policy groups					
2017 Survey (n=339)	22%	30%	12%	0%	36%
2023 Survey (n=160)	16%	33%	15%	1%	36%
Adaptive management and evaluation					
2017 Survey (n=339)	26%	30%	12%	1%	31%
2023 Survey (n=160)	17%	36%	15%	1%	31%
Funding support					
2017 Survey (n=339)	39%	26%	9%	1%	25%
2023 Survey (n=160)	19%	42%	17%	1%	22%

NAWMP Recommendations Progress

The 2018 NAWMP Update included eight recommendations to support waterfowl management and conservation work in North America. Respondents were asked about the progress made on these items (Table 11) and whether they were important to include in the 2024 update (Table 12). Recommendation 1 – focusing on waterfowl habitat and population objectives – progressed more than any of the recommendations. Forty-one percent of professionals assigned a “moderate” progress rating for the first recommendation. Another 41 percent said progress was “limited.” Progress on recommendation number 6, “Share knowledge from all work to integrate and balance the needs of habitat, waterfowl, and people” was the next highest rated for progress. Thirty-five percent of respondents respectively said progress was “moderate” or “limited.” Six out of ten respondents said there was limited progress on recommendations 2 and 3 – getting people to understand the benefits of waterfowl habitat and take action to conserve it (Table 11). Most respondents did not have an opinion on the final recommendation, which required an insider’s knowledge most likely do not have. Except for recommendation number 8, the others were all rated as important to keep in the 2024 plan update (Table 12). There was little variation in the magnitude of importance assigned to the first seven recommendations; relatively speaking, respondents viewed most as equally important. Focusing on habitat and compelling people to take conservation action were the two recommendations that drew the highest percentages of people rating them as “very important.” About half of the respondents (49%) were neutral about including recommendation number 8 in the plan update.

Table 11: Progress made toward NAWMP recommendations

Recommendations	No Progress	Limited Progress	Moderate Progress	Significant Progress	Don't Know
1) Focus conservation actions on waterfowl habitat and population management objectives and incorporate social science into planning and program delivery.	3%	41%	41%	4%	10%
2) Help people understand the opportunities for conservation and outdoor recreation resulting from NAWMP and how society benefits from waterfowl habitat.	6%	60%	21%	0%	14%
3) Compel people to take action to conserve waterfowl habitat	14%	60%	11%	0%	14%
4) Identify key geographic areas where the best opportunities exist to meet the needs of waterfowl and people.	3%	36%	37%	4%	20%
5) Establish a process to review and update NAWMP objectives every 10 years and provide guidance on implementation.	2%	22%	28%	10%	37%
6) Share knowledge from all work to integrate and balance the needs of habitat, waterfowl, and people.	3%	35%	35%	4%	23%
7) Bolster training programs for future waterfowl management professionals.	8%	36%	24%	9%	24%
8) Replace the Interim Integration Committee with a new system of liaisons between the Plan Committee and the working groups and appoint ex-officio members from the working groups to the Plan Committee.	3%	12%	11%	4%	70%

Table 12: Importance of including 2018 recommendations in 2024 update

Recommendations	Very Unimportant	Somewhat Unimportant	Neither	Somewhat Important	Very Important
1) Focus conservation actions on waterfowl habitat and population management objectives and incorporate social science into planning and program delivery.	3%	6%	7%	36%	47%
2) Help people understand the opportunities for conservation and outdoor recreation resulting from NAWMP and how society benefits from waterfowl habitat.	7%	6%	5%	38%	42%
3) Compel people to take action to conserve waterfowl habitat	6%	7%	4%	32%	51%
4) Identify key geographic areas where the best opportunities exist to meet the needs of waterfowl and people.	4%	8%	11%	42%	35%
5) Establish a process to review and update NAWMP objectives every 10 years and provide guidance on implementation.	3%	9%	15%	44%	29%
6) Share knowledge from all work to integrate and balance the needs of habitat, waterfowl, and people.	4%	5%	14%	41%	36%
7) Bolster training programs for future waterfowl management professionals.	8%	6%	12%	42%	33%
8) Replace the Interim Integration Committee with a new system of liaisons between the Plan Committee and the working groups and appoint ex-officio members from the working groups to the Plan Committee.	8%	14%	49%	26%	4%

Moving forward with the 2024 update

We asked survey respondents to rank 16 areas for possible increased emphasis in the 2024 NAWMP Update (Table 13). Forty-two percent of respondents ranked habitat protection and management as their top ranked choice (mean rank of 2.68). “Monitoring waterfowl habitat trends and the success of conservation efforts” was the next highest with a mean rank of 4.3.

Table 13: Priority ranking of areas for greater emphasis in the 2024 NAWMP Update

Rank in priority order where 1 is highest priority and 15 is lowest priority.	Mean Rank	Standard Deviation	Variance	N
Habitat protection and management	2.68	2.23	4.96	149
Monitoring waterfowl habitat trends and the success of conservation efforts	4.3	2.71	7.37	149
Monitoring waterfowl population abundance and demographics	5.04	3.61	13.01	149
Ecological goods and services	6.56	3.5	12.23	149
Policy efforts to conserve waterfowl	7.62	4.26	18.17	149
Hunter recruitment, retention, and reactivation	7.78	4.05	16.41	149
Engaging support from the general public	7.95	3.52	12.41	149
Effective integration of objectives for harvest, habitat, and people	8.01	3.65	13.29	149
Monitoring waterfowl hunter participation, demographics, expectations, and satisfaction	8.75	3.28	10.76	149
Incorporating private landowners' expectations into management programs	9.74	3.2	10.23	149
Waterfowl harvest regulations	9.83	3.71	13.74	149
Recognition and engagement of private landowners who contribute to waterfowl management	9.9	4.11	16.86	149
Increasing diversity, equity, inclusion, and access initiatives to broaden support for waterfowl and wetland conservation	10.36	4.31	18.55	149
Engaging support from birdwatchers	11.05	3.49	12.21	149
Increasing the number and diversity of industry/corporate partners	11.18	3.62	13.11	149

Strong majorities of respondents agreed that greater attention should be paid to following areas of waterfowl management:

- monitoring and evaluation of waterfowl habitat (79%)
- monitoring and evaluation of waterfowl populations (74%)
- monitoring and evaluation of waterfowl conservation supporters (63%)

Only 18 percent agreed that more attention should be focused on the regulations setting process; 45 percent disagreed that more focus is needed on regulations. Three out of four survey respondents

agreed that the attention to waterfowl and wetlands protection has declined at the federal level; 57 percent also agreed it has declined at the state and provincial level. Forty-six percent of respondents disagreed that attention to waterfowl and wetlands protection has declined among NGOs, while 31 percent neither agreed nor disagreed with the statement (Table 14).

When asked about several statements regarding NAWMP and waterfowl management institutions most respondents agreed there was a need for greater coordination within Joint Ventures and Flyways, as well as between the Joint Ventures and Flyways (Table 15). Seven in ten respondents agreed that ongoing review and possible restructuring of waterfowl management institutions following adaptive management principles was appropriate. While 70 percent agreed that NAWMP organizational structures were largely functional, 70 percent also thought the integration among policy groups should be increased. About one-third of respondents disagreed that the current depth and breadth at the policy level was adequate (38%) and that NAWMP organizational arrangements were sufficient to ensure progress toward achieving the 2018 Update people goal.

Table 14: Level of agreement with statements regarding management strategies

Statements	Strongly Disagree	Somewhat Disagree	Neither	Somewhat Agree	Strongly Agree
Resources dedicated to waterfowl habitat conservation should be reallocated among important waterfowl landscapes.	7%	18%	28%	32%	15%
Greater attention should be placed on the annual regulations setting process.	10%	35%	37%	12%	6%
Greater attention should be placed on monitoring and evaluation of waterfowl populations.	1%	11%	14%	46%	28%
Greater attention should be placed on monitoring and evaluation of waterfowl habitat.	1%	5%	14%	39%	40%
Greater attention should be placed on monitoring and evaluation of waterfowl conservation supporters.	1%	7%	29%	47%	16%
Attention to waterfowl and wetlands protection and management has declined at the federal level.	4%	8%	13%	38%	37%
Attention to waterfowl and wetlands protection and management has declined at the state/provincial level.	5%	22%	16%	41%	16%
Attention to waterfowl and wetlands protection and management has declined among NGOs.	9%	37%	31%	19%	4%

Table 15: Level of agreement with statements regarding NAWMP and waterfowl management institutions

Statements	Strongly Disagree	Somewhat Disagree	Neither	Somewhat Agree	Strongly Agree
Greater coordination between Joint Ventures and Flyways is needed.	3%	7%	15%	52%	24%
Existing NAWMP organizational structures and processes of waterfowl management are largely functional.	1%	11%	18%	49%	21%
Ongoing review and possible restructuring of waterfowl management institutions, following adaptive management principles, is appropriate.	2%	10%	18%	48%	22%
Integration among policy groups (NAWMP Committee, NABCI, NAWCC, etc.) should be increased.	4%	6%	21%	44%	26%
Greater coordination among Joint Ventures and Flyways is needed.	3%	6%	21%	50%	19%
Coordination of adaptive management across NAWMP organizational structures should be improved.	1%	6%	25%	56%	12%
The depth and breadth of technical expertise are adequate among various waterfowl working groups.	2%	15%	14%	38%	30%
NAWMP organizational arrangements are sufficient to ensure progress toward achieving the population goal of the 2018 NAWMP Update.	3%	12%	27%	51%	8%
NAWMP organizational arrangements are sufficient to ensure progress toward achieving the habitat goal of the 2018 NAWMP Update.	1%	17%	30%	45%	8%
Linkages between technical working groups and the NAWMP plan committee are improving.	3%	10%	37%	39%	11%
Current NAWMP organizational structures and processes are sufficient to ensure the future relevance of waterfowl management.	5%	23%	25%	43%	4%
Integration across waterfowl working groups is adequate.	5%	21%	31%	37%	7%
Currently, the depth and breadth at the policy level are adequate.	9%	29%	26%	31%	5%
NAWMP organizational arrangements are sufficient to ensure progress toward achieving the people goal of the 2018 NAWMP Update.	7%	30%	32%	30%	2%

Discussion and Implications

The results of this questionnaire administered to waterfowl professionals suggest several implications for the Update Steering Committee and, ultimately, the NAWMP Plan Committee as they consider revisions for the 2024 NAWMP Update. However, we get the sense that the relatively high levels of support for Plan components is shallow and somewhat uniformed. In other words, we think some of the support reflects a general tendency to agree with the status quo when many of the respondents have only a nominal understanding of the mechanics of NAMWP. It is, after all, a complex enterprise and set of actors to explain easily. In that sense, the quantitative and qualitative (i.e., comments) paint somewhat different stories and that subset of respondents who took the time to enter comments may represent professionals with a higher level of engagement in the past. We urge readers to consider these observations when considering how to apply the survey results.

We offer a few recommendations based on the survey data here and will offer more in a follow-up document that folds together numerous assessments.

1. Covid clearly eroded the opportunity and ability to be involved in the waterfowl community. There is a need to push to reengage people to participate in committees. Hopefully, some of this will occur organically as meetings and conferences have resumed. But leaders may want to consider a concerted effort to recruit people, especially early career professionals, onto committees and boards.
2. There is a sense that federal and state agencies have placed less emphasis on the importance of waterfowl management. NAWMP can play an important role in elevating wetland and waterfowl conservation among directors. This might represent the most logical and appropriate scale of influence for the plan.
3. It may be time to revisit and clarify the three goals in their language and intent. Numerous comments point to the fact that the goals, as written, are vague, imprecise, and lacking clear directions. Similarly, the link between goals and recommendations added during the last update is not clear.
4. Part of the exercise of clarifying goal language can be an opportunity to revisit the priorities of the plan. Currently, the goals point toward emphasizing efforts to 1) grow waterfowl populations, 2) protect and manage habitats, and 3) balance and integrate the views of various stakeholders into management. While these three general ambitions are assumed to be of equal importance, survey respondents express a clear preference, if not comfort level, for strategies that involve habitat and waterfowl monitoring. In many ways, this reflects the historic and dominant paradigm of the profession and their partnership with hunters, which may impact the ability to lead a culture shift to a broader constituency of supporters who could assist, if sufficiently motivated and engaged, in achieving habitat and waterfowl objectives.
5. There is support for the notion of integrating social science or HD into NAWMP, but also a lack of clarity about how or what that means. The 2024 NAWMP Update should confront assumptions about what it might mean for integrating public sentiment through application of social science data. Is social science a means to an end or an end in and of itself? In other words, is the role of social science expected to serve the accomplishment of growing waterfowl, increasing habitats, and touting their recreational benefits (the old paradigm), or is the community open to adapting a new paradigm based on what social science may tell us about people's values and desired benefits?

Appendices

Appendix A: Complete Questionnaire Results

Q1. How familiar are you with the 2018 NAWMP Update document?

Response	Percent	N
Not familiar at all	9%	15
Slightly familiar	26%	42
Somewhat familiar	38%	61
Very familiar	27%	43
Total	100%	161

Q2. Did you participate in any of the following activities leading up to the 2018 NAWMP Update?

Activities	No (%)	No (N)	Yes (%)	Yes (N)	Total
Attended the Future of Waterfowl Management Workshop 2 in West Virginia in 2017	66%	103	34%	52	155
Participated in discussions at Flyway, Joint Venture, or other meetings about the proposed Update	38%	61	62%	100	161
Served on the Update Steering Committee, writing team, or Update technical committee	90%	136	10%	15	151
Reviewed or commented on drafts on the 2018 NAWMP Update	72%	113	28%	43	156

Q3. Were you involved in the following activities during the implementation of the 2018 NAWMP Update?

Activities	No (%)	No (N)	Yes (%)	Yes (N)	Total
Familiarized myself with the 2018 NAWMP Update	30%	49	70%	112	161
Familiarized others in your agency or organization with the 2018 NAWMP Update	72%	113	28%	43	156
Served on one or more working groups implementing the 2018 NAWMP Update	72%	113	28%	43	156
Worked within your agency or organization to integrate NAWMP goals into conservation planning	50%	78	50%	79	157
Worked within your agency or organization to implement strategic actions in support of the 2018 NAWMP Update	54%	83	46%	71	154
Other, please specify	93%	41	7%	3	44

Q4. How long have you been active in waterfowl management?

Response	Percent	N
0 to 1 year	8%	13
2 to 5 years	18%	28
6 to 10 years	12%	19
11 to 20 years	30%	49
20 to 30 years	21%	34
31 or more years	11%	18
Total	100%	161

Q5. Many of us wear multiple hats. When it comes to waterfowl management, which hats do you wear?
Please select all that apply.

Response	Percent	N
Director/Executive Director	5%	15
Administrator/Coordinator of a program	27%	77
Strategic/Policy Advisor	7%	21
Biologist/Scientist	39%	114
Conservation Manager or Technician	6%	18
Researcher/Academic	10%	28
Communication Specialist	2%	6
Social Scientist	4%	10
Total	100%	289

Q6. Which of these hats do you wear most often when it comes to waterfowl management? Please select only one.

Response	Percent	N
Director/Executive Director	6%	8
Administrator/Coordinator of a program	36%	51
Strategic/Policy Advisor	3%	4
Biologist/Scientist	44%	61
Conservation Manager or Technician	1%	2
Researcher/Academic	6%	8
Communication Specialist	1%	2
Social Scientist	3%	4
Total	100%	140

Q7. Are you currently serving on any of the following? Please select all that apply.

Response	Percent	N
Joint Venture Staff or Technical Committee	26%	80
Flyway Game Technical Section	18%	56
Joint Venture Management Board	10%	31
Flyway Nongame Technical Section	7%	21
Flyway Council	6%	19
NAWMP Science Support Team (NSST)	4%	12
NAWMP Human Dimensions Public Engagement Team (HDPET)	4%	13
AFWA Bird Conservation Committee	4%	11
AFWA Waterfowl Working Group	4%	12
NAWMP Plan Committee	3%	8
NAWMP Harvest Management Working Group (HMWG)	3%	9
North American Wetlands Conservation Council (NAWCC)	3%	8
NAWMP Communications Committee	2%	7
NAWMP Integration Steering Committee (ISC)	2%	6
North American Bird Conservation Initiative (NABCI)	2%	6
Total	100%	307

Q8. What is your primary employment affiliation?

Response	Percent	N
Federal agency	30%	49
Non-governmental organization	17%	27
Private business	0	0
State/Provincial agency	49%	80
Academia	3%	5
Other, please specify	1%	1
Total	100%	162

Q9. Currently, in which country do you reside?

Response	Percent	N
Canada	16%	26
Mexico	1%	2
United States	83%	134
Total	100%	162

Q10. Which one best describes the geography where you work?

Response	Percent	N
Atlantic Flyway	19%	31
Mississippi Flyway	25%	40
Central Flyway	26%	42
Pacific Flyway	12%	20
National/Multiple Flyways	18%	29
Total	100%	162

Q11. About how much of your duty time do you usually spend on waterfowl management each month?
Remember, waterfowl management includes habitat management, regulations, policy, research/monitoring, and human dimensions.

Response	Percent	N
0 percent	4%	7
1 to 25 percent	43%	69
26 to 50 percent	14%	22
51 to 75 percent	12%	20
76 to 100 percent	27%	44
Total	100%	162

Q12. About how much of your waterfowl management time is spent in the following areas?

Area	Min	Max	Mean	Standard Deviation	Variance	N
Habitat conservation	0.00	100.0	26.10	27.74	769.55	164
Population management	0.00	85.0	16.20	21.20	449.54	164
Regulations/hunter dealings	0.00	90.0	16.42	21.87	478.19	163
Partners/cooperative dealings	0.00	100.0	26.07	26.58	706.24	164
Viewing/public use	0.00	100.0	4.75	11.51	132.42	162

Q13. In your opinion, how well has each of the following performed in contributing to the success of waterfowl management in North America over the past 5 years?

	Poor	Fair	Good	Excellent	Don't Know	Total
Flyway system	0%	2%	34%	53%	11%	161
Joint Ventures	1%	4%	33%	57%	4%	162
Waterfowl monitoring	1%	9%	40%	42%	9%	161
Adaptive Harvest Management as a system of regulations and recommendations	2%	14%	41%	22%	21%	161
Collaborations between U.S. and Canada	1%	5%	47%	30%	17%	161
Collaborations between Canada and Mexico	12%	14%	7%	2%	64%	161
Collaborations between U.S. and Mexico	10%	19%	11%	2%	57%	162
Collaborations with stakeholders like birdwatchers, hunters, and landowners	1%	29%	42%	18%	10%	162

Q14. In your opinion, how much change, if any, is needed in each of the following to make advancements in waterfowl management?

	None At All	Minor Amount	Moderate Amount	Major Amount	Don't Know	Total
Flyway system	15%	49%	15%	2%	19%	162
Joint Ventures	7%	49%	27%	5%	12%	162
Waterfowl monitoring	4%	35%	37%	9%	16%	161
Adaptive Harvest Management as a system of regulations and recommendations	2%	35%	24%	10%	29%	162
Collaborations between U.S. and Canada	8%	40%	20%	4%	28%	160
Collaborations between Canada and Mexico	0%	7%	12%	14%	67%	162
Collaborations between U.S. and Mexico	1%	1%	21%	16%	56%	162
Collaborations with stakeholders like birdwatchers, hunters, and landowners	0%	14%	50%	24%	12%	162

Q15. How strongly do you agree or disagree with the following statements?

Statements	Strongly Disagree	Somewhat Disagree	Neither	Somewhat Agree	Strongly Agree	Total
Resources dedicated to waterfowl habitat conservation should be reallocated among important waterfowl landscapes.	7%	18%	28%	32%	15%	148
Greater attention should be placed on the annual regulations setting process.	10%	35%	37%	12%	6%	148
Greater attention should be placed on monitoring and evaluation of waterfowl populations.	1%	11%	14%	46%	28%	153
Greater attention should be placed on monitoring and evaluation of waterfowl habitat.	1%	5%	14%	39%	40%	156
Greater attention should be placed on monitoring and evaluation of waterfowl conservation supporters.	1%	7%	29%	47%	16%	153
Attention to waterfowl and wetlands protection and management has declined at the federal level.	4%	8%	13%	38%	37%	150
Attention to waterfowl and wetlands protection and management has declined at the state/provincial level.	5%	22%	16%	41%	16%	148
Attention to waterfowl and wetlands protection and management has declined among NGOs.	9%	37%	31%	19%	4%	142

Q16. How successful, if at all, do you think NAWMP has been at encouraging each of the following regarding waterfowl management in North America?

	No Success	Low Success	Medium Success	High Success	Total N
Goals for harvest and habitat management that are complementary and consistent	2%	18%	59%	21%	130
Monitoring waterfowl hunters' expectations and satisfaction	3%	29%	51%	17%	125
Incorporating hunter satisfaction metrics into waterfowl management goals	7%	33%	48%	12%	118
Monitoring birdwatchers' expectations and satisfaction	10%	58%	26%	5%	110
Incorporating birdwatcher satisfaction metrics into waterfowl management goals	21%	58%	16%	5%	104
Monitoring outdoor recreationists' (other than hunters and birdwatchers) expectations and satisfaction	13%	65%	20%	2%	101
Incorporating outdoor recreationist satisfaction metrics into waterfowl management	19%	53%	27%	0%	103
NAWMP organizational arrangements that will support achieving NAWMP objectives	1%	17%	63%	19%	110
Understanding private landowners' expectations	6%	42%	46%	6%	108
Engaging the waterfowl hunting community in conservation behaviors	2%	19%	60%	18%	125
Engaging landowners in conservation behaviors	3%	36%	52%	9%	122
Engaging birdwatchers in conservation behaviors	16%	52%	30%	2%	110
Clear process for setting/revisiting waterfowl population goals	2%	22%	50%	26%	133
Conservation of waterfowl habitats	0%	5%	52%	43%	141
Funding for waterfowl conservation and management	1%	14%	54%	31%	139
Fostering broader public awareness, support, and involvement in NAWMP conservation efforts	7%	39%	47%	8%	133

Q17. How strongly do you agree or disagree with the following statements?

Statements	Strongly Disagree	Somewhat Disagree	Neither	Somewhat Agree	Strongly Agree
Existing NAWMP organizational structures and processes of waterfowl management are largely functional.	1%	11%	18%	49%	21%
Ongoing review and possible restructuring of waterfowl management institutions, following adaptive management principles, is appropriate.	2%	10%	18%	48%	22%
Integration across waterfowl working groups is adequate.	5%	21%	31%	37%	7%
The depth and breadth of technical expertise are adequate among various waterfowl working groups.	2%	15%	14%	38%	30%
Currently, the depth and breadth at the policy level are adequate.	9%	29%	26%	31%	5%
Greater coordination among Joint Ventures and Flyways is needed.	3%	6%	21%	50%	19%
Greater coordination between Joint Ventures and Flyways is needed.	3%	7%	15%	52%	24%
Integration among policy groups (NAWMP Committee, NABCI, NAWCC, etc.) should be increased.	4%	6%	21%	44%	26%
Linkages between technical working groups and the NAWMP plan committee are improving.	3%	10%	37%	39%	11%
Coordination of adaptive management across NAWMP organizational structures should be improved.	1%	6%	25%	56%	12%
Current NAWMP organizational structures and processes are sufficient to ensure the future relevance of waterfowl management.	5%	23%	25%	43%	4%
NAWMP organizational arrangements are sufficient to ensure progress toward achieving the habitat goal of the 2018 NAWMP Update.	1%	17%	30%	45%	8%
NAWMP organizational arrangements are sufficient to ensure progress toward achieving the people goal of the 2018 NAWMP Update.	7%	30%	32%	30%	2%
NAWMP organizational arrangements are sufficient to ensure progress toward achieving the population goal of the 2018 NAWMP Update.	3%	12%	27%	51%	8%

Q18. In your opinion, how has waterfowl management through NAWMP over the last 5 years impacted each of the following areas?

Areas of Impact	Significantly Declined	Moderately Declined	No Change	Moderately Improved	Significantly Improved	Total N
Habitat conservation & protection	1%	6%	37%	51%	5%	156
Waterfowl populations	1%	10%	55%	28%	6%	156
Hunter, viewer, and public support for wetland conservation	2%	10%	53%	33%	3%	156
Awareness of the need for wetland/upland conservation	3%	10%	47%	36%	5%	156
Interest in waterfowl hunting	5%	29%	51%	13%	2%	156
Interest in outdoor recreation related to wetlands	2%	15%	56%	23%	4%	156

Q19. Over the past 5 years, how much progress do you think has been made, if at all, in each of the following areas toward Goal 1: “abundant and resilient waterfowl populations to support hunting and other uses without imperiling habitat?”

Area	No Progress	Limited Progress	Moderate Progress	Significant Progress	Don't Know	Total
Habitat management	4%	20%	52%	11%	13%	160
Technical/science support	3%	24%	49%	14%	11%	160
Coordination across working groups	5%	33%	38%	6%	19%	160
Coordination across policy groups	4%	37%	24%	3%	33%	160
Coordination between working groups and policy groups	6%	37%	23%	4%	31%	160
Adaptive management and evaluation	5%	31%	37%	4%	23%	159
Funding support	20%	33%	25%	3%	19%	159

Q20. Over the past 5 years, how much progress do you think has been make, if at all, in each of the following areas toward Goal 2: “wetlands and related habitats sufficient to sustain waterfowl populations at desired levels while providing places to recreate and ecological services that benefit society?”

Area	No Progress	Limited Progress	Moderate Progress	Significant Progress	Don't Know	Total
Habitat management	4%	29%	45%	9%	13%	161
Technical/science support	2%	27%	47%	7%	17%	161
Coordination across working groups	4%	35%	32%	4%	25%	161
Coordination across policy groups	4%	34%	24%	2%	36%	160
Coordination between working groups and policy groups	5%	35%	22%	3%	35%	161
Adaptive management and evaluation	6%	39%	21%	2%	31%	161
Funding support	14%	34%	25%	5%	22%	161

Q21. Over the past 5 years, how much progress do you think has been made, if at all, in each of the following areas toward Goal 3: “growing numbers of waterfowl hunters, other conservationists, and citizens who enjoy and actively support waterfowl and wetlands conservation?”

Area	No Progress	Limited Progress	Moderate Progress	Significant Progress	Don't Know	Total
Habitat management	14%	45%	21%	1%	19%	162
Technical/science support	9%	37%	34%	3%	17%	162
Coordination across working groups	14%	38%	21%	1%	27%	162
Coordination across policy groups	14%	35%	14%	1%	36%	162
Coordination between working groups and policy groups	16%	33%	15%	1%	36%	162
Adaptive management and evaluation	17%	36%	15%	1%	31%	162
Funding support	19%	42%	17%	1%	22%	162

Q22. Over the past 5 years, how much progress do you think has been made, if at all, in each of the following areas to integrate NAWMP implementation across the three goals of the 2018 NAWMP Update?

Area	No Progress	Limited Progress	Moderate Progress	Significant Progress	Don't Know	Total
Habitat management	4%	34%	36%	7%	19%	162
Technical/science support	2%	36%	39%	6%	17%	162
Coordination across working groups	5%	35%	28%	3%	28%	162
Coordination across policy groups	7%	35%	19%	2%	38%	162
Coordination between working groups and policy groups	8%	34%	20%	1%	37%	162
Adaptive management and evaluation	7%	33%	29%	3%	28%	161
Funding support	15%	37%	25%	1%	22%	161

Q23a. Overall, how much progress, if any, has been made toward the NAWMP recommendations #1: “focus conservation actions on waterfowl habitat and population management objectives and incorporate social science into planning and program delivery?”

Response	Percent	N
No Progress	3%	5
Limited Progress	41%	66
Moderate Progress	41%	67
Significant Progress	4%	7
Don't Know	10%	17
Total	100%	162

Q23b. How important is it to include this recommendation in the 2024 NAWMP Update?

Response	Percent	N
Very Unimportant	3%	5
Somewhat Unimportant	6%	10
Neither Unimportant nor Important	7%	12
Somewhat Important	36%	58
Very Important	47%	75
Total	100%	160

Q24a. Overall, how much progress, if any, has been made toward the NAWMP recommendation #2: “help people understand the opportunities for conservation and outdoor recreation resulting from NAWMP and how society benefits from waterfowl habitat?”

Response	Percent	N
No Progress	6%	9
Limited Progress	60%	97
Moderate Progress	21%	34
Significant Progress	0%	0
Don't Know	14%	22
Total	100%	162

Q24b. How important is it to include this recommendation in the 2024 NAWMP Update?

Response	Percent	N
Very Unimportant	7%	10
Somewhat Unimportant	6%	9
Neither Unimportant nor Important	5%	8
Somewhat Important	38%	59
Very Important	42%	71
Total	100%	157

Q25a. Overall, how much progress, if any, has been made toward the NAWMP recommendation #3: “compel people to take action to conserve waterfowl habitat?”

Response	Percent	N
No Progress	14%	23
Limited Progress	60%	97
Moderate Progress	11%	18
Significant Progress	0%	0
Don't Know	14%	23
Total	100%	161

Q25b. How important is it to include this recommendation in the 2024 NAWMP Update?

Response	Percent	N
Very Unimportant	6%	9
Somewhat Unimportant	7%	11
Neither Unimportant nor Important	4%	7
Somewhat Important	32%	51
Very Important	51%	80
Total	100%	158

Q26a. Overall, how much progress, if any, has been made toward the NAWMP recommendations #4: “identify key geographic areas where the best opportunities exist to meet the needs of waterfowl and people?”

Response	Percent	N
No Progress	3%	5
Limited Progress	36%	59
Moderate Progress	37%	60
Significant Progress	4%	6
Don't Know	20%	32
Total	100%	162

Q26b. How important is it to include this recommendation in the 2024 NAWMP Update?

Response	Percent	N
Very Unimportant	4%	6
Somewhat Unimportant	8%	12
Neither Unimportant nor Important	11%	18
Somewhat Important	42%	66
Very Important	35%	55
Total	100%	157

Q27a. Overall, how much progress, if any, has been made toward the NAWMP recommendations #5: “establish a process to review and update NAWMP objectives every 10 years and provide guidance on implementation?”

Response	Percent	N
No Progress	2%	4
Limited Progress	22%	36
Moderate Progress	28%	45
Significant Progress	10%	16
Don't Know	37%	60
Total	100%	161

Q27b. How important is it to include this recommendation in the 2024 NAWMP Update?

Response	Percent	N
Very Unimportant	3%	5
Somewhat Unimportant	9%	14
Neither Unimportant nor Important	15%	23
Somewhat Important	44%	68
Very Important	29%	46
Total	100%	156

28a. Overall, how much progress, if any, has been made toward the NAWMP recommendations #6: “share knowledge from all work to integrate and balance the needs of habitat, waterfowl, and people?”

Response	Percent	N
No Progress	3%	4
Limited Progress	35%	57
Moderate Progress	35%	57
Significant Progress	4%	6
Don't Know	23%	38
Total	100%	162

28b. How important is it to include this recommendation in the 2024 NAWMP Update?

Response	Percent	N
Very Unimportant	4%	6
Somewhat Unimportant	5%	8
Neither Unimportant nor Important	14%	22
Somewhat Important	41%	66
Very Important	36%	58
Total	100%	160

Q29a. Overall, how much progress, if any, has been made toward the NAWMP recommendations #7: “bolster training programs for future waterfowl management professionals?”

Response	Percent	N
No Progress	8%	13
Limited Progress	36%	58
Moderate Progress	24%	39
Significant Progress	9%	14
Don't Know	24%	38
Total	100%	162

Q29b. How important is it to include this recommendation in the 2024 NAWMP Update?

Response	Percent	N
Very Unimportant	8%	12
Somewhat Unimportant	6%	10
Neither Unimportant nor Important	12%	19
Somewhat Important	42%	66
Very Important	33%	51
Total	100%	158

Q30a. Overall, how much progress, if any, has been made toward the NAWMP recommendations #8: “replace the Interim Integration Committee with a new system of liaisons between the Plan Committee and the working groups and appoint ex-officio members from the working groups to the Plan Committee?”

Response	Percent	N
No Progress	3%	4
Limited Progress	12%	20
Moderate Progress	11%	18
Significant Progress	4%	6
Don't Know	70%	114
Total	100%	162

Q30b. How important is it to include this recommendation in the 2024 NAWMP Update?

Response	Percent	N
Very Unimportant	8%	11
Somewhat Unimportant	14%	19
Neither Unimportant nor Important	49%	69
Somewhat Important	26%	36
Very Important	4%	5
Total	100%	140

Q31. Consider the following possible areas of increased emphasis for the 2024 NAWMP Update. Please rank them in priority order by dragging and dropping each item so 1 is your highest priority and 16 is your lowest priority.

Emphasis Area	Mean Rank	Standard Deviation	Variance	N
Habitat protection and management	2.68	2.23	4.96	149
Monitoring waterfowl habitat trends and the success of conservation efforts	4.3	2.71	7.37	149
Monitoring waterfowl population abundance and demographics	5.04	3.61	13.01	149
Ecological goods and services	6.56	3.5	12.23	149
Policy efforts to conserve waterfowl	7.62	4.26	18.17	149
Hunter recruitment, retention, and reactivation	7.78	4.05	16.41	149
Engaging support from the general public	7.95	3.52	12.41	149
Effective integration of objectives for harvest, habitat, and people	8.01	3.65	13.29	149
Monitoring waterfowl hunter participation, demographics, expectations, and satisfaction	8.75	3.28	10.76	149
Incorporating private landowners' expectations into management programs	9.74	3.2	10.23	149
Waterfowl harvest regulations	9.83	3.71	13.74	149
Recognition and engagement of private landowners who contribute to waterfowl management	9.9	4.11	16.86	149
Increasing diversity, equity, inclusion, and access initiatives to broaden support for waterfowl and wetland conservation	10.36	4.31	18.55	149
Engaging support from birdwatchers	11.05	3.49	12.21	149
Increasing the number and diversity of industry/corporate partners	11.18	3.62	13.11	149
Other, please specify:	15.26	3.08	9.49	149

Please provide any additional insights or recommendations regarding implementation across the three goals of the 2018 NAWMP Update.

Here in BC, the Provincial Government is still not a funding partner, nor a JV partner, nor a NAWMP partner. It is a huge gap and needs to be fixed ASAP. We have made good progress in enhancing the NAWCA delivery program in BC over the last 5 years.

The need remains to increase and improve habitat for waterfowl. Appreciation and conservation of wetlands is needed more now than ever. Funding for wetlands conservation needs to be increased. Implementation of NAWMP should not be compromised in implementing the other three Bird Plans.

Integration has improved, especially with Diane's position, but there is still much work to be done, especially at regional and state scales.

There is a misalignment between the data used to set NAWMP Population Objectives (i.e., broad scale population monitoring programs) and the habitat delivery programs. Broad scale population monitoring makes it very difficult to tease out natural annual fluctuations in a population from any gains attributed to NAWMP habitat delivery. Perhaps there is a need to better incorporate species-habitat associations with local monitoring/habitat evaluation so that local gains can be quantified better. Then, all of the local gains in a species' population from NAWMP habitat delivery programs can be combined for a cumulative broad scale effect. This, then, could be compared/related to the broad scale population monitoring program. I don't know?

I'm not really certain what the plan is to measure (continentally) progress toward increasing numbers of hunters and people who support wetlands/waterfowl. But, on a higher level, I'm not sure that simply measuring numbers of people doing something is a right indicator of progress, although it might be the easiest to quantitatively evaluate. I think there should be a discussion about whether or not we're measuring the right things and some integration of qualitative information related to the People goal.

This is a long-game....but there has been significant progress considering the fact that awareness of the concept of integration has greatly increased over the past decade, integration is part of the discussion in all venues at all levels of waterfowl policy and management, and approaches to implementation are actively being explored and pursued.

There is a need to better integrate the ecology of waterfowl/habitat management with the needs and interests of recreationists and non-hunters to achieve widespread support for long-term wetland conservation.

Need continued funding support for the Bird Habitat Joint Ventures to have the capacity to continue implementing actions under all the bird plans including NAWMP.

I'm primarily a land bird biologist and birder with 30 years of research experience. I just do not follow NAWMP closely so can't answer with an informed opinion on many of your questions. I think NAWMP may not have the reach that you think it does. I live in Bozeman and have family who hunt waterfowl in Manitoba. NAWMP doesn't come up nor does Joint Venture coordination around ducks.

The 2018 lacked structure, meaning a failure at the national level translates to failure at local levels. We felt this was not an update and more motivational than anything else. This was vague and brief and unsure as to whom this "update" was intended for. Management communities felt left out after attending the FOWII; much ado about HD and integration and yet nothing was articulated as to how who or what; a tool kit on how to proceed. Lastly, population and habitat also seemed to have missing

tangibles.

The three goals of the 2018 NAWMP update were lofty, complicated, and somewhat at odds with each other (i.e., investing in one may come only by direct tradeoff, such as more people in urban areas versus better habitats in rural areas). There doesn't seem to be much discussion or clarity around those potential trade-offs, nor is it clear as to which are most important, whether all are being pursued separately, etc.

Having a full-time NAWMP Coordinator would help

From my perspective, the single greatest threat to the future of waterfowl and wetland conservation (and all the social aspects related to) are most threatened by the rapidly decreasing value placed on waterfowl and wetlands by Federal and State agencies. This decrease in valuation by Federal and State agencies will have dramatic and negative effects on existing monitoring programs, innovation in methods, and ability to deliver basic population and habitat management over the next 5-10 years. I note that the Harvest Management Working Group is not a NAWMP entity, but rather serves the US Fish and Wildlife Service's Regulation Committee and the Flyway Councils. I think it was correct to include questions about harvest management in this survey, but it is important to be clear about governance.

I work for the US Fish and Wildlife Service and believe that senior leadership needs to strengthen its commitment to waterfowl conservation and conservation in general. Too often, leadership is overly interested in teams and committees without paying proper attention to conservation actions.

The NAWCA staff at DBHC needs to be completely turned over to people that better reflect the intentions of the Secretary of Interior!

COVID restrictions had a big impact, limiting technical/science, coordination and monitoring/adaptive management across the board.

Significant gaps are still apparent in the inclusion and engagement of the wildlife watching communities.

ONLY LET YOU KNOW THAT SOME OF MY OPINIONS ABOUT NAWMP ARE RELATED WITH MEXICO IMPLEMENTATION

If the USFWS cuts funding for monitoring and surveillance of waterfowl and wetlands, all progress that has been made risks being lost. The BPOP and Pond Count Surveys are the backbone of waterfowl management, and we cannot afford to let administrators take that

Still trying to figure out what it is all about.

There still isn't a national HD/people objective that can be stepped down. Until this happens with specific guidance (e.g., Fleming et al. 2017/2019 for populations), the people leg will largely be lip service instead of an actionable objective.

Comments or suggestions regarding recommendation #1: Focus conservation actions on waterfowl habitat and population management objectives and incorporate social science into planning and program delivery.

It is important to address human dimensions for the public to support conservation actions and to participate in conservation activities but providing necessary habitat for waterfowl populations should remain the focus of the NAWMP.

the way this recommendation is worded may result in people focusing on the first part (focus conservation actions on waterfowl habitat and population management objectives) and not so much

on the incorporation of social science. Could be clearer that social science use in planning and program delivery is the focus.

Need the public support/base for future gains, funding, etc.

The UMGL JV is actively pursuing social science objectives as part of this. I think there is a bit of a learning curve associated with this, but there seems to be sufficient interest and activity surrounding this, but getting to the implementation and delivery stage will take time but seems to be a goal.

I think quite a bit of research has been done (on the social science side of things) related to understanding how landowners make conservation decisions. However, this work is often done in a geographically or disciplinarily limited way with little synthesis across this work. Further, I don't feel like this work has really been integrated into habitat management on a broad scale. This might be due to the fact that little work has been done to synthesize and coordinate this research among social scientists.

Waterfowl are doing very well compared to other bird groups and other parts of the environment - people/taxpayers may begin to question the value of continuing to fund waterfowl conservation when there are bigger environmental issues to deal with - we need to adapt and communicate the value added of the other benefits to the environment/society our work provides.

This is a very important but also a very challenging recommendation to accomplish. More guidance from NAWMP working groups will be required to help partners achieve this recommendation.

Recommendation includes two very different objectives; should be separated

Needs more monitoring especially habitat and people components

Waterfowl managers have always considered social science when establishing waterfowl regulations. However, it should not be the goal of the NAWMP community to attempt to drive cultural shifts or attitudes as that is not attainable.

Every aspect of this is important, and should continue to be emphasized. But it seems that waterfowl habitats and populations are more important and should be emphasized as the core focus, with other aspects secondary.

Incorporating the social science elements will be critical. The world is changing and if we don't get ahead we will continue to lose relevance to society as a whole.

The first part of that objective is still critical.

The phrase "incorporate social science into planning and program delivery" is too vague to evaluate in that it's hard to object to doing things that fit, some of which are more important than others. More precise language would be better than kicking the can down the road with respect to which social sciences should be supported toward which ends.

What are the desired outcomes of using social science? Redistributing hunting pressure?

As we move into an ever complex world...human dimensions matter.

Societal views of wildlife conservation need to change. The concept of using the land for economic gains still rules-- home development, agriculture, shopping malls. Undeveloped and wild lands are considered a 'waste' to many.

This double-barreled objective incorporates 2 big lifts. The first half of the objective remains imperative for geographies where it lacks. The 2nd half of the objective is its own huge lift.

IT'S NECESSARY DIFFERENT MEXICAN PARTICIPANTS IN ORDER TO ADVANCE IN THIS COUNTRY

"social science" should be focused on growing the numbers of hunters.

There has to be a national objective linked back to populations. Until this happens, these efforts will flounder, as they have for 13 years and counting.

Comments or suggestions regarding recommendation #2: Help people understand the opportunities for conservation and outdoor recreation resulting from NAWMP and how society benefits from waterfowl habitat.

As we get more information about HOW to do this (through social science research), I think this recommendation will become more tangible for managers.

Greater awareness of the ecological benefits to people from natural habitat.

I really don't understand how this has been operationalized to date or how it can even be measured so it's hard for me to really comment on this. How has NAWMP been working with the public to help them understand what NAWMP does to benefit wetland and waterfowl conservation? I'd bet that most members of the public have no idea what NAWMP is.

More outreach needs to occur to make this recommendation effective; applies also to the previous recommendation.

I don't think NAWMP messaging is reaching the public very effectively. It is barely reaching the professionals involved in international waterfowl harvest management, in my opinion.

Perhaps, expanding the scope of ecosystem service benefits from wetlands would expand public interest in conservation that is in turn meaningful for waterfowl.

Same comment as before

Again, an important but challenging recommendation. This could be two separate goals. One around outdoor recreation and another around societal benefits of waterfowl conservation as this could relate to ecosystem services.

Needs to be a clear link from merely increasing awareness to whatever goal is intended to be achieved through that increase in understanding

People need better understanding of how healthy waterfowl habitats contribute to broader biodiversity and climate goals

Can we be successful in conserving waterfowl habitat without the public knowing about NAWMP? I think we can. Do people need to see NAWMP or even waterfowl habitat as important, per se? I think not; I think we can and should focus on broader (and more directly appealing) messaging, about how conservation = clean drinking water, flood protection, and outdoor recreation opportunities, which are greatly (and broadly) valued by society. Biodiversity, and other specific benefits (such as waterfowl, hunting, etc.) are a valuable corollary benefit, but not of primary importance to as many people across society.

NAWMP Enterprise needs a continued focus on improving society's understanding and valuing of wetlands and EGS, etc.

I think helping people understand what NAWMP does is a means, not an end. Strategic goals should be focused on the fundamental societal values that drive goal setting and decision making.

We should advocate the importance of habitat not only from outdoor recreation opportunities but also from natural capital, ecosystem services angles.

Society at large should not be the target. Recommend the target be the individual-- "what does it mean to me..." attitude.

MAYBE USE THE SOCIAL NETS IN ORDER TO LET KNOW THE PLAN TO A WIDER PUBLIC IN MEXICO

Comments or suggestions regarding recommendation #3: Compel people to take action to conserve waterfowl habitat.

similar comment as previous - more information is needed on HOW to do this.

Again, I really have no idea how this is being measured or operationalized to have an opinion about progress. This is almost so broad of a goal that it really doesn't mean anything. What types of action do we want people to do? What are the most important actions? How do/should these actions change from region to region? All of these sub-questions are sort of wrapped up in the larger recommendation and should be teased out and addressed.

Do you really want to use the word "compel" here? We live in a democracy. Strongly suggest that "compel" be changed to "strongly encourage."

Maybe better acknowledge the overlap in waterfowl habitat with that of grassland birds? That includes grassland nesting shorebirds.

For people to buy-in, we may need to emphasize the co-benefits of this work to solving other environmental and mental health issues.

I don't think we necessarily need people to take action when it comes to waterfowl habitat conservation, but we do need their support for partners who are carrying out waterfowl habitat conservation.

Individuals have limited influence to effect change in this area; goal should include motivating change at the institutional level

NAWMP or others have not moved needle at this, and one reason why WOTUS is under attack.

short term economic and social drivers an impediment in some jurisdictions

As stated earlier, I think this message is overly specific. The vast majority of the US public doesn't even know what waterfowl actually is (i.e., ducks, geese, and swans) and a lot more people care about the environment (in general), natural benefits of habitat (e.g., clean water, open space), and "wildlife" (which may mean deer or turkeys to them or waterfowl, or waterbirds). Habitat or nature should be emphasized. Coming from NAWMP, it will be clear to our audience that we emphasize waterfowl habitat, but to the most external audiences that need not be the focus.

This is a very vague and not very useful recommendation

Important, but will take new expertise in the Enterprise to achieve this to a significant level (i.e. with real impacts),

This implies a

I find the wording of this objective distasteful and imprecise.

The need to enhance and restore wetlands from a natural capital angle.

Individuals may not connect with the idea of conserving habitat. Not everyone is a landowner; not everyone lives in rural areas; not everyone has enough land to conserve. Many feel they have no power over land use, given the U.S. core value of private ownership (in our Constitution).

The western drought conditions highlighted the importance of taking action to conserve waterfowl habitats, however it also highlighted conflicts with Agriculture, groundwater availability, use and

recharge. Agreements and good policies were relaxed as economic pressure grew.

Conserving waterfowl habitat sounds limited in scope. I would suggest take action to improve habitat that benefits waterfowl and other wetland species.

ONE MORE TIME. LET KNOW THE PLAN TO DIFFERENT POSSIBLE PARTICIPANTS

define "action"..

Pretty unrealistic.

Comments or suggestions regarding recommendation #4: Identify key geographic areas where the best opportunities exist to meet the needs of waterfowl and people.

Habitat protection and conservation is of greater importance than where it is located.

This seems like a state/provincial scale recommendation, not national.

Some of the greatest threats to habitat occur in areas of highest human population density. Identifying and conserving these habitats + providing for the needs of people is key.

This is another feel good recommendation that makes intuitive sense, but is hard to operationalize. Given that most people live in cities and people don't generally like to travel far from their home to hunt, bird, or recreate, this would lead people to focus on urban centers, right? What other factors might be important here? How does knowing this actually change how we do things?

It is important to continue to focus efforts to geographies important to full-annual cycle conservation of waterfowl, while also considering other socio-economic factors such as where do people hunt, where do they recreate, and where are there underserved communities that may benefit from conservation work.

If we assume that the needs of people are to ensure that the general public has ready/easy access to wetlands/nature to foster mental health and a healthy relationship with nature - we may need to alter our target areas a bit.

Additional support for collecting data and carrying out modelling exercises is needed for partners to continue to make progress on this recommendation.

I have no idea what this means

I think this has been greatly over-emphasized in the past, with too much emphasis on key game species that are important to hunters, versus waterfowl of the greatest conservation concern from a strictly biological perspective (e.g., species in decline, rare or endemic species, etc.). That is especially true for species that are unimportant to hunters. This is a decidedly mixed message and potential conflict for some wildlife conservation professionals. We ask people to care about ducks, but emphasize some species (e.g., arguably non-native Mallards in the East) more than others, such as rarer, native waterfowl that may be in decline regionally.

Once the current "low hanging fruit" geographies are identified and those opportunities are seized, then we need to move to the next group of "low hanging fruit" areas and work there...etc. There will always be (new) areas with opportunities to work in with societal evolution, climate change, scientific understanding of wetland systems, etc. !

Continued focus on southern privately owned lands misses significant opportunities to work with

Indigenous partners who often have significant knowledge and rely on waterfowl harvest and habitats.

I agree this work should be done, but it would be helpful to unpack the "why" behind it. Are we choosing where to work based on 1) economic efficiency of management actions, 2) equitable treatment of different social groups, 3) the marginal utility to society of adding waterfowl management to other environmental management actions as a "bundle of goods," or 4) other reasons?

Conserve waterfowl habitats continent-wide and in ways to alleviate hunting pressure.

Identify the threats and opportunities for land and water acquisition / management.

WATERFOWL HAVE NO BORDERS THEN, FIND AND PUT ATTENTION TO WATERFOWL IMPORTANT SITES IN OTHER COUNTRIES IS IMPORTANT

This is hugely important.

Comments or suggestions regarding recommendation #5: Establish a process to review and update NAWMP objectives every 10 years and provide guidance on implementation.

I generally think evaluation and check-ins are good and the NAWMP structure is well suited for this.

It is important to adapt as progress is made and/or new constraints arise.

It seems the plan committee has established a process for reviewing objectives, however more work needs to be done to provide guidance on how to step down those objectives to a more regional level to assist partners carrying out the actions.

Is 10 years too soon? Also, need to figure out how to integrate first, before change in objectives. However, population objectives, I believe do need review and discussion. Much has changed.

It has never been clear to me how much the broader conservation community (and "rank and file" people working on waterfowl conservation) influence or have input into NAWMP objectives.

A concrete timeframe is very important to include, but I have no opinion on whether the ten-year time frame for updating NAWMP should be retained.

The need to update the plan should be based on changes in the social and natural environment.

FIVE YEARS LOOKS LIKE A GOOD TIME PERIOD

Comments or suggestions regarding recommendation #6: Share knowledge from all work to integrate and balance the needs of habitat, waterfowl, and people.

I think "all work" needs some definition and sideboards otherwise it is too big.

I love this recommendation and think we should continue to have explicit conversations about what balance looks like and means. Questions such as: How does this balance change from landscape to landscape (if at all) and what are the trade-offs of different actions should also be considered.

This recommendation is especially important as the world's population continues to increase. For the first time since Adam and Eve, the world's population has doubled.

I think everyone is already incorporating an adaptive management framework so not sure it needs to be explicitly mentioned as a recommendation.

Integration is critical, but very little progress has been made in this area. People are content to remain in their silos. No formal inclusion of representatives from each working group in other groups, and very little informal inclusion of the diversity of perspectives across working groups, policy groups, user groups, etc.

Too many cooks in the kitchen. Part of the JV failures as of late is their multiple hats; the effort has been watered down and as a result, achieves not much of anything.

People matter, and should definitely be considered. But to the extent that social dynamics conflict with ecological priorities, this needs to be explicitly considered and addressed.

Sharing info will continue and build energy and momentum around the Plan, increase opportunities for collaboration and also "pirating" of good ideas/programs so folks don't have to "reinvent the wheel". Balancing the needs of the 3 is where it is and will remain tricky...(and we need expertise interjected to assist the biologist/ former biologist enterprise).

I think trying to integrate across these three aspects is spending time we don't have on details that don't matter. We have looked at how to quantitatively include hunter desires in the regulatory process, and my conclusion is that it probably can't be done. It may make some sense to coordinate across any 2 of the three at any given time, but going across all three is not useful.

COVID restrictions shut down conferences and symposiums, limiting knowledge sharing. I have noticed a marked uptick in meetings and coordination in the last few months.

PEOPLE PARTICIPATION IS THE KEY FOR WATEWRFWL AND HABITAT CONSERVATION

Comments or suggestions regarding recommendation #7: Bolster training programs for future waterfowl management professionals.

My understanding is that there is now a plan (NAWPEP) but now need to figure out how to implement the recommendations.

Need to address the continuing decline in the capacity of waterfowl management professionals (researchers, biologists and technicians) in Canada.

I've seen a lot of training programs pop up in the last 5 years. I wonder how/if these programs are bringing diversity (racial, ethnic, and mindset) into the waterfowl management field, but I guess we won't really know for another 5 or 10 years. It will be interesting to see if the people trained by these programs are able to find jobs and stay in the field.

There are fewer and fewer people with waterfowl expertise.

Yes, and, ensure that education is deliberately trying to be inclusive of BIPOC and LGBTQ2+ and women!

I haven't seen any progress made on this in Canada but I'm not sure how much progress has been made in the US. I do think this is very important, but should also consider training programs for groups who are under-represented in the waterfowl professional landscape.

Is lack of training a real issue? Seems like low compensation and institutional support for these positions are more pressing limitations

The wildlife profession is changing, and I'm not sold on the idea of having a bunch of waterfowl chairs funded by rich people is going to change that...

stronger emphasis on ecosystems needed

There appears to be considerable concern that there are not enough students being trained to fill the future needs. However, each job flown appears to have no shortage of applicants without reason. An entry level biologist does not require waterfowl specific training to be successful. While it is important to ensure

We need quality wildlife professionals. Specialties can be learned. Doesn't matter if they come from a big game, butterfly, or peregrines.

Great work with Endowed Chair's over last 5+ years. Need better education/ training in colleges on policy and people aspects of our work.

Exception of SDJV's development of a student fellowship program I am unaware of any progress towards this goal.

I believe that this goal could be better achieved through training in the undergraduate fields. Bachelor degrees are likely your on the ground habitat managers. Unfortunately, they do not receive quite the training of a higher degree, however, some changes could be made/suggested to universities to help implement better training/internships/etc that would help these professionals better manage the resource.

The NAWPEP feels like chauvinism and elitism. University waterfowl programs are not necessary to produce great waterfowl biologists.

Where are the students that all these new endowed chairs are supposed to be producing?

CONSIDER OTHER COUNTRIES PROFESSIONALS TRAINING

I have been massively disappointed in these efforts over the last 5 years. Efforts have been largely based on arbitrary criteria and are typically very misleading. This is a huge perceived problem in academia but not a huge problem in the real world of agencies. This issue has been driven by academics largely disconnected from actual agency needs, requirement, missions, etc. Kudos to Delta Waterfowl and their summer college student program for actually making a difference in this space as opposed to academics sending out surveys that are so poorly designed that any data collected is unusable.

Comments or suggestions regarding recommendation #8: Replace the Interim Integration Committee with a new system of liaisons between the Plan Committee and the working groups and appoint ex-officio members from the working groups to the Plan Committee.

I think it is important to integrate the committees, but there may be other ways to consider doing that.

It's very important to retain the function. The action/recommendation has been completed, so as a to-do, it's done.

Don't know enough to judge

I am not on the working groups or Plan Committee so am unsure if this is happening or not or how important it really is.

We don't need to rework the structure; we have enough working groups and the flyways should be the key.

The move from the ICC to the ISC was helpful and the ISC should continue, so we have a leader and team focused on all the various working groups, etc and ensuring work continues. This brings accountability to well-intentioned working groups, comprised of very busy members with full time jobs.

Too specific, too much jargon, no mention of why the action needs to be taken. High-level recommendations should value-centered.

These liaison efforts feel like busywork. Every meeting I go to has a report out from the other legs of the stool, but it never gets any farther than reporting what each other are doing.

I don't even know what these committees do, in case that is indicative of their effectiveness.

Please provide any additional insights or recommendations regarding the development and implementation of the 2024 NAWMP Update. What ideas do you have about the critical issues that need to be more fully addressed by the waterfowl community over the next 5 to 10 years?

Wetlands Conservation, particularly shallow wetlands situated in the Northern Great Plains and Canada

I think the focus of the 2024 update should be on implementation. For the most part, plans and monitoring are in place at least for habitat and species. Now, let's get the waterfowl/wetland community to unite around figuring out how to truly integrate habitat, species, and people (with the emphasis on the "how to").

see previous comments. I combined my thoughts.

Habitat conservation, restoration and management are key to success. We need an easier mechanism for all partners to work quickly together to acquire/secure any remaining habitat in priority areas. Sometimes the overly complex bureaucracy interferes with a private landowner (e.g., duck hunting club) just wanting to sell their land for conservation purposes. There should be improved communication/coordination among all habitat delivery partners (wetland-terrestrial-grassland-migratory birds-fish-species at risk-etc.) so that they can work together to protect the last remaining habitat in some areas without the fear of stepping on someone else's mandate.

I think more work needs to be done to integrate insights from social science into waterfowl management. This can probably only be accomplished through more synthesis and coordination of current social science efforts and more direct engagement between social scientists doing the research and the scientists and managers conducting waterfowl management.

no additions

The success of waterfowl conservation efforts is being taken for granted and there is less emphasis on and support for waterfowl conservation, even among conservation organizations. We need to do a better job of educating people regarding the value of wetland conservation. We need to pick up the pace of wetland conservation as the habitat base we have to work with is declining every day. That means that policy efforts that push for increased funding and regulations that protect wetland habitat are very important.

Habitat loss due to climate change and a changing, growing, consumptive populace need to be factored into long-range planning to ensure that our waterfowl community and our wetlands remain vibrant and responsive to the needs of hunters and non-hunters alike as the course is set for wetland conservation in perpetuity.

Given the increasing importance of climate change, especially as it affects water, efforts to conserve climate resilient areas might be valuable

Waterfowl evolved tracking habitats. Other groups of birds have not and will likely experience greater declines. I recommend looking to overlapping needs with other bird groups to leverage win-wins for habitat conservation in a changing climate and on-going land conversion, particularly grasslands to crop production.

Re-engaging waterfowl and harvest management professionals into NAWMP updates. I think NAWMP and biologists operating at the flyway level have become quite disengaged in the updates and what they mean for population, habitat, and harvest management.

Since the inception of NAWCA, the opportunity to do habitat restoration has declined. We are now largely in the phase of maintaining and improving habitat. Habitat management and maintenance, as well as habitat improvement on our public and private lands is critical to sustaining waterfowl and other wildlife populations. We need both goals for these actions and the means to fund this work Longterm.

To ensure NAWMP stays relevant, they need to ensure diversity, equity and inclusion are being meaningfully considered in the recommendations as well as how waterfowl habitat conservation benefits society through ecological goods and services and climate change mitigation. This will inherently allow for engagement with a broader diversity of partners and access to new sources of funding for NAWMP partners.

True integration between objectives is essential. Greater focus and recognition of human dimensions and social factors is needed across all objectives: people are the core issue to waterfowl conservation, not birds.

We need to create efficient habitat delivery programs that have minimal lift by partners (federal, state, NGO, and industry) through Joint Ventures to deliver these on both public and private lands. The red tape involved in implementing NAWMP has become more than encyclopedia thick - USFWS, USDA, etc. need to create effective means for private landowners and others to engage without compliance and paperwork fatigue.

Fundamental public values differences between Canada and US. R3 will not work in Canada

The NAWMP needs to focus on maintaining relevancy for the entire waterfowl and wetland enterprise (not just funding for the Joint Ventures) with Federal and State elected officials and with Federal and State agency administrators. If we continue to lose relevancy with these people the NAWMP will fail at all other efforts. I think this is vastly more important issue than other objectives (e.g., increasing support for NAWMP among birders; hunter retention, reactivation, and recruitment). Efforts to address these issues serve as justification for why elected officials and agency administrators should continue to and increase support for the NAWMP and broader waterfowl and wetland conservation enterprise.

Sustainable funding for population and harvest monitoring

I'm not sure how I feel about the importance of "integration" of harvest, habitat and people or even what that looks like. Each component is important but the NAWMP through JVs has a long track record of success conserving habitat. The Flyways have an established system for population assessment and harvest management. What we don't have (to my knowledge) is an effective mechanism for engaging the public (and various sub-sectors/user groups) to make measurable strides towards support for waterfowl management (like the habitat and pop/harvest components have). I think focusing on getting each component right is more important than integration at this point. Again, "integration" sounds good and makes intuitive sense, but after years of nodding my head in agreement I am now wondering what integration means and how much of a priority it is. On the

human dimensions front I think we all recognize not just the declining numbers of traditional supporters (e.g. hunters) but the societal and demographic changes that may diminish the collective clout of this traditional support base. This does NOT mean that these folks are not critical to our work, but to get the societal, policy, and funding support we need to focus more effort on marketing our "product" to the general public and policymakers. For habitat we need to address both the policy/protection and the habitat conservation components. On the Policy front, boldly defending long-standing protective legislation like the Clean Water Act and Migratory Bird Treaty Act should be a priority. These protective measures have come under attack and been weakened in recent years. As a collective conservation community we have not been as staunch in defending them as earlier generations of conservationists were in creating them and we as a community need to deal with this. On the habitat conservation side we have very effective mechanisms in place, we simply need more funding and resources. I don't believe we need a fundamental change or a new paradigm as much as we need gas in the tank. Declining USFWS budgets for National Wildlife Refuges has declined to such levels that current management, staffing and infrastructure are a fraction of what they were 10-20 years ago and much lower than 30-40 years ago. As a result, the habitat quality and carrying capacity of many of these lands has significantly declined. So a re-commitment to our NWRs should be a high priority. On private lands we as a community have done a reasonable job of supporting and taking advantage of Farm Bill programs and in most important waterfowl regions NRCS is an effective and important partner. We do need to be creative about partnerships, funding, and support in order to increasing existing sources and develop new sources of revenue to fund our enterprise. Finally, on the harvest front I have always struggled with the real role that the NAWMP plays here. Conceptually we recognize the interdependence of habitat, harvest and people, but I don't know that it translates into a need to do anything different. One thing on the harvest side that I would like to see is a more nimble system for reacting to changing populations and harvest opportunities. The Flyways and more specifically the USFWS has been conservative and slow to react to increasing populations/opportunities. We are seeing large changes in species distribution (expansion of tropical/sub-tropical species into temperate regions) and a northern shift in terminal wintering areas of many mid-continent species. Being more nimble and responsive to changes in distribution and harvest opportunities may play a critical role in hunter recruitment and retention, and allow us to maintain the support of this very important, but declining user group.

The Federal Agencies need to once again, take the leadership roles in guiding and implementing NAWMP. Our NGO partners are extremely important, but they should not be driving the bus. They are not the signatories on the Plan, the Federal Agencies are. The disengagement of the Federal Agencies, particularly in the US, in key leadership roles, needs to change.

Understudied locations and species groups. Focus needs to expand beyond inland dabbling ducks and private landowners. Climate change and the development of off shore/marine areas for wind/clean energy and resource extraction will have significant impacts on waterfowl. The interface of marine/aquatic and terrestrial systems need to be considered.

In terms of "integration" or "coordination" there should be greater awareness and effort to connect wetland conservation with grassland conservation and ecological goods and services.

The fact that outfitters are taking over the waterfowl hunting enterprise is preposterous! This should be a federal crime as a few individuals are monopolizing a federal public trust resource. This is no different from top CEO's running and monopolizing a corporation. If you want to curtail and disincentivize the "blue collar" waterfowl hunter, this is a very expedient and effective way to discourage the common waterfowl hunter. Outfitting needs to be made illegal! Also, the Refuge system is (apparently?) disincentivizing biologists and other professionals. Many Refuges are severely understaffed for reasons unbeknownst to me but is worrisome. More \$\$\$ for waterfowl research.

Policy makers no longer care about waterfowl. Particularly the USFWS needs to be reinvigorated in terms of their support for waterfowl conservation, monitoring, and harvest management. Flat budgets and positions lost to attrition are compromising our ability to manage continental populations.

Isn't setting hunting regulations the role of the Flyways and states?

international collaboration to achieve the NAWMP goals

Address the relevance to all groups, engage diverse stakeholders, and put resources into DEI efforts and the role of private landowners in waterfowl management.

people objectives...

Additional Comments

Thank you for the opportunity to comment. Having avenues such as this to provide input is a great part of the process!

Thank you for conducting this survey.

Past updates have been very useful. I look forward to this next one.

See comments typed in about halfway. It'd be good to use a more dynamic survey to filter through folks who don't think about NAWMP too much. Good luck with all.

Need policy/science support for better metrics

Stop wasting time and money trying to change the logo. Make sure waterfowl are still the core and focus of the North American Waterfowl Management Plan. If ecological goods and services can be shown, broader support from society will follow.

Congratulations
