

GOALS	OBJECTIVES	Example Actions or Projects	Primary Contact	Supporting Organizations	Status	RRBC Role				
						Lead	Support	Review/Comment	Communicate	Other
<b>1 Manage natural resources in the RRB by watershed boundaries rather than political boundaries</b>	1.1 <i>Raise awareness of the benefits of basin-wide planning for decision makers and the public</i>	1.1.1 Education and adoption of the NRFP by member jurisdictions	RRBC		Current	•				
		1.1.2 Continue to refine basin goals and processes for NRFP implementation	RRBC		Current	•				
	1.2 <i>Increase coordinated and comprehensive watershed planning</i>	1.2.1 Roseau River International Watershed hydrologic study - MB	WEDC; MB Conservation	RRBC, others	Completed		•			
		1.2.2 Roseau River International Watershed planning - MB	local, federal, provincial	RRBC & RRIW	Current	•				
		1.2.3 Pembina River Basin Advisory Board activities - ND & MB	PRBAB	RRBC	Current		•			
		1.2.4 North and South Dakota Wild Rice watershed efforts	RRBC		Current	•				
		1.2.5 North Dakota Wild Rice River Watershed Project	Wild Rice SCD, others		Current			•		
		1.2.6 North Dakota Devils Lake Plan	Devils Lake Joint Powers Board	ND SWC & local	Current				•	
		1.2.7 North Dakota Red River Mainstem Plan	Red River Joint Powers Board	ND SWC & local	Current					•
		1.2.8 North Dakota Upper Sheyenne River Plan	Upper Sheyenne Joint Powers Board	ND SWC & local	Current					•
		1.2.9 Manitoba Conservation Districts and Water Management Associations	MB WS	local	Current		•	•		
		1.2.10 Brokenhead River Restoration Project - MB	Brokenhead River - local group	RRBC	Current			•		
		1.2.11 Minnesota Wild Rice Watershed Management Plan	Wild Rice WD	local/state/federal	Completed				•	
		1.2.12 Minnesota Bois de Sioux Watershed Management Plan	Bois de Sioux WD	local/state/federal	Completed					•
		1.2.13 Minnesota Two Rivers Watershed Management Plan	Two Rivers WD	local/state/federal	Current					•
		1.2.14 Minnesota Joe River Watershed Management Plan	Joe River WD	local/state/federal	Current					•
		1.2.15 Minnesota Roseau River Watershed Management Plan & hydrologic studies	Roseau River WD	local/state/federal	Completed					•
		1.2.16 Minnesota Red Lake Watershed Management Plan	Red Lake WD	local/state/federal	Current					•
1.2.17 Minnesota Buffalo Red Watershed Management Plan	Buffalo Red WD	local/state/federal	Current					•		
	1.2.18 Provide a forum for identifying, developing and implementing solutions to cross boundary issues	RRBC		Planned	•					
<b>2 Integrate natural resource management</b>	2.1 <i>Conduct integrated, comprehensive, multi-disciplinary planning efforts, policies, projects and programs that accommodate a balance in resource preservation, conservation, and consumption</i>	2.1.1 Fargo-Moorhead Upstream Feasibility Study	USACE	local/state	Current		•		•	
		2.1.2 Greenway programs	Greenway on the Red, Rivers West, Grand Forks		Current				•	
		2.1.3 Agassiz Valley Water Resource Management Area (MN)	Middle River-Snake River WD		Current					•
		2.1.4 Hay Creek Aquatic Ecosystem Restoration (MN)	Roseau River WD	USACE	Planned					•
		2.1.5 North Ottawa Dam (MN)	Bois de Sioux WD		Current					•
		2.1.6 Review US, MN, ND conservation programs for applicability in MB	MB WS	RRBC	Planned	•				•
		2.1.7 MPCA Red River Basin Plan	MPCA		Current					•
	2.2 <i>Apply conservation criteria in the review and approval of all land-use plans, projects and programs</i>	2.2.1 Increase planners' awareness of conservation principles	RRBC	local governments	Planned			•		•
<b>3 Increase applied research and data management to support decision-making</b>	3.1 <i>Distribute data and research to decision makers</i>	3.1.1 Identify and share research needs and gaps.	IWI, EERC, post-secondary institutions	RRBC	Current		•			
		3.1.2 Support continued development, funding, and use of RRB Decision Information Network (RRBDIN) for data access and sharing	IWI	RRBC, PPTV, NDSU	Current				•	
		3.1.3 Impact of subsurface (tile) drainage on aquatic ecosystems: literature study	University of MN	NRCS, MN Ag, MPCA	Current				•	
	3.2 <i>Standardize collection, storage, and sharing of land and water resources data</i>	3.2.1 Coordinated ecological data collection (biological and water quality monitoring) to define reference conditions in 2005/2006	ND DoH, MPCA, MB WS	AEC, IWI	Current					•
	3.3 <i>Develop and use standardized technical models to support decision making</i>	3.3.1 MIKE- 11 mainstem unsteady flow model from Lake Traverse to Lake Winnipeg	IWI; NDSWC; MB WS, RRWMB, USACE	RRBC	Current					•
3.3.2 Coordinate above with the development of HEC/RAS unsteady flow model from Lake Traverse to the Canadian border		USACE	RRBC & EERC	Current					•	
3.3.3 Lower Pembina area modeling - link with MIKE-11 above		RRBC	PRBAB, IJC	Current					•	
3.3.4 Development of 3-D groundwater models for the entire basin similar to that of the Minnesota Geological Survey/BOR				Planned					•	

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	3.4 <i>Develop and use Geographic Information Systems for data management and planning</i>										
		3.4.1 Identify and share use of GIS products for comprehensive watershed planning	local/state/provincial/federal	EERC, RRBDIN	Planned						•
<b>4 Improve stakeholder participation and awareness of land and water issues</b>	4.1 <i>Develop a stewardship ethic in the RRB</i>	4.1.1 Define and adopt a stewardship ethic for RRBC members	RRBC		Planned	•					
	4.2 <i>Provide comprehensive watershed education and outreach for all audiences/stakeholders</i>	4.2.1 Provide annual report card on comprehensive, integrated watershed stewardship and management			Planned	•					
		4.2.2 Develop appropriate informational and educational resources for watershed education & outreach	IWI, RiverKeepers, RRBC, many others		Current		•			•	
	4.2.3 Develop appropriate school curricula and monitoring programs for all grades. Examples:	Red River Water Festival - Fargo-Moorhead	RiverKeepers		Current						•
		French High School Science Program - Winnipeg	Division scolaire Franco-Manitoba	MB WS, RRBC	Current						•
		Riverwatch - MN & ND high schools	RRWMB, IWI		Current						•
	4.2.4 Use Community Based Social Marketing to increase awareness of conservation programs	Envirothon	MB, MN, ND, SD		Current						•
		Project WET	MB, MN, ND, SD		Current						•
	4.2.4 Ecological Monitoring & Assessment Network (EMAN)	Environment Canada	Environment Canada		Current						•
		4.2.4 Use Community Based Social Marketing to increase awareness of conservation programs	MPCA/RRBC	SWCD	Current		•				
4.2.5 Continue to convene the MN Joint Powers Board	RRBC		Current		•						
4.2.6 Continue to convene MB North and South RRBC Chapters & conduct workshops	RRBC		Current		•						
4.2.7 Presentations to CDs & WMAs - MB	RRBC		Current		•						
4.2.8 Revision of Lake Winnipeg Shoreline Management Handbook	RRBC		Planned		•						
4.2.9 Use the RRBC Annual conference to provide education and outreach	RRBC		Current		•						
4.3 <i>Provide opportunities for early involvement of project stakeholders</i>	4.3.1 ND Water Education Foundation		various							•	
	4.3.2 MPCA Red River Basin Water Quality Team/Red River Reporter	MPCA	various	Current						•	
4.4 <i>Increase awareness of the economic and environmental benefits of programs available to landowners and decision-makers</i>	4.4.1 Promote & develop conservation programs throughout the basin	local, state, provincial and federal agencies	RRBC, Agricultural extension services	Planned						•	
	4.4.2 Continue projects (MN Buffer Initiative and CREP) that reach out to landowners (lines 9.3.3 & 11.1.2 below)										
<b>FLOOD DAMAGE REDUCTION</b>											
<b>5 Maintain state of the art flood forecasting tools for the Red River Basin</b>	5.1 <i>Increase data availability and level of coordination between jurisdictions for flood forecasting and planning</i>	5.1.1 MIKE-11 Mainstem hydrology model (line 3.3.1 above)									
		5.1.2 WAFFLE Project	EERC	NRCS	Current					•	
		5.1.3 Implement recommendations of the IJC Living with the Red Report	Federal, state & provincial agencies		Planned		•				
<b>6 Reduce risk of flood damages for people, property and the environment in the mainstem floodplain and in tributary watersheds</b>	6.1 <i>Implement flood mitigation measures that reduce risk to individuals and communities on the mainstem and tributaries</i>	6.1.1 Inventory FDR measures (ring dikes, floodways, elevation of property, buy-outs, green spaces, floodplain management, etc.) by community	RRBC &/or partners		Planned					•	
		6.1.2 Develop a Comprehensive Flood Mitigation Plan	Federal, state & provincial	IJC, IRRB,RRBC	Planned					•	
		6.1.3 Tobacco Creek Model Watershed Project (MB)	Deerwood Soil and Water Management Association		Current						•
		6.1.4 Lake Roseau Flood protection	MB WS/ RM Montcalm	RRBC, RRIW	Current					•	
		6.1.5 Maple River Dam (ND)	Cass County Joint Water Resources District, ND SWC		Current					•	•
	6.1.6 North Ottawa Dam (line 2.1.5 above)										
	6.1.7 Fargo-Moorhead Upstream Feasibility Study (line 2.1.1 above)										
	6.2 <i>Implement flood mitigation strategies in the upper basin (escarpment and beach ridges) that reduce risk locally and downstream</i>	6.2.1 Estimate collective benefits of projects using the MIKE-11 mainstem model (line 3.3.1)	RRBC &/or partners		Planned		•	•			
6.2.2 Define flood damage reduction needs in the upper basin that are not being met		RRBC &/or partners		Planned		•	•				
6.2.3 CFMP (Line 6.1.2 above)											

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7 Ensure that flood (natural disaster) response and recovery programs meet the needs of all RRB residents	7.1 Increase availability of response and recovery programs that are adequate and equitable to residents in all jurisdictions	7.1.1 Document program availability, identify gaps (ND DEM, MEMO, FEMA, etc)	RRBC & partners		Planned		•			
		7.1.2 Comprehensive Flood Mitigation Plan (line 6.1.2 above)								
<b>DRAINAGE</b>										
8 Manage urban and agricultural drainage systems to enhance productivity while minimizing impacts to others	8.1 Manage drainage systems to protect ag land (using 10 year/24 hour or better criteria) and to minimize environmental impacts	8.1.1 Develop drainage protocols for MB	DFO	Agencies, NGOs	Current		•			
		8.1.2 Tile Drainage study (line 3.1.3 above)								
		8.1.3 Continue projects (MN Buffer Initiative and CREP) that minimize environmental								
	8.2 Design and improve drainage systems with consideration of local, sub-watershed and mainstem effects	8.2.1 Promote stream restoration concepts as FDR measures	Federal, state, provincial	RRBC & partners	Planned		•	•		
		8.3 Design and implement urban and rural storm water strategies that minimize environmental impacts	8.3.1 Red River Regional Stormwater Coordination Program for Fargo, Moorhead, Grand Forks, East Grand Forks	EERC	local and state	Current			•	
<b>WATER QUALITY</b>										
9 Maintain, protect, and restore surface and ground water quality in the Red River Basin	9.1 Develop a common approach to defining, setting, monitoring and assessing water quality goals and conditions in the Red River Basin	9.1.1 Provide a forum for each jurisdiction to discuss issues related to implementing basin approaches to water quality management	AEC, MB WS, MPCA, ND DoH	RRBC, IWI	Current		•			
		9.1.2 Basin-wide analysis of nutrient concentrations and loads	RRBC, IWI	IJC, AEC	Current	•				
		9.1.3 Ensure jurisdictional interpretation of water quality data is undertaken with a basin-wide perspective. Example: Participate in the MPCA's biennial best professional judgment group assessing water quality (July 2005)	RRBC		Planned	•	•			
		9.1.4 Project EMPACT - Fargo-Moorhead water monitoring & citizen outreach	RiverKeepers		Current			•		
		9.2 Develop scientifically-based water quality restoration goals for impaired water bodies in the basin	9.2.1 Provide a forum for each jurisdiction to discuss issues related to developing restoration goals	MB WS, MPCA, ND DoH, USGS, others	AEC, RRBC, IWI	Planned		•		
	9.3 Reduce point-source and non-point source (NPS) pollution to protect basin surface and ground water	9.3.1 Implementation of Best Management Practices (BMP) throughout the basin	State & provincial agencies		Current		•	•		
		9.3.2 Impaired waters identification in the US & Canada Example: Fargo-Moorhead TMDL study (Turbidity & Fecal coliform)	State & provincial agencies RRBC	MPCA, ND DoH	Current	•	•	•		
		9.3.3 Red River Basin Buffer Initiative (MN)	RRBC	MPCA	Current	•				
		9.3.4 Permitting of regulated facilities	MB, MN, ND agencies		Current			•	•	
	9.4 Develop coordinated strategies to reduce loadings of nutrients to Lake Winnipeg by 10 % within five years to support the recommendations of the IRRB	9.4.1 Provide a forum for each jurisdiction to discuss issues related to developing strategies to reduce nutrient loading to Lake Winnipeg	LWSB, MB WS, state agencies	RRBC, AEC	Planned		•	•		
		9.4.2 MPCA Basin Plan (line 2.1.7 above)								
		9.4.3 Lake Winnipeg Dredging Study II	DFO	MB WS, RRBC	Planned	•				
	9.5 Encourage respect for all existing water quality standards, objectives, and guidelines within the basin, including those established by the IJC at the international boundary and those established by other jurisdictions	9.5.1 Water Quality Forum (line 9.1.1 above)								
		9.5.2 Basin-wide analysis of nutrient concentrations and loads (line 9.1.2 above)								

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	9.6	<i>Develop and coordinate programs to prevent the further spread of non-native aquatic species presently within the basin and to prevent the introduction of new species to the basin</i>	9.6.1	Provide a forum for each jurisdiction to discuss issues related to control and management of exotic species.	MB WS, MPCA, ND DoH	AEC, RRBC, IWI	Planned		•		•			
			9.6.2	Provide basin-wide perspective to each jurisdiction's programs (e.g., ND Aquatic Nuisance Species plan, developed 2005)	MB, MN, ND, SD	AEC, RRBC, IWI	Planned		•					
			9.6.3	Provide basin-wide perspective to jurisdictional interpretation of exotic species status.	MB, MN, ND, SD	AEC, RRBC, IWI	Planned		•					
<b>WATER SUPPLY</b>														
<b>10 Ensure the appropriate use and sustainability of the Basin's surface- and ground-water</b>	10.1	<i>Develop a basin-wide strategy to meet current and projected water supply needs in the basin</i>	10.1.1	Red River Valley water supply study (basin-wide analysis of water supply alternatives for eastern ND)	BOR	Local, State and federal	Current			•	•			
			10.1.2	Lake Agassiz Water Authority - East ND Water Supply	Garrison Conservancy District, BOR		Current			•				
			10.1.3	Establish a basin water allocation and use task force	MB, MN, ND, SD	RRBC	Current	•						
	10.2	<i>Develop water supply emergency management plans for contamination, drought and flooding</i>			local, state & provincial agencies		Planned			•	•			
10.3	<i>Develop an understanding of the approaches and differences in minimum in-stream flow criteria to maintain and protect all users</i>	10.4.1	Use task force established in 10.1.3 to assess this issue	MB, MN, ND, SD	RRBC, IJC	Planned		•		•				
<b>CONSERVATION</b>														
<b>11 Increase soil conservation efforts within the basin</b>	11.1	<i>Increase availability of conservation programs to landowners through establishment of appropriate delivery organizations</i>	11.1.1	Enhance and develop local delivery of conservation programs	Federal, state, provincial agencies		Current				•			
			11.1.2	CREP II - Red River Basin (MN)	BWSR, FSA	RRBC	Current		•		•			
			11.1.3	MN Buffer Initiative (line 9.3.3 above)										
			11.1.4	Greencover Canada	PFRA	Agriculture & Agri-Food Canada	Current					•		
	11.2	<i>Manage land and land uses to minimize runoff and maintain soil on site (i.e., through the use of Best Management Practices)</i>	11.2.1	Provide a forum for watershed managers and soil conservation staff to strategize how to implement this recommendation.	RRBC	WDs, SWCDs, SCDs, CDs, WMAs	Planned		•					
			11.2.2	Continue projects (MN Buffer Initiative and CREP) that minimize runoff & erosion (lines 9.3.3 & 11.1.2 above)										
<b>FISH, WILDLIFE, OUTDOOR RECREATION</b>														
<b>12 Conserve, manage, and restore diversity and viability of native fish and wildlife populations and their habitats</b>	12.1	<i>Maintain, enhance and protect aquatic and terrestrial populations</i>	12.1.1	Provide a forum for agency staff to strategize how to implement this recommendation.	RRBC	MB Cons, MN DNR, ND/SD Game & Fish, USFWS	Planned		•					
	12.2	<i>Enhance, protect or restore natural systems (natural floodplains, stream functions, riparian areas, wetlands, grasslands and woodlands)</i>	12.2.1	Provide a forum for agency staff to strategize how to implement this recommendation.	RRBC	MB Cons, MN DNR, ND/SD Game & Fish, USFWS	Planned		•					
			12.2.2	Continue projects (MN Buffer Initiative and CREP) that enhance natural systems (lines 9.3.3 & 11.1.2 above)										
			12.2.3	Greenway programs (line 2.1.2 above)										
12.3	<i>Enhance or develop corridors between habitat blocks</i>	12.3.1	Provide a forum for agency staff to strategize how to implement this recommendation.	RRBC	MB Cons, MN DNR, ND/SD Game & Fish, USFWS, USGS	Planned		•						
12.4	<i>Identify and protect rare and unique species, habitat types and plant communities</i>	12.4.1	Provide a forum for agency staff to strategize how to implement this recommendation.	RRBC	MB Cons, MN DNR, ND Game & Fish, USFWS	Planned		•						

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<b>13 Enhance and develop recreational infrastructure and access to the Basin's natural resources</b>	13.1 <i>Increase awareness and participation in outdoor recreational opportunities by the general public</i>	13.1.1 Provide a forum for agency staff to strategize how to implement this recommendation.	RRBC, River Keepers, others	MB Cons, MN DNR, ND Parks & Rec, SD	Planned	•	•			
		13.1.2 Inventory all public lands available for outdoor recreation.	RRBC	as above	Planned	•	•	•		
		13.1.3 Greenway programs (line 2.1.2 above)								
		13.1.4 River Keeps programs: Fishermen's Derby; Race the Red Canoe Race								
	13.2 <i>Promote unique RRB habitats to enhance economic development and quality of life</i>	13.2.1 Provide a forum for agency staff to strategize how to implement this recommendation.	RRBC	MB Cons, MN DNR, ND Parks & Rec, SD	Planned	•				
<b>List of Acronyms</b>										
AEC	Aquatic Ecosystem Committee (reports to the IRRB)		ND DoH	North Dakota Department of Health						
BOR	Bureau of Reclamation (US Federal Agency)		ND SWC	State Water Commission (ND)						
BWSR	Board of Soil & Water Resources (MN)		NDSU	North Dakota State University (Fargo)						
CD	Conservation District (MB)		NRFP	Natural Resources Framework Plan (RRBC)						
CREP	Conservation Reserve Enhancement Program (funded jointly by the US Department of Agriculture & participating state)		NRCS	Natural Resources Conservation Service (U.S. Department of						
DFO	Department of Fisheries & Oceans Canada		PFRA	Prairie Farm Rehabilitation Administration						
EERC	Energy and Environmental Research Center (University of North Dakota, Grand Forks)		PPTV	Prairie Public TV						
FDR	Flood Damage Reduction		PRBAB	Pembina River Basin Advisory Board (MB, ND)						
FSA	Farm Service Agency (U.S. Department of Agriculture)		RM	Rural Municipality (MB)						
GIS	Geographic Information Systems		RRBC	Red River Basin Commission						
HEC-RAS	A computer model that simulates water flow (developed by USACE)		RRBDIN	Red River Basin Decision Information Network (rrbdin.org)						
IJC	International Joint Commission		RIW	Roseau River Internation Watershed (MB, MN)						
IRRB	International Red River Board (reports to the International Joint Commission)		RRWB	Roseau River Watershed Board (MB, MN)						
IWI	International Water Institute (formerly Red River Basin Institute)		RRWMB	Red River Watershed Management Board (MN)						
LWSB	Lake Winnipeg Stewardship Board		SCD	Soil Conservation District (ND & SD agencies)						
MB Cons	Manitoba Conservation		SWCD	Soil and Water Conservation District (MN agency)						
MB WS	Department of Water Stewardship (Province of Manitoba)		USACE	United States Army Corps of Engineers						
MN Ag	Minnesota Department of Agriculture		USFWS	U.S. Fish and Wildlife Service						
MN DNR	Minnesota Department of Natural Resources		WD	Watershed District (MN)						
MPCA	Minnesota Pollution Control Agency		WEDC	Western Economic Diversification Canada						
MIKE-11	A computer model that simulates water flow (developed by DHI Software Inc)		WMA	Water Management Associations (MB)						
NGO	Non-governmental organization									