

## *A Survey of Organizations*

### In Support of the 2017 Future of Waterfowl Management Workshop and the 2018 Update of the North American Waterfowl Management Plan

#### DRAFT SUMMARY FOR THE UPDATE STEERING COMMITTEE

Prepared by DJ Case & Associates, June 6, 2017

As part of the assessment of the 2012 NAWMP Revision, a survey was sent to key waterfowl and wetland conservation organizations in North America—29 responses were received (Table 1). This DRAFT summary is intended to inform discussions of the Update Steering Committee during their June 21-23, 2017 meeting.

Verbatim text responses as of April 17, 2017 (Figure 1) were compiled in a WORD file (67 pages) by Dean Smith. DJ Case & Associates (Daniel J. Witter, Ph.D.) transferred these into an Excel data file, then imported into IBM Text Analytics for Surveys (version 4.0)—linguistic software that identifies themes and concepts, mindful of context, in large blocks of text. These themes and text blocks also were exported to IBM SPSS Statistics (version 24) for quantitative—as well as additional qualitative—analyses and editing. Extracting themes reduces text, and helps identify sub-themes within respondents’ narratives: positive, negative, even qualified (“yes & no”) ideas. That said, every answer respondents provided was read in entirety and considered for inclusion in summary form. Anonymity was not assured respondents in survey instructions, but respondent/organization identity data are not reported here, except in a listing of respondents. In nearly all cases, organization names were replaced with pronouns in summarizing responses. Unattributed near-direct quotes are included, where illustrative. Appendix 1 includes summaries of themes from Diane Eggeman, Dean Smith and Paul Padding.

**Figure 1.** Survey of organizations.

**INSTRUCTION: ON BEHALF OF YOUR ORGANIZATION PLEASE COMPLETE THE FOLLOWING TABLE**

*Please provide information to adequately describe the actions your ORGANIZATION has taken or the views your ORGANIZATION has as a result of the 2012 NAWMP Revision. As a rough guide, the Update Steering Committee expects responses should be from 2 to 5 pages in length, however, the quality and thoroughness of your response is more important than the length of the text. The USC also requests that you provide electronic copies of documents, or hyperlinks to these documents, if available, as well as any other materials that provide examples of the actions your organization has taken to implement the 2012 Revision. Please provide documents in Microsoft Office (Word, PowerPoint) or PDF formats.*

<b>A. Name of Organization</b>	Click or tap here to enter text.
<b>B. Name of Preparer</b>	First Name                      Last Name
<b>C. Email</b>	Click or tap here to enter text.
<b>D. Phone</b>	<b>Area Code</b> <b>Number</b>
<b>E. Has your organization made any changes to its mission/vision in response to the 2012 NAWMP Revision? If yes, please explain.</b>	Click or tap here to enter text.

<p><b>F. Has your organization reached out to new or more diverse stakeholders in response to the 2012 NAWMP Revision? If yes, please explain.</b></p>	<p>Click or tap here to enter text.</p>
<p><b>G. What scale of actions are important to your stakeholders?</b></p>	<p>Choose a scale (click for dropdown menu)</p>
<p><b>H. The 2012 NAWMP Revision offered the following seven (7) recommendations.</b></p> <ol style="list-style-type: none"> <li><b>1. Develop, revise or reaffirm NAWMP objectives so that all facets of North American waterfowl management share a common benchmark;</b></li> <li><b>2. Integrate waterfowl management to ensure programs are complementary, inform resource investments, and allow managers to understand and weigh tradeoffs among potential actions;</b></li> <li><b>3. Increase adaptive capacity so structured learning expands as part of the culture of waterfowl management and program effectiveness increases;</b></li> <li><b>4. Build support for waterfowl conservation by reconnecting people with nature through waterfowl, and by highlighting the environmental benefits associated with waterfowl habitat conservation;</b></li> <li><b>5. Establish a Human Dimensions Working Group to support development of objectives for people and ensure those actions are informed by science;</b></li> <li><b>6. Focus resources on important landscapes that have the greatest influence on waterfowl populations and those who hunt and view waterfowl;</b></li> <li><b>7. Adapt harvest management strategies to support attainment of NAWMP objectives.</b></li> </ol> <p>For each recommendation your organization has addressed or been engaged in addressing, please explain your involvement by describing (i) the action you have taken, (ii) the stakeholders you have/expect to impact; (iii) the outputs or short-term results from your actions (e.g. acres, birds, people affected); and (iv) the desired outcomes or long-term results expected and any potential risk factors for achieving success.</p>	
<p>Click or tap here to enter text.</p>	
<p><b>I. Please briefly describe any other key initiatives/projects your organization has undertaken specifically as a result of the 2012 NAWMP Revision <u>OR</u> provide comments about the impact the Revision has had on your organization/stakeholders/habitat/bird number/etc. You may also wish to comment on: a) What has worked well or not? b) What was missed? c) What needs to be adjusted? or d) Ideas for refining recommendations and path forward.</b></p>	
<p>Click or tap here to enter text.</p>	

## Summary of Findings

Sincere thanks to respondents for their commitment and participation. Reasonably, many did not adhere strictly to the open-ended response structure requested by the survey, particularly the invitation to parse each of seven NAWMP recommendations into four separate answers: (1) action, (2) stakeholders, (3) outputs (short-term results), and (4) outcomes (long-term results)—28 possible responses, with a final “catch-all” question. Most answered in narrative telling their unique stories, which allowed greatest data variability. This wide variability is the

wheelhouse of systematic text analysis where these diverse narratives are compared-contrasted, and then condensed to reduce variability for clarity. Responses to open-ended questions ranged from abbreviated answers to comprehensive explanations with elaborate specifics (“sub-text”). Both are workable: text analytics balances brevity and breadth, categorizing-condensing about 70 pages of answers to central themes, but avoiding oversimplified stereotypes and disservice to respondents’ efforts to be obliging. Some richness of response is sacrificed to summarize content; regrets to respondents for this inevitability.

**Table 1.** Survey respondents (N=29)

American Bird Conservancy
Atlantic Coast Joint Venture
Atlantic Flyway Council
Canadian Intermountain Joint Venture
Canadian Wildlife Service (Ontario, Quebec, & Atlantic Regions collaborative response)
Central Flyway Council
Central Hardwoods Joint Venture
Ducks Unlimited Canada
Ducks Unlimited Inc
East Gulf Coastal Plain Joint Venture
Eastern Habitat Joint Venture
Gulf Coast Joint Venture
Intermountain West Joint Venture
Lower Mississippi Valley Joint Venture
Manitoba Habitat Heritage Corporation
Northern Great Plains Joint Venture
Oaks and Prairies Joint Venture
Ontario Eastern Habitat Joint Venture
Pacific Birds Habitat Joint Venture
Pacific Flyway Council
Playa Lakes Joint Venture
Prairie Pothole Joint Venture
Rainwater Basin Joint Venture
Sea Duck Joint Venture
Sonoran Joint Venture
The Nature Conservancy
The Nature Conservancy Canada
Upper Mississippi River-Great Lakes Region Joint Venture
Wildlife Habitat Canada

**Table 2.** Organization is...?

	Frequency	Percent
Canadian Federal Agency	1	3%
Flyway Council	3	10%
Habitat Corporation	1	3%
Joint Venture	18	62%
NGO	6	21%
Total	29	100%

**Table 3.** Scale of action important to your organization's stakeholders is...?

	Frequency	Percent	Valid Percent	Cumulative Percent
Local	4	14%	15%	15%
Regional	6	21%	23%	38%
State-Province	3	10%	12%	50%
Continental	5	17%	19%	69%
Flyway	3	10%	12%	81%
Local & Flyway	2	7%	8%	88%
Local, Regional, Continental	2	7%	8%	96%
Local & Regional	1	3%	4%	100%
Total	26	90%	100%	
Missing	3	10%		
Total	29	100%		

**Table 4.** "Has your organization made any changes to its mission-vision due to 2012 NAWMP Revision?"

	Frequency	Percent
No	20	69%
Yes	9	31%
Total	29	100%

**Supplemental Analysis, Table 4.** "If yes, please explain."

Nearly 70% indicated that NAWMP 2012 Revision did not impact their organizations' mission-vision. But perhaps in no other survey question did respondents seem inclined to respond, "No.....*BUT*...", because in addition to the nine respondents answering "yes," 11 others qualified their "no" response to essentially agree that the Revision encouraged them to at least

revisit their organizations' missions-visions, even if ultimately no changes were made. Overarching concepts characterizing some level of affirmation (including "yes") were:

- Include benefits to people and society;
- Broaden appeal to those not solely interested in waterfowl;
- Program sustainability—*funding*—depends on a broad constituency and partners;
- Philosophically—and for program relevance—human dimensions must be explicitly addressed;
- Greater integration with other bird initiatives;
- Recommit to doing more, faster, to keep up with eroding resource base;
- Commit to science-based information to influence policy decisions and outcomes.

**Table 5.** "Has your organization reached out to new or more diverse stakeholders in response to the 2012 NAWMP Revision?"

	Frequency	Percent	Valid Percent	Cumulative Percent
No	9	31%	33%	33%
Yes	18	62%	67%	100%
Total	27	93%	100%	
Missing	2	7%		
Total	29	100%		

Supplemental Analysis, Table 5. "If yes, please explain."

Nine respondents said "no" or "not really," or some variant, but with qualification; e.g.,

- Not due to Revision, but we work with more local partnerships;
- Not due to Revision, but we're seeking broader support from people by increasing awareness of wetlands' value to society;
- Not due to Revision (but instead to commitment to original NAWMP) we sought energy company and NGO as board members to widen constituency and engage advocacy;
- Not due to revision; we had significant stakeholder interest in draft waterfowl, water-bird, shorebird plan, but staff capacity was temporary;
- Not new stakeholders, but we focused on existing constituents in ways we hadn't prior to Revision;
- Not really, but our support of the state birding festival has allowed involvement with birders.

Eighteen respondents said "yes" to new/diverse stakeholder outreach due to Revision, e.g.,

- Worked harder on human dimensions and partnerships;
- Engaged other Joint Ventures (JVs) and HD discussions, which makes NAWMP more relevant to people of various bird conservation interests;
- Engaged a conservation federation to create stronger relationship between hunting-guiding community and bird conservation groups;
- Formed partnership with a university to address science gaps, and engaged new partners to develop a coastal watershed decision-support tool and wetlands-focused delivery system;
- Added private ranchers/farmers to our JV board;
- Worked with irrigation companies to promote wetland restoration;

- Exploring closer ties with R3 Community [recruitment, retention, re-engagement];
- Reached out to LCCs intersecting our JV to better understand regional social and environmental issues, and integrate info with biological values in mixed decision-support model.

### **Respondent Involvement in Recommendations, 2012 NAWMP Revision<sup>1</sup>**

Each bullet *within* “action,” “stakeholder,” “output,” and “outcome” is a reply unique to a separate respondent. In no case were multiple comments/concepts extracted from a single individual’s response and presented as *separate* bullets *within* each heading. However, a comment *within* a heading can capture an idea/sentiment expressed by other respondent/s.

- 1. *Develop, revise or reaffirm NAWMP objectives so that all facets of North American waterfowl management share a common benchmark.***

#### *Actions.*

- Flyway engaged extensive revision of mid-continent mallard AHM, and relationship with NAWMP population objectives...and contributed to national hunter, viewer, general public stakeholder surveys;
- Flyway used objectives for American Black Duck population recommendations for member states;
- Flyway focused priorities on Revision, developing multi-stock decision framework for harvest management, and surveyed hunters on management alternatives;
- JV heavily invested in common approach to stepping-down revised continental objectives across JVs;
- JV staff briefed board on multiple occasions on population and habitat objectives and tech committee discussed how to incorporate objectives into planning and initiatives;
- JV invested in better science on populations, wetland status and conversion, key landscapes (focal areas), sport and subsistence harvest, and conservation planning;
- JV will reaffirm NAWMP with 2020 Implementation Plan update;
- NGO helped reaffirm objectives by engaging 9 JV boards.

#### *Stakeholders.*

- JV explored ways to increase collaboration among landowners, working ranches and farms, NGOs, state and federal agencies, and private industry;
- JV revised Implementation Plan in 2013, incorporating bio-energetics model cleaving to NAWMP population objectives, with input from local, state and federal agencies, many NGOs, and corporate representatives;
- JV efforts impact the JV partnership and NAWCA applicants;
- Population objectives helped our JV management board guide conservation priorities and actions, and helped partners plan/execute their actions in NAWMP’s context.
- Supporting the Revision achieves NAWMP’s habitat objectives within Canadian breeding grounds, benefiting waterfowl hunters and birdwatchers continentally, and local human populations through ecological goods and services that wetlands and associated habitats yield;

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<sup>1</sup> Text Analytics is as much art as science. Given rich depth of detail many respondents provided, construction of bullet-themes erred in favor of more sub-text than less. Significant insights predictably emerge from lengthy text-responses. This detail must be considered, especially when applying linguistic software that can de-construct entire sentences to a few skeletal words, giving false security that content has been thoroughly probed.

### *Outputs.*

- NGO focus on waterfowl conservation activities, mainly acres and NAWCA dollars/match invested, supportive of NAWMP objectives, considering continental priorities, particularly when balancing the needs of all birds;
- NGO currently conserved 6.5 million acres and positively influenced conservation management of >100 million additional acres, all of which support NAWMP objectives.

### *Outcomes.*

- JV Understands actions/consequences in context of the larger waterfowl conservation community;
- When revising our 2017 JV waterfowl habitat conservation strategy, JV used 2014 NAWMP objectives addendum for developing regional duck population abundance objectives and initial hunter-supporter objectives (using 1999-2015 mean as baseline); maintaining this link to NAWMP helps JV share a common benchmark, and better target conservation in short- and long-term for maximum effectiveness reaching waterfowl- and HD-objectives;
- NGO sees strengthening connection between science and delivery;
- NGO delivers our nation long-term, sustainable wetland conservation through direct programming, extension or stewardship, education or public awareness, and providing science to influence public policy; risks include increasing human demands for a limited land base, and climate change.

## ***2. Integrate waterfowl management to ensure programs are complementary, inform resource investments, and allow managers to understand and weigh tradeoffs among potential actions.***

### *Actions.*

- Integration, particularly between harvest management and people, occurs at the state and local levels; Flyway incorporating people-measures into annual decision framework through metrics such as annual churn, potentially influenced by regulations and resulting duck populations;
- Flyway maintains representation on numerous technical and policy groups addressing waterfowl conservation and maintains habitat subcommittee engaging JVs and other habitat partners, allowing Flyway to consider NAWMP objectives in management actions;
- JV staff coordinate with neighboring JVs and Refuge Support Team, identifying science-based objectives, tools, resources and budget;
- JV board adopted regional NAWCA-specific resource user objectives; applicants now must explain how their proposals' contribute to resource user objectives;
- JV adopted "landscape design," planning process integrating biological, cultural, and socioeconomic values—HD data come from our own research;
- JV developed strategies for public and private lands, with private land strategies both long-term ( $\geq 30$  yrs) and short-term ( $< 30$  yrs)—estimated cost estimates for each strategy are compared to expected budgets, allowing revised acreage goals based on anticipated funding...JV is apace to achieve Implementation Plan objectives by 2030;

- JV has competitive science RFP process promoting/requiring integrated objectives and info most needed by managed for sea duck conservation, including population status, habitat needs and threats, and harvest sustainability;
- JV streamlined conservation strategies by adopting waterfowl habitat objectives as water-bird objectives using information from 2 LCCs in the JV to better understand public concerns, thus integrating LCC and JV science and hopefully making waterfowl/water-bird conservation more relevant to society;
- NGO's conservation plans target JV key program areas (parcels), *a priori*, for securement, enhancement, management and stewardship based on short- and long-term goals; Waterfowl management is not a component of our JV.

#### *Stakeholders.*

- JV's primary stakeholders include waterfowl hunters, wildlife viewers, farmer/rancher/ag cooperators, and refuge staff, with secondary beneficiaries including local communities, students, and public at large;
- Beneficiaries of our landscape design planning process are Internal stakeholders (JV board and science advisory team), and we're applying process to refuge planning and state wildlife action planning—also asked to help in region-wide upland gamebird planning and farm business planning.

#### *Outputs.*

- NAWMP acres secured by 4 JVs 2012-2016 (>100,000), and management of NAWMP acres secured to date;
- For JV program delivery, largest short-term benefit is interaction with private landowners and land managers, particularly commodity ag producers;
- Short-term—better cooperation and coordination between refuge system and JVs, and hiring of refuge regional waterfowl ecologist to promote waterfowl management on region's refuges;
- No quantitative results from our JV landscape design planning process, but qualitatively, our partnership has a broader understanding of integrating biological and cultural values for conservation outcomes.

#### *Outcomes.*

- Continued coordination with refuge program toward NAWMP goals, and reaffirmation to waterfowl management on refuges, serving as catalyst for science-based waterfowl objectives specific to NAWMP;
- Systematic landscape planning allows our JV to weigh our capacity against needs of the region;
- NGO notes properly designed conservation programs can complement profit motive of many industries, to advantage of both interests, but habitat policies and regulatory backstops must not be sacrificed—these support NAWMP long-term goals, and occasionally are at odds with ag and industry;
- Waterfowl/wetland conservation based on targets, opportunities, threats, and priorities for land acquisition.



**3. Increase adaptive capacity so structured learning expands as part of the culture of waterfowl management and program effectiveness increases**

*Actions.*

- Flyway continues to participate in HMWG, HDWG, and NSST;
- Flyway is strong supporter of monitoring programs, raising concerns, providing resources, and lobbying to improve banding, harvest and population surveys, and HD science, in an era when waterfowl management is no longer a top priority for most states, provinces, and federal agencies—a growing challenge;
- JV reached out to province's wildlife federation and bird conservation groups have been a focus, with enhanced public outreach with new website, and outreach to cattle producers;
- JV invested in web-enabled geospatial database applications to track water on public lands, and invested in more detailed soil tracking/reporting, as well as supported academic research on duck abundance and distribution—all of which help assess progress toward NAWMP goals;
- Corporation strengthened organizational planning and program assessment, as well as feedback loops (project, program, organization) to promote learning and adaptation;
- JV has network of scientists, HD specialists, and conservation delivery specialists routinely counseled for advice on strategies and programs, and since NAWMP, JV increased network to include more HD scientists, as well as scientists studying other aspects of wetland ecological goods and services, e.g., hydrologists studying High Plains aquifer—JV hopes to include ag economists and climate scientists;
- JV embraces an adaptive, iterative approach to conservation, with long-term monitoring of duck populations and habitat, and by assessing changes in populations and habitats related to landscape stressors, conservation programs can be adapted to address these changes;
- JV identified land and water policy as priority in Implementation Plan, supporting wetland conservation policies...policy cycle is adaptive, and JV is committed to better conserve wetlands;
- JV identified gaps in original 2007 JV strategy and have since funded multiple research and monitoring projects...2017 strategy revision has much stronger science foundation;
- Since 2004, JV annually tracks 3,000 vegetation quadrats (>30,000 observations) for impacts on vegetative communities, with data (including decision support tools balancing habitat with available funding) now available to all partners as BMPs for playa wetlands—yet JV has not made any progress with adjacent JVs to streamline habitat delivery/management across the annual lifecycle and at the larger continental and flyway scale—need leadership from national office and across NAWMP stakeholder network...hopefully an initiative for new NAWMP;
- JV hasn't gained such capacity in response to Revision, though noteworthy are 2 full-time science coordinators, full-time monitoring coordinator, and annual discretionary science fund;
- Neither JV staff nor partners have addressed this collectively, though individual partners may have taken independent action;
- JV partners working to implement this recommendation, but no overarching mechanism at the federal level;
- NGO joined Conservation Measures Partnership, using cloud-based Miradi Share, answering, (1) are we doing the right things and (2) are they working—and working with a collective of conservation organizations in an adaptive management framework improving conservation practices at all scales <http://www.conservationmeasures.org>;

- NGO uses “Conservation by Design,” recently revised to (1) consider people-nature linkages, (2) design interventions creating systemic change, (3) integrate spatial planning, and (4) build conservation evidence base;
- No mechanism to include this recommendation under our JV umbrella...currently, NAWCA provides funding towards habitat and populations but no eligibility for engagement-activities, limiting what our JV can undertake.

#### *Stakeholders.*

- Delivering adaptive programs benefits our financial supporters, including states and NAWCA by ensuring highest waterfowl-return for money invested;
- JV acquires more complete understanding of playas and their landscapes (human and ecological) helping provide better advice to traditional partners, e.g., state agencies, USFWS, farm bill biologists.

#### *Outputs.*

- JV partnership has a broader understanding of how biological, social, cultural, and economic values can be integrated to achieve conservation;
- NGO approach to conservation maximizes production on acres we impact for money invested, and maximizes acres affected by delivering the most cost-efficient programs.

#### *Outcomes.*

- JV will use landscape design at both broad-scale (JV-wide) and more local scales (refuge planning), central in a landscape where >90% is privately owned, allowing careful weighing of JV capacity against regional needs;
- NGO notes risks to efficacy include climate change and unknown impacts on wetlands and waterfowl distribution over long-term.

#### **4. *Build support for waterfowl conservation by reconnecting people with nature through waterfowl, and by highlighting the environmental benefits associated with waterfowl habitat conservation.***

#### *Actions.*

- Corporation made limited progress with this recommendation;
- Federal agency manages protected areas, and Connecting Canadians to Nature strives to increase accessibility of these areas to the general public, conservationists, and birders, as well as partnering to develop educational programs connecting people with nature through waterfowl;
- Each state in Flyway approaches reconnecting people with nature in various ways, including social media, waterfowl camps and clinics, and NGO partnerships;
- JV thinks this concept is the most important element of the Revision, with the 3-legged stool emphasis dramatically changing the thought process of the wildlife conservation community, a testament to the vision and success of the Revision;
- JV's public land strategies in Implementation Plan includes thousands of additional wetland acres and upland buffer, serving consumptive and non-consumptive uses, some acres managed in cooperation with local power companies and natural resource districts;

- JV partners support several state-level Youth Conservation Camps focusing on wetlands, waterfowl conservation, and hunting tradition, and our JV is working with a foundation developing Social Return on Investment values for wetland and forest restoration, while our NGO partners are collaborating to quantify economic benefits to society of retiring flood-prone ag lands in concert with landowners;
- JV major effort is my personal involvement with NAWMP HD Working Group and Public Engagement team, helping develop the hunter, viewer, and general public surveys;
- JV invested in a small HD study connecting health and benefits of health;
- JV has extensive communications program directed by our own HD research since 2006;
- Flyway studied hunting constituency with a large, wide-ranging survey of hunter expectations regarding regulations, though not formally engaging the non-consumptive constituency in the Flyway;
- JV designated Communication and Education as priority action for 2015-2020 Implementation Plan;
- Once our JV's 2015-2020 Implementation Plan has been completed, JV will work on communications strategy for waterfowl conservation;
- JV recognizes and supports this recommendation, but has not made it a priority nor taken specific action;
- JV has no significant new action;
- NGO Conservation Volunteers program engaged over 13,000 Canadians across ~1,200 events from coast-to-coast, and designed some activities around waterfowl, shorebird, and/or wetland restoration activities  
<http://www.natureconservancy.ca/en/what-you-can-do/conservation-volunteers>;
- NGO does not focus strictly on waterfowl, but we are attempting to reconnect people with nature in all our work, with urban cities conservation program, and focusing on environmental benefits of conservation (e.g., green infrastructure and other natural solutions);
- Major component of our NGO initiatives, with normally 35-40 projects nationally (\$1.3 million annually) in direct funding.

#### *Stakeholders.*

- JV communicates mostly with landowners, but also to support out partners' conservation efforts and direct landowners to partners' services;
- Stakeholders are our NGO members and supporters;
- NGO outreach programs target a variety of stakeholders beyond hunters and rural landowners, acknowledging the importance of gaining support and raising awareness of waterfowl-wetlands conservation to the general public.

#### *Outputs.*

- NGO seeks increased awareness of waterfowl and water-birds as part of larger bird conservation effort, and importance of wetland conservation and waterfowl as desirable birds for birding and photography;

- NGO outreach programs (events, website, mag) engage over quarter-million people annually, and we collaborate in youth days across the country, hosting various waterfowl-wetland field days (“Duck Days”) that attract citizens with wide range of conservation interests;
- JV has already experienced new grant dollars and partners, as well as informed Farm Bill delivery to degree that we use different techniques, such as producers actually bidding to get into a program rather than accepting a structured payment—we felt JV was on the right track, but nudge and endorsement from NAWMP to try HD-social research approaches were invaluable.

#### *Outcomes.*

- Long-term, JV increased the awareness of link between playas and aquifers, resulting in landowners volunteering for programs to help conserve the aquifer;
- Outcomes for NGO are recognition of compatibility of various activities that feature healthy wetlands and waterfowl populations;
- Risks for NGO include competing interest among the general public, whether to support charities more closely linked to social concerns, or perception that wetlands are wastelands of little economic value—overcoming societal barriers to wetland awareness is an ongoing challenge, especially as North America’s population urbanizes and disconnects from nature.

#### ***5. Establish a Human Dimensions Working Group to support development of objectives for people and ensure those actions are informed by science.***

#### *Actions.*

- Corporation reports no progress on this recommendation;
- Flyway established HDWG following Revision, meeting at least once a year, holding informational meetings such as R3 workshop—efforts could be strengthened by formally acknowledging project priority rankings and project leads recommended by HDWG to Flyway;
- Flyway played strong role in formation of HDWG, formed an HD subcommittee, and engages social science needs related to NAWMP at state and local levels;
- JV coordinator participated as member of HDWG and its leadership team, with board approval;
- Revision spurred JV to work harder on HD and diverse partnerships, collaborating with government agencies, academics, wide range of partners (including ag producers) and board to make HD instrumental to programs;
- JV continuously reaches to new and diverse stakeholders for all conservation priorities, and not necessarily just linked to Revision;
- JV working with municipalities, especially where cities get their water from Ogallala Aquifer—also had HD workshop, participated in NAWMP HDWG, and incorporated HD as part of our conservation planning;
- JV has not established HDWG, but funded HD research on landowner sentiments toward CRP, paid an HD expert for presentation to board, and included HD as topic for many board meetings—will pursue with greater intensity in future;
- JV has not established HDWG, but committed to HD in 2015-2020 Implementation Plan, with measure outcomes;
- Though JV recognizes need to address HD elements of our work, this is not the case to date, but we plan to;

- NGO building more internal socioeconomic science capacity through new staff at national and state levels;
- NGO has taken no specific action with the HDWG, but provided financial support to other HD research, and conducted extensive “brand awareness” research of our own.

#### *Stakeholders.*

- JV board is attuned to the pulse of wide variety of wetland interest groups;
- NGO stakeholders for enhanced HD include JV boards, NABCI, and NGO staff, in addition to wide array of publics we acknowledge as essential to waterfowl, water-bird, and wetland conservation.

#### *Outputs.*

- NGO recognizes short-term benefits of better integration and acceptance of HD.

#### *Outcomes.*

- JV's long-term HD commitment has produced important benefits, notably increased awareness of playas' functions—insights advanced by JV's partners and cooperators;
- NGO sees HD application leads to success in conservation actions and funding.

### ***6. Focus resources on important landscapes that have the greatest influence on waterfowl populations and those who hunt and view waterfowl.***

#### *Actions.*

- Corporation focused NAWMP activities targeting priority areas;
- Federal agency identified 4 integrated risk-based strategic directions, 1 concentrating on focal areas, priority species, and key threats, factors guiding biodiversity conservation;
- Flyway active in NSST identification of important landscapes, updating population management plans, and identifying geographies important to waterfowl and public use;
- Flyway members work in their own states for habitat conservation, often overlapping with JV priority areas or NAWMP focus areas, success of which is indicated by number of NAWCA grants awarded states, with states even sending duck stamp money to Canada through DU;
- Flyway revised several species/population plans since Revision, including new section, “Public Use,” emphasizing importance of both hunting and viewing;
- JV adopted black duck as 1 of 3 flagship species for future effort, with science staff developing Black Duck Decision Support Tool to guide land managers in habitat conservation;
- JV updated NAWMP map of areas of continental significance, partnered with university to initiate student-led waterfowl survey, developed proposal for decision support tool identifying water quality priorities for estuaries, and partnered to ID highest priority wetlands;
- JV science coordinator participates on NSST committee identifying priority landscapes, and made progress validating mottled duck decision-support tool working with stakeholders;
- JV benefited from variety of tools, including DU's protection priority model, spatial prioritization information, and commodity ag-land models to focus outreach and program dollars;
- JV developing decision-making tool, ranking most important NW estuaries;
- JV partners strategically purchase 640 acres annually;

- JV Key Habitat Site Atlas sets criteria for most critical habitats across continent, helping partners and stakeholders focus on habitats important to sea ducks;
- JV identified habitat retention, restoration, and management objectives for each province within JV;
- JV implemented long-term monitoring programs and use of spatial decision support tools;
- JV waterfowl habitat strategy revision produced decision support tools, including mixed model approach combining best data layers on bio-info for waterfowl and habitats, reducing Gulf Hypoxia, and locating waterfowl hunters/harvest and potential attentive publics...overlaying layers helps JV and partners program across diverse biological and social spectrum;
- Across country and with JV planning, NGO provides science to identify target landscapes for program delivery supporting NAWMP goals;
- NGO planning includes JV key program areas in parcel-level wetlands/waterfowl prioritization, and Regional Implemental Plans help target biodiversity, while Conservation Project Summary ensures NAWCA funding hits NAWMP delivery areas;
- NGO primarily ensures focus through review/ranking of NAWCA proposals in several JVs;
- NGO explicitly stated goal to spend 90% minimum of conservation funding on landscapes with greatest influence on waterfowl and people that enjoy waterfowl.

#### *Stakeholders.*

- JV stakeholders are funders, NAWCA council, state wildlife agencies, NGOs, volunteers, students, faculty, landowners, hunters, viewers, public at large...conservation partners using decision support tools for program delivery;
- JV collaborates with LCC, local university campus, and conservation service providers;
- NGO: NAWCA applicants.

#### *Outputs.*

- JV saw increased recognition by NAWCA council staff, trained crew leaders and students, and new and diverse partnerships;
- JV saw perpetually protected wetlands and grasslands, and enhanced management (e.g., grazing) and predator management and nesting structures targeted to fragmented landscapes;
- JV saw better understanding of social factors, and templates for innovation;
- NGO saw effective use of limited NAWCA funds, while considering continental objectives;
- NGO saw decision support tools designed to direct dollars to the highest density waterfowl production areas in country;
- NGO permanently secured ~5,000 wetland acres annually, plus ~150 restored acres per NAWMP.

#### *Outcomes.*

- JV saw increased funding for wetland conservation, long-term dataset for coastal science planning, reversed decline of critical vegetation, and new coordination /cooperation among partners sharing vision for waterfowl habitat;
- JV and collaborators fully embrace that “where” really matters for habitat, directing us and our activities to landscapes we can most impact with greatest results;
- JV maintains/maximizes carrying capacity and waterfowl breeding recruitment;
- JV sees challenge in measuring effectiveness across diverse disciplines;

- NGO demonstrates unbiased success from use of existing scarce funds, justifying increased funding for wetlands conservation;
- NGO anticipates that climate change, ag intensification, and urbanization may threaten best efforts to protect critical-significant habitat.

**7. Adapt harvest management strategies to support attainment of NAWMP objectives.**

*Actions.*

- Federal agency is responsible for setting harvest limits in country every 2 years, partnering with adjoining federal agency, and adjusting harvest with continental objectives;
- Flyway developed adaptive harvest framework, considering 5 species and hunters' harvest expectations, as well as habitats managers are conserving/enhancing;
- Flyway recently approved adding breeding areas to western mallard AHM, not only helping NAWMP objectives, but providing hands-on for agencies to engage regional employees and partnerships through survey and banding operations;
- Flyway, along with neighboring Flyway and federal agency, extensively reviewing mid-continent mallard AHM in context of NAWMP objectives, with emphasis on "people" in harvest management, as well as supporting experimentation with different harvest and hunter management regimes;
- 16 of 18 JVs, "no role";
- JV remains committed to regular engagement with Flyway tech committees, yet conversations must progress beyond professional interaction before short- and long-term outcomes can be envisioned, with risk that, lacking tangible issues to tackle and successes to claim, colleagues will retreat to "habitat" or "harvest" silos (especially with travel constraints);
- JV provides science to inform harvest, supporting NAWMP goal of "abundant and resilient waterfowl...";
- NGO has no role, but supportive of AHM.

*Stakeholders.*

- None listed by any respondent.

*Outputs.*

- None listed by any respondent.

*Outcomes.*

- None listed by any respondent.

**Please briefly describe any other key initiatives/projects your organization has undertaken specifically as a result of the 2012 NAWMP Revision OR provide comments about the impact the Revision has had on your organization/stakeholders/habitat/bird number/etc. You may also wish to comment on: a) What has worked well or not? b) What was missed? c) What needs to be adjusted? or d) Ideas for refining recommendations and path forward.**

- Corporation: Revision did not stimulate corporation to improve interaction with harvest management community—not Revision limitation, but our lacking, and we are making small steps...however, HD priorities appear to have stumbled most, with little progress to support program delivery and connect people with nature, wetlands, waterfowl and waterfowling;
- Flyway: Revision moved us to explicitly consider HD at Flyway-scale regarding harvest management...we'd always been doing HD at the state scale, but with NAWMP, we're considering HD metrics formally in multi-stock decision framework, with several states initiating hunter recruitment and ethics programs;
- JV: Smallest steps forward using HD have yielded much;
- JV: Revision's major impact was impetus to update JV waterfowl conservation strategy;
- JV: Through Revision, we looked forward to progress establishing greater connection between populations and habitat, yet that didn't seem to occur in the waterfowl community...we were excited to see HD push in the Revision because it will help strengthen our relevance;
- JV: Our coastal conservation priority related to waterfowl is paramount, but not a direct result of Revision;
- JV: Regarding 7 recommendations, we've only committed to working with local partnerships to review and facilitate NEPA compliance on NAWCA small and standard grants;
- JV: Revision has been less impactful here, as JV is <10% wetlands, and what we have, we focus on most important...that said, board/s that review NAWCA proposals have encouraged grantees to include more HDWG-type work in proposals;
- JV: We will not benefit from Revision until we incorporate our new waterfowl population objectives...moreover, call for increased coordination/integration resulted in a net gain of committees and associated meetings, and in our perpetual financial crisis, demand for more meetings drains capacity (yet scrutiny of waterfowl conservation groups was goal of Revision);
- JV: It's notable that effective delivery coordination among JVs does not fit well within any of the 7 Revision recommendations...we recommend 2018 Update remedy this;
- JV: We didn't initiate key projects based on Revision, though Revision continues to inform our planning and delivery...that said, while we appreciate guidance by the Plan Committee based on our 2015 update, feedback letter with recommendations was not received >1 year after our presentation...timeliness needed;
- NGO: We have not changed our business model in response to Revision, but there has been a "convergent evolution" of strategies, given we recognize critical need to expand support base, reconnect North Americans and nature, articulate socioeconomic benefits of conservation to society, and better understand what motivates the public (HD);
- NGO: Well prior to Revision, we sought and attracted non-hunting public support, but it is difficult to maintain even hunter support if they cannot access quality wetlands with harvestable waterfowl...since 2012 a lot of effort has been put into education existing management institutions on activities of Plan Committee and subcommittees, but broader outreach is needed because our internal messaging has become stale and repetitive;
- NGO: We can do better job of working as united community to fully engage spectrum of constituencies for bird conservation—HDWG was so waterfowl-focused it took too long to broaden efforts to agree on audiences—and we could do better job simplifying groups that formed following Revision...despite many exposures, I struggle keeping track of implementation groups for NAWMP and what each is responsible for and accomplishing.



## Appendix 1

### Three Volunteered Summaries of Key Themes from the Survey of Organizations

#### Summary 1—Paul Padding

**Has your organization made any changes to its mission/vision in response to the 2012 NAWMP Revision?**

Three basic answers received:

- “While unchanged, (our) vision statement does encompass the three goals of the 2012 NAWMP revision.”
- “Philosophically, yes. There is recognition of the need to address human dimensions elements of the work we do and plan to do. However, this has not been captured explicitly to date.”
- Yes - we have updated our JV Waterfowl Habitat Conservation Strategy to better incorporate ecological goods and services and growing waterfowl supporters into our decision support tools associated with the updated strategy.”

**Has your organization reached out to new or more diverse stakeholders in response to the 2012 NAWMP Revision?**

- “We have not reached out to new stakeholders, but we have focused efforts on our existing constituents in a manner that we hadn’t prior to the Revision.”
- “The EHJV and its partners have increased their commitment to work with new and diverse stakeholders ...”

**What scales of actions are important to your stakeholders?**

- “Think (continentally) regionally, benefit locally.”

**For each recommendation your organization has addressed or been engaged in addressing, please explain your involvement by describing (i) the action you have taken, (ii) the stakeholders you have/expect to impact; (iii) the outputs or short-term results from your actions (e.g. acres, birds, people affected); and (iv) the desired outcomes or long-term results expected and any potential risk factors for achieving success.**

- “... it is important to note that many of our actions do not link directly to the plan revision but in fact have been undertaken concurrent or in a similar vein.”
- “The NAWMP Revision was extremely powerful in launching a new line of thinking around relevancy to people, establishment of people objectives, public engagement, and innovative approaches to deliver waterfowl habitat conservation on private lands and with non-traditional funding sources.”

- “... the perception by some in the JV community is that it is NAWMP *implementation* – not the big foundational vision – that is adrift.”

***Recommendation 1: Develop, revise or reaffirm NAWMP objectives so that all facets of North American waterfowl management share a common benchmark***

Most respondents talked about things that they would have done anyway, although perhaps somewhat differently in the absence of the Revision. However, the following statement seems to sum up many of the responses with respect to the Revision’s influence.

- “Insofar as the Revision placed renewed emphasis on planning and targeting for NAWMP, it could be said that the Revision helped drive MHHC adjustments in those areas. An important outcome is more focused program delivery.”

***Recommendation 2: Integrate waterfowl management to ensure programs are complementary, inform resource investments, and allow managers to understand and weigh tradeoffs among potential actions***

- Almost all of the efforts to integrate the 3 legs of the waterfowl management stool seem to be at the JV and/or local scale and are primarily issue-driven (with specific issues depending on the institution that responded), and approaches taken to date vary geographically. This speaks to appropriate scale of integration. Also, Dave Smith’s observation about recommendations 2 and 3 is reflected in the responses: “... since 2012, it seems that mostly what we have done is build an array of complicated structures and attempt to tackle, with limited success and no new dedicated funding, some wonky goals (#2 and #3) that are very difficult for those outside the NAWMP technical circle to grasp, understand, and support.”

***Recommendation 3: Increase adaptive capacity so structured learning expands as part of the culture of waterfowl management and program effectiveness increases***

Not much progress has been made on this recommendation, and hardly any that can be attributed to the influence of the Revision. See Dave Smith quote above.

***Recommendation 4: Build support for waterfowl conservation by reconnecting people with nature through waterfowl, and by highlighting the environmental benefits associated with waterfowl habitat conservation***

- “The Revision’s three-legged stool emphasis has dramatically changed the thought process of the wildlife conservation community – beyond just thinking about populations and habitat – to orient our work toward relevancy to people.”

Respondents gave lots of testimony in support of this assertion.

***Recommendation 5: Establish a Human Dimensions Working Group to support development of objectives for people and ensure those actions are informed by science***

There is great enthusiasm for HD work and much progress has been made on this recommendation, including formation of HD groups by many of the institutions and formal incorporation of HD objectives into decision-making. For example, "... for the first time, we have included HD-related research questions in our list of priority waterfowl conservation evaluation needs."

But, there are still a few areas that need work, e.g., "We have not formally engaged the non-consumptive constituency in our Flyway."

And, as evidenced by the following quotes, there is some concern about whether the HD leg is sustainable.

- "There are 2 related risks to this endeavor that might ultimately undermine support for rigorous pursuit of people objectives ... first, it is risky to continue pursuit of competing objectives without investing in the science for people, and second it is risky if science for people is perceived as a direct competitor for resources available for bird science."
- "A huge potential risk is that the science of people will be viewed as an unworthy competitor for discretionary science funds before it has the chance to demonstrate real value to decision-making."

***Recommendation 6: Focus resources on important landscapes that have the greatest influence on waterfowl populations and those who hunt and view waterfowl***

Focusing resources on influencing waterfowl populations is nothing new for these institutions. Some, but not many, have taken the next step, i.e., specifically incorporating the user component.

- "Several species or population Management Plans have been revised since the NAWMP 2012 revision, and within these plans a new section devoted to "Public Use" has been developed to recognize and address the importance of the waterfowl resource to both those that hunt and view the species; and what strategies might be taken to increase awareness of concerns and issues that may be relevant to the particular Management Plan."
- "Our JV Waterfowl Habitat Strategy revision has produced a variety of decision support tools, including a mixed model approach which combines the best biological information for breeding/non-breeding waterfowl and habitats as well as contribution to Gulf Hypoxia reduction, location of waterfowl hunters/harvest, and potential waterfowl supporters. By overlaying these layers we hope to work with our JV conservation partners to best target wetlands/waterfowl to achieve the maximum effectiveness across the biological and social spectrum."

***Recommendation 7: Adapt harvest management strategies to support attainment of NAWMP objectives***

Most respondents said that harvest management was not their purview. There are ongoing discussions about the interrelationship between harvest management and habitat management, but “There is a risk that lacking tangible issues to tackle together and claim as “success”, folks will retreat back to their habitat or harvest management silos ...”

**Please briefly describe any other key initiatives/projects your organization has undertaken specifically as a result of the 2012 NAWMP Revision OR provide comments about the impact the Revision has had on your organization/stakeholders/habitat/bird numbers/etc. You may also wish to comment on: a) What has worked well or not? b) What was missed? c) What needs to be adjusted? or d) Ideas for refining recommendations and path forward.**

- “It is notable that active and effective delivery coordination among JV partners does not fit well at all within any of the seven 2012 Update recommendations. This omission likely is a result of the assumption that such coordination is part and parcel of Joint Venture activities, and therefore does not need to be high-lighted as a recommendation.”
- “While I would not say that we have initiated any key initiatives or projects specifically as a result of the 2012 revision, the direction it set definitely continues to inform our planning and conservation delivery approaches.”
- “The revision has allowed for the inclusion of human activity and behavior into waterfowl management, which is excellent; however, there has not yet been explicit guidance on this front.”
- “... (we were) somewhat on the track to using HD but the push and suggestion of its value from NAWMP was enough for us to be more deliberate. The smallest steps forward have yielded much.”
- “Through the NAWMP Revision we looked forward to seeing progress on establishing a greater connection between populations and available habitat, yet that didn’t seem to occur in the waterfowl community.”
- “... we would do well as a community to greatly expand on the latter (“good and services” or “ecological good and services” whatever you want to call it) since it will only help strengthen our relevancy. “
- “The explicit inclusion of human dimensions into the 2012 NAWMP revision further strengthened our belief that this is what is necessary to achieve our goals.”
- “A challenge will be persuading leadership in state, provincial, and federal agencies that NAWMP efforts are a high priority.”

- “...it is important to note that many of our actions do not link directly to the plan revision but in fact have been undertaken concurrent or in a similar vein. This is particularly the case with the HD efforts ...”
- “We need to collectively simplify the messaging and engage more organizations and build the political will to put more funding together to support NAWMP goals.”

### **Summary 2—Dean Smith**

- 1. Has your organization made any changes to its mission/vision in response to the 2012 NAWMP Revision? If yes, please explain.**
  - a. Many respondents have NOT made specific changes to their vision/mission statements, however a large proportion have made adjustments to their management plans, expanded policy work, added capacity or approaches to employ ecological goods and services (EG&S), or made changes to their priorities or philosophical approach to better/more broadly address people issues. Human dimensions is clearly an issue that is top-of-mind for many of the NAWMP partners responding to the questionnaire.*
- 2. Has your organization reached out to new or more diverse stakeholders in response to the 2012 NAWMP Revision?**
  - a. While not always a direct response to the 2012 NAWMP Revision, many respondents indicated they had reached out to new stakeholders in the past few years to build broader-based partnerships and engage more people in bird conservation. New stakeholders/partners that are being engaged in NAWMP include, but are not limited to, Wildlife Federations or hunting/angling groups, foundations with a social responsibility platform, universities, non-government organizations, municipalities, private landowners and corporations as Joint Venture board members (i.e. ConocoPhillips), Landscape Conservation Cooperatives (LCCs) and groups involved in R3 efforts (recruitment, retention, reactivation of hunters).*
- 3. What scale of actions are important to your stakeholders?**
  - a. Organizations work at a variety of scales, depending on the type of organization and/or the type of initiative. For example, actions may be undertaken locally but within the context of regional or continental priorities. The scale of an organization’s actions is highly dependent on the type of constituent they are working with or engaging for a specific initiative.*
- 4. For each of the seven (7) Revision recommendations explain your involvement by describing (i) the action you have taken, (ii) the stakeholders you have/expect to impact; (iii) the outputs or short-term results from your actions; and (iv) the desired outcomes or long-term results expected.**
  - a. General comments: The 2012 Revision was extremely powerful in terms of launching new ways of thinking about engaging people in waterfowl and habitat conservation, thus motivating some Joint Ventures to expand or update their implementation plans. The*

*fundamental shift in thinking about NAWMP’s “relevancy to people ... has been absolutely revolutionary and will pay dividends for the NAWMP enterprise for decades to come.” However, the Revision and subsequent Action Plan documents were not “inspirational” in the form and style they were prepared and implementation is focused mainly on integration issues.*

*Regardless of the NAWMP Revision’s rallying cry for more active engagement by the management structure of the Plan, efforts to grow funding have stalled and the program has been somewhat marginalized by senior governments. The Plan’s management needs to rebuild its influence in the conservation arena.*

- I. **Develop, revise or reaffirm NAWMP objectives so that all facets of North American waterfowl management share a common benchmark;**
  - a. *Many organizations that responded, in particular the Joint Ventures, indicated that the new NAWMP objectives were key to updating regional/local objectives. For example: i) ACJV developed stepped down Black Duck population objectives for each state in the Flyway, ii) Atlantic Flyway Council will be explicitly addressing BPOPs for species in their multi-stock framework, and iii) Ducks Unlimited completed iterations of their Strategic Plan and National Business Plan that affirm NAWMP objectives and set their own goals as a function of NAWMP goals, and strengthened their policy staffing and advocacy.*
  - b. *GCVJ partnership has committed to incorporate the new objectives into their next planning iteration. Meanwhile, the IWJV has been heavily invested in trying to develop a common approach to stepping down revised continental objectives across Joint Ventures. The LMVJV objectives begin with the 2004 NAWMP population objectives stepped down to the regional scale, however, the next generation of planning will explicitly address temporal variation in population/habitat objectives.*
  - c. *The Manitoba Habitat Heritage Corporation used the NAWMP objectives to help drive planning and targeting adjustments. The RWBJV revised their implementation plan as a result of the 2012 Revision and the PLJV is using stepped-down objectives from the NSST as a guideline for their own objectives. Another Joint Venture used information in the 2014 NAWMP objectives addendum for developing regional duck population abundance objectives and establishing their initial hunter/supporter objectives.*
  
- II. *Integrate waterfowl management to ensure programs are complementary, inform resource investments, and allow managers to understand and weigh tradeoffs among potential actions;*
  - a. *The Atlantic Flyway Council recognizes the importance of integration thus they are incorporating a “hunter churn” metric into decision processes. The Central Flyway is heavily invested and engaged in NAWMP technical and policy committees/processes thus able to effectively consider all NAWMP goals/objectives when taking management actions.*
  - b. *A Joint Venture assisted USFWS Region 4 and the National Wildlife Refuge Waterfowl Habitat Support Team identify science-based waterfowl objectives linked to NAWMP. The GCVJ adopted a regional NAWCA-specific resource user objective for*

*ranking NAWCA proposals which is intended to help identify habitat projects that contribute to people objectives. RWBJV developed strategies for public and private lands and for long-term (30 yrs), short-term (<30 yrs), and maintenance.*

- c. PLJV adopted the process called Landscape Design to integrate biological, cultural, social and economic values into planning processes at various scales (JV-wide, and Refuge (local)). The UMGLJV integrated Landscape Conservation Cooperative science in an effort to target conservation for waterfowl and people.*

*III. Increase adaptive capacity so structured learning expands as part of the culture of waterfowl management and program effectiveness increases;*

- a. A number of organizations and Joint Ventures indicated they have not addressed this recommendation and have not significantly gained capacity for structured learning. In contrast, LMVJV has bolstered capacity for monitoring and assessment, including the ability to track water availability on the landscape. PLJV has a wide network of scientists, GIS analysts, human dimensions specialist and conservation delivery specialists they routinely call upon to help build capacity. The RWBJV supported a structured decision support project to track 3,000 vegetation quadrats and assess impacts of management on vegetation communities. The Nature Conservancy of Canada, as a partner in the EHJV have adopted the Open Standards Method for Conservation to help answer; “Are we doing the right things and are they working?” Lastly, Ducks Unlimited Canada has evaluated their program efficiency in all Canadian Joint Ventures and made programmatic changes accordingly.*

*IV. Build support for waterfowl conservation by reconnecting people with nature through waterfowl, and by highlighting the environmental benefits associated with waterfowl habitat conservation;*

- a. ABC has consistently included waterfowl and wetland birds in their magazine, Bird Conservation, and in social media posts. In an effort to broaden the impact of waterfowl conservation, organizations have been compiling and communicating about ecological goods and services (EG&S) outcomes of their work. The LMVJV supports state-level youth conservation camps which focus on wetlands and waterfowl conservation and the hunting tradition. They are also developing “Social Return on Investment” values for wetland and forest restoration. Some organizations have invested in human dimensions studies — connecting health and nature. The UMGLJV developed a weighted decision support matrix to reconnect people with nature — it’s called “Targeting Conservation for Waterfowl and People.”*
- b. IWJV stated the “people” aspect of the 2012 Revision is by far the most important element of the Revision and they have significantly increased their thinking about people and established people objectives in key habitat areas — building relationships with agricultural producers and NRCS at the state and regional levels.*
- c. The PLJV has an extensive communications program about the connection of playas and the High Plains aquifer, plus conservation program benefits. Similarly, the SDJV has a communication strategy that since 2012 strives to make science information*

more readily available to stakeholders. The EHJV is building a communication strategy into their 2015-2020 Implementation Plan as communication and education is a key element of their future plans. The PPJV explicitly incorporated R3 objectives into their 2017 Implementation Plan.

- d. *The Nature Conservancy agrees the people element is critical, and is working to reconnect people with all of their work. The Nature Conservancy of Canada's Conservation Volunteers program has engaged 13,000 Canadians across 1,157 events coast to coast and they will have a new program in 2017 called Nature Destinations to promote select nature preserves. Ducks Unlimited Canada has many outreach and education programs reaching 500-750 classrooms and DUC operates three interpretive centers that have a total of 90,000 visitors per year.*
- V. *Establish a Human Dimensions Working Group to support development of objectives for people and ensure those actions are informed by science;*
- a. *There is a high degree of awareness among many organizations about the value of human dimensions information but there is a variable degree to which organizations have or are developing capacity to use human dimensions for their conservation work. A few Joint Ventures have built human dimensions ranking criteria into their reviews/rankings of NAWCA grant proposals and have supported the Human Dimensions Coordinator position through NABCI. Joint Venture Coordinators have been highly engaged in the NAWMP Human Dimensions Working Group (HDWG), and the GCJV helped to standup the HDWG within their region's Landscape Conservation Cooperative. The Pacific Flyway created an HDWG that meets at least annually and supported the R3 workshop in 2016.*
  - b. *The IWJV secured funding for and conducted human dimensions research to link wetland conservation with interests, values, and motivations of key stakeholders. The PLJV expanded its network of human dimensions scientists to help guide the Joint Venture's conservation efforts, and the PPJV funded human dimensions research on landowner attitudes toward the CRP. The EHJV committed to incorporate human dimensions into its 2015-2020 Implementation Plan. The Nature Conservancy of Canada has a dedicated department for Conservation Engagement, while Ducks Unlimited Canada has supported the national human dimensions research project in Canada as part of the NAWMP study.*
- VI. *Focus resources on important landscapes that have the greatest influence on waterfowl populations and those who hunt and view waterfowl;*
- a. *The ACJV developed a Black Duck Decision Support Tool to guide land managers for wintering habitat needs. The GCJV and University of West Florida partnered to train students, collect data, and develop a long-term data set for science planning for coastal wetlands. Additionally, the GCJV and others developed and validated a Mottled Duck Decision Support Tool for Breeding Habitat Conservation. The LMJV's Conservation Delivery Networks has used existing spatial prioritization information to define focal landscapes within their geographies. Similarly, the NAWMP science teams have mapped areas of continental significance. The PBHJV has developed a*



*decision support tool for ranking important estuary areas in AK, BC, WA, OR and northern CA. The PPJV “thunderstorm mapping” helps to understand breeding population distribution, abundance, and trends within the landscape. The Central Flyway is identifying key geographies important to both waterfowl populations and public use.*

- b. Several species population management plans have been revised since 2012 and have sections on “public use” to recognize the importance of waterfowl to hunters and viewers. The Canadian Wildlife Service has four integrated risk-based strategic directions to guide implementation of their mandate — one concentrates on focal areas, priority species and key threats using a multi-species approach. Ducks Unlimited Canada has been a leader in identifying key target landscapes to support NAWMP, while other Canadian partners use the DUC information to guide their program delivery.*

*VII. Adapt harvest management strategies to support attainment of NAWMP objectives.*

- a. Many organizations, in particular non-government organizations, are not involved in harvest management thus had few, if any, comments on this recommendation.*
- b. The Atlantic Flyway is building an adaptive harvest framework that encompasses species and habitats, while it also recognizes hunters’ desires and activity. The Central Flyway, along with the Mississippi Flyway and the USFWS, are reviewing the mid-continent Mallard AHM; more explicitly addressing people objectives in harvest management.*

*5. Please briefly describe any other key initiatives/projects your organization has undertaken specifically as a result of the 2012 NAWMP Revision*

- a. There were many comments in regards to the positive step forward in NAWMP by incorporating the people goal within the waterfowl/habitat enterprise — people need to see benefits to care.*
- b. Suggestions were made that NAWMP needs to do a better job of working on a united community (all birds) by engaging more bird groups/organizations while also streamlining the structure of NAWMP. Additionally, there is a need for funding tied to the people goal/objectives, where now there is only funding for population management and habitat conservation.*
- c. We need to simplify the messaging, engage more organizations and build the political will to put more funding to support NAWMP goals.*
- d. There is a need to demonstrate the “pay-off” of improved integration and adaptive/informed programs and to improve the recognition that NAWMP is the leading program for broad-scale conservation efforts. An example might be, that the Nature Conservancy of Canada is developing a leadership strategy on new impact measurement tools for conservation engagement.*
- e. The RWBJV incorporated non-consumptive users and is focusing on EG&S associated with wetland conservation work. Improving the public’s wetland literacy is critical and we need action now — we can’t wait for new human dimensions or economic research.*

- f. *Ducks Unlimited Canada, while doing “brand research” outside of NAWMP, also identified that communication of the EG&S benefits of waterfowl/wetland conservation are critical and thus you can promote conservation without mentioning ducks.*
- g. *The LMVJV developed a Conservation Delivery Network which functions to facilitate communication, coordination, and collaboration among delivery leaders, and provided links to some examples (see questionnaire response).*
- h. *The PLJV held a one-day human dimensions workshop for its Management Board which has helped push them over the hump of explaining the need and value of human dimensions in conservation.*

### **Summary 3—Diane Eggeman**

Excerpts from NAWMP paper exercise assessment responses that deal with institutions:

#### ***Recommendation 7: Adapt harvest management strategies to support attainment of NAWMP objectives.***

“One item that has not worked particularly well is that the stated desire for increased integration has resulted (so far) in a net gain of committees and associated meetings. In a financial climate that is stable at best, this increased demand for more meetings/travel/teleconferences is a net drain on our collective capacity. Ironically, scrutiny of institutional structures within the waterfowl conservation enterprise was one of the stated goals of the 2012 Revision. Streamlining partially redundant committees and structures seems like the next frontier for progress, and the most likely means for the conservation community to attain a net gain in effective capacity. “

General feedback:

**“Plan Committee:** If anything, the 2007 NAWMP Assessment’s rallying cry for a more active and engaged PC has faded. I’m not sure where the PC is headed but it seems less influential than it was from 2008-2012. Foremost, the PC did not attain leadership and commitment from the FWS Director and consequently several key aspects of waterfowl conservation (e.g., JVs, NAWCA, Migratory Bird Program surveys) have suffered funding reductions, and, as some would characterize it, have been marginalized at a time when the FWS was launching bold new funding initiatives. Yet, we have a new array of structures (e.g., IIC, PET, some other layers that never seemed to materialize) with seemingly the same people being recycled to try and carry the load. Right or wrong, the perception by some in the JV community is that it is NAWMP *implementation* – not the big foundational vision – that is adrift.”

“While I would not say that we have initiated any key initiatives or projects specifically as a result of the 2012 revision, the direction it set definitely continues to inform our planning and conservation delivery approaches. As far as adjustments: while we very much appreciate the guidance provided by the Plan Committee based on our periodic update in 2015, the feedback letter with recommendations was not received until more than a year after our presentation. That timeframe needs to be adjusted!”