

OUTCOMES, GOALS & STRATEGIES OF THE MMRP

For each of the resource issues/concerns identified by the Partnership, an outcome statement was developed that focuses on the future state that is to be attained for that issue/concern. Goals were established for each resource issue that defines measurable targets that will contribute to meeting the particular goal. Strategies were developed for each goal that highlight the activities and/or program efforts designed to help achieve the goal.

Forests

Outcome: Forestlands managed and utilized to realize optimum benefit while providing protection, conservation, and enhancement of natural characteristics and biological diversity.

Goal 1: Protect forested riverine habitat and healthy forests across wide stretches of the floodplain that contain sufficient diversity of tree species, size, and age to provide a wide array of habitat structure and food resources.

Strategies:

- Protect additional lands through willing seller acquisition, conservation easements, landowner management agreements, or other cooperative means to ensure long-term viability of remaining forest resources.
- Promote protection of existing riparian corridors and forest buffers along main channel and tributary streams.

Goal 2: Restore and enhance floodplain forest to meet the need of migratory and nesting neotropical birds and other forest dependent wildlife.

Strategies:

- Restore large blocks of bottomland forest and their associated shallow and deep-water wetlands.
- Use innovative silvicultural practices, where possible and practical, such as constructing dredge spoil ridges to improve tree root aeration, establishing native grass cover for weed control, and planting containerized trees.
- Encourage private landowners to convert marginal croplands to forest using existing conservation programs.
- Restore and enhance floodplain forest block size, structural diversity, and spatial distribution along the river corridor through management of existing areas and restoration of additional areas on public and private lands.

- Promote restoration of existing riparian corridors and forest buffers along main channel and tributary streams using existing conservation programs.

Goal 3: Sustainable forest management practiced on all forests in the corridor.

Strategies:

- Expand the Upper Mississippi River Forestry Partnership to increase the acreage of lands under sustainable forest management.
- Use stewardship programs of various agencies and organizations to provide more landowner-oriented technical and management assistance and encourage their participation.
- Increase technical assistance and continue incentives to encourage private and public woodland owners to practice sustainable forest management.

Wetlands

Outcome: Wetland functions and values providing long-term sustainable habitat for desired plants and animals.

Goal 1: Protect existing wetland resources to provide diverse habitat for waterfowl, shorebirds, wading birds, and other wetland dependent species, such as frogs and salamanders.

Strategies:

- Protect areas of isolated backwaters and ephemeral wetlands, providing seasonal and semi-permanently flooded wetland vegetation types in unleveed areas of the corridor with little water level control.
- Utilize conservation easement programs such as WRP, CRP, and the Wetlands Reserve Enhancement Program to protect wetland areas in the corridor and create agricultural areas interspersed with wetland areas to provide migration habitat for waterfowl and shorebirds.

Goal 2: Restore and enhance complex wetland areas to provide diverse habitat for waterfowl, shorebirds, wading birds, and other wetland-dependent species, such as frogs and salamanders.

Strategies:

- Restore a network of wetland areas along the corridor that can function at different water levels and frequencies of flooding.
- Develop a coordinated effort of land management for the unprotected (batture) lands along the river combined with a private

lands assistance program for the areas within the protection of the levee system.

- Restore areas of palustrine forests and improve hydrology in bottomland hardwoods in the corridor.
- Restore large wetland complexes including areas of deep-water marshes for diving ducks and other desired wildlife habitats.
- Restore hydraulic connection between the river's main channel and selected semi-permanent wetlands and identify backwater lakes and water/wetland areas for potential restoration.
- Provide areas of seasonal, semi-permanent, and permanently flooded wetland vegetation types.

Goal 3: Manage existing wetland areas to provide maximum habitat values compatible with other surrounding land uses.

Strategies:

- Develop a coordinated effort of land management for the unprotected (batture) lands along the river combined with a private lands assistance program for the areas within the protection of the levee system.
- Develop partnerships for tree planting and management efforts for wetland habitat.

Wildlife Habitat

Outcome: Healthy and diverse wildlife populations through habitat restoration, development, management, and/or land protection.

Goal 1: Protect terrestrial habitats to benefit grassland birds, waterfowl, neotropical birds, reptiles, amphibians, and other desired wildlife species.

Strategies:

- Protect additional lands through willing seller acquisition, conservation easements, landowner management agreements, or other cooperative means, to ensure long-term viability of terrestrial habitats in the corridor.
- Protect some large contiguous native grassland/wet meadow complexes to the extent possible to benefit migrating as well as declining resident populations of grassland birds.
- Protect smaller wet meadow areas for marsh and grassland birds and spring foraging waterfowl and amphibians; and provide areas of scrub/shrub habitat for waterfowl broods and neotropical migrants through a combination of water level manipulation, mowing, discing, and burning.

- Increase private lands involvement in acres being managed for wildlife habitat and utilize agricultural techniques as management tools to maintain high quality wildlife habitat in selected wetlands.

Goal 2: Restore or enhance riparian corridors along the open river off-channel areas.

Strategies:

- Identify lands adjacent to off-channel areas that are enrolled in WRP, in public ownership, or controlled by NGOs.
- Increase acreage and diversity of woodland habitats through restoration and enhancement.
- Identify and restore spawning, nursery, foraging, and roosting areas for species such as the Pallid Sturgeon, Bald Eagle, Mississippi Kite, and Interior Least Tern, etc.

Goal 3: A habitat management program in place in the corridor on public and private lands that ensures that natural resources are utilized to their potential in meeting wildlife objectives.

Strategies:

- Manage habitats to provide dependable supplement to natural food sources for waterfowl and to provide needed open-space nesting areas, when desired.
- Maintain smaller patches of grassland habitat where established for levee maintenance, cultural resource protection, or environmental education using techniques such as mowing, prescribed burning, and/or spraying of undesirable vegetation as needed.
- Develop a functioning wildlife, habitat, and public use monitoring program, integrated with interagency efforts along the corridor, to evaluate the effectiveness of management programs and to provide information for adaptive management strategies.
- Evaluate wildlife use in the corridor to verify a response to habitat management efforts.
- Implement programs to control the spread of invasive species in affected areas.

Agricultural Production

Outcome: Agricultural land in sufficient quality and quantity to ensure agricultural viability in the region.

Goal 1: Prime agricultural and other high producing lands maintained in agricultural production and with properly maintained and functioning drainage and levee systems.

Strategies:

- Promote the use of conservation practices that will provide for sustainable agricultural operations and provide benefits for wildlife resources.
- Expand and revise voluntary cost-share programs for more flexibility and technical assistance to assist landowners/operators in establishing soil conservation and water quality practices on cropland and non-cropland areas.
- Evaluate all projects as to their impacts on drainage/flooding of adjoining agricultural lands to minimize effects to agricultural lands and systems.
- Honor existing drainage and levee maintenance agreements with landowners, drainage districts, and other entities.

Goal 2: Increase use of non-traditional crops in the floodplain to enhance agricultural production and meet other resource goals.

Strategies:

- Promote programs and initiatives relating to carbon sequestration to give landowners economic incentives to look at non-traditional crops and land uses.
- Seek non-traditional crops that can help diversify agricultural operations in the corridor, while also providing wildlife habitat benefits. Encourage the appropriate agencies and organizations to promote and market these diverse crops.

Goal 3: Restoration of marginal agricultural lands to other land/resource uses through economic incentives for landowners.

Strategies:

- Identify marginally productive lands, frequently flooded croplands, areas of hydric soil, etc. and offer economic incentives to landowners to convert those lands to other uses through participation in WRP, EWRP, CRP, WHIP, and other programs.

Aquatic Habitat

Outcome: Healthy and diverse aquatic species populations through habitat restoration, development, management and/or land protection.

Goal 1: Protect existing aquatic habitat through conservation easements or by land acquisition from willing sellers.

Strategies:

- Use Middle Mississippi River Side Channel Report to determine priorities for protecting side channel areas.
- Provide over wintering habitat for selected aquatic species every 5-7 miles in the Middle Mississippi River.

- Provide diverse off channel habitat for selected aquatic species every 5-7 miles in the Middle Mississippi River.

Goal 2: Restore aquatic habitat in priority areas.

Strategies:

- Rehabilitate or create side channels using priorities established in the Middle Mississippi River Side Channel Report.
- Determine the feasibility of creating an island/side channel complex within river mile 80 to 90.
- Identify side-channels where woody structure is needed and implement a plan incorporating a variety of designs to provide woody structures within open river side-channels.
- Maintain communications between industry and state/federal agencies charged with environmental management along the Middle Mississippi River.

Goal 3: Management of aquatic resources to ensure sustained values and functions and a diversity of species in the corridor.

Strategies:

- Develop and implement a monitoring program that provides information needed for evaluating the health and diversity of aquatic species and habitat in the corridor.
- Identify channel sites with chronic dredging needs and seek alternatives for reducing sediment accumulation, and thus need for dredging, over the next 10 years.

Recreation

Outcome: Increases in recreational areas/opportunities of adequate quality and quantity to meet the demands of the local communities and visiting citizens.

Goal 1: Provide wildlife dependent recreation opportunities where appropriate and improve the quality and safety of the recreational experience.

Strategies:

- Enhance and increase opportunities for visitor experiences involving wildlife observation and photography.
- Utilize programs to expand hunting and fishing opportunities on public and private lands in the corridor.
- Monitor public use to ensure compatibility with wildlife purposes, visitor satisfaction/safety and outreach effectiveness.

Goal 2: Improve public access to recreational opportunities in the corridor and to the river.

Strategies:

- Inventory current access points, determine where new access is needed, and evaluate options for providing access on the average of every 10 to 20 miles on both sides of the river.

Floodplain Management

Outcome: Corridor and floodplain providing a balance of flood control, navigation, drainage, and fish and wildlife benefits.

Goal 1: Utilization of new techniques that provide a balance of benefits in protecting natural resources in the floodplain.

Strategies:

- Identify chronic dredging areas that may provide the potential for sandbar or sand island creation, or chevron dike creation, all of which increase habitat diversity for wildlife or fish.

Goal 2: Utilization of alternative areas for floodwater storage.

Strategies:

- Explore alternative measures to managing floodwaters in the corridor rather than confining floodwaters exclusively to the river channel.

Goal 3: Enhanced floodplain functions and, where practicable, mimic historic water level fluctuations in the river corridor.

Strategies:

- Conduct activities and promote partnerships and interagency coordination that encourage a balanced floodplain management program.
- Manage riparian lands for wildlife while considering floodplain functions and contributing to improving those values.

Water Quality

Outcome: Water quality acceptable for its intended use and purposes.

Goal 1: Water quality protected from degradation through non-point source pollution.

Strategies:

- Utilize forestry practices and reforestation programs to improve water quality.

- Encourage application of conservation practices that address nutrient management and effective use of fertilizers and manure to reduce nitrogen and phosphorus that contribute to hypoxia.
- Seek opportunities to utilize wetlands for filtering pollutants and reducing nitrogen and phosphorus in runoff water.

Goal 2: Restore water resources that have been affected by sedimentation and other water quality pollutants.

Strategies:

- Continue current and develop new partnerships with government agencies, NGO's, and private landowners to reduce the effects of erosion and contaminant runoff affecting fish and wildlife resources.
- Focus program efforts to address state listed impaired streams to help improve water quality and restore intended uses of those waters.

Goal 3: Water quality maintained by proper management and maintenance of other natural resources.

Strategies:

- Investigate dedicated funding sources for soil erosion and water quality initiatives to ensure sustained technical assistance and voluntary incentives.
- Utilize Farm Bill and other programs to address soil erosion, nutrient management, and pest management.

Non-Native Invasive Species

Outcome: Prevention, early control, eradication, and management through partner cooperation.

Goal 1: Early control and prevention measures utilized by all partners to minimize establishment of non-native invasive species.

Strategies:

- Conduct inventory of current programs, information, and materials available to help address invasive species in the corridor.
- Implement activities to help prevent and control invasive species on public lands.
- Provide technical assistance and information to private landowners to help them prevent and control invasive species.
- Coordinate programs, activities, and information exchange on invasive species to provide for more effective and efficient prevention and control in the region.

- Provide outreach and utilize information programs to encourage the prevention and control of invasive species in the corridor.

Information and Outreach

Outcome: Recognition and support of the Partnership's vision, programs, and services.

Goal 1: Conservation education/information programs effectively implemented that will instill a stewardship/management ethic and result in wise use of natural resources in the corridor.

Strategies:

- Identify and inventory activities and projects that are restoring habitat and addressing resource issues in the corridor in order to provide positive examples to the public of the benefits of resource protection and enhancement.
- Enhance the education and interpretive program on public land by providing visitors key resource messages through contact stations, kiosks, interpretive panels, educational programs, and special events.
- Enhance outreach through education and interpretive programs for schools, youth, civic and conservation groups to increase understanding and appreciation of natural resources on the river corridor and monitor results to ensure effective outreach.

Goal 2: Provide key leaders and legislators with an understanding and appreciation of the economic, environmental, and social benefits derived from use of all the resources in the corridor.

Strategies:

- Develop information outreach materials to highlight the benefits of resource use in the corridor and to provide to interested citizens, local leaders, and legislators.
- Conduct partnership tours and other outreach efforts for leaders and legislators to demonstrate and highlight the benefits and values of the natural resources in the corridor and the successes of program efforts in addressing these resources.

Goal 3: Partnership members working in a cooperative, mutually supportive effort to promote programs and initiatives to address the resources in the corridor.

Strategies:

- Set up a web site for the Middle Mississippi River Partnership to highlight this vision document and the mutual goals of the partnership.

- Establish a Partnership staff position to serve as a focal point for information and outreach to the public on issues relating to all of the partners.
- Emphasize the need for technical assistance as a critical component in helping to address the resource needs in the corridor.

Economic Impact

Outcome: Natural resource use and management that contributes to a healthy and sustainable economy for residents in the region.

Goal 1: Increased resource compatible hunting opportunities on public and private lands.

Strategies:

- Establish programs to link hunters, fisherman, and those seeking outdoors experiences with willing landowners who can provide hunting, fishing, and/or other recreation opportunities.
- Support opportunities for hunting on private and public lands.

Goal 2: Increased income to local communities from recreation and tourism associated with natural resource use in the corridor.

Strategies:

- Increase wildlife viewing opportunities on public lands. Establish wildlife viewing/nature watch trails in the Middle Miss. Corridor and work with local communities to package wildlife tours with other attractions such as wine trails to increase overnight visits.
- Assist the local citizens and communities in developing business opportunities focused on agri-tourism, eco-tourism, and/or recreation.
- Work with appropriate agencies to track economic values of multiple benefits of what is done in the corridor to include recreational and tourism values.
- Disseminate information about payments in lieu of taxes to local governments when lands are placed in public ownership.
- Work with appropriate agencies to explore opportunities for use of historic and cultural resources as opportunities to enhance tourism and recreation.

Goal 3: Efficient and effective programs available to assist in the protection, restoration, and management of the natural resources in the corridor.

Strategies:

- Partners combining efforts and funding to address the highest priority issues in the corridor.
- Explore opportunities to utilize or create a revolving fund that could be used for land enhancement, restoration, or protection in the corridor.
- Explore opportunities for dedicated funding to the Middle Mississippi River Partnership to provide for a sustainable partnership effort.