

**INTEGRATED MANAGEMENT PLAN**  
**Jointly Developed by the**  
**DEPARTMENT OF NATURAL RESOURCES**  
**And the**  
**MIDDLE REPUBLICAN NATURAL RESOURCES DISTRICT**

**I. AUTHORITY**

This integrated management plan (IMP) was prepared by the Board of Directors of the Middle Republican Natural Resources District (MRNRD) and the Nebraska Department of Natural Resources (NDNR) in accordance with Neb. Rev. Stat. §§ 46-715 through 46-718.

**II. BACKGROUND**

In 1943 the States of Colorado, Kansas and Nebraska entered into the Republican River Compact (Compact) with the approval of Congress. The Compact provides for the equitable apportionment of the “virgin water supply” of the Republican River Basin. Following several years of dispute about Nebraska’s consumptive use of water within the Basin, Kansas filed an original action in the United States Supreme Court (Court) against the states of Nebraska and Colorado in 1998. After several rulings by the Court and its Special Master and several months of negotiation, all three states entered into a comprehensive agreement known as the Final Settlement Stipulation (FSS). The FSS was approved by the Court on May 19, 2003, and the Special Master’s final report approving the Joint Ground Water Model developed by all three states for use in computing streamflow depletions resulting from ground water use and for computing the imported mound credit was submitted to the Court on September 17, 2003.

In July, 1996, the MRNRD and the other three Natural Resources Districts in the Republican River Basin, pursuant to then Section 46-656.28 of the Nebraska statutes, initiated a joint action planning process with the Department of Water Resources (DWR), the predecessor agency to NDNR. In accordance with that process, DWR first made a preliminary determination in 1996 that “there was reason to believe that the use of hydrologically connected ground water and surface water resources is contributing to or is in the reasonably foreseeable future likely to contribute to disputes over the Republican River Compact.” When the studies required by Section 46-656.28 had been completed, NDNR issued its conclusions on May 20, 2003, in the form of a report entitled: “Republican River Basin, Report of Preliminary Findings.” Those conclusions included the following determination:

Pursuant to Section 46-656.28 and the preliminary findings in this report, the Department determined that present and future Compact disputes

arising out of the use of hydrologically connected ground water and surface water resources in the Republican River Basin could be eliminated or reduced through the adoption of a joint action plan.

Following four hearings on that report, NDNR made final the preliminary conclusions in the report and the four Basin Natural Resources Districts were so informed. The MRNRD and the other three Districts each then adopted orders to proceed with developing a joint action plan for integrated management of hydrologically connected surface water and ground water resources in the Basin; preparation of a joint action plan for the MRNRD began soon thereafter.

The Nebraska Legislature adopted LB962 in April of 2004 and it was signed by Governor Johanns on April 15, 2004, and became operative on July 16, 2004. That bill repealed Section 46-656.28 and replaced it with legislation providing for a revised process for addressing hydrologically connected surface water and ground water resources. In order to avoid the need to begin anew the integrated management planning processes that had been commenced but not completed under Section 46-656.28, LB962 provided for the transition of those ongoing planning processes into the newly enacted process now codified as Sections 46-713 to 46-719. The MRNRD and NDNR agreed that preparation of a joint action plan had not been completed prior to July 16, 2004; therefore, subsection (3) of what is codified as Section 46-720, governs that transition. Completion of this plan proceeded under the new process and this plan was adopted in accordance with Section 46-718.

The MRNRD and the NDNR adopted an integrated management plan effective January 1, 2005, that contained ground water rules and regulations for the 2005-2007 period. That integrated management plan established an average ground water allocation of thirteen (13) inches per certified acre, certified all uses and included several other controls. A goal of the 2005 integrated management plan was to reduce water use by five percent (5%) from the 1998-2002 baseline. Since that time, efforts have been taken to implement or conduct incentive programs, studies, and research to further our understanding and ability to comply with the Republican River Compact and the FSS.

### **III. AGREEMENTS**

The MRNRD and the NDNR wish to adopt and implement a revised IMP for the regulation of water resources within the District as required by the laws of the State of Nebraska. The MRNRD and the NDNR agree that the IMP for the District shall keep the District's average net depletions to an amount within thirty percent (30%) of the State's average allowable ground water depletions. Based upon its calculations during periods of average precipitation, the NDNR believes that a twenty percent (20%) reduction from the 98-02 pumping volume would be sufficient, without additional streamflow augmentation, to keep the District's average net depletions within the MRNRD's thirty percent (30%) share of the State's allowable ground water depletions through the year 2020.

The NDNR has determined the following pumping volumes, depletion volumes, and depletion percentages for the period 1998-2002 listed below and defined as "1998-2002 Baselines". The pumping volumes are used throughout this IMP and are referenced as the "98-02 pumping volume". NDNR, through the use of the Republican River Compact Administration Ground Water Model, has also determined each District's impact on streamflow for the baseline period and those impacts are listed below and defined as "98-02 depletion volume". Those depletion volumes have resulted in depletion percentages used throughout this IMP and are listed below and defined as "98-02 depletion percentages."

The pumping volumes used to make these determinations will be evaluated within the next five years to determine their accuracy as compared with metered pumping volumes. If the 98-02 pumping volumes are found to be in error, the pumping volumes for the 1998-2002 period will be revised and the percentage of depletions for this period will be readjusted based on the new pumping volumes.

The failure of any District to adopt, implement, or enforce an IMP adequate to meet their proportionate share of the responsibility to achieve and maintain Nebraska's compliance with the Compact shall not by itself require any additional action by the other Districts. Neither the MRNRD or NDNR will require the integrated management plan to be amended solely for the purpose of changing the responsibility of water users within the MRNRD based on the failure of the other Basin NRDs to implement or enforce an integrated management plan to meet their share of the responsibility to keep Nebraska in compliance with the Republican River Compact.

#### **IV. DEFINITIONS**

- A. 1998-2002 Baselines** - The depletions to streamflow, in the Nebraska portion of the Republican River Basin, as a result of surface water and ground water uses in the years 1998-2002 inclusive.

98-02 Pumping Volume:

URNRD-531,763 acre-feet (AF), MRNRD-309,479 AF,  
LRNRD-242,289 AF

98-02 Depletion Volume:

URNRD-74,161 AF, MRNRD-52,168, LRNRD-43,954 AF

98-02 Depletion Percentage:

URNRD-44%, MRNRD-30%, LRNRD-26%

- B. Allowable Streamflow Depletions** - the maximum amount of streamflow depletion in the Republican River Basin that can occur in a given year without Nebraska exceeding its allocation. Allowable streamflow depletions are the sum of the allowable ground water depletions and the allowable surface water depletions.

- C. Allowable Surface Water Depletions** – the maximum level of depletions to streamflow that may occur as a result of accountable surface water uses, based on annual Republican River Compact Administration (RRCA) calculations, within the Republican River Basin in a given year without Nebraska exceeding its allocation.
- D. Allowable Ground Water Depletions** - the maximum level of depletions to streamflow that may occur as a result of ground water pumping of wells within the Republican River Basin that can occur in a given year without Nebraska exceeding its allocation.
- E. Allowable Ground Water Depletion for the MRNRD** - the depletions to streamflow resulting from the impact of ground water pumping in the MRNRD. These depletions shall average no greater than 30% of the allowable ground water depletion. The average shall be computed using the allowable annual ground water depletion for the same years as are used to determine the averages for Nebraska's compliance with the FSS.
- F. Supplemental Programs** – as used in this plan, refers to, but is not limited to; surface water or ground water augmentation projects, river flow enhancement projects, incentive programs, riparian management projects and other projects that may reduce the District's net depletions to streamflow.
- G. Compliance Standard** - the criteria that will be used to determine whether the controls, adopted as rules and regulations by the MRNRD, and adopted in this plan by the NDNR are sufficient to meet the goals and objectives of this integrated management plan pertaining to pumping volumes and depletions. Compliance will be measured in part using the RRCA Ground Water Model.
- H. Net Depletion** – the actual Ground Water Depletion for the MRNRD less any reduction in streamflow depletions or increase in accretions to the stream resulting from supplemental projects.

## **V. GOALS AND OBJECTIVES**

Pursuant to Neb. Rev. Stat. § 46-715, the goals and objectives of an integrated management plan must have a purpose of sustaining a balance between water uses and water supplies so that the economic viability, social and environmental health, safety, and welfare of the Republican River Basin can be achieved and maintained for both the near term and the long term. The MRNRD will meet its responsibility under Neb. Rev. Stat. § 46-715, including meeting the obligations under the FSS, by adopting revised rules to implement the integrated management plan with regulations and other supplemental programs.

The following goals and objectives are adopted by the MRNRD and the NDNR to achieve the purpose stated above:

**A. Goals:**

1. In cooperation with the other Basin Natural Resources Districts and the Nebraska Department of Natural Resources, maintain compliance with the Republican River Compact as adopted in 1943 and as implemented in accordance with the FSS approved by the United States Supreme Court on May 19, 2003.
2. Ensure that ground water and surface water users within the MRNRD assume their share of the responsibility to keep Nebraska in compliance with the Republican River Compact.
3. Provide that MRNRD's share of that responsibility be distributed in an equitable manner and by minimizing, to the extent possible, adverse economic, social, and environmental consequences.
4. Reserve any streamflow available from regulation or supplemental programs, enacted or implemented to maintain Compact compliance, from any use that would negate the benefit of such regulation or programs.
5. Protect ground water users whose water wells are dependent on recharge from the river or stream and the surface water appropriators on such river or stream from streamflow depletions caused by surface water uses and ground water uses begun after the date the river basin was designated as fully appropriated.

**B. Objectives:**

1. With limited exceptions, prevent the initiation of new or expanded uses of water that increase Nebraska's computed beneficial consumptive use of water within the MRNRD.
2. Ensure that administration of surface water appropriations in the Basin is in accordance with the Compact and in full compliance with Nebraska law.
3. Achieve, on average, a twenty percent (20%) reduction in 98-02 pumping volume under average precipitation conditions.
4. Maintain the MRNRD net depletions at or within thirty percent (30%) of the allowable ground water depletion.

5. After taking into account any reduction in beneficial consumptive use achieved through District or basin-wide supplemental projects and other projects developed at the Basin or District level with the expressed purpose or result of reducing consumptive use or increasing streamflow, make such additional reductions in ground water use in water short years as are necessary to achieve a reduction in beneficial consumptive use in the MRNRD in an amount proportionate to the total reduction in consumptive use that is needed in Nebraska above Guide Rock in such years.
6. Cause the required reductions in water use to be achieved through a combination of regulatory and supplemental programs designed to reduce beneficial consumptive use, relying to the extent available funds allow, on incentive programs that are made available to as many MRNRD water users as possible.
7. The MRNRD and the NDNR will investigate or explore methods to manage the impact of vegetative growth on streamflow.
8. Develop a procedure to provide offsets for new consumptive uses of water so that economic development in the MRNRD may continue without producing an overall increase in ground water depletions as a result of new uses.

#### **VI. MAP - see map 1.**

The area subject to this integrated management plan is the geographic area within the boundaries of the Middle Republican Natural Resources District.

#### **VII. FORECAST**

Each year, in accordance with Neb. Rev. Stat. § 46-715(5), the NDNR, in consultation with the Republican River NRDs, shall forecast on an annual basis the maximum amount of water that may be available from streamflow for beneficial use in the short term and long term in order to determine if the ground water controls implemented by the MRNRD through rules and regulations and the surface water controls implemented by NDNR through the IMP are sufficient to ensure that the state of Nebraska will remain in compliance with the Republican River Compact.

#### **VIII. GROUND WATER CONTROLS – Middle Republican NRD**

In accordance with Neb. Rev. Stat. § 46-715, one or more of the ground water controls authorized by Neb. Rev. Stat. § 46-739 and Neb. Rev. Stat. § 46-740 shall be adopted for the purpose of implementing this plan. Other authorities, provided for in the Ground Water Management and Protection Act, may be used

to supplement these controls. These controls, along with any applicable supplemental programs, shall be consistent with the goals and objectives of this plan and be sufficient to meet the compliance standards set forth below, ensure that the state will remain in compliance with the Republican River Compact, and protect the ground water users whose water wells are dependent on recharge from the river or stream and the surface water appropriators on such river or stream from streamflow depletion caused by surface and ground water uses begun after on July 16, 2004, the date the river basin was designated as fully appropriated, in accordance with Neb. Rev. Stat. §§ 46-720 and 46-713-46-715, If it is determined by NDNR and the MRNRD, that all of the Districts in the Basin met their proportional share of responsibility, but Nebraska is nonetheless out of compliance with the FSS, any further reductions in net depletions necessary shall be achieved by the Districts, as the District deems appropriate, based on the same proportions as contained in the 1998-2002 baseline depletion percentages.

*The Rules and Regulations – Ground Water Management Area in the Middle Republican Natural Resources District* contains the controls required by the FSS and other controls needed for the effective administration of a ground water management subarea for integrated management. The actions proposed by the FSS were rules and regulations for transfers, meters, and certification of acres. In addition, a well drilling moratorium and a ban on the increase of irrigated acres were also implemented. The compliance standard and management activities listed below will be or have been implemented to achieve and maintain Compact compliance.

Amendments dealing with the requirements of Neb. Rev. Stat. §46-715(3)(b), and §46-715(3)(c) shall have the concurrence of NDNR. The MRNRD may otherwise amend these regulations without the approval of the NDNR so long as the compliance standards listed below are met.

If the compliance standards listed below, including consideration of the averages as described in Section VII.A.3.b, are not met, the MRNRD, with the assistance of NDNR, shall formulate adequate rules and regulations, acceptable to NDNR, to meet the Compliance Standards. The revisions to the rules and regulations shall be such that the compliance standards will be achieved within two years from the determination that the compliance standards were exceeded if the State of Nebraska is within compliance with the FSS, or within one year of the determination that the compliance standards have been exceeded and the State of Nebraska is not within compliance with the FSS.

The Determination of whether the MRNRD is in compliance with the compliance standards shall be made in conjunction with the regular annual meeting of the RRCA and shall be based on each year's annual Compact accounting.

## A. Compliance Standards

1. PURPOSE. These Compliance Standards are established by NDNR and MRNRD to assess whether the course of action taken by the MRNRD, with the intention of providing a proportionate share of assistance to the State, is sufficient for the State to maintain compliance with the FSS and the Compact. The action taken by the MRNRD shall be evaluated in connection with the action taken by the other Districts in the Republican River Basin and any other relevant considerations, including the information and data provided by NDNR and past action by the District.
2. DURATION. These Compliance Standards shall be used by the MRNRD commencing January 1, 2008 through January 1, 2013. During this period, the NDNR and MRNRD shall examine the sufficiency and effectiveness of the Compliance Standards to determine if amendments or revisions are necessary to ensure the State's compliance with the FSS and the Compact. Nothing contained herein shall prohibit or preclude any amendment or revision, at anytime, by the NDNR and MRNRD, when such action is necessary. Further, nothing contained in this subsection shall be construed as eliminating the review of the provisions of this IMP as allowed by Neb. Rev. Stat. §46-715.
3. STANDARDS. The MRNRD shall adopt and implement rules and regulations which shall meet the requirements of both the following compliance standards:
  - a. Provide for a twenty percent (20%) reduction in pumping from the 98-02 pumping volume using a combination of regulation and supplemental programs so that the average ground water pumping volume is no greater than 247,580 acre-feet over the long term.
    - i. If precipitation is lower than average for any given year, the ground water pumping volume for that year may be above 247,580 acre-feet.
    - ii. If incentive or supplemental programs are implemented so that on average stream flow is increased, the ground water pumping volume may be increased above the 247,580 acre feet in proportion to that increased amount of streamflow as determined by the Republican River Compact Administration Ground Water Model (RRCAGWM).
  - b. The District's net depletions shall average no greater than thirty percent (30%) of the State of Nebraska's allowable ground water depletions as accounted by the RRCAGWM. The average shall be computed using the annual allowable ~~annual~~ ground

water depletion for the same years as are used to determine the averages for Nebraska's compliance with the FSS.

## **B. OTHER CONTROLS AND MANAGEMENT ACTIVITIES**

1. Maintain a moratorium on new uses with the exceptions noted in the FSS.
2. Limit or prevent the expansion of irrigation uses.
3. Maintain requirement for metering of all uses according to MRNRD standards.
4. Provide for transfers according to District standards.
5. The MRNRD shall provide NDNR with copies of District actions taken on variances and consult with NDNR to minimize or eliminate any impact, relating to Compact compliance, that may arise as a result of a variance granted by the District.
6. NDNR will consult with the MRNRD when considering applications for permits under the Municipal and Rural Domestic Ground Water Transfers Permit Act, the Industrial Ground Water Regulatory Act or other such permitting actions by the NDNR that will have an impact on water supplies of the Republican River Basin.
7. The MRNRD will work with NDNR to achieve the maximum amount of benefit in the accounting of leased or purchased water under the authority of River Flow Enhancement projects or in similar projects.
8. The MRNRD and the NDNR recognize that the required reductions in water consumption could be accomplished by means other than those adopted in this IMP. The IMP and associated controls may need to be amended in the future to implement any such revisions.

## **IX. SURFACE WATER CONTROLS - Department of Natural Resources**

The authority for the surface water component of this integrated management plan is Neb. Rev. Stat. §46-715 and §46-716. The surface water controls that will be continued and/or begun by the NDNR are as follows:

- A. NDNR will do the following additional surface water administration as required by the FSS:
  1. To provide for regulation of natural flow between Harlan County Lake and Superior-Courtland Diversion Dam, Nebraska will recognize a priority date of February 26, 1948, for Kansas Bostwick Irrigation

District, the same priority date as the priority date held by the Nebraska Bostwick Irrigation District's Courtland Canal water right.

2. When water is needed for diversion at Guide Rock and the projected or actual irrigation supply is less than 130,000 acre-feet of storage available for use from Harlan County Lake as determined by the Bureau of Reclamation using the methodology described in Harlan County Lake Operation Consensus Plan attached as Appendix K to the FSS, Nebraska will close junior, and require compliance with senior, natural flow diversions of surface water between Harlan County Lake and Guide Rock.
  3. Nebraska will protect storage water released from Harlan County Lake for delivery at Guide Rock from surface water diversions.
  4. Nebraska, in concert with Kansas and in collaboration with the United States, and in the manner described in Appendix L to the FSS, will take actions to minimize the bypass flows at Superior-Courtland Diversion Dam.
- B. Metering of all surface water diversions at the point of diversion from the stream will continue to be required. For surface water canals that are not part of a Bureau of Reclamation project, farm turnouts also will be required to be metered by the start of the 2005 irrigation season. All meters shall have a totalizer and shall meet NDNR standards for installation, accuracy and maintenance. All appropriators will be monitored closely to ensure that neither the rate of diversion nor the annual amount diverted exceeds that allowed by the applicable permit or by statute.
- C. The NDNR's moratorium on the issuance of new surface water permits was made formal by Order of the Director dated July 14, 2004, and will be continued. Exceptions may be granted to the extent permitted by statute or to allow issuance of permits for existing reservoirs that currently do not now have such permits. Such reservoirs are limited to those identified through the FSS required inventory of over fifteen (15) acre-feet capacity reservoirs.
- D. All proposed transfers of surface water rights shall be subject to the criteria for such transfers as found in Neb. Rev. Stat. §§46-290 to 46-294.04 and related NDNR rules or the criteria found in Neb. Rev. Stat. §§46-2,120 to 46-2,130 and related NDNR rules.
- E. The NDNR completed the adjudication process for individual appropriators in the Republican River Basin upstream of Guide Rock in 2004. The results of that adjudication provided up-to-date records of the number and location of acres irrigated with surface water by such appropriators.

- Those records will be used by the NDNR to monitor use of surface water and to make sure that unauthorized irrigation is not occurring. The NDNR also will be proactive in initiating subsequent adjudications whenever information available to the NDNR indicates the need for adjudication as outlined by state statutes..
- F. At this time, due to the already limited availability of surface water supplies, the NDNR will not require that surface water appropriators apply or utilize additional conservation measures or that they be subject to other new restrictions on surface water use, except as may be necessary to meet the goals and objectives of this plan and to maintain compliance with the Compact. However, the NDNR reserves the right to request, in the future, that this IMP be modified to require any such additional measures. In the event such a request is made, the NDNR will “allow the affected surface water appropriators and surface water project sponsors a reasonable amount of time, not to exceed one hundred eighty days, unless extended by the NDNR, to identify the conservation measures to be applied or utilized, to develop a schedule for such application and utilization, and to comment on any other proposed restrictions.” Neb. Rev. Stat. §46-716(2).

## **X. AUGMENTATION AND INCENTIVE PROGRAMS**

The MRNRD and NDNR, alone or in cooperation with other parties, intend to establish and implement financial or other incentive programs to reduce beneficial consumptive use of water within the MRNRD. As a condition for participation in an incentive program, water users or landowners may be required to enter into and perform such agreements or covenants concerning the use of land or water as are necessary to produce the benefits for which the incentive program is established.

Such incentive programs may include any program authorized by state law and/or Federal programs such as the Conservation Reserve Enhancement Program (CREP) and Environmental Quality Incentives Program (EQIP) operated by the U.S. Department of Agriculture.

Projects that have a net effect of reducing consumptive use or increasing streamflow can originate from many sources. The MRNRD will initiate these types of projects when possible and participate in projects sponsored by other groups within our capabilities.

The MRNRD, through the Republican River Basin Coalition, intends to establish and implement river flow enhancement projects using the authorities available to the MRNRD by the enactment of LB 701 in 2007.

Any reductions in depletions to streamflow generated through supplemental programs, including acreage retirement or other incentive programs undertaken through programs available throughout the Republican River Basin with the use of funds distributed by the State of Nebraska or the United States Government will be accounted as credits to the entire Republican River Basin and not to any District, regardless of the location or other conditions of the acreage included in the program or of the location of the effect of such water savings on the river system. Any reductions in depletions to streamflow resulting from any such basin-wide programs shall be considered in the calculation of each District's compliance with the 98-02 depletion percentages.

However, should any District establish, fund, and implement its own such conservation program, available only for acreage within such District, the accounting of credit for the resulting water savings shall be given exclusively to that District. Also, with agreement of the Districts involved, the benefits from a supplemental program may be allocated to each District based upon their share of the cost of the program.

## **XI. REPORTING REQUIREMENTS**

The MRNRD and the NDNR will make all documents, reports, records, computer runs or other calculations or material necessary to determine compliance with the Compact available to each other, regardless of whether such documents are available under the Nebraska Public Records Act or otherwise, unless such materials are identified as confidential under Nebraska statutes or by a ruling of a court of competent jurisdiction. Specifically, and without limitation, the MRNRD agrees to continue to provide GIS coverage maps of all lands irrigated and to meter, record and provide to the NDNR its ground water usage records in a manner consistent with the requirements of the Republican River Compact Accounting Procedures; the NDNR agrees to provide to the MRNRD all reports and records of the other Districts necessary to determine their compliance with reductions, in accordance with procedures described above, as well as all documentation and reports utilized by the NDNR to determine the Basin's virgin water supplies and Nebraska's compliance with the Compact. In the event any materials are withheld by either NDNR or MRNRD under a claim of statutory confidentiality, the party withholding such materials shall describe the contents of the materials and reasons for the denial in accordance with Neb. Rev. Stat. § 84-712.04.

## **XII. PLAN TO GATHER AND EVALUATE DATA**

Compact accounting and data exchanges among the states shall be done annually in accordance with the Final Settlement Stipulation, dated December 15, 2002, including the Republican River Compact Administration (RRCA) Accounting Procedures and Reporting Requirements which are contained in Appendix C thereof. An annual report of the RRCA is published each year. Ongoing programs and new studies or other projects may become a source of

Effective  
January 1, 2005

Middle Republican NRD

revised  
Jan 8, 2008

information that can be used to evaluate the effectiveness of controls adopted by the by the MRNRD and the NDNR. This accounting and the forecast in accordance with Neb. Rev. Stat. § 46-715(5) will increase understanding and test the validity of the conclusions and information upon which this plan is based.

### **XIII. INFORMATION CONSIDERED**

Information used in the preparation and to be used in the implementation of this integrated management plan can be found in the simulation runs of the Republican River Compact Administration Ground Water Model, the data tables of the Final Settlement Stipulation for the Republican River Compact, Chapters 2 and 3 of the 1994 Middle Republican NRD Ground Water Management Plan and additional data on file with the District and the NDNR of Natural Resources.