NAWMP Desired Characteristics of Joint Venture Implementation plans

Element	Sub Element/ Product	Technical Expectations	
		Minimal Content- **Expected characteristics for initial Joint Venture* Implementation Plans and Concept Plans.**	**Comprehensive Content-** **Joint Venture* Implementation Plans should move toward this content as a Joint Venture matures and funding levels increase.**
BIOLOGICAL PLANNING	**Biological Planning Unit (Spatial and Temporal Scales)**	Biological planning unit(s) is(are) defined. Identify temporal importance (breeding, staging, wintering) of the Joint Venture region to waterfowl. Explain and justify when planning scale deviates from NAWMP Waterfowl Conservation Regions (WCR).	Biological planning units identified at NAWMP WCR or sub-WCR scales. Explicit treatment of overlapping planning units within multiple Joint Venture administrative boundaries (if any).
	Priority Species	A preliminary list of priority waterfowl species or suites of species identified and justified.	Complete list of priority waterfowl species/populations, including all relevant species listed as FWS Birds of Management Concern. Explanation if priority species/populations deviate from priorities in latest NAWMP update. A subset of species may be identified that represent the larger set of priority species for detailed biological planning and conservation design.
	Population Objectives	Anticipated population objective variables (abundance, vital rates, etc.) identified. General description of the process that will likely be used to develop population objectives. Description of how those objectives will link to NAWMP continental objectives.	Explicit population objectives identified. Flexible population objectives identified as appropriate to account for environmental or seasonal variability. Documentation of the process for deriving population objectives and identification of major sources of uncertainty.
	Limiting Factors	A list of potential factors thought to limit waterfowl in the biological planning unit(s) used.	Demographic parameters (e.g., survival rate, recruitment rate) thought to be most limiting to priority species identified and targeted by habitat management actions.
	Species/Habitat Relationships	Discussion of population-habitat model(s) expected to be developed to relate population response to known or suspected limiting factors (e.g. empirical, conceptual).	Explicitly stated population-habitat models. Assumptions documented as testable hypotheses.

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CONSERVATION DESIGN	**Landscape/ Habitat Characterization and Assessment**	General description of Joint Venture's ecological setting relative to waterfowl habitat. List of major drivers impacting waterfowl habitat with links to assumed limiting factors and population-habitat relationships. Set of implications to waterfowl populations in the absence of partnership intervention.	A rigorous analysis of landscape/habitat carrying capacity based on explicit population-habitat models. Where possible, conduct retrospective analysis of carrying capacity (e.g., prior to 1986). Where possible, forecast expected carrying capacity with and without partnership intervention and predict impacts of expected major changes (e.g., urban growth, climate change).
	Assessment of the Conservation Estate	Preliminary summary of waterfowl habitat (acres) protected, managed, enhanced, or restored in the biological planning unit(s) used. This includes an assessment of all conservation lands that will benefit waterfowl.	Thorough analysis of existing waterfowl habitat under protection, management, enhancement, or restoration throughout the biological planning unit. Information should be presented by ownership, state, etc. where applicable. Assessment of the net change in the conservation landscape since the inception of the Joint Venture conducted at <5 year intervals.
	Decision Support Tools	Description of how the Joint Venture might develop decision support models/tools to guide specific management actions suitable to overcome limiting factors. If deemed appropriate, develop a set of spatially-explicit focus areas to guide interim conservation delivery activities.	Spatially-explicit decision support tools for specific management actions suitable to overcome limiting factors. Tools distributed to partnership based on population-habitat models where appropriate. Documented analytical processes and model assumptions.
	Habitat Objectives	General estimation of the magnitude of habitat protection, restoration, and enhancement that might be expected of the Joint Venture.	Explicit set of habitat objectives linked to population objectives and based on population-habitat models, carrying capacity, assessment of conservation estate, and decision support models as available. Habitat objectives partitioned among sources of habitat (ownership, state) where appropriate.
	Integration with non-waterfowl decision-support tools	Anticipated approach for integrating waterfowl habitat objectives with those of non-waterfowl priority species.	Description of tools for integrating habitat objectives and spatial priorities for all priority species/groups and management treatments. Description of decision-rules for conflict resolution. Description of extent of spatial/temporal overlap in conservation activities.

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HABITAT DELIVERY	**Program Objectives**	Description of how conservation programs (e.g., Farm Bill, land acquisition and restoration programs, etc.) will be linked to biologically-derived waterfowl habitat objectives.	Waterfowl habitat objectives translated into spatially-explicit program-specific objectives (e.g., North American Wetlands Conservation Act, Conservation Reserve Program, Wetland Reserve Program, National Wildlife Refuges, Wildlife Management Areas, etc.). If appropriate, ranking systems developed to inform prioritization and decision-making.
	Conservation Actions	General description of anticipated habitat conservation actions, tools, and management treatments the partnership expects to deliver to meet the needs of waterfowl.	Comprehensive list and documented description of habitat conservation actions, tools, and management treatments being deployed by partnership, including quantification of how specific conservation actions are expected to affect waterfowl abundance and/or vital rates and to what degree.
MONITORING	**Conservation Tracking System**	General description of anticipated need for tracking partnership activities (gross partnership accomplishments). A vision for creating that capability among partners.	Conservation tracking and spatial database system in place. Explicit description of how information will be used to inform decisions (e.g., increasing performance for Program X). Explanation of linkage between tracking system and biological models so that biological accomplishments can be assessed and reported.
	Habitat Inventory & Monitoring Programs	General description of anticipated process that will be employed to inventory and monitor landscape conditions, net habitat change over time, and net progress toward habitat objectives (gains and losses).	Documentation of habitat monitoring objectives and habitat parameters that will be inventoried and monitored over time. Expected process (e.g., remote sensing) and time interval for data collection. Explicit description of how information will be used to inform decisions (e.g., refining habitat or population objectives). Assessment of the net change in Joint Venture landscape conditions conducted at <5 year intervals.
	Population Monitoring Program	Description of anticipated process for prioritizing and coordinating monitoring of waterfowl population responses over time.	Documentation of demographic parameters monitored specific to each objective. Expected process (e.g., aerial surveys, nest survival) and time interval for data collection, storage, and management. Explicit description of how new information collected from monitoring programs will be used to inform future planning decisions (i.e., identify the feedback loop).

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RESEARCH	**Species/Habitat Model Assumptions**	A list of assumptions for population and habitat parameters used in models (e.g., priority species' limiting factors, predicted densities, habitat quality).	Prioritized, targeted research needed to address key uncertainties within models used in biological planning (prioritized based on value of better information).
	Conservation Treatment Assumptions	A list of assumptions inherent to the conservation actions/treatments being implemented by joint venture partners.	Prioritized, targeted research needed to address key uncertainties about the impacts of conservation treatments on Joint Venture population objectives (bird abundance/vital rates).
	Sensitivity Analyses	A list of key parameters most likely to influence 1) population response variables or 2) habitat objectives.	Statistical analysis of key parameters to examine their influence on population or habitat model results based on a range (e.g., confidence intervals) of assumed values (e.g., percent grass on landscape).
	Spatial Data Analyses	A list of concerns relating to the limitations of current spatial databases as they may affect conservation planning.	Rigorous statistical analyses, and associated refinement, of key uncertainties related to spatial data used for planning or monitoring.

* Joint Venture in this document refers to the specific joint venture partnership including all members and facets of the partnership.