Lower Mississippi Valley Joint Venture Operational Plan

for a

A landscape supporting healthy native bird populations across the LMVJV

Lower Mississippi Valley
JOINT VENTURE
www.lmvjv.org

August 2013

The members of the Lower Mississippi Valley Joint Venture Management Board agree with the guiding principles, priorities, and strategies contained within the Operational Plan and are committed to its long-term implementation. This commitment, recognizing that funding is subject to annual budgetary constraints and processes of each individual agency or organization, does not obligate funding at any prescribed level.

Ed Penny, Chairman
Mississippi Department of Wildlife, Fisheries, and Parks
Mike Balboni
U.S. Forest Service
Greg Esslinger
U.S. Fish and Wildlife Service
Ricky Chastain
Arkansas Game and Fish Commission
Joe Hemphill
Oklahoma Department of Wildlife Conservation
Ray Herndon
The Conservation Fund
Jerry Holden
Ducks Unlimited
David Pashley
American Bird Conservancy
Alan Peterson
Tennessee Wildlife Resources Agency
Joel Porath
Missouri Department of Conservation
Rocky Pritchert
Kentucky Department of Fish and Wildlife Resources
Jeff Raasch
Texas Parks and Wildlife Department
Kenny Ribbeck
Louisiana Department of Wildlife and Fisheries
Ron Seiss
The Nature Conservancy
Mike Sullivan
U.S.D.A. Natural Resource Conservation Service
Phil Turnipseed
U.S.G.S. - National Wetlands Research Center
E. J. Williams
U.S. Fish and Wildlife Service

This report may be cited:
Lower Mississippi Valley Joint Venture Management Board. 2013. Lower Mississippi Valley Joint Venture Operational Plan. Vicksburg, Mississippi. 39 pp.

In pursuit of a landscape supporting healthy native bird populations and other wildlife across the LMVJV…

Dedicated to bird habitat conservation

Committed to the use of the best science available

Believing in the power of partnership

Lower Mississippi Valley Joint Venture
Operational Plan

INTRODUCTION

The Lower Mississippi Valley Joint Venture (LMVJV) was formed in 1987 as a regional partnership working towards achieving the goals and objectives of the North American Waterfowl Management Plan (NAWMP). The LMVJV quickly went to work assessing the most pressing habitat needs, and forming public and private lands partnerships to restore, enhance, and protect wetland habitats important to waterfowl. The legacy of these early efforts persists today on national wildlife refuges, wildlife management areas, and private lands across the region.

In the late 1980's the North American Bird Conservation Initiative (NABCI) emerged with the vision of "regionally-based, biologically driven, landscape-oriented partnerships delivering the full spectrum of bird conservation across the entirety of North America." The LMVJV formally accepted responsibility for achieving this strategic conservation vision under NABCI in the LMVJV region in 2001. Since that time, the LMVJV has been a leader in bird conservation planning, design, delivery, monitoring, and research. In fact, the wide acceptance and understanding of Strategic Habitat Conservation across the North American conservation community is in no small part due to the pioneering leadership of the LMVJV partners, undertaking the enterprise of integrated bird conservation.

The conservation landscape has changed (for better and worse) since the inception of the LMVJV and many challenges remain to be addressed. In the Mississippi Alluvial Valley where once soybeans and cotton displaced bottomland hardwood forests, now crops for biofuels compete in many places with the native flora for space. In the West Gulf Coastal Plain/Ouachitas, the old challenge of nudging large timber companies towards more wildlife-friendly management practices has given way to an even greater challenge of reaching out to a multitude of landowners, as these timber companies' large holdings have been splintered and sold. In 1987 NAWMP Joint Ventures were unique in the conservation world, striving to understand how to best carry out their charge for wetland and grassland habitat conservation in the regions of the U.S. and Canada most important to waterfowl. Today, Joint Ventures blanket the U.S. with "all-bird" responsibilities, and are now accompanied by Landscape Conservation Cooperatives, charged with coordinating the conservation enterprise for all wildlife species and cultural resources. Finally, the conservation community that once looked back to formulate reasonable population and habitat objectives, now finds itself increasingly looking ahead to predict future landscapes impacted by stressors such as urban growth, climate change, and global economics. All the while, new technologies continue to increase our capability to remotely sense, analyze, manage, understand, and share important biological information.

It is against this backdrop of past successes, significant change, and future uncertainty that the LMVJV Management Board develops this Operational Plan.

This Plan articulates the collective expectations of the Management Board with respect to how the LMVJV operates, interacts, and cooperates among all its parts (office staff, partners, other partnerships) – **i.e., *what the LMVJV looks like*** - and what the essential expected outcomes are – **i.e., *what the LMVJV's accomplishments look like***. Having done this effectively, the LMVJV Management Board, coordinator, office staff, and partner staff will have proper context for making key (and perhaps tough) resource allocation decisions in the future.

THE HIGH VALUE OF PARTNERSHIP

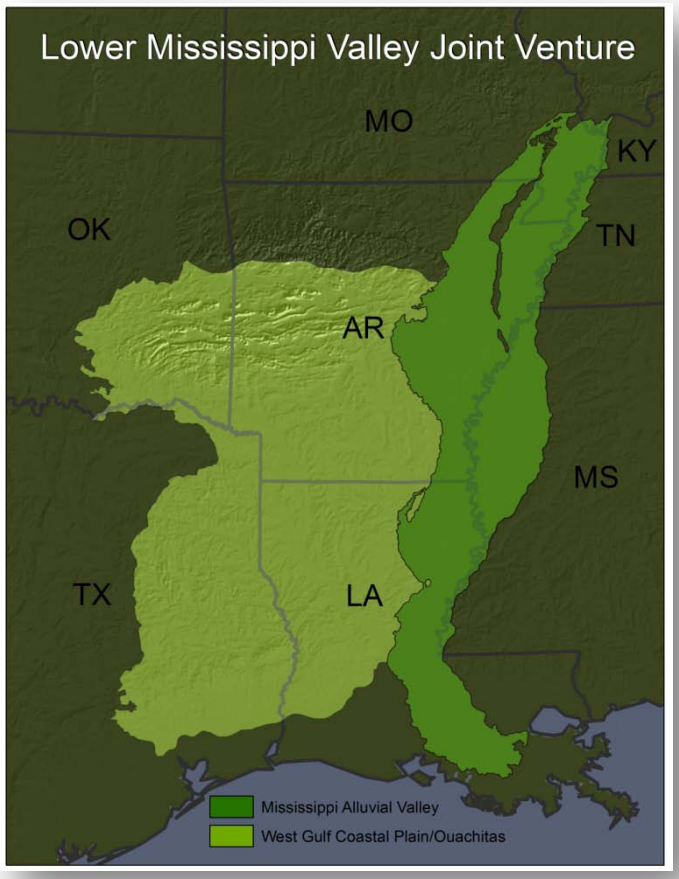
Never before has the conservation community in North America faced such a daunting challenge as the one before us today—a rapidly changing natural environment with limited resources to address and reverse population and habitat declines. For the first time since signing of the North American Waterfowl Management Plan and establishment of Joint Ventures, state and federal agency budgets across the board anticipate no modest increases or even maintenance of the status quo, but simply hope to hold on and minimize reductions. NGOs are in no better shape. At the same time, threats to our natural systems and native bird populations multiply and intensify daily. The steady march of urban development, the vagaries of agricultural commodity markets and their effects on Farm Bill programs, and the uncertainty of the impacts of climate change on wildlife habitats are but a few clear reminders of the daunting task ahead for conservation.

Despite the challenges, however, opportunities for better, more efficient and effective conservation are well within our grasp. These opportunities reside not in individual organizations buckling down and working harder – but in thriving, effective partnerships. The Lower Mississippi Valley Joint Venture has a proud history of *partners truly partnering*, sharing resources and responsibility to ensure that those resources directed toward conservation are invested well. The LMVJV has well-established partnership connections, enhanced by expanding locally driven Conservation Delivery Networks. The LMVJV has a legacy of careful, thoughtful biological planning powered by intelligent use of technology, and guided by high expectation. This Joint Venture has a unique and positive relationship with its associated Landscape Conservation Cooperative (Gulf Coastal Plains & Ozarks LCC), affording its partners the benefits of both focused bird habitat conservation, as well as integration and connection to cutting edge science and technology beyond birds.

The time is right. The LMVJV partnership is poised to take inspiration from past successes and focus our resources, energy, and connections on an even more effective and higher functioning bird conservation partnership than ever before. The Goals and Strategies that follow will ensure a Lower Mississippi Valley Joint Venture ***Dedicated to bird habitat conservation, Committed to the use of the best science available,*** and ***Believing in the power of partnership***!

THE LMVJV CONSERVATION LANDSCAPE

The LMVJV region is composed of two distinct Bird Conservation Regions: the Mississippi Alluvial Valley (MAV) and the West Gulf Coastal Plain/Ouachitas (WGCPO). Whereas bird species composition is very similar between these two ecoregions, land use, bird habitat types and juxtaposition, and major threats and disturbances to natural processes are dissimilar. As a result, conservation partnerships, priority actions and opportunities within these two areas are regionally distinct.



Mississippi Alluvial Valley

The Mississippi Alluvial Valley (MAV) supports a diverse and ecologically rich forested wetland ecosystem – one of the most productive in North America. The MAV, a 22 million acre floodplain, extends from the confluence of the Mississippi and Ohio Rivers, to the northern Gulf of Mexico. The topographically complex floodplain features a mosaic of ridges, swales, meander belts and backswamps. Small changes in elevation (<1 foot) in the MAV are associated with large shifts in hydrology, which in turn, strongly affect plant and animal community composition and structure, making it a fertile and productive floodplain.

The rich alluvial soils of the forested floodplain proved to be a "gold mine" for the agrarian European settlers. Early clearing for agriculture focused on the higher landforms associated with braided stream terraces and the natural levees that were partially protected from the potentially devastating and relatively frequent flooding. Expansive federally sponsored flood control and drainage projects opened up new opportunities for agricultural development such that by the 1950s only 9 million acres of forested wetlands remained – confined primarily to the more poorly drained portions of the floodplain. However, continued flood control and drainage projects and high commodity prices over the next 30-35 years led to more than 4 million acres of the remaining forested wetlands being cleared, despite the fact that lands were typically on poorly drained sites subject to regular flooding. By the early 1990's less than 25% of the MAV was forested, and most of this forest occurred on the unprotected

side of the mainline Mississippi River levees or within the public land estate (e.g., National Wildlife Refuges and State Wildlife Management Areas).

Today, the MAV continues to support significant migratory bird habitats and populations and is home to many federally-listed fish, plant, invertebrate, and mammal species. Nearly 40% of North America's waterfowl and 60% of all U.S. bird species migrate or winter in the MAV. The MAV was identified as a priority geography for waterfowl in the original North American Waterfowl Management Plan (1986), and the Lower Mississippi Valley Joint Venture partnership continues to improve waterfowl habitat conditions, as well as habitat for songbirds, shorebirds, and wading birds in this heavily degraded landscape.

West Gulf Coastal Plain/Ouachitas

The West Gulf Coastal Plain/Ouachitas (WGCPO) physiographic area occupies about 52 million acres in southwestern Arkansas, southeastern Oklahoma, western Louisiana, and eastern Texas, and lies within the Humid Southeast Region of the U. S. It comprises two subregions: all of the West Gulf Coastal Plain and the Ouachita Mountain portion of the Ozarks/Ouachitas. The region is dominated by pine forests on the uplands, shortleaf to the north and longleaf and loblolly to the south, and is dissected by numerous river systems characterized by forested wetlands, largely bottomland hardwood forests. Longleaf pine-bluestem savannahs formerly dominated the uplands in southeastern Texas and southwestern Louisiana, however these forests are much less common in today's landscape, comprising less than 3% of the land area of the WGCPO. Shortleaf pine mixed with oaks and hickories historically was the predominant forest type outside of the longleaf range. Today much of the shortleaf pine forest has been replaced by loblolly pines, except in the Ouachitas and the drier areas to the west. Loblolly pines were formerly confined to flatwoods in the south and along moist (mesic) slopes in other areas, but now have largely replaced shortleaf and longleaf as plantations in most areas.

Outside of pine forests, the most extensive plant community type in the WGCPO is mixed pine - hardwood that is often a successional stage on lands previously occupied by other types. Bottomland hardwood forests of various oak species, black gum, sweetgum, elms, and ash are found in stream and river bottoms. Swamps of cypress and/or tupelo are found in frequently to permanently flooded sites. Other wetlands dominated by herbaceous emergent and floating plants are occasionally found in permanently flooded areas.

The Federally Endangered red-cockaded woodpecker is among the highest priority species in the WGCPO and occurs in open, park-like pine savannahs. Other high priority species that nest in this habitat type include Bachman's sparrow, northern bobwhite, and the brown-headed nuthatch. Pine savannahs are a conservation priority because of the numerous bird species they support, and they continue to be impacted by urban/suburban development, conversion to pasture, conversion to pine

plantations, lack of thinning, and the lack of prescribed burning and/or suppression of naturally-caused fires.

Bottomland hardwood forests, cypress/tupelo swamps, and riparian habitats are distributed widely in association with the numerous rivers and tributaries within the WGCPO, and support priority species including Acadian flycather, Louisiana waterthrush, Swainson's, yellow-throated, and prothonotary warblers, and red-shouldered hawk. Bottomland forests also support substantial populations of several waterfowl species including wood duck and mallard. The primary threats to these forests of high conservation priority include reservoir construction, stream modifications, poorly planned timber harvesting practices, and conversion to pine plantations, pastures, and other land uses.

GUIDING PRINCIPLES

Following are the basic principles that provide direction to the structure and work of the Lower Mississippi Valley Joint Venture.

Vision
A landscape supporting healthy native bird populations and other wildlife across the LMVJV.

Mission
The Lower Mississippi Valley Joint Venture functions as the forum in which the private, state, federal conservation community develops a shared vision of bird conservation for the Lower Mississippi Valley region; cooperates in its implementation; and collaborates in its refinement.

Purpose
The Lower Mississippi Valley Joint Venture is a self-directed, non-regulatory private, state, federal conservation partnership that exists for the purpose of sustaining bird populations and their habitats within the Lower Mississippi Valley region through implementing and communicating the goals and objectives of relevant national and international bird conservation plans.

Biological Scope
The Lower Mississippi Valley Joint Venture partnership is focused on the protection, restoration, and management of birds of the Lower Mississippi Valley Region and their habitats.

Operational Scope
The operational scope of the Lower Mississippi Valley Joint Venture encompasses bird biological planning, conservation design, population and habitat monitoring, evaluation and research, and implementation through a biologically driven, landscape-oriented partnership.

Geographic Scope
Lower Mississippi Valley Joint Venture planning, implementation, and evaluation are specific to Bird Conservation Regions (BCR's) as defined by the U.S. NABCI Committee. Our primary geographic focus is the two BCR's lying entirely or mostly within the LMVJV administrative boundary - the Mississippi Alluvial Valley and West Gulf Coastal Plain/Ouachitas.

FUNCTIONS, SERVICES, AND PARTNERSHIP INFRASTRUCTURE

The NABCI goal of "regionally-based, biologically driven, landscape-oriented" conservation requires that a Joint Venture partnership serve functions and provide services that extend across state boundaries, often transcend the jurisdictional reach and capability of any individual partner, and address the full suite of Strategic Habitat Conservation elements. Such a partnership might be characterized as a fully functioning Joint Venture. The LMVJV has adopted an Operational Compass (***Appendix A***) to clarify what this means in very practical terms, and to aid in assessing our progress towards the goal of being fully functional across the entire "Bird Conservation Enterprise". The expectations of a fully functioning Joint Venture are described in ***Desired Characteristics for Habitat Joint Venture Partnerships*** (the "JV Matrix"; ***Appendix B***). These expectations are organized into the following seven themes:

- Organizational Performance
- Biological Planning
- Conservation Design
- Habitat Delivery
- Monitoring and Evaluation
- Assumption-based Research
- Communication, Education and Outreach

Accordingly, our member agencies and organizations seek to provide, through their collective actions, value-added services relevant to these themes, as described in more detail in the pages to follow. For each theme, a succinct list of the specific expectations is shown in a "Coordination/Partnerships" and "Technical" box for easy reference.

ORGANIZATIONAL PERFORMANCE

Coordination/Partnership Expectation

- Ongoing networking and partnership expansion
- Partnership finds and fills capacity gaps
- Participates in developing funding messages to Congress, cultivating relationships with Congressional delegation
- Management Board participation in the Association of Joint Venture Management Boards

The organizational structure of the LMVJV is composed generally of a **Management Board, JV Support Office, Working Groups**, **and Partner Organization Staff**. Each of these entities has unique and specific roles and functions, as described below. For example, it is the role of the Management Board to set the broad direction and priorities for the partnership's shared activities, and the Support Office's responsibility to facilitate the timely accomplishment of priorities through day-to-day coordination and attention. However, identifying and filling critical capacity gaps is the responsibility of the entire partnership, such that making decisions on how and by whom various functions are filled will depend on the strengths and weaknesses in both Partner and Support Office capacity.

Required Elements to Meet Expectations

- JV Support Office Coordination, Technical, and Administrative Staff
- Active Management Board
- Active Working Groups
- Implemented Congressional Outreach Strategy
- Ample Administrative/Operating Funds

Status

Management Board The LMV Joint Venture is overseen and directed by a private, state, federal Management Board. The Management Board membership includes agencies or organizations, which by virtue of mission or legislative authority, commit to sharing in the responsibility of implementing national and international bird conservation plans within the LMV region. Member organizations are expected to commit/dedicate energy and resources to developing a shared vision of bird conservation for the LMV and coordinating their otherwise independent actions in the cooperative pursuit and refinement of that vision.

Management Board members are expected to represent their agency or organization at an administrative and policy level on matters pertaining to allocating human and financial resources toward protection, restoration, and management actions that are inherent to the sustained, long term conservation goals of the partnership.

Recognizing that the commitment of member agencies/organizations is voluntary and subservient to the organization's mission, authorities, and budgetary capabilities, Management Board members are expected to participate regularly and fully in advancing the goals and objectives of the LMV Joint Venture. Board members will be expected to attend two Management Board meetings a year, participate in conference calls or ad hoc working groups, and fulfill other such responsibilities in the course of a year as may be deemed appropriate by the Board as a whole.

As further described in the *Management Board's Operating Procedures (Appendix C)*, the Board is open on an adjunct basis to agencies, organizations, or individuals whose mission may not lend itself to sharing fully in the broad spectrum of conservation actions inherent in implementing national and international bird conservation plans, yet have an abiding interest in a joint commitment of energies and resources on specific areas of mutual concern.

LMV Joint Venture Support Office In furthering the purpose and mission of the Joint Venture, the Management Board is supported by a full time professional and technical staff. While the Joint Venture Support Office may from time to time receive funding and staff from other partners, the Office will operate as a field station of the U.S. Fish and Wildlife Service in the service of the LMV Joint Venture Management Board. The Joint Venture Coordinator and associated staff will be responsible for facilitating, guiding, and leading the various working groups created by the Board in pursuing all facets of Joint Venture implementation.

Working Groups Management Board representatives engage their professional and technical staff in the various facets of Joint Venture implementation through the forum of permanent or ad hoc "Working Groups", "Teams", and/or “Networks.”

Technical Expectations

- *MB* – Members bring significant resources to the partnership
- *MB* – Process in place for periodic self assessment
- *Budget/Grant/Admin* – Admin staff capable of handling grants, etc.
- *Budget/Grant/Admin* – Grant writing capacity (partners and/or staff)
- *Budget/Grant/Admin* – Cultivates new sources of funding
- *Budget/Grant/Admin* – Annual and long-range development planning
- *Technical* – Science Coordinator & Geospatial Technician
- *Technical* – Functional Technical Committees with full partnership

Priorities

The highest priorities for Organizational Performance are as follows:

- **A.** Increased engagement and involvement from a greater proportion of Management Board members
- **B.** Improved communication of LMVJV activities, accomplishments, and needs among Management Board members and their organizations' staff, JV Support Office staff, and other partners
- **C.** Cultivating relationships with key Congressional delegations and relaying accomplishments.
- **D.** Cultivating new sources of funding for partner activities
- **E.** Sufficient JV Office budget to support staff, travel, and activities

Strategies

Achieving priorities A, B, C, and E largely (or solely) are functions of effective communication. These issues are addressed in "Communication, Education, and Outreach" detailed below. Effective accomplishment tracking is a key component of communication focused on maintaining support for the JV, and therefore is important to Organizational Performance. A process for accomplishment tracking that efficiently provides sufficient information should be developed and refined over time.

JV Support Office staff will continue to dialogue with partners and potential funders (foundations, federal grants, other private sources) to craft messages depicting the LMVJV partnership as a well-organized, science grounded, and trustworthy investment. In particular, the LMVJV's approach to conservation design along with the existence of highly functional Conservation Delivery Networks provides a "complete package" that is attractive to funders.

BIOLOGICAL PLANNING

Goal 1: Landscape-oriented, biologically driven, partner vetted population objectives for priority species within all bird guilds in both BCRs by 2018

Coordination/Partnership Expectations

- JV partners integrate JV biological objectives with relevant work of their agency

Establishing biologically-based, landscape-scale, transparent population and habitat objectives has been central to the work of the LMV Joint Venture for over two decades. ***Appendix A*** summarizes an assessment of the progress/status to date of each functional element within the Bird Conservation Enterprise, organized by BCR. LMV Joint Venture accomplishments in Biological Planning, particularly in the MAV, have been impressive. Such progress largely has been the product of partner commitment (evidenced by investment of staff time and other resources) coupled with JV Support Office staff technical expertise and leadership. It is important to understand that one does not get very far without the other. Specifically, a very successful formula for taking great strides in establishing the LMVJV's solid biological foundation has been applied to both waterfowl and landbirds in the MAV. In both of these cases the effort was characterized by JV Support Office staff co-leadership with a partner "chair" and significant intellectual input by partner staff, technical input by partner staff where available & appropriate, and significant technical input by JV Support Office staff. Closing the existing gaps in biological planning require similar commitment and effort by the partnership.

Technical Expectations

- *Biological Planning Unit* – Biological Planning Units defined as BCR or sub-BCR
- *Priority Species* – Final list of priority birds
- *Population Objectives* – Explicitly set with documentation of the process and identification of uncertainties
- *Limiting Factors* – Demographic factors targeted by habitat management actions
- *Species/Habitat Relationships* – Explicitly stated population-habitat models with assumptions documented as testable hypotheses

Required Elements to Meet Expectations

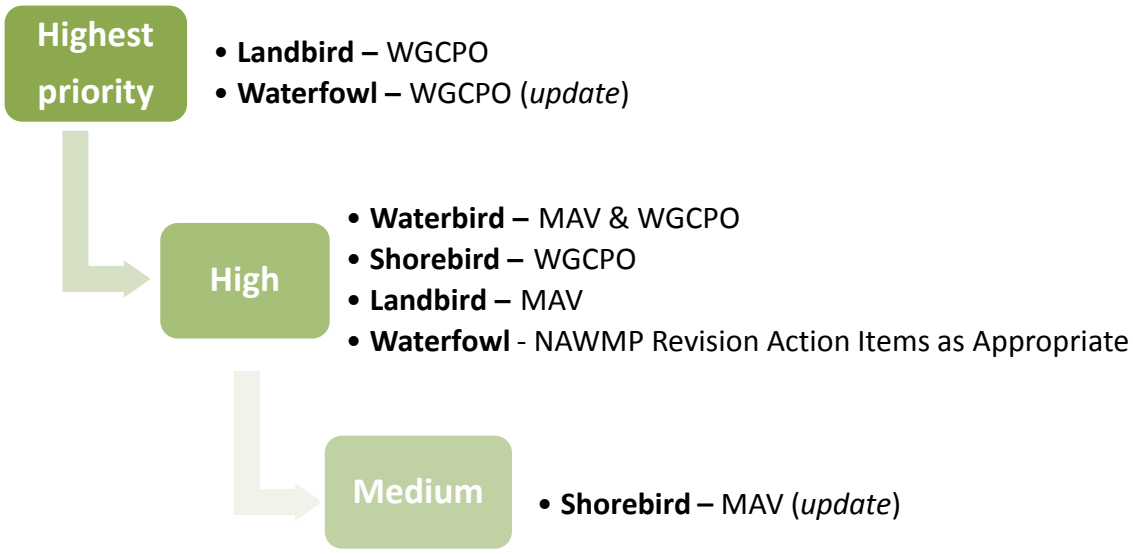
- Science Coordinator
- Partner leads for each bird guild (waterfowl, landbirds, etc.)
- Identification and provision of Working Group participants by Management Board members
- Other subject experts
- Sufficient, relevant biological information
- Technical capacity for modeling, analysis, etc.

Status

The largest deficiencies in biological planning occur in the WGCPO for Landbirds and Shorebirds, and in both the MAV and WGCPO for Waterbirds. Varying degrees of update are needed in the MAV for Shorebirds, Landbirds, and Northern Bobwhite, and in the WGCPO for Waterfowl and Northern Bobwhite.

Priorities

Perhaps chief among the criteria for prioritizing Biological Objective activities is the degree to which the lack of biological planning hampers the delivery of conservation in support of priority birds. Posed as a question, where would LMVJV strategic biological planning have the greatest influence to increase our partner's ability to focus effort, garner additional resources, and achieve results in bird habitat conservation? This logic would suggest the following priorities:



Strategies

Shifts in personnel within partner agencies and within the JV Support Office over the past several years have changed the "capacity landscape" upon which our science activities operate. The first step in meeting the Biological Planning Goal will be establishing a viable Science Team, led by the Science Coordinator and a Team Chair. The Science Team is charged with reviewing the status of LMVJV biological foundation (***Developing and Refining the Biological Foundation of the Lower Mississippi Valley Joint Venture: an Assessment of Biological Planning, Monitoring, and Evaluation Issues*** [2002]), and developing and implementing an updated set of science priorities at 5-year intervals, including a reasonable timeline for completion of at least medium-term tasks. Further, the

Science Team is encouraged to reach out to, cultivate, and organize an array of science specialists composed of long-standing contributors as well as scientists who are new to the LMVJV partnership.

A community of scientists thoroughly familiar with and contributing to the science needs of the LMVJV is critical. Achieving significant progress towards setting and/or refining LMVJV biological objectives depends upon a critical mass of subject matter experts to help assemble the available information, evaluate the range of approaches, then apply their expertise to the information to arrive at useful and defensible objectives.

The Science Coordinator and/or representative of the Science Team should report at least annually to the Management Board on progress towards meeting the partnerships' Biological Planning objectives. In particular, identification and discussion of barriers to achieving priority tasks would afford the Management Board an opportunity to better understand challenges and endeavor to find solutions to specific problems.

CONSERVATION DESIGN

Goal 2a: Habitat objectives for priority species within each bird guild in both BCRs by 2018

Goal 2b: Effective decision support tools to link habitat objectives for priority species to delivery action by 2018

Conservation Design, in its simplest form, makes the first tangible connection between biological objectives and the landscape those objectives are meant to affect. Hence, this aspect of the conservation enterprise is often key to our ability to successfully translate biological objectives into effective action "on the ground".

Coordination/Partnership Expectations

- Implements strategies to use JV science products to target and enhance delivery programs
- MB members build strong linkages to decision makers to strengthen their understanding of JV capabilities and activities

As with Biological Planning, the LMVJV has been relatively productive in this aspect of the conservation enterprise. In fact, across bird taxa and Bird Conservation Regions, Conservation Design expectations are the most up-to-date of all the conservation functions (***Appendix A***). The MAV Forest Breeding Bird Decision Support Tool, stepped-down waterfowl objectives, Conservation Planning Atlas, and Potential Natural Vegetation models are but a few examples.

Required Elements to Meet Expectations

In addition to the obvious bird-focused tools and models, Conservation Design also can be applied to facilitate understanding of the partnership's bird objectives and priorities in light of other natural resource and/or socioeconomic goods and services. A relevant example here is the spatial analysis of the nexus of bird habitat priorities with water quality improvement needs or priorities. Such analyses require not only bird conservation expertise, but effective collaboration with scientists familiar with water quality issues and applications of available data. This example (and many others) highlights the reality that capturing all reasonable types of knowledge and expertise in a single Science Coordinator, or even Science Team, is not possible. A natural extension of this reality is the need to (1) establish and cultivate positive working relationships with other entities possessing necessary expertise (e.g., LCCs, other JVs, etc.) and to (2) identify and engage such expertise and capacity found in the staff of partner organizations.

- Science Coordinator
- Partner Lead ("Chairperson" in some instances) for Working Groups
- Partner Subject Experts
- Biological Objectives
- Existing, relevant biological information
- Technical Capacity (JV Support Office and/or Partner)

Status

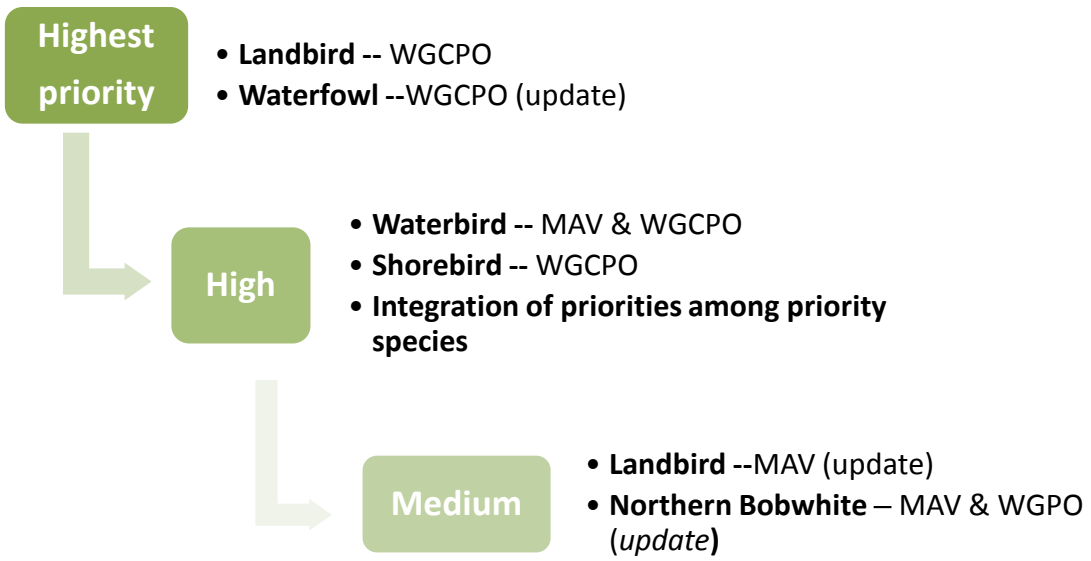
The largest deficiencies in conservation planning occur in the WGCPO for Shorebirds, Landbirds, and Waterfowl, and in both the MAV and WGCPO for Waterbirds. Integration of multiple species objectives logically depends upon the existence of multiple objectives, and so will continue to be an area of deficiency until a threshold of multiple objectives exists. Varying degrees of update are needed in every other aspect of the matrix for Conservation Design, except in the MAV for waterfowl, and in both BCRs for Northern bobwhite.

Technical Expectations

- *Landscape Characterization/Assessment* – Rigorous analysis of K based on population models
- *Landscape Characterization/Assessment* – Assess historic and predicted future K
- *Landscape Characterization/Assessment* – Assessment of Conservation Estate, updated at 5-yr interval
- *Decision Support Tools* – Spatially-explicit DSTs for specific actions to overcome limiting factors, distributed to appropriate partners
- *Habitat Objectives* – Explicit, linked to pop. objectives, and stepped down as appropriate
- *Integration of Avian DSTs* – Documented process or integrating priorities among all priority species

Priorities

The criteria for prioritizing Conservation Design activities are the same as those described for Biological Objectives – "where would LMVJV Conservation Design best facilitate the partners' ability to focus effort, garner additional resources, and achieve results in bird habitat conservation?" This logic would suggest the following priorities:



Strategies

Please see Biological Objectives Strategies (pp. 12-13)

HABITAT DELIVERY

Goal 3a: The Partnership actively seeks and supports opportunities to foster existing and emerging opportunities for coordinated habitat delivery in support of LMVJV objectives

Goal 3b: Fully-functioning Conservation Delivery Networks throughout the JV, guided by LMVJV objectives by 2016

Coordination/Partnership Expectations

- Provides structure and process that generates, attracts, leverages, and implements habitat conservation actions in support of JV objectives

Well-founded, science-based biological objectives and robust conservation design are of little use if they are not understood and used by delivery personnel. As the ecological scope of the LMVJV's responsibilities have expanded since its inception (from waterfowl to all birds), and the available information and technology have grown exponentially, the value of effectively conveying the partnership's collective goals, objectives, decision support products, datasets, etc. "to the field" has grown accordingly. Conservation Delivery Networks (CDNs) were conceived and developed by the LMVJV, in part, to address this need. Additionally, partners fully recognize the value in leveraging and sharing resources, focusing collectively on common priorities, and sharing information. CDNs provide fertile ground for these and other productive partnership activities.

Technical Expectations

- *Program Objectives* – Translate bird habitat objectives into explicit program-specific objectives
- *Conservation Actions* – Comprehensive list and documentation of habitat conservation actions, tools, and treatments being deployed by the partnership, including quantification of how they are expected to affect biological outcomes
- *Delivery Capacity* – Fully developed partnership delivering on-the-ground bird conservation explicitly linked to JV objectives

CDNs are forums whereby members of the Joint Venture and other appropriate conservation organizations coordinate on-the-ground delivery of their otherwise independent efforts, with the scope of coordination intended to include not only the implementation of individual projects, but also the refinement of programs as partners deal with emerging challenges such as urban sprawl, habitat loss and degradation, altered hydrology, and potential long-term effects of global climate change.

CDNs provide a functional link for translating biological planning and conservation design tools (science at landscape scales) to more effective action on the ground. Importantly, this link also facilitates enhanced feedback from delivery staff to the planners**.**

Stated succinctly, the role of CDNs, with assistance and coordination provided by Partnership Coordinators, is to:

(1) facilitate effective exchange of information between planners and delivery staff (e.g., professionals on-the-ground), and

(2) facilitate more effective communication, coordination, and collaboration among the full spectrum of conservation organizations working to positively impact the landscape for wildlife populations within the Lower Mississippi Valley Joint Venture region.

Facilitating these two core tenants through the establishment of CDN's also results in enhanced utilization of shared resources and leveraging of capacities (i.e., staff, equipment/facilities and funding).

Required Elements to Meet Expectations

The conservation programs of LMVJV partners form the operational link, both individually and collectively, between the JV's ecoregional-scale biological planning and its site-scale and project-scale delivery of conservation. Capacity investments from the entire JV partnership (e.g., JV Support Office, individual partner organizations) are necessary to coordinate the suite of protection, restoration, and management practices offered within the JV geography so as to maintain and enhance the synergies of partner programs. The success of functioning CDNs as envisioned most notably will be defined by the commitment of both staff and operational capacity toward achieving the shared conservation goals emanating from these newly established collaborative networks.

- Partnership Coordinator – Mississippi Alluvial Valley BCR
- Partnership Coordinator – West Gulf Coastal Plain/Ouachitas BCR
- Partner Leads (Chair and Vice-chair per CDN)
- Partner Delivery Personnel
- Biological Objectives, particularly as reflected in landscape scale Decision Support Models
- Technical Capacity (JV Support Office and/or Partner) – particularly Geo-information related
- Funds to support delivery action

Status

Implementation of CDNs by the LMVJV partnership has enjoyed relative success in the first few years of establishment. The progress achieved is the product of numerous commitments by JV partner organizations to provide both funding and active engagement in CDN development and establishment. The creation of two Partnership Coordinator positions in 2009, one for each of the LMVJVs two BCRs, was the first significant and proactive step in that direction. Initial JV planning targeted the creation of eight CDNs within the LMVJV, four in each BCR. The first CDN was formed in

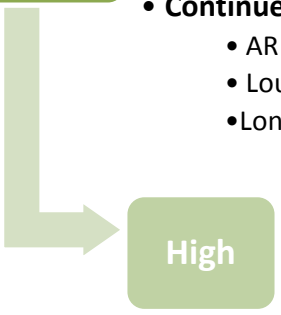
the MAV of Arkansas in the fall of 2010. This first JV-sponsored Network has effectively taken root by developing a unique landscape level, geospatial planning tool (i.e., "Delivery Prioritization Tool") that has already gained acceptance as a useful product for delivery planning in the Arkansas MAV. Additionally, the AR MAV CDN has developed a catalog of over 40 conservation project needs that are proving beneficial to multiple MAV conservation organizations toward establishing partner driven conservation delivery priorities.

In the summer of 2012, a two-state CDN was initiated in the Delta of Mississippi and Northeast Louisiana (LA MS Delta CDN). This CDN is still in its formative stage, but is following a similar development pattern as that of the AR MAV CDN. Additionally, initial planning and coordination is well under way toward the creation of a CDN in Northeast Texas. Also, several CDN-like partnerships have formed, including an informal working agreement with the Texas-Louisiana Longleaf Taskforce, which has agreed to cooperate and to the extent possible, integrate CDN coordination as it relates to its longleaf pine related objectives. Additionally, the JV has established a formal working relationship with the Louisiana Conservation Delivery Committee (LCDC). The LCDC functions as an organized forum for regular communication and coordination, above the program or project level, and includes a broad range of Louisiana conservation organization leaders involved in delivery across the state. This group has agreed to support and help establish CDNs throughout the State of Louisiana.

Priorities

Continued establishment of CDNs across the LMVJV will be the highest delivery priority in the years ahead. The original intent was to create eight CDNs. However, since their initial inception, the originally planned geographic makeup of several CDNs has changed. The geographical makeup, pace of formation and capacity dedicated to establishment of each is ultimately based on the support, interest, and objectives of JV partner organizations within a given geography.

- **Establish additional CDNs in WGCP**
  - AR WGCPO CDN
  - LA WGCPO CDN
- **Continue support of existing CDNs & Cooperatives**
  - AR MAV CDN; LA-MS Delta CDN; NE TX CDN
  - Louisiana Conservation Delivery Committee
  - Longleaf Task Force



- **Develop additional CDN in MAV BCR**
  - Atchafalaya Basin CDN
  - MO/TN/KY CDN
- **Foster & develop unique partnering opportunities to support CDN growth**

Strategies

In the early years of development, the JV has experienced interest from within both BCRs in the establishment of CDNs. Due to a combination of JV Support Office staff changes and varying levels of partner interest, the largest percentage of JV capacity investment from both partner organizations and JV office staff has been placed on the development of CDNs within the MAV. Therefore, in the near term, a greater emphasis will be placed by the partnership on establishing additional CDNs within the WGCPO. Also, in order to meet the functional goals of the networks, the JV partnership will continue to make significant capacity commitments in CDNs which are already established, particularly regarding support provided by the JV Office staff.

LMVJV commitments to supporting and developing existing CDNs, as well as focusing efforts to establish additional Networks, will primarily be the responsibility of the JV's two Partnership Coordinators. However, experience has demonstrated that the development of these networks also requires the support of technical staff, primarily in the form of conservation delivery-based GIS planning and support. It will be critical, therefore, for the JV to maintain and continue developing its core geospatial technical capacity both within the JV Office itself and through GIS based support of LMVJV partner organizations. As the earliest developed CDN (i.e., AR MAV) has evolved and matured, it has become apparent that supporting the development of field technical staff (e.g., private lands biologist, Partners for Fish and Wildlife Biologists, etc.), as well as that of private non-industrial landowners through training and workshops will be key to advancing the work of CDNs. The JV Partnership Coordinators will play a key role in supporting local partner organizations in delivering these important developmental efforts.

Each established CDN is compelled, through direction of the LMVJV's Conservation Delivery Network Charter, to report progress annually to the Management Board. In particular, identification and discussion of barriers to achieving priority tasks would afford the Management Board an opportunity to better understand challenges and endeavor to find solutions to specific problems.

MONITORING & EVALUATION

Goal 4a: Develop iterative habitat and population monitoring & evaluation priorities by 2015

Goal 4b: Deploy highest monitoring and evaluation priorities by 2017

Coordination/Partnership Expectations

- Provides structure and process to generate, attract, leverage, and implement outcome-based monitoring in support of JV objectives

Monitoring and evaluation are key elements of strategic conservation because they (1) provide the essential feedback loop which allows for measuring success towards objectives, and (2) supply much of the raw material for testing important assumptions made in the Biological Objectives and Conservation Design phases. In reality, however, these elements tend to be the most consistently ignored and/or underfunded of all the strategic conservation activities. Fulfilling the expectations of Monitoring & Evaluation will require that the LMVJV address several basic issues, as described in "Strategies" below.

Technical Expectations

- *Conservation Tracking System* – In place, with explicit description of linkage to models for assessment
- *Habitat I&M* – Documentation of objectives and parameters to be inventoried and monitored, with expected process and time interval, and description of how information will be used to inform decisions
- *Habitat I&M* – Net change in habitat conditions assessment every 5 years
- *Population Monitoring* – Documentation of demographic parameters monitored with expected process and time interval, and description of how information will be used to inform decisions

Required Elements to Meet Expectations

- Science Coordinator/JV Support Office Staff Lead
- Biological Objectives and Conservation Design elements with clearly defined assumptions
- Monitoring and Evaluation Plan
- Active and effective network of LMVJV partners involved in all facets of key monitoring and evaluation activities

Status

The greatest deficiencies in monitoring and evaluation occur across all taxa in the WGCPO, and for Waterbirds and Shorebirds in the MAV.

Priorities

Prioritizing monitoring and evaluation requires a thorough review of the partnership's planning and design assumptions, coupled with an assessment of ongoing and developing monitoring networks and systems. The first priority for the LMVJV in this regard is an updated Monitoring and Evaluation Plan. It is expected that explicit priority actions will emerge from and be described in the M&E Plan.

Strategies

First, assumptions made in developing biological objectives and conservation design need to be clearly stated and documented. Success in monitoring and evaluation will be defined by how thoroughly and succinctly the partnership tracks and accounts for important biological responses (habitat quantity/quality, key population metrics, etc.) across our taxa and regions of responsibility. Second, LMVJV partners and staff must understand, coordinate with, and where possible, influence ongoing and developing monitoring schemes, systems, and networks to optimize the collective "data collection" efforts. The USFWS Refuge Information & Monitoring program, Avian Knowledge Network, and Integrated Waterbird Monitoring & Management program are but a few examples of monitoring and evaluation efforts that hold great promise for providing capacity and organization towards meeting LMVJV information needs. The prospects for this are quite good due to the fact that many LMVJV partners already are involved in these and other efforts. For that to happen, though, a great deal of communication, coordination, and cooperation are needed now and into the future. Hence the final point – strong leadership from the Science Coordinator and Science Team are necessary to identify and prioritize Monitoring and Evaluation needs. Deliberate and disciplined execution of a Monitoring and Evaluation plan offers the most reasonable and effective approach to fulfilling our Monitoring and Evaluation goals.

The Science Coordinator and Science Team are charged with developing a Monitoring and Evaluation Plan by end of 2015. It is anticipated that the first step toward development of this plan will be an accounting of existing monitoring efforts within the region, with a keen eye towards opportunities for utilizing existing efforts.

The Science Coordinator and/or representative of the Science Team should report at least annually to the Management Board on progress towards meeting the partnership's Monitoring & Evaluation objectives. In particular, identification and discussion of barriers to achieving priority tasks would afford the Management Board an opportunity to better understand challenges and endeavor to find solutions to specific problems.

RESEARCH

Goal 5a: Identify and prioritize assumption-driven research needs by 2015

Goal 5b: Active engagement by key research professionals in assumption testing and other applicable research for each bird guild in both BCRs by 2016

Assumption-driven research applied to issues of importance to the LMVJV partnership is necessary for shoring up knowledge gaps and for testing key assumptions made in biological planning and conservation design.

Coordination/Partnership Expectations

- Provides structure and process generates, attracts, leverages, and implements assumption-driven research activities in support of JV biological targets
- Strong relationship with USGS and universities

Required Elements to Meet Expectations

- Science Coordinator
- Science Team
- Research Strategy
- Diverse and active community of research scientists well aware of the Research Strategy

Status

Research is ongoing at many institutions on subjects that can inform LMVJV biological planning and conservation design. Work by faculty, students, and post-docs at the University of Missouri,

Technical Expectations

- *Species/Habitat Model Assumptions* – Prioritized, targeted research needed to address uncertainties
- *Conservation Treatment Assumptions* – Prioritized, targeted research needed to address uncertainties about conservation treatments on vital rates/abundance
- *Sensitivity Analyses* – Statistical analysis of key parameters influence on model results
- *Spatial Data Analyses* – Rigorous statistical analyses, and associated refinement, of key uncertainties in spatial data used for planning or monitoring

University of Arkansas, Mississippi State University, Stephen F. Austin State University, Louisiana State University, the U.S. Forest Service's Hardwoods Lab, and U.S. Geological Survey are but a handful of current examples. However, the partnership's science priorities assessment found in ***Developing and Refining the Biological Foundation of the Lower Mississippi Valley Joint Venture: an Assessment of Biological Planning, Monitoring, and Evaluation Issues*** (2002), is sorely in need of update and revision. Further, there currently is no protocol in place to actively track and account for research efforts with applicability to the Joint Venture's research needs.

Priorities

The highest priorities for achieving assumption-driven research expectations of the LMVJV are as follows:

A.	Revision of the LMVJV ***Developing and Refining the Biological Foundation of the Lower Mississippi Valley Joint Venture: an Assessment of Biological Planning, Monitoring, and Evaluation Issues*** (2002) document, including identification and prioritization of research needs
B.	Proposed strategies to increase research funds available through and to LMVJV partners
C.	Increase the depth and breadth of research scientist participation in LMVJV-relevant research topics

Strategies

The Science Coordinator and Science Team are charged with updating the LMVJV's Monitoring and Evaluation Plan by end of 2015. An important aspect of this Plan will be the identification and prioritization of assumption-driven research needs, coupled with projected budgets for the highest priority needs. Beyond this, strategies should be developed for making research funds available through and to Joint Venture partners. The Science Coordinator and Science Team should strive to actively outreach directly to research professionals with geographic and functional areas of interest, facilitating greater knowledge of and participation in the science needs of the LMVJV.

The Science Coordinator and/or representative of the Science Team should report at least annually to the Management Board on progress towards meeting the partnerships' research objectives. In particular, identification and discussion of barriers to achieving priority tasks would afford the Management Board an opportunity to better understand challenges and endeavor to find solutions to specific problems.

COMMUNICATION, EDUCATION, AND OUTREACH

Goal 6a: Identify critical, immediate communications needs and begin addressing them by 2015

Goal 6b: Develop a Communication, Education, and Outreach Plan by 2017

Coordination/Partnership Expectations

- Develops effective communications, education, and outreach products and strategies to attract, engage and inform partners, raise awareness, change attitudes and behaviors of key JV audiences
- JV identifies gaps in capabilities and fortifies those as appropriate

Communication is central to effective implementation of every aspect of adaptive management, and lies at the heart of a fully-functional and successful Joint Venture partnership. However, communication takes on different forms, has many different potential audiences, and can operate to address any number of goals and objectives. The premise behind Goals 6a and 6b is the recognition that communication, education, and outreach must be focused and purposeful, partially due to limited resources and other competing priorities. More importantly, developing a Communications, Education, and Outreach (CEO) Plan, complete with identification of critical needs and strategies to meet them, enables the LMVJV leadership to clearly understand and enumerate the highest priority issues and provide a means to ensure that we are accountable to those expectations.

Required Elements to Meet Expectations

- JV Office Staff Coordination
- Management Board Participation
- CEO Expertise
- CEO Plan

Technical Expectations

- *Priority Audiences* – JV Communication Plan
- *Priority Audiences* – Multiple means of communications established such as partner newsletters, public website, news releases, project tours, meetings, presentations & workshops – each with an associated evaluation plan
- *Audience Objectives* – Correlate audience objectives with bird conservation goals to determine how much and where increases in audience awareness, etc. are necessary to reach conservation objectives
- *Audience Assessment* – Regular formal assessments of priority audiences

Status

The LMVJV has a history of utilizing new and effective ways of assembling and disseminating (communicating) data and technical tools (e.g., MAV Forest Breeding Bird Reforestation Decision Support Model, LMVJV Conservation Planning Atlas, on-line Water Management Tool), and sharing these approaches directly with the conservation community. In fact, the Arkansas MAV Conservation Delivery Network distributed the first-ever Delivery Priority Atlas for delivery personnel within that region in April of 2013. Likewise, the LMVJV continues to maintain (and improve) the website in an attempt to provide useful background, biological foundation, literature, objectives, and tools to the public. However, development and distribution of formal education/outreach materials has not been a high priority of the LMVJV historically. Similarly, the LMVJV has not maintained a consistent and comprehensive approach to Congressional outreach.

Priorities

The highest priorities for achieving Communication, Education, and Outreach expectations are as follows:

A.	Begin scoping the basics and requirements of a CEO Plan
B.	Update and maintain the **lmvjv.org** web site
C.	Provide quarterly updates to the Management Board and Partners
D.	Hold field tours with key Congressional Staff

Strategies

An important immediate task of the Joint Venture is to identify and enlist assistance from communication, education, and outreach specialist(s) to begin scoping a CEO Plan. It is hoped that such personnel are available for basic consultation through other Joint Ventures, LCCs, and/or partner organizations. This information can then be used to fully scope the components, costs, and timeline for developing the CEO Plan.

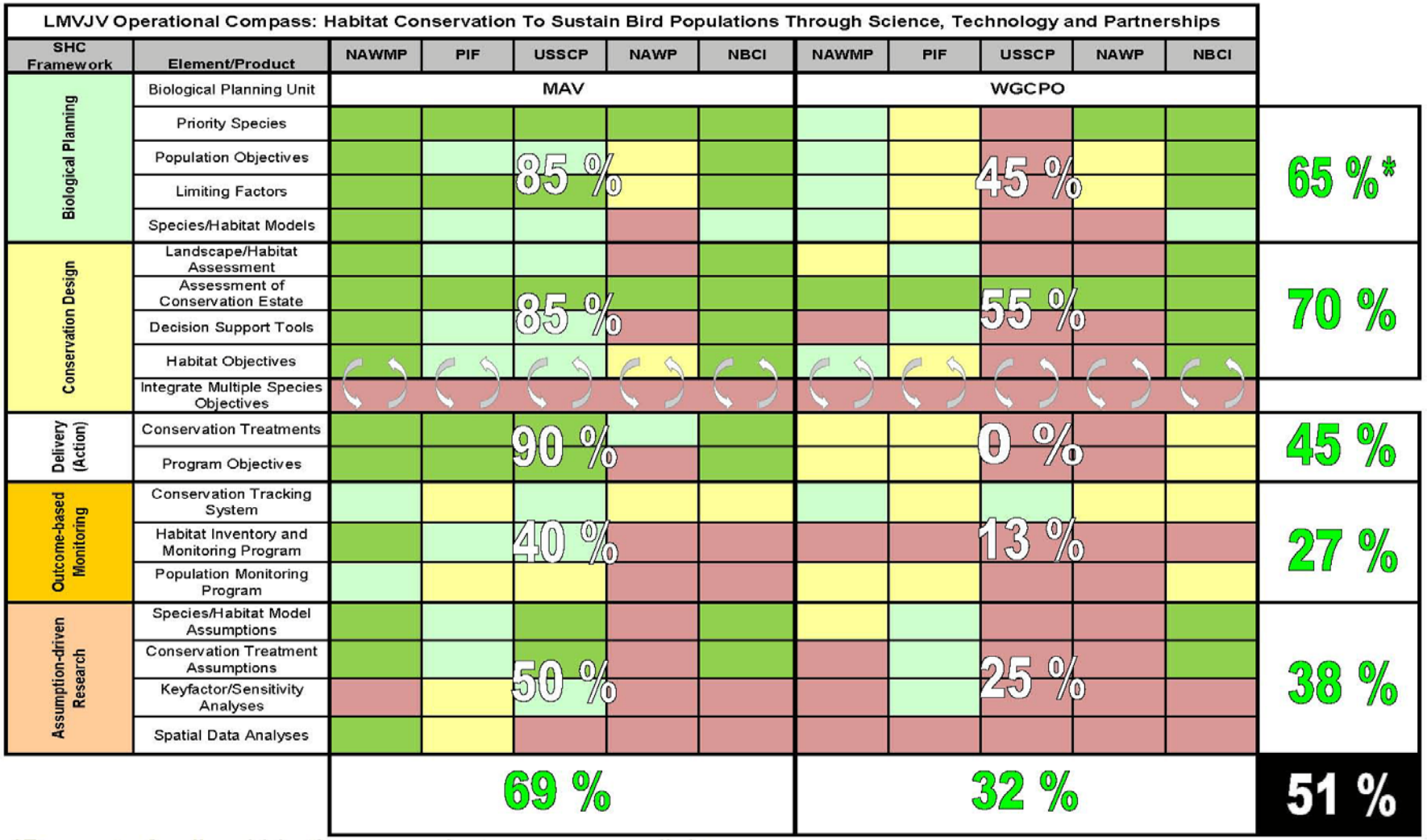
Website update/maintenance as well as quarterly updates are well within the capacity of existing JV Support Office staff, and will be ongoing.

Past Congressional outreach by LMVJV partners on behalf of the Joint Venture largely has been opportunistically associated with the annual Association of Joint Venture Management Boards meeting in Washington D.C. Although these efforts have been regarded as effective and warranted,

a more strategic and consistent outreach approach that fosters relationship-building among LMVJV partner staff and key Congressional Office staff likely will prove more effective in garnering future support. It is recommended that a small ad hoc committee of Management Board members develop a simple "key Congressional member" list with recommendations for site tour venues and timelines. The recently released ***White Paper on Policy Advocacy for Joint Ventures*** prepared for the North American Waterfowl Management Plan (NAWMP) Committee is a good source of background and insight. It is critical here to recognize that these outreach efforts must be lead and conducted by our non-federal partners, with emphasis on NGOs.

Finally, the 2012 NAWMP and 2013 Action Plan compels joint ventures to think about and act more explicitly on the human dimensions aspects of waterfowl and natural resource conservation. As the NAWMP partner community develops more tangible human dimensions expectations and actions, the LMVJV will be engaged in these discussions that likely will lead to additional communication, education, and outreach needs.

APPENDIX A. LMVJV OPERATIONAL COMPASS



*Percent of cells within the group that are green or light green

- Reliable information exists; good mechanisms in place
- Some reliable information exists, but needs to be updated; mechanisms in development
- Information exists, but not much or not adopted by JV; needs significant attention
- Information absent or of little value; little/no attention paid to this by the JV

APPENDIX B. DESIRED CHARACTERISTICS FOR HABITAT JOINT VENTURE PARTNERSHIPS

Desired Characteristics for Habitat Joint Venture Partnerships

Element	Coordination/ Partnerships			Technical Expectations	
	Minimal Content	**Comprehensive Content**	**Sub Element/ Product**	**Minimal Content-** **Expected characteristics and level of performance for newly established and/or minimally-funded JVs (<$300K)**	**Comprehensive Content-** **JV Partnership should move toward this content as a Joint Venture matures. Increases in FWS funding are contingent on demonstrated progress toward these characteristics**
ORGANIZATIONAL PERFORMANCE	Joint venture partnership develops a vision for the JV's future; establishes and implements strategies to achieve that vision. Joint venture develops and maintains strategic regional alliances, consistent with the JV's mission. Joint Venture Office provides leadership to develop, with the Management Board, a strategic implementation plan to define and achieve the goals of the partnership.	Joint Venture Office and Management Board actively look to broaden the external partnership with relevant individuals and organizations.JV maintains strong professional contacts and connections, networking to keep the JV abreast of current conservation issues, techniques, etc. Joint Venture Office identifies partner capabilities and works with partners to address any missing capabilities through additional staff, partners, contracts or training. The JV participates in development of common JV funding messages to Congress and cultivates informational relationships with its Congressional delegation and staff. One or more Management Board members regularly participate in the Association of Joint Venture Management Boards and contribute to the health and vitality of that organization.	**Management Board**	Joint Venture Office supports operations and administration of Management Board by advising and informing Board members. Management Board has broad representation within the JV geographic region (Fed, State, Non-Profit, Private) and members regularly participate in meetings. Member organizations commit energy and resources to developing a shared vision of bird conservation for the JV and coordinate their otherwise independent actions in the cooperative pursuit and refinement of that vision.	Management Board members bring significant resources to the JV partnership, engage in current issues facing the JV, share responsibilities for JV progress, follow through on commitments and responsibly use their influence for the betterment of the JV. Management Board develops and adopts a process for periodic self assessment that includes relevant goals and metrics for both programmatic and organizational performance.
			Budgeting/ Granting/ Administration/ Funding	Financial management system is in place. Administrative support is available to the JV office/staff either directly or through JV partners. Mechanisms exist to receive and expend federal funding in compliance with OMB Circular A-133. Joint Venture Office keeps the Management Board fully informed on the status of the JV's operations and finances. Maintains working knowledge of pertinent funding opportunities.	Joint venture financial system is sophisticated enough to manage grant/contract funds as appropriate. Administrative personnel are on or available to JV staff. Joint venture has grant-writing capacity available in staff and or partner organizations. Joint venture develops and implements fundraising strategies for approaching and cultivating new sources of major support, including foundation and corporate grant programs, and partner contributions. Working with the Management Board, JV Office directs the preparation of annual and long-range development planning.
			Technical Community	Technical expertise needs are identified. Joint venture has access to technical staff either directly or through partnership.	Joint venture has science coordinator and geospatial technician on staff or available through partners as appropriate. Technical committees for specific bird conservation science needs are in place with full participation from partnership organizations. Technical committees are improving the science of the JV.

Element	Coordination/ Partnerships		Sub Element/ Product	Technical Expectations	
	Minimal Content	**Comprehensive Content**		**Minimal Content-** **Expected characteristics and level of performance for newly established and/or minimally-funded JVs (<$300K)**	**Comprehensive Content-** **JV Partnership should move toward this content as a Joint Venture matures. Increases in FWS funding are contingent on demonstrated progress toward these characteristics**
BIOLOGICAL PLANNING	Joint venture partnership leads a collaborative effort, often through a technical committee appointed by the Management Board, to build a biological foundation of bird conservation needs that is both based on, and informs, continental, national, or regional bird conservation initiatives	Joint venture partners seek opportunities and venues to integrate JV biological planning with relevant work of their agency/organization and with the relevant work of other agencies and organizations active within the JV area. Priority examples include state wildlife action plans, National Wildlife Refuge Comprehensive Conservation Plans, TNC Ecoregional Plans, FWS Migratory Bird Focal Species plans, and National Fish and Wildlife Foundation Keystone initiatives.	**Biological Planning Unit (Spatial and Temporal Scales)**	Biological Planning Unit defined. Identify temporal importance (breeding, staging, wintering) of JV to migratory birds. Explain and justify when planning scale deviates from bird plan conservation ecoregions.	Biological Planning Units identified at BCR or sub-BCR scales. Explicit treatment of overlapping planning units within multiple JV admin boundaries.
			Priority Species	A preliminary list of priority bird species or suites of species are identified and justified.	Final list of priority bird species/populations, considering all relevant FWS Birds of Management Concern. Explanation if priority species/populations deviate from priorities in latest bird plan updates.
			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 bird plans' continental objectives.	Explicit set of population objectives. Include flexible population objectives 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 birds in planning unit.	Demographic parameters (e.g., survival rate, recruitment rate) targeted by habitat management actions.
			Species/Habitat Relationships	Type of population-habitat model expected to be developed that will explicitly relate population response to limiting factors (empirical, conceptual).	Explicitly stated population-habitat models. Assumptions documented as testable hypotheses.

Element	Coordination/ Partnerships			Technical Expectations	
	Minimal Content	**Comprehensive Content**	**Sub Element/ Product**	**Minimal Content-** **Expected characteristics and level of performance for newly established and/or minimally-funded JVs (<$300K)**	**Comprehensive Content-** **JV Partnership should move toward this content as a Joint Venture matures. Increases in FWS funding are contingent on demonstrated progress toward these characteristics**
CONSERVATION DESIGN	Commitment of JV partnership to develop technical capacities and planning tools for conservation design.	Joint venture partnership develops and implements strategies to utilize JV science products to better target and enhance conservation programs at the regional level to benefit migratory birds. Joint venture office and/or Management Board members build strong relations with decision makers in state and federal public institutions, private industry, and partner organizations to strengthen their understanding of the joint venture's conservation activities and capabilities.	**Landscape/ Habitat Characterization and Assessment**	General description of ecological setting relative to bird habitat. List of major drivers impacting bird habitat with links to assumed limiting factors and population-habitat relationships. Set of implications to bird population 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 bird habitat (acres) protected, managed, and restored in the planning unit. This includes an assessment of all conservation lands that will benefit birds.	Thorough analysis of existing bird habitat under protection, management, or enhancement throughout the 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 partnership might develop spatially explicit decision support models/tools to guide specific management actions suitable to overcome limiting factors. If deemed appropriate, develop a preliminary 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 process and model assumptions.
			Habitat Objectives	General estimation of the magnitude of habitat protection, restoration, and enhancement that might be expected of the partnership.	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 should be partitioned among sources of habitat (ownership, state) where appropriate.
			Integration of avian decision-support tools	Articulate anticipated approach for integrating habitat objectives among species-groups and management treatments for priority avian species/groups.	Document process for integrating habitat objectives and spatial priorities for all priority species/groups and management treatments. Describe decision-rules for conflict resolution. Describe extent of spatial/temporal overlap in conservation activities.

Element	Coordination/ Partnerships		Sub Element/ Product	Technical Expectations	
	Minimal Content	**Comprehensive Content**		**Minimal Content-** **Expected characteristics and level of performance for newly established and/or minimally-funded JVs (<$300K)**	**Comprehensive Content-** **JV Partnership should move toward this content as a Joint Venture matures. Increases in FWS funding are contingent on demonstrated progress toward these characteristics**
HABITAT DELIVERY	Joint Venture informs and influences partner organizations implementing habitat conservation programs.	Joint Venture provides a structure and process that generates, attracts, leverages, and implements habitat conservation actions in support of JV-established biological targets	**Program Objectives**	Description of how conservation programs (e.g., Farm Bill, land purchase and restoration programs, etc.) will be linked to biologically-derived bird habitat objectives.	Translate bird habitat objectives into explicit program-specific objectives (e.g., NAWCA, CRP, WRP, NWR, WMAs, etc.). If appropriate, describe ranking systems developed to inform prioritization and decision-making.
			Conservation Actions	General description of anticipated conservation actions, tools, and treatments the partnership expects to deliver to meet the needs of birds.	Comprehensive list and documented description of habitat conservation actions, tools, and treatments being deployed by partnership, including quantification of how specific conservation actions are expected to affect bird abundance and/or vital rates and to what degree.
			Delivery Capacity	Individual JV partners develop projects to deliver on-the-ground habitat conservation through existing programs	Fully developed partnership delivering on-the-ground bird conservation explicitly linked to JV biological planning/conservation design.

Element	Coordination/ Partnerships			Technical Expectations	
	Minimal Content	**Comprehensive Content**	**Sub Element/ Product**	**Minimal Content-** Expected characteristics and level of performance for newly established and/or minimally-funded JVs (<$300K)	**Comprehensive Content-** JV Partnership should move toward this content as a Joint Venture matures. Increases in FWS funding are contingent on demonstrated progress toward these characteristics
MONITORING	Joint Venture informs and influences partner organizations implementing monitoring programs.	Joint Venture provide a structure and process that generates, attracts, leverages, and implements outcome-based monitoring activities in support of JV-established biological targets	**Conservation Tracking System**	General description of anticipated need for tracking partnership activities (gross partnership accomplishments). A vision for creating that capability among partners. The JV Coordinator solicits information on accomplishments from JV partners, organizes and submits the information to appropriate managers of national databases.	Conservation tracking 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 and 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 bird 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. Explicit description of how new information collected from monitoring programs will be used to inform future planning decisions (i.e., identify the feedback loop).
RESEARCH	Priority research needs are identified and distributed to JV partners and regional research institutions.	Joint Venture provides a structure and process that generates, attracts, leverages, and implements assumption-driven research activities in support of JV-established biological targets. Strong relationship with USGS and universities.	**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 (prioritized based on value of better information).
			Conservation Treatment Assumptions	A list of assumptions inherent to the conservation actions/treatments of being implemented by JV partners.	Prioritized, targeted research needed to address key uncertainties about the impacts of conservation treatments on 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., distance to edge).
			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

Element	Coordination/ Partnerships			Technical Expectations	
	Minimal Content	**Comprehensive Content**	**Sub Element/ Product**	**Minimal Content-** **Expected characteristics and level of performance for newly established and/or minimally-funded JVs (<$300K)**	**Comprehensive Content-** **JV Partnership should move toward this content as a Joint Venture matures. Increases in FWS funding are contingent on demonstrated progress toward these characteristics**
COMMUNICATION, EDUCATION AND OUTREACH	Mechanisms exist to facilitate communication between Management Board, JV office and broader JV partnership members. Appropriate JV partners or staff represents the JV to the conservation community, resource agencies, and elected officials, both regionally and nationally. The JV maintains an up-to-date website.	Develops effective communication, education, and outreach products and strategies to attract, engage and inform partners, raise awareness, change attitudes, and change behaviors among JV priority audiences to support bird habitat conservation. JV assesses various contributions partners can make to CEO, and has identified gaps in capabilities and fortified those gaps as appropriate.	**Priority Audiences**	JV has evaluated the efficacy and applicability of education and outreach to achieve its conservation objectives. And has identified priority internal and external audiences and key messages.	A JV Communications Plan is guided by information from biological planning, conservation design, habitat delivery, monitoring and research to target communications geographically, programmatically and to the highest priority conservation need. JV has established multiple means of communications to priority audiences such as, but not limited to: partner newsletters, public website, news releases, project tours, meetings, presentations and workshops. Each tactic has an associated evaluation plan to guide development and assess effectiveness of communications product.
			Audience Objectives	JV conducts basic audience objective setting to determine what are the desired levels of awareness, attitudes and changes in behaviors necessary to achieve bird habitat conservation goals and objectives of the JV.	JV correlates audience objectives with bird habitat conservation goals and objectives to determine how much and where increases in audience awareness, changes in attitudes/behaviors are necessary to help reach bird conservation objectives.
			Audience Assessment	JV conducts informal assessment of priority audiences to determine their baseline level of awareness, attitudes, and behaviors affecting bird conservation in the JV.	JV conducts regular, formal assessments of priority audiences to measure change in awareness, attitudes and behaviors over time. Assessments can be in the form of focus groups, surveys, interviews or other systematic means of gathering audience data. The results of which are used to revise communications products to be more effective.

Lower Mississippi Valley Joint Venture
Operational Procedures

MEMBERSHIP

The LMV Joint Venture is overseen and directed by a private, state, federal Management Board. The LMV Joint Venture comprises three membership options based on an organization's autonomous mission or legislative authority, level of commitment, and breath of accepted responsibility in furthering the conservation goals of the LMV Joint Venture. Regardless of Membership level, it is acknowledged that the commitment of Member agencies/organizations is voluntary and subservient to the organization's mission, authorities, and budgetary capabilities.

Executive Member: Executive Membership is open to any agency or organization that by virtue of mission or legislative authority commits to sharing in the responsibility of implementing national and international bird conservation plans within the LMV region. Executive Member organizations are expected to commit energy and resources to developing a shared vision of bird conservation for the LMV and coordinating their otherwise independent actions in the cooperative pursuit and refinement of that vision.

Executive Member organizations will assign a representative to serve on the Management Board. Executive Board Members are expected to represent their agency or organization at an administrative and policy level on matters pertaining to allocating human and financial resources to the protection, restoration, and management actions that are inherent to sustained, long term conservation.

New Executive Members will be considered by the Board upon receipt of a written request by the Chair from the agency or organization that documents its interest in participating and identifies the individual that would be representing such organization. Consensus of the Management Board is required for acceptance of membership.

Associate Member: The LMV Joint Venture Management Board is open on an Associate basis to other agencies, organizations, or individuals whose mission may not lend itself to sharing fully in the broad spectrum of conservation actions inherent in implementing national and international bird conservation plans but yet has a long-term and abiding interest in a specific facet of Joint Venture implementation (e.g. carbon sequestration, sustainable forestry, wetland restoration, water quality enhancement), and is committed to furthering that aspect of JV implementation through a joint commitment of energies and efforts.

Associate Members will be non-voting but will be invited to participate in all Management Board meetings and in Working Group meetings as appropriate to their area of interest/expertise. With the exception of non-voting status, only their level of interest and commitment will limit the participation of Associate Members in the development of conservation goals and objectives and the formulation and execution of conservation strategies.

Agencies, organizations, or individuals will be considered for Associate Membership upon receipt by the Chair of a letter documenting the organization's interest and area of expertise in furthering a particular aspect of Joint Venture implementation. Additionally, the Chair may with approval of the Board solicit an organization's participation as an Associate Member. On an annual basis, the Board will review the participation of Associate Members and may, with due notification and at its discretion, remove an agency, organization, or individual from Associate Membership status in the interest of maintaining an active and engaged Management Board.

Cooperating Member: A Cooperating Member is any person, organization, or agency working with an Executive or Associate Member agency/organization in the planning, implementation, monitoring, or evaluation of a specific project or task recognized by the Management Board as advancing the goals and objectives of the LMV Joint Venture. A person, organization, or agency will be deemed a Cooperator by virtue of being identified in any project or proposal or being a party to any management agreement implemented or developed with the specific intent of advancing the goals, objectives, and conservation strategies of the LMV Joint Venture. Cooperators will not routinely be notified of or expected to participate in Management Board or Working Group meetings.

MANAGEMENT BOARD OFFICERS

The LMV Joint Venture Management Board shall be comprised of a Chairperson and a Vice-chairperson. The Management Board will elect both officers to serve 3-year terms with no term limit. The Chairperson will organize and conduct the business meetings of the Management Board. The Vice-chairperson shall preside in the absence of the Chairperson. The Joint Venture Coordinator will assist officers in the preparation and conduction of Management Board meetings. The Joint Venture Coordinator will also record and act upon Management Board actions, serve as custodian of Management Board records, distribute information relating to Joint Venture activities, and maintain and report on Joint Venture accomplishments.

MEETINGS AND ATTENDANCE

Two regular meetings will be held annually (Spring/Summer and Fall/Winter) and shall be of sufficient length to ensure time for full discussion of relevant issues. Additional meetings may be called at the discretion of the Management Board Chairperson. Management Board Executive Members are expected to participate regularly and fully in advancing the goals and objectives of the LMV Joint Venture. Executive Members (or a recognized alternative) will be expected to attend two Management Board meetings a year; participate in conference calls or ad hoc working groups; and

fulfill other such responsibilities in the course of a year as may be deemed appropriate by the Board as a whole. If an Executive Board Member misses two consecutive meetings, a letter will be sent by the Chair to the organization inquiring as to their interest in remaining on the Board. In the event three consecutive meetings are missed, the Board Member/organization will be placed in inactive status until such time as the organization recommits to participate.

Management Board meetings shall be open to Associate Members, Cooperators, staff, or other invitee of Management Board members, members of standing committees, and any other interested party.

DECISION MAKING

Each Executive Member organization carries one vote. The Management Board Officers will participate in all votes. In situations in which consensus is not achieved and the Management Board Chairperson determines that a decision is required, a motion will pass by a simple majority vote of Board members (see quorum). Items requiring a decision or vote must be provided to all Management Board members not less than ten (10) days prior to a Management Board meeting. Decisions/votes may also be conducted via teleconference or e-mail provided there has been l0-days prior notice.

QUORUM

There will be no official business completed by the Management Board via a meeting, teleconference or e-mail without the participation of 8 or more Executive Board Members (including those represented by alternates or proxies).

Lower Mississippi Valley

JOINT VENTURE

www.lmvjv.org