

NWRS Region 3 Inventory & Monitoring FY2011 Annual Work Plan

1. Introduction

1.1. Present the vision, goals, and objectives for the regional inventory and monitoring initiative.

The vision, goals, and objectives for the regional inventory and monitoring initiative step down from the Region 3 Division of Biological Resources (DBR) Strategic Plan; support for refuge inventory and monitoring in Region 3 is provided by the Inventory and Monitoring (I&M) Branch. The goals and objectives from the DBR Strategic Plan identify inventory and monitoring functions within the refuge biological program. All goals and objectives from the Strategic Plan are listed; those in italics may include inventory and monitoring functions.

Region 3 DBR Purpose

- Support the Mission of and Vision for the National Wildlife Refuge System by focusing biological program activities through goals and objectives.
- Embrace Strategic Habitat Conservation as our business model.
- Meet the biological information needs of the NWRS.
- Integrate evaluation and oversight into the biological program.
- Conduct or facilitate research and adaptive management projects to address our most pressing information gaps and tie desired outcomes to management actions.
- Support responsible information stewardship and reporting.
- Provide for the career and professional needs of biological program staff.

Mission of the Region 3 Refuge Biology Program

The DBR in Region 3 will support the mission of the NWRS by providing direction and support for biological activities related to the conservation, management and restoration of fish, wildlife and plant resources and their habitats.

Vision for the Region 3 DBR

The DBR will provide leadership and support for the field, region and national offices. We will create an environment where every station understands their role in sustaining species, populations, communities, assemblages, and systems as part of our continental conservation reserve. Working with our staffs and partners we will develop an adaptation strategy for our natural resources as we face unprecedented climate and other types of environmental change. In doing so, we will promote scientific rigor, excellence in practice, effectiveness, and efficiency of action while clearly communicating among ourselves, our partners, and with the American public.

Goal 1: Staff and stations understand where they fit into the continental conservation reserve system, what their priorities are and how they can best function to ensure net conservation gains.

Objective 1: *Support the development and implementation of a National Climate Change Adaptation Strategy by working within and across our LCC's to promote resistance, resilience, response, and realignment as needed to maintain the biological health, diversity, and environmental health of the NWRS.*

Objective 2: *Work in conjunction with stations and LCCs to conduct landscape scale assessments regarding the status and trends of important ecological stressors in relation to NWRS land holdings and in relation to the greater conservation estate.*

Goal 2: Sustain diverse, distributed, and abundant populations of fish, wildlife, and plants by conserving and managing for healthy habitats in a network of interconnected and ecologically functioning landscapes for current and future generations of the American public.

Objective 1: *Region 3, in partnership with private land owners and other conservation entities, will conserve breeding, wintering, and migration habitat sufficient to meet the migratory bird population objectives and other high priority resource management objectives of Region 3, while contributing to the conservation of the ecosystems of the United States.*

- A. *Advance the practice of adaptive management by implementing projects focused on high priority management problems identified by refuge managers. Current examples include: The Integrated Waterbird Management and Monitoring, the Preserving Native Sod, and the Reed Canary Grass Projects. Projects nearing completion include: the Impoundment Study and the Fire/Cattail Project.*

Goal 3: Provide the vision and means for natural populations and ecosystems to adapt to climate and other environmental stressors.

Objective 1: *Support biological planning and conservation design and apply it at broad, landscape scales.*

Goal 4: Emphasize the science linking work at project sites to achievement at broader scales, including landscapes, major ecoregions, and entire species ranges.

Objective 1:

- A. *Provide expertise and participate in adaptation planning for focal species and habitats in Region 3 within the LCCs and for supporting changes in laws, regulations and policies that are barriers to successful implementation of a National Climate Adaptation Strategy within the NWRS.*
- B. *Working in collaboration with Conservation Planning staff, develop a stepped down vision and plan for adaptation within the NWRS in Region 3.*
- C. *Participate in and support Landscape Conservation Cooperatives by providing expertise in modeling, decision-making, planning, design, delivery, inventory, monitoring, and research.*

Objective 2: *Plan and deliver landscape conservation actions that support climate change adaptation by fish and wildlife of ecological and societal significance.*

Goal 5: Contribute to the natural biodiversity of the North American continent.

Objective 1: *Identify opportunities to protect under-represented ecoregions and areas of high biodiversity within Region 3.*

Goal 6: Promote the use of models to characterize systems and to tie populations to landscapes.

Objective 1: *Practice the use of models and decision analysis to evaluate the decisions managers at all levels will need to make in regard to our fish, wildlife and plant resources in context with the current and future conservation estate within Region 3.*

Goal 7: Maintain ecosystem integrity and resilience by developing new and innovative ways of protecting and restoring important ecological processes (e.g. mimic or restore natural disturbance cycles, predator-prey relations, pollination, seed dispersal, nutrient cycling, and others) to sustain fish and wildlife.

Goal 8: Develop, maintain and foster a highly trained, experienced workforce who enjoy their work and believe their efforts result in demonstrable conservation successes and personal satisfaction.

Objective 1: *Provide professional development opportunities, Technical Training, Continuing Education, Workshops, and Adaptive Management Consultancies to NWRS staff and their partners.*

Objective 2: *Provide support to NWRS staff, State and Tribal managers and other partners through the timely provision of research results and best management practices, decision tools, training, protocols and databases.*

Goal 9: Participate in the development of a national strategy for monitoring abiotic and biotic resources that are most vulnerable to climate change.

Objective 1: *Develop monitoring and research partnerships that make available complete and objective information to plan, deliver, evaluate, and improve actions that facilitate fish and wildlife adaptation to accelerating climate and other types of environmental change.*

- A. *Develop biological inventory, monitoring and research partnerships at the Regional and National level that will provide the information needed to develop successful adaptation strategies for fish, wildlife and plants.*
- B. *Provide inventory and monitoring capability to the NWRS and in support of the LCCs.*
- C. *Work within LCCs, regionally and nationally to develop collaborative research partnerships in the pursuit of research that address fish and wildlife adaptation to climate and other types of environmental change.*
- D. *Inventory and monitoring activities are coordinated and follow approved protocols and rigorous statistical designs.*

Objective 2: *Develop a regional plan and inform local scale monitoring by providing coordinated monitoring opportunities, common protocols, and guidance on sampling design.*

- A. *Work with the DBR staff to develop guidance for stations on what an exemplary inventory and monitoring program entails.*
- B. *Conduct Biological Program and Wildlife and Habitat Reviews.*
- C. *Support the evaluation and improvement of the condition, quantity, quality and timing of water resources and other abiotic factors affecting our NWRS.*
- D. *Monitor and reduce susceptibility to disease, pathogens, and pests.*
- E. *Develop a Disease Response Plan template for all stations.*
- F. *Provide disease response information, equipment and training for all stations.*

Goal 10: Promote monitoring and data management systems that provide a strong foundation of accountability for our actions.

Objective 1: *Develop user-friendly data management systems and protocols that will support our actions and allow us to account for our actions at all levels, field, region, and nationally.*

- A. *Promote and support data management, data archival and summarization.*
- B. *Provide guidance on metadata and data stewardship.*

Goal 11: *Data are managed, archived, summarized and served promptly, easily and made available to the public.*

Objective 1: *Working with others, provide up-to-date information to staff and to the public.*

Goal 12: *Develop new and innovative science techniques and applications.*

Objective 1: *Conduct management oriented research and assumption driven research in support of modeling efforts and in support of conservation assessments.*

- A. *Conduct or foster research that addresses our most important information gaps.*
- B. *Facilitate research to address primary uncertainties in fish and wildlife management.*

Objective 2: *Support Land Management and Research Demonstration sites, Adaptive Management Projects, and other research as appropriate.*

Goal 13: Our staff, our partners and the American public understand and support the conservation efforts of the national wildlife refuge system in Region 3.

Objective 1: *Working with others, provide up-to-date information to staff and to the public.*

1.2. Describe how the regional I&M initiative is organized and planned focus areas.

The Region 3 I&M branch steps down from the national program and the Region 3 DBR Strategic Plan and is managed by the R3 DBR (Appendix 5.2). A basic philosophy of the DBR is that monitoring should be married to management. That is, inventories and monitoring should support management decision making at multiple

spatial scales, not as a stand-alone effort without a clear relevance to management. The I&M Branch's organizational structure reflects that philosophy. In Region 3, the Chief, DBR provides overall guidance and support for the I&M activities in the region, and all staff in the DBR work together to meet the needs. The Regional Inventory and Monitoring Coordinator leads the Branch of Inventory and Monitoring (Appendix 5.2) and coordinates with the national Inventory and Monitoring office in Fort Collins, CO and the other Regional I&M Coordinators.

A primary focus for FY2011 is to encourage refuge field stations to complete their Habitat Management Plans (HMP) and Part 1 of their Inventory and Monitoring Plan (IMP). The Chief, DBR will be working with the Region 3 Refuge Leadership Team (Leadership Team) to elevate these actions to a priority status for field stations, as well as seeking contracted services to assist some field stations in completing these plans. HMPs and IMPs are vital for assessing multi-station and regional priority needs. In addition, we plan to conduct a Biological Needs Assessment through personal interviews with all station managers; this assessment will include inventory and monitoring needs. The Zone Biologists will become familiar with the NWRS stations and their staffs within the LCC, while the Refuge Biologist – I&M Specialists will strive to develop an exemplary refuge biology program at their home station. In addition, both Zone and Refuge Biologists will take an active role in the Regional Biology Networks. The I&M Branch staff will also assist the DBR by reviewing HMPs and IMPs as they are developed. Training and orientation of new staff will take significant resources in the first year of the program. In addition, R3 along with R6 and R5 will be transitioning large, Refuge Cooperative Research Program (RCRP) adaptive management projects from USGS leadership to full FWS leadership as the USGS contracts are completed (Table 1). The I&M Branch will have a significant role during this transition period. Maintenance of existing adaptive management projects will consume the remaining time for all staff. Priorities for filling vacant DBR staff positions include the Regional Data Manager, Deputy Regional Refuge Biologist (DRRB), Data Analyst/Modeler, another Hydrologist, and the remaining Zone Biologist. Future funding uncertainties may impede the filling of all of these positions.

1.3. Explain how the regional I&M initiative integrates with the refuge biological program in the region.

In Region 3 the Regional Refuge Biologist (RRB), DRRB, Land Management Research and Demonstration (LMRD) Biologist, Regional Hydrologist, and refuge biologists and project leaders will develop guidance regarding the attributes of an exemplary station-level biological program, including identifying monitoring priorities and designing appropriate inventories and monitoring. A team, including senior refuge biologists and project leaders, has been assembled and is working on this task. The product will be a report, written as guidance for station project leaders and refuge biologists. This guidance will be integrated into the station Wildlife and Habitat Reviews, which are ongoing.

The draft Service Inventory and Monitoring Policy calls for each refuge station to develop a ranked list of inventories and monitoring surveys (Inventory and Monitoring Plan, Part 1). Inventories and monitoring need to support decision making, therefore the station Habitat Management Plan (HMP), stepped down from the Comprehensive Conservation Plan (CCP), should precede the Inventory and Monitoring Plan (IMP). The RRB, DRRB, LMRD, Regional Hydrologist, and Zone Biologists provide technical assistance to stations for the development of their CCPs and HMPs.

Regional I&M staff, in collaboration with the RRB and DRRB, will assist refuge stations with the development of their IMP, Part 1. Once a refuge station's IMP, Part 1 is approved, the I&M staff will work with individual stations to help them implement their IMP, including Part 2 of the I&M Policy. This will involve identifying, revising or developing a peer-reviewed protocol, an appropriate database, sampling design, training, and finding the necessary resources to carry out a high quality survey.

Past and current inventory and monitoring priorities are embodied in existing monitoring programs and projects on refuges and in a few multi-station, multi-agency adaptive management projects. It will be a high priority for I&M staff to support these existing projects to their logical conclusion. A process for periodically evaluating all monitoring priorities will be developed so that lower-priority projects can be completed or phased out and new and emerging high priority issues addressed.

1.4. Explain how the regional I&M initiative coordinates with partners via the Landscape Conservation Cooperatives (LCCs). Which LCC's are included in the regional I&M initiative? What role does the regional I&M initiative serve within the LCC?

The three major LCC's in Region 3 are the Plains and Prairie Pothole (PPP LCC), Great Lakes (GL LCC), and Eastern Tallgrass Prairie and Big Rivers (ETP/BR LCC). Region 3 also contains small portions of the Gulf Coastal Plains and Ozarks LCC and the Appalachian LCC.

The Region 3 I&M branch will tend to focus efforts where there are overlaps among national, regional, and refuge FWS priorities. The regional priorities will be identified by the Leadership Team, taking into consideration the needs of other Service programs (e.g., Migratory Birds, Fisheries, Ecological Services) and the LCC's. The Regional Refuge Biologist, advised by the Leadership Team, will integrate the needs of these different entities, and identify priorities for the I&M Branch. The R3 I&M staff will collaborate with personnel from other Service divisions to avoid duplication and ensure I&M activities will have multiple benefits in the region.

The Leadership Team will identify and approve emerging priority issues that warrant significant staff time. All DBR staff will work together to address these needs. The process we have tested and refined for addressing management problems is to assemble a small team of key people for a structured decision making workshop, led by a facilitator and a modeler. The RRB or DRRB will identify key staff for the workshop; key staff will likely include LCC partners, or staff from other FWS programs. Difficult management problems on refuges are often shared by other LCC partners, especially states and NGO's. The decisions and recommendations arising from this workshop will be evaluated and prioritized along with existing priorities by the Leadership Team. If adaptive management, inventory or monitoring needs are identified as a priority, the I&M Branch will be called upon to help address them. We will strive to collaborate on I&M activities with other FWS Programs and the LCC partners, where priorities and needs overlap.

A number of monitoring activities on refuges are requested / required by other USFWS Programs, especially Migratory Birds. For example, many refuges conduct waterfowl banding, four-square mile surveys, mid-winter waterfowl surveys, woodcock surveys, mourning dove surveys, butterfly surveys, Breeding Bird Surveys, etc. that are designed and managed by other programs or agencies. At the regional level, we need a process for identifying which monitoring efforts a given station should participate in and which ones they should phase out to accommodate higher priorities. This will be necessary before Inventory and Monitoring plans can be completed at the station level. The I&M Coordinator will work with the RRB or DRRB and Refuge Supervisors to develop the above process.

2. Staffing

2.1. Provide a list of regional I&M staff and their job type or role, grouped by LCC. Also include a list of key cooperators (with their affiliation and role) who will be actively involved with the region's activities on at least a monthly basis during the coming year. Indicate vacancies and plans for refilling.

Please refer to the organizational chart in Appendix 5.2. The Inventory and Monitoring Branch staff are listed below.

Melinda Knutson (Regional Inventory and Monitoring Coordinator, Regional Office)

The three major LCC's (PPP LCC, GL LCC, and ETP/GR LCC) in Region 3 are staffed with a Zone Biologist and a field I&M biologist. Stations in the other, smaller LCCs are also served by one of these Zone Biologists.

Plains and Prairie Pothole LCC

Vacant (Zone Biologist, Fergus Falls WMD, Minnesota) (On hold until we have more information about the FY2012 budget)

Jessica Dowler (Refuge Biologist – Inventory and Monitoring Specialist, Glacial Ridge NWR, Minnesota)

Eastern Tallgrass Prairie, Big Rivers LCC

Brian Loges (Zone Biologist, Two Rivers NWR, Missouri)

Mick Hanan (Refuge Biologist – Inventory and Monitoring Specialist, Great River NWR, Missouri)

Great Lakes LCC

Sean Blomquist (Zone Biologist, Ottawa NWR, Ohio)

Eric Dunton (Refuge Biologist – Inventory and Monitoring Specialist, Shiawasee NWR, Michigan)

We summarize below the roles of the I&M Branch staff. (Please refer to the draft DBR Strategic Plan for a description of the roles of the Chief, Division of Natural Resources, the I&M Regional Coordinator, the Regional Hydrologist, and other DBR staff.)

Refuge Biologist – Inventory and Monitoring Specialists (GS 9/11):

- Model biological program excellence at the field station while contributing to the promotion, development, and implementation of a regionally and nationally coordinated biological inventory and monitoring program.
 - Complete HMPs and the IMP, Part 1 for their home station. Assist refuge biologists at other stations to do the same.
 - Once the IMP, Part 1 is completed, begin to develop IMP, Part 2 (protocols).
 - Maintain high priority, ongoing I&M activities, as directed by the station manager, until a new station IMP is in place.
- Work with the Refuge Biology Network and the Zone Biologist associated with their home station to identify common inventory and monitoring needs across the Network.
- Work with others in the region and nationally to develop processes for cataloging and extracting useful information from legacy data sets at refuge stations.
- Test and evaluate protocols, databases, and processes developed by I&M work groups, either nationally or regionally.
- Assume the role of Project Coordinator, or Station Coordinator, for one multi-station adaptive management project, if needed.
- Along with the Zone Biologist, other DBR staff, and other refuge biologists, represent R3 Refuges and participate as appropriate in technical or work teams associated with their home LCC.

Zone Biologists (GS 11/12):

- Along with the RRB and DRRB, serves as a resource for field stations in need of scientific technical assistance for resource management problems.
- Work with the Refuge Biology Network and the associated field I&M Specialist to identify common inventory and monitoring needs across the Network and the LCC.
- Assist stations, as requested by the RRB or ARRB, regarding identifying high priority resource management problems, and completing HMPs and IMPs.

- Assist Regional Inventory and Monitoring Coordinator with detailed planning, organization, and implementation of activities within the Inventory and Monitoring Branch.
- Represent R3 Refuges and participate in or lead, as appropriate, work teams associated with the national or regional I&M Branch or associated with I&M needs of the LCC. This includes the development of inventory and monitoring protocols, databases, and reporting systems.
- Provide leadership and technical assistance, as needed, to station biologists and the LCC partnership. Technical assistance may involve leading or serving on work teams, reviewing monitoring protocols and sampling designs, and reports, facilitating structured decision making workshops, and identifying management questions and needs.
- Assume the role of Project Coordinator, or assume some other appropriate leadership role for one or more multi-station adaptive management projects, as needed. This includes maintaining the Project Record, developing and reviewing survey protocols and sampling designs; planning and delivering training, and overseeing monitoring data collection and management, analysis, interpretation, and reporting. Strive for efficiency, high technical quality, accurate documentation, and strong data management. Strive to publish the results of refuge research and adaptive management projects promptly.
- Work with others in the region and nationally to develop processes for cataloging and extracting useful information from legacy data sets at refuge stations.
- Test and evaluate protocols, databases, and processes developed by I&M work groups, either nationally or regionally.
- Participate in teaching courses at the USFWS National Conservation Training Center, as needed and as appropriate for their expertise.

3. Planned Activities and Anticipated Products

Summarize the major planned activities and anticipated products of the initiative for the coming year in the categories below. If no activity is planned in a certain category, do not include it. Use a table format similar to the examples (Tables 1 and 2) below. Table 1 captures planned activities by Blueprint Objective; Table 2 captures planned events such as symposia, program reviews, training, and workshops. Some activities may fit into multiple categories; please report each activity only once under the most appropriate heading.

3.1. Identify I&M Priorities for stations and the region.

3.1.1. Status of station Habitat Management Plans

3.1.2. Status of station Inventory and Monitoring Plans

3.1.3. Summary of inventory and monitoring priorities for the region

3.2. Abiotic Resources

3.2.1. Inventories

3.2.2. Monitoring

3.3. Biotic Resources

3.3.1. Inventories

3.3.2. Monitoring

3.4. Stressors (examples: fire, invasive species, climate change)

3.5. Adaptive Management Projects

3.6. Data Management (example: legacy data)

3.7. Communication (examples: symposia, program reviews, training, workshops, partnerships)

Table 1. Region 3 Inventory and Monitoring Activities, by Project or Theme.

The R3 I&M Branch functions as an integral part of the refuge biological program; most projects and workshops are a product of the entire program. The regional I&M branch staff provide technical support and some coordination for the multi-station, multi-region projects listed below; the refuge biology staffs collect the data or supervise data collection. In Region 3 Inventory and Monitoring funding is used primarily to fund I&M Branch staff and some contracts or equipment. The projects listed below are primarily multi-station efforts and meet one or more of the following criteria: significant involvement by I&M branch, were supported with I&M Branch funding, or are primarily inventory or monitoring activities, regardless of funding source. The last column in the table is an indication of the funding source.

Blueprint Objectives and Tasks	Project or Theme; Status	Planned Products	Staff	Funding (I=I&M, R=Refuges, O=Other)
IDENTIFY I&M PRIORITIES				
General A	<i>Status of station Habitat Management Plans</i> We anticipate that at least 10 refuge stations in Region 3 will have drafts of their HMPs by the end of the FY.	5 Completed HMPs 10 draft HMPs	Refuge Biologists, Project Leaders, Zone Biologists	R, I
General A	<i>Status of station Inventory and Monitoring Plans</i> We anticipate that 10 refuge stations in Region 3 will complete Part 1 of the IMP (database) by the end of the FY.	10 stations with Part 1 of the IMP drafted (in the database)	Refuge Biologists, Project Leaders, Zone Biologists	R, I
General A	<i>Biological Needs Assessment, including inventory and monitoring priorities</i> The DBR plans to meet with all Project Leaders to assess technical assistance needs related to inventories, monitoring, and resource management. Emerging resource issues due to multiple threats, including climate change will be discussed.	Biological Needs Assessment Report. Will include a summary of priorities for inventories and monitoring.	All DBR staff	R, I
ABIOTIC RESOURCES - INVENTORIES				
1A	<i>Water Resource Inventory and Assessment (WRIA)</i> Three WRIs are planned: Hamden Slough NWR Shiawassee NWR Port Louisa NWR	3 WRIs completed	Josh Eash, Jennifer Greutzman	R, I
1B	<i>Hydrogeomorphic Analysis</i> Four HGMs are planned: Hamden Slough NWR (I&M \$) Great River NWR (I&M \$) Cypress Creek NWR (Refuge \$) Shiawassee NWR (Refuge \$)	4 HGMs initiated	Josh Eash,	R, I
ABIOTIC RESOURCES - MONITORING				
2A	<i>Water Monitoring – Glacial Ridge NWR</i>	Completion of On-Refuge Investigation and final report	Dave Warburton, Josh Eash	O
2A	<i>Water Monitoring – Agassiz NWR</i>	Completion of On-Refuge Investigation and final report	Dave Warburton, Josh Eash	O

Blueprint Objectives and Tasks	Project or Theme; Status	Planned Products	Staff	Funding (I=I&M, R=Refuges, O=Other)
2A	<i>Regional Water Monitoring Network</i>	Draft Surface Water Monitoring Protocols	Josh Eash, Jennifer Gruetzman	R, I
2A	<i>Water Monitoring - Sherburne NWR</i>	Annual Data Report	Jennifer Gruetzman	R, I
2A	<i>Water Monitoring – MingoNWR</i>	Annual Data Report	Jennifer Gruetzman	R, I
2A	<i>Water Monitoring - Ottawa NWR</i>	Annual Data Report	Jennifer Gruetzman	R, I
BIOTIC RESOURCES - INVENTORIES				
1D	<i>Forest Inventory</i> The Great Lakes Biology Network (all refuge biologists) are conducting forest inventories on refuge lands within the Network.	Project Record, Fact Sheet, and protocols	Greg Corace	R
1D, 3C	<i>Grassland Bird Inventory of Refuge Stations</i> (See Workshops below.)	Refine proposal, seek funding	Sara Vacek	R, O
BIOTIC RESOURCES - MONITORING				
3C	<i>Bird Monitoring</i> National Bird Monitoring Team Provide leadership to national I&M Bird Monitoring Team to address pressing bird monitoring issues shared by multiple Regions.	Schedule monthly conference calls, plan WebEx Seminars as needed.	Melinda Knutson	I
3C	<i>Rank Regional Bird Monitoring Efforts in R3</i> Prioritize regional and national bird monitoring efforts in cooperation with FWS Migratory Birds. This info will be used to develop station IMPs.	Regional and national bird surveys ranked, by Region 3 station.	Melinda Knutson	I
3C	<i>Marsh bird Data Review</i> Review R3 marsh bird data in the USGS Patuxent WRC database and revise as needed.	10 ‘clean’ data sets in the USGS Patuxent database ready for transfer to the Avian Knowledge Network	Kathy Bibby	R
STRESSORS				
<i>Climate Change</i> See Biological Needs Assessment (above) and symposium (below)				
4A	<i>SSP (R9 and R3): SHC in the face of climate change: Bridging the research-implementation gap and accounting for interactions among conservation threats</i>	Examining stressors (like projected changes in climate and housing density over the next 100 years) and their effects on different organisms with different mobility among protected areas. FY11: Housing density and NWRS National-wide assessment completed.	Heglund	R, O
1D	<i>National Pollinator Working Group</i>	Increase refuge awareness of management effects on pollinators	Wedge Watkins	R

Blueprint Objectives and Tasks	Project or Theme; Status	Planned Products	Staff	Funding (I=I&M, R=Refuges, O=Other)
4A	<i>SSP (R9 and R3, above) and Federal Highways</i> <i>Funding: Refuge Vulnerability Assessment Handbook</i>	Draft handbook for examining stressors and their relation to NWRs. Draft completed (but needs more work – prototypes in progress (Hart Mountain, Eastern Shore of Virginia NWR).	Granholm, Collins, Harris, Adamcik, NatureServe	R, O
ADAPTIVE MANAGEMENT PROJECTS				
1F, 3C	<i>Integrated Waterbirds Management and Monitoring Program (IWMM)</i> Multi-region, multi-agency project to manage and monitor migrating and wintering waterbirds, including waterfowl, shorebirds, and marsh birds.	Project Record, Fact Sheet, central database, and protocols Partnership with Migratory Birds, states, NGO's	Andy Wilson R3 lead - Brian Loges	R, I, O
1F, 3A	<i>Management of native prairies in the northern Great Plains (RCRP)</i> Multi-region project to sustain native plant communities on unplowed prairie.	Project Record, Fact Sheet, database, and protocols Final Report, transition to FWS leadership	R6 - lead Sara Vacek	R, I, O
1F, 3C	<i>Impoundment management to support migratory waterbird use (RCRP)</i> Multi-region project to maximize waterfowl and shorebird use of refuge impoundments.	Final Report Recommendations to managers	Pat Heglund	R, O
1F, 3A	<i>Cattail control through prescribed fire (RCRP)</i> Multi-region project to test the efficacy of controlled fires to minimize cattail dominance of wetlands.	Final Report Recommendations to managers	Pat Heglund	R, O
1F, 3A	<i>Reed canary grass control and transition to wetland forests and meadows (RCRP)</i> Multi-region project to minimize reed canary grass dominance of forests and meadows.	Project Record, Fact Sheet, database, and protocols Final Report, transition to FWS leadership	R3 - lead Kathy Bibby	R, I, O
1F, 3A	<i>Restoring native plant diversity in native grasslands (AM Consultancy)</i> Multi-agency project to restore and maintain high quality native grasslands in Minnesota and the Dakotas.	Project Record, Fact Sheet, database, and protocols Partnership with The Nature Conservancy and MN DNR	Sara Vacek, coordinator, Jessica Dowler	R, I, O
1F, 3A	<i>Use of sediment removal in wetland restorations (AM Consultancy)</i> Multi-station project to evaluate alternative strategies for restoring small wetland basins	Project Record, Fact Sheet, database, and protocols	Lori Stevenson	R, I, O
DATA MANAGEMENT				
General A	Fill regional database manager/IT position	Position filled	Pat Heglund	I
General A	Regional database of surveys revised	Revised database (completed)	Heglund	R
General A	Individual databases are maintained for each AM Project (see above)	Data are verified, summarized, and archived.	Database manager	I

Table 2. Region 3 Inventory and Monitoring Symposia, Program Reviews, Training, and Workshops Planned

Blueprint Objectives and Tasks	Symposium, Program Review, Training, or Workshop	Planned Date	Staff	Funding (I=I&M, R=Refuges, O=Other)
COMMUNICATION - TRAINING				
General	Teach course: <i>Designing and Implementing a Biological Monitoring Program</i> , at the National Conservation Training Center (NCTC)	19-23 Sept 2011	Melinda Knutson	I
1F	Teach course: <i>Introduction to Structured Decision Making</i> , at the National Conservation Training Center (NCTC) Three I&M staff plan to attend training.	6-10 June 2011	Melinda Knutson	I
3C	<i>Landbird Banding Certification</i> Klamath Bird Observatory-led course offered at Pere Marquette State Park, IL. North American Banding Council Certification (NABC) to band land birds. Three regional staff will be trained as trainers.	25-29 April 2011	Pat Heglund	R
COMMUNICATION - PROGRAM REVIEWS				
1F	<i>Refuge Cooperative Research Program (RCRP) Review</i> Workshop held to review the first five years of the program and recommend revisions. RCRP is a joint NWRS/USGS Program that employs adaptive management to address difficult resource management problems. Product will be a draft white paper summarizing the recommendations.	13-15 Oct. 2010	Pat Heglund	R, I, O
COMMUNICATION - WORKSHOPS				
1F, 3A	<i>Invasive Species Management in Forested Habitats</i> Structured Decision Making workshop to continue to develop a multi-station adaptive management problem focused on reducing invasive species.	1-3 Mar 2011	Sean Blomquist	I, R
1D, 3C	<i>Grassland Bird Inventory of Refuge Stations</i> Planning meeting to revise proposal by The Nature Conservancy to conduct grassland bird inventories on TNC lands and Refuge stations.	7 Feb 2011	Marissa Ahlering, Sara Vacek	O
General C	<i>USDA NRCS National Easement Assessment Project</i> Knutson invited to participate in planning meeting for a new monitoring program for NRCS Easements.	14-15 Mar 2011	Melinda Knutson	I
3C	<i>Plains and Prairie Pothole LCC workshop on Setting Direction</i> Heglund facilitated a decision workshop for the PPP LCC to help them develop a working plan for the LCC.	7-9 Feb 2011	Heglund	O
COMMUNICATION - SYMPOSIA				
	<i>The Wildlife Society Annual Meeting – Symposium 'Helping Resources Managers Cope With Threats and Change'</i> Plan symposium	6-10 Nov 2011	Melinda Knutson, Pat Heglund	I, R

4. Budget Narrative and Budget

4.1. Provide a brief description of how current and projected I&M funding is anticipated to be spent during the upcoming FY, including the major work activities presented in Section II. List the major planned expenditures of I&M funds, including staff salaries and operations, contracts and agreements. Do not include contributions from outside the I&M funded initiative in the work plan. (Matching, in-kind, and leveraged funding from outside the I&M initiative will be included in the annual I&M administrative report.)

As of today (4/6/11) we have no federal budget, so the DBR does not yet have a budget. The figures below are estimates. We need a central process for accounting for I&M dollars that is part of the FWS FBMS System. At present, there is no simple process for reporting the budget information below.

Item	Additional Information	Allocation/Expenditure Estimates
Total Allocation		
Expenditures		
Staff salaries (75%) + Operations (25%)		\$765,000
Melinda Knutson	I&M Coordinator, GS 13	
Vacant	Data manager, GS 11/12	
Sean Blomquist	Zone Biologist, GS 12	
Brian Loges	Zone Biologist, GS 12	
Vacant	Zone Biologist, GS 11/12	
Eric Dunton	Refuge Biologist – I&M, GS 9/11	
Jessica Dowler	Refuge Biologist – I&M, GS 9/11	
Mick Hanan	Refuge Biologist – I&M, GS 9/11	
Jennifer Gruetzman	Hydrologic Technician, GS 9	
Brian Newman	Hydrologist (SCEP), GS 7	
Moving costs	Blomquist, Dunton, Dowler, Hanan	\$200,000
Contracts		
Space Rental	USGS Upper Midwest Env. Sciences Center	\$26,900
Other	Planned deferred until we have a budget	
Total Expenditures		\$991,900

5. Appendix

5.1. Map of NWRS stations in the region, by state and LCC.

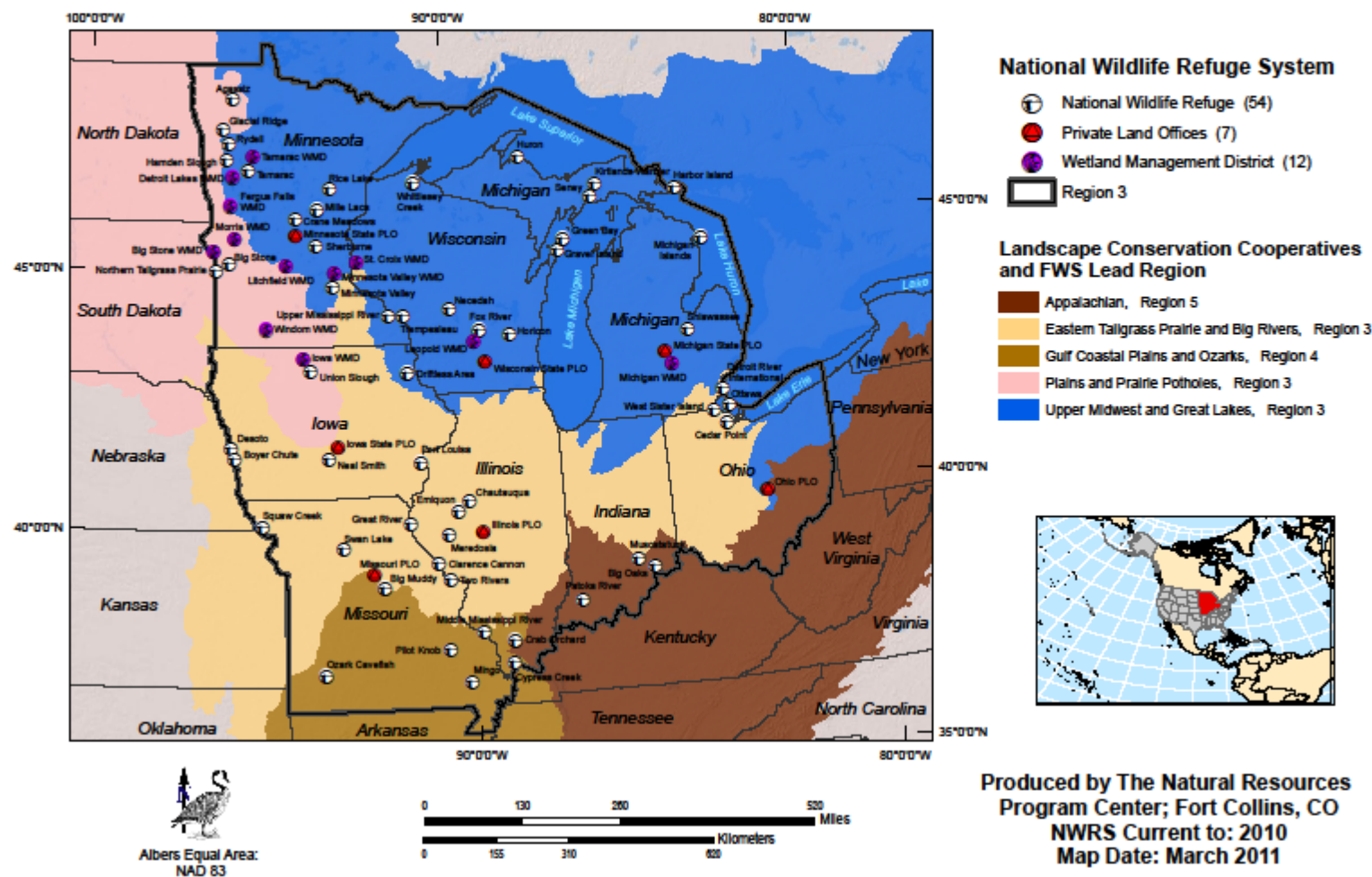


U.S. Fish & Wildlife Service

National Wildlife Refuge System Field Stations by Landscape Conservation Cooperatives

Region 3

Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, Wisconsin



Appendix 5.2. Organization of the Region 3 Division of Biological Resources