

Final Report
Republican River Basin Water Sustainability Task Force
May 7, 2012

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I. Report Background

This report describes the task force's actions and findings. This introduction contains general information about the task force and its legislative charge. Following this introduction, we report our findings and recommendations related to the three parts of our legislative charge.

A. Legislative Charge

Legislative Bill 1057 (2010), codified at Neb. Rev. Stat. § 46-2,140, created the Republican River Basin Water Sustainability Task Force. Its purpose was “to define water sustainability for the Republican River basin, develop and recommend a plan to help reach water sustainability in the basin, and develop and recommend a plan to help avoid a water-short year in the basin.” The task force made a preliminary report to the Governor and the Legislature before May 15, 2011, and hereby submits this document as its final report.

B. Task Force Membership

The task force is comprised of stakeholders within the basin, including water users, local and state policy makers, administrative officials, and residents of the basin. Specifically, the task force includes the following voting members, appointed by the Governor: “two representatives from each natural resources district in the basin; four representatives from the irrigation districts in the basin; one representative each from the University of Nebraska Institute of Agriculture and Natural Resources, the Game and Parks Commission, the Department of Agriculture, and the Department of Natural Resources; one representative each from a school district, a city, a county, and a public power district in the basin; and two representatives from agriculture-related businesses in the Republican River basin.” In addition, the Chairperson of the Executive Board of the Legislative Council appointed four ex officio, non-voting members from the Legislature, two of whom are residents of the basin, one who has a portion of his or her legislative district in the basin, and one who is the chairperson of the Natural Resources Committee of the Legislature.” Neb. Rev. Stat. § 46-2,140. In 2011, the legislature increased the number of ex-officio, non-voting members to five, adding one member who had a portion of his or her legislative district in the basin. Legislative Bill 243 (2011). The Chairperson of the Executive Board of the Legislative Council made that appointment in March 2011. The geographic distribution of task force members is depicted in Attachment 2.

The appointees and task-force positions are listed in the following table:

UR NRD Rep.	Dean Large	BC; Chair, WS
UR NRD Rep.	Tom Terryberry	Chair, EC; CM
MR NRD Rep.	Joseph Anderjaska	BC; WU
MR NRD Rep.	Kevin Fornoff	WS
LR NRD Rep.	Marlin Murdoch	Vice-Chair, EC; BC; Chair, WU
LR NRD Rep.	Brad Wulf	CM
TB NRD Rep.	Phyllis Johnson	CF
TB NRD Rep.	Ray Winz	WU
FV H&RW Irrig. Dist. Rep.	Kenneth Albert	WS
F-C Irrig. Dist. Rep.	Dale Cramer	CF
Neb. Bostwick Irrig. Dist. Rep.	Rod Ely	Chair, CM
FV Irrig. Dist. Rep.	Jerry Kotschwar	CM
UN IANR	Charles Burr	Chair, CF
Game & Parks	Jerrod Burke	CM
Dept. of Agriculture	Greg Ibach	CF
DNR	Brian Dunnigan	EC; BC; CM
School District Rep.	Shad Stamm	CF
City Rep.	Chad Yaw	WU
County Rep.	Scott Olson	WS
Public Power Dist. Rep.	James Dietz	WS
Ag Business Rep.	Jim Chism	WU
Ag Business Rep.	Ralph Scott	EC; WU
ex officio Legislator	Tom Carlson	EC; CF
ex officio Legislator	Mark Christensen	
ex officio Legislator	Tom Hansen	
ex officio Legislator	Chris Langemeier	
ex officio Legislator	Galen Hadley	

“EC” is short for Executive Committee

“BC” is short for Background Committee

“WS” is short for Water Supply Committee

“WU” is short for Water Use Committee

“CF” is short for Compensation and Funding Committee

“CM” is short for Conjunctive Management Committee

C. Operational Rules

In January 2011, the Task Force agreed on a set of operating principles concerning the development of the report, which were reported in our preliminary report, which is attached as Appendix C. Under those rules, the adoption of this final report was decided by a roll call vote and required 15 votes in favor of adoption. Dissenting views have been reported in Appendix A.

D. Chronology

The task force met 12 times at various locations throughout the state. In addition, task force members attended a number of interim educational events at which a speaker, or set of speakers, provided relevant information to the task force. Below is a narrative chronological list of task force meetings and educational events. A timeline graphic of task force events is included as Appendix B. The minutes from each meeting are available on the Nebraska Department of Natural Resources web site.

A description of the task force's activities from its inception through April 2011 was included in the preliminary report, which is included as Appendix C. Since then, the task force has met multiple times. In July 2011, the task force met in McCook. An educational presentation was made by Dr. Nolan Clark of Amarillo, Texas. His past engineering experience was at Texas Tech University. He also worked with the USDA-ARS office, and the Panhandle Regional Planning Commission. The topic of the presentation was "Irrigation Water Conservation Strategies". The bulk of the information focused on the steps used in preparing a regional water plan, results of the plan, conservation strategies, and irrigation water management strategies. Two areas of the presentation that received extensive discussion included "Potential Water Management Strategies for Reducing Irrigation Demand" and "Estimated Water Savings and Costs Associated with Proposed Strategies". Water Management Strategies discussed by Dr. Clark included use of an evaporation based program for irrigation scheduling, change in crop variety, irrigation equipment changes, change in crop type, and converting irrigated land to dry land, implementing conservation tillage methods, precipitation enhancement, and biotechnology adaptation. Clark said that one of the interesting factors in the Texas experience is that the Legislature set it up so that one group would develop desired future conditions while another group was to do the planning.

The second presentation was by Natalie Umphlett, a regional climatologist with the High Plains Regional Climate Center at the University of Nebraska-Lincoln. The main topic of the presentation was "Weather and Crop Water Use in the Republican River Basin". Umphlett provided information on services the High Plains Regional Climate Center provides to the region, including Automated Weather Data Network Stations in the basin, use of weather data in decision making and the "SoyWater" web-based irrigation tool for Nebraska soybean producers.

After the educational presentations and discussions, small group committee work focused on current progress made in the areas of conjunctive management, water supply, water use, and compensation-financing, as well as future action items related to achieving water sustainability.

In September 2011, the task force met in McCook. The group heard from Jesse Bradley, from the Nebraska Department of Natural Resources concerning conjunctive management. After the presentation, discussion focused on specifics related to water storage, accounting procedures, lag time, and current and future reservoir capacity.

Committee meetings were held in the morning and afternoon sessions. These were in addition to committee meetings held during the interim between the July 19 meeting and the current September 7 meeting. In the afternoon session, committees were asked to summarize ideas and potential approaches discussed in each committee. A separate notes sheet was drafted and posted during the meetings and is part of the minutes. The overall topics addressed by the committees included funding and compensation sources, interbasin water storage and transfers, conjunctive management (e.g. using canals for recharge, leasing water, diverting water), and specific water use savings from different conservation and farming practices. A timeline and matrix for report section deadlines was also introduced at this meeting.

In December 2011, the task force met in McCook. An educational presentation from John Williams, a farm insurance specialist from Ag Service Associates, focused on the topic of crop insurance and drought risk and total weather insurance. Details of the presentation included how crop insurance works and how it may apply to water. The presentation also noted how insurance can deal with production risks involving soil moisture, precipitation, and heat stress. There was discussion of how the program might apply within the framework of regulatory decisions on allocations, how it works in conjunction with other insurance options, and its relevance to water short periods in the basin.

Committees also reported on their progress. Each group gave a more detailed summary related to actions that could be considered in terms of reaching water sustainability. The remaining portion of the meeting was dedicated to reviewing, editing, and adding report language to specific sections of the report such as the background and definition of sustainability.

In the interim, another draft of the report was circulated to the task force, comments were received and incorporated, and a new draft was produced for the February meeting.

In February 2012, the task force met in Lincoln. The focus of the meeting was to review, edit, and make necessary additions to all current sections of the report. Small group committee work

analyzed sections of the report and, later, those observations were used to begin discussions by the full task force.

In the interim, another draft of the report was circulated to the task force, comments were received and incorporated, and a new draft was produced for the March meeting.

In March 2012, the task force met in McCook. The committees again spearheaded the analysis of different sections of the report, meeting first as small groups and generating discussion points for the full task force.

In April 2012, the task force met in McCook to approve the final report. The task force adopted the report by a vote of 17 to 3. Three members dissented with regard the matters reported in Appendix A.

II. Findings and Recommendations

A. Water Sustainability Defined

Neb. Rev. Stat. § 46-2,140 (2) provides that one of the purposes of the task force is to “*define water sustainability for the Republican River Basin*”. The task force spent considerable time on the definition of water sustainability. This is, in part, because it was excited about the prospect of framing a guiding principle for water management within the basin. But it was also due, in part, to the many various meanings this term could take. The task of defining sustainability includes many ill-defined concepts and relationships that are worth discussing on a normative basis. Those discussions, in turn, revealed a great deal about what the task force recommends in its plan to achieve water sustainability.

The definition of water sustainability that the task force has adopted for the basin is framed in terms of what management for water sustainability would do and is worded as follows:

Management for water sustainability allows the beneficial use of water, in an effective and efficient manner, to satisfy our socio-economic needs and obligations while minimizing the risk that water resources will be insufficient for future generations to meet their socio-economic needs and obligations.

This statement reflects three broad and interrelated categories of normative choices: the appropriate level of present use, the appropriate level of future use, and an understanding of the relationship between present users and future users.

B. A Plan to Achieve Water Sustainability

An additional task force purpose under Neb. Rev. Stat. § 46-2,140 (2) is to “*develop and recommend a plan to help achieve water sustainability in the basin*”. The following recommendations address this charge.

- The Task Force recommends a rigorous, systematic, and comprehensive quantitative analysis of different water management options be undertaken in the future in conjunction with water sustainability planning within the basin, including
 - an analysis of the hydrologic consequences of different management actions and combinations of actions, and
 - an analysis of the economic costs and benefits of different management actions and combinations of actions.

- The Task Force recommends water sustainability goals be defined as part of groundwater planning under the Ground Water Management and Protection Act and pursued using adaptive management techniques.
 - The Task Force recommends that consideration be given to amending the statutes governing Groundwater Management Plans to
 - require that NRDs identify water sustainability goals that address and ultimately stop aquifer declines,
 - require that NRDs use and continue to develop a comprehensive monitoring system through which they can judge their progress toward water sustainability goals and ground water reservoir life goals,
 - require that NRDs report their progress toward water sustainability goals and ground water reservoir life goals every five years, including information evaluating the effectiveness of past actions, as well as identifying anticipated future actions. Such reports should be forwarded to the DNR for purposes of making them publicly available.
 - The Task Force finds that integrated management plans should continue to ensure compact compliance and be a significant tool in helping achieve long-term water sustainability.
- The Task Force recommends that future water management efforts strive to capitalize on the wet-year opportunities present in the Republican River Basin.
- The Task Force recommends that Conjunctive Water Management be used to achieve water sustainability goals, which could involve three categories of management strategies:
 - increasing the supply of surface water available and consider optimal timing of surface water use under existing constraints
 - increasing groundwater recharge
 - creating mechanisms to allow the use of groundwater when surface water use is not optimal
- The Task Force recommends Water supply augmentation projects be studied that would do one or more of the following:
 - increase surface water storage capacity,
 - water transfers
 - store water underground
 - enhance soil moisture

- The Task Force recommends that land use and irrigation practices be studied for the purpose of decreasing consumptive use.
- The Task Force recommends that funding mechanisms to support flexible management be considered.

C. Avoiding Water Short Years

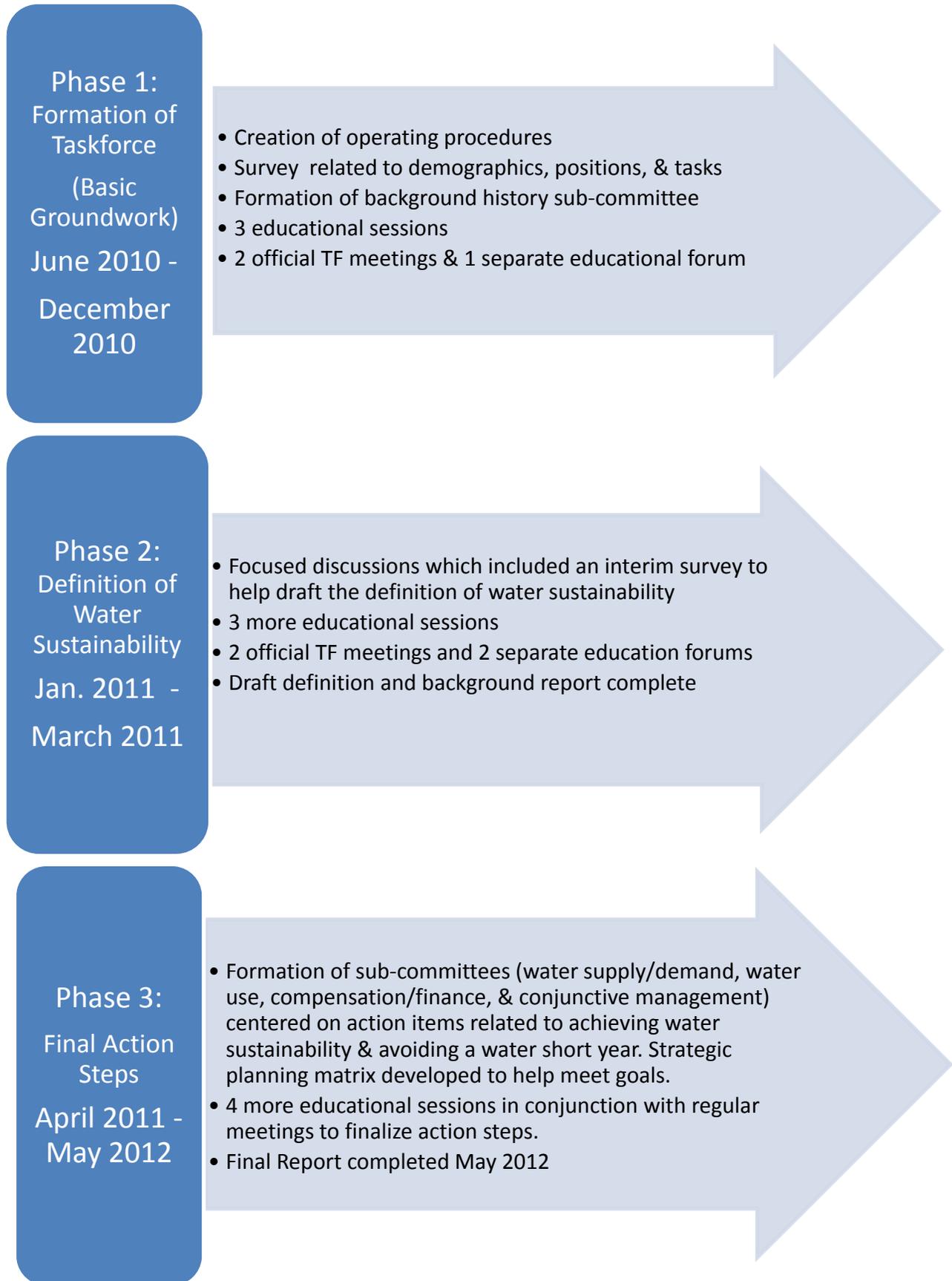
- The Task Force finds that existing IMPs and amendments that will occur in the IMP process are suited to the task of avoiding and dealing with water short years under the Republican River Compact.
- The Task Force recommends that water sustainability planning should involve a rigorous analysis of the benefits of actions and activities for avoiding water short years by considering whether or not (and to what extent) such actions and activities might help avoid a water short year.

Appendix A

Dissenting Views

Three task force members—Marlin Murdoch, Rod Ely, and Brad Wulf--disagree with the task force's recommendation concerning water sustainability goals. They would define water sustainability to require the continued availability of water in perpetuity. They indicated the task force's definition is not strong enough because it allows present socio-economic needs to trump future water availability, while only minimizing the risk to future generations.

Appendix B: Timeline of Republican River Taskforce



Preliminary Report
of the Republican River Basin Water Sustainability Task Force
April 11, 2011

Introduction

This preliminary report describes what the task force has done over the past year and our plans for the future. It proceeds in three parts. Part I provides background information concerning our legislative charge, the task force's members, and the operational rules we are using. Part II covers what we have accomplished, including a chronology of our meetings, our work on the final report itself, and a general working definition of water sustainability--our main accomplishment so far. Part III describes what we plan to do over the next year as we complete the legislative charge.

I. Background

Legislative Charge

[Legislative Bill 1057 \(2010\)](#), codified at [Neb. Rev. Stat. sec. 46-2.140](#), created the Republican River Basin Water Sustainability Task Force. Its purpose is "to define water sustainability for the Republican River basin, develop and recommend a plan to help reach water sustainability in the basin, and develop and recommend a plan to help avoid a water-short year in the basin." The task force is also charged with making a preliminary report to the Governor and the Legislature by May 15, 2011, and a final report by May 15, 2012.

The legislation directed the task force to hire a facilitator to help it create a report. After soliciting proposals, the task force hired the University of Nebraska's Public Policy Center as facilitator. Alan Tomkins (University of Nebraska Public Policy Center), Nicole Wall (National Drought Mitigation Center), and Anthony Schutz (University of Nebraska College of Law) are the facilitators. Ms. Wall and Mr. Schutz are actively involved with the task force, attending meetings, organizing events, and drafting documents for it.

Task Force Membership

The task force is comprised of stakeholders within the basin, including water users, local and state policy makers, administrative officials, and residents of the basin. Specifically, the task force includes the following voting members, appointed by the Governor: "two representatives from each natural resources district in the basin; four representatives from the irrigation districts in the basin; one representative each from the University of Nebraska Institute of Agriculture and Natural Resources, the Game and Parks Commission, the Department of Agriculture, and the Department of Natural Resources; one representative each from a school district, a city, a county, and a public power district in the basin; and two representatives from agriculture-related businesses in the Republican River basin." In addition, the Chairperson of the Executive Committee of the task force initially appointed "four ex officio, nonvoting members from the Legislature, two of whom are residents of the basin, one who has a portion of his or her

legislative district in the basin, and one who is the chairperson of the Natural Resources Committee of the Legislature.” Neb. Rev. Stat. sec. 46-2,140. In 2011, the legislature increased the number of ex-officio, non-voting members to five, adding one member who had a portion of his or her legislative district in the basin. [Legislative Bill 243 \(2011\)](#). The Chairperson of the Executive Committee made that appointment in March 2011.

The appointees and task-force positions are listed in the following table:

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FV Irrig. Dist. Rep.	Jerry Kotschwar	CM
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Game & Parks	Jerrod Burke	CM
Dept. of Agriculture	Greg Ibach	CF
DNR	Brian Dunnigan	EC; BC; CM
School District Rep.	Shad Stamm	CF
City Rep.	Chad Yaw	WU
County Rep.	Scot Olson	WS
Public Power Dist. Rep.	James Dietz	WS
Ag Business Rep.	Jim Chism	WU
Ag Business Rep.	Ralph Scott	EC; WU
ex officio Legislator	Tom Carlson	EC; CF
ex officio Legislator	Mark Christensen	
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“CF” is short for Compensation and Funding Committee
“CM” is short for Conjunctive Management Committee

Operational Rules

In January 2011, the Task Force agreed on a set of operating principles concerning the development of the report. It concluded that there were three primary areas where rules would help it operate: (1) general task force operations, (2) developing report content, and (3) adopting the final report.

General task force operations include the adoption of these rules, the selection of educational presenters, the formation of subcommittees, and similar tasks. These matters are handled with a simple majority vote among the group charged with making a decision as to these matters. The group within which such a vote would occur could be either the Executive Committee or the full Task Force. The Executive Committee entertains a rule that if they did not all agree on a proposed course of action on these matters, it will refer the matter to the entire group. In addition, it also refers matters to the entire group if any member of the executive committee requests that the matter be referred. The selection of the operating rules is one example of a decision that the Executive Committee unanimously concluded should be referred to the entire task force given its importance.

The development of report content occurs within task force meetings and includes any point at which a group decision is necessary. Such decision points include the following:

- the adoption of report language
- suggestions to change report language
- suggestions to add or remove information from the report
- adopting proposed amendments to statutes or regulations
- proposing new statutes or regulations

At each of these points and at various points leading to these points, it is necessary to make decisions as a group. The task force gave the facilitators the ability to employ a system of gauging the level of acceptance within the group that would be used to encourage conversation among group members to get a better understanding of the source of disagreements. The goal of this system is to generate the highest level of consensus possible within the group. To do so, the facilitators ask each participant to signal their level of acceptance (after adequate discussion) with a vote of "yes", "no" or "pass." Those who vote yes are signaling their agreement with the measure. Those who pass are signaling that they agree with the measure but do not support the matter enough to vote yes. In other words, the proposed action is something that passers can live with. Those who vote no are signaling that they do not agree with the proposed action. Those who vote are then called upon to explain why they do not agree with the proposed action. Of course, all members have the opportunity to explain their position, but those voting no have a special responsibility to explain why they disagree. This information will help the facilitators gain information that can be used to advance the discussion. Such discussions may, for instance, allow the group to make changes that bring no votes into the pass or yes categories of acceptance. Or subsequent voting may show that the no votes have persuaded those who initially supported the matter. In either event, gauging the level of acceptance and talking to those who disagree moves the discussion forward. If the discussion stalls (for instance, in times where agreement is clearly not going to occur), then the

facilitators draft a dissenting view to include in the report. As to the development of that dissenting view, the process is limited to the group of dissenters.

In essence, if a majority of the task force agrees with a particular item (voting yes or pass), that is sufficient to proceed with the proposed action. However, it is necessary for the majority to discuss matters with the no voters to see if the difference can be overcome. The facilitators also use a variety of facilitation techniques to help the participants discuss the matter at hand, allowing members to call for re-votes to re-evaluate the level of acceptance. If the difference cannot be overcome, then the dissenting view will be reported in terms set by that group. Generally, the group does not want to present a report riddled with dissenting views. That, in turn, helps facilitate discussion among people who do not agree and encourages action supported by more than bare majorities of the members.

The adoption of the final report will be decided by a roll-call vote. Fifteen votes are necessary to adopt the report. The dissenting view, if any, will be reported as an appendix.

II. Past Performance

Chronology

The task force has met six times in various locations throughout the state. In addition, it has had two interim surveys and three educational events at which a speaker, or set of speakers, has provided relevant information to the task force. Below is a narrative chronological list of task force meetings. A timeline graphic of task force events is [attached](#). The minutes from each meeting are available on the Nebraska Department of Natural Resources web site at <http://www.dnr.state.ne.us/LB1057/>.

In June 2010, the task force convened in McCook for its initial meeting. At that meeting, the task force established its chair and executive committee, discussed the charge before it, and heard Darrell Martin speak on evapotranspiration and watershed management. Darrell Martin is a professor of irrigation water management at the University of Nebraska-Lincoln.

In August 2010, the task force members completed a scoping survey designed by the facilitators to reveal information about the task force members and how they perceived the legislative charge and the work facing them. In September 2010, the task force convened in Alma for its second meeting, along with its newly hired facilitators. At that meeting, the task force discussed its plans for the future with the assistance of their facilitators. The task force concluded that it would first work toward defining water sustainability, then work on plans and recommendations for how to go about achieving water sustainability, and then consider any further matters related to compact compliance that it had not yet considered. It also decided to focus on the final report as its goal, seeing the creation of that report as a way to structure its progression. In pursuit of that goal, the task force formed a Background Committee that was charged with collecting information and writing a narrative description of water management's history in the basin, the basin's relevant features and governing laws, and how those laws have been implemented. The task force also heard Jim Schneider speak on the accounting procedures and base flow calculations used on the Republican River for compliance with the Republican River Compact. Jim Schneider is Deputy Director of

the Nebraska Department of Natural Resources.

The task force had an educational event in December 2010 in North Platte where Jim Goeke, University of Nebraska Extension, spoke about the hydrogeology of the Republican Basin. Mr. Goeke's presentation focused on the nature of the link between groundwater pumping, streamflow, and aquifer storage within the basin, as well as other matters.

The task force met next in January 2011, in Holdrege. At that meeting the task force asked follow up questions of Mr. Goeke and started working on defining water sustainability for the Republican Basin.

An educational event was held at the end of January 2011, in Cambridge. At that meeting, task force members heard reports from the general managers of the Upper, Middle, and Lower Republican River Natural Resources District--Jasper Fanning, Dan Smith, and Mike Clements, respectively. Each speaker discussed the history of regulation within their part of the basin, the goals each NRD has been working toward achieving, and any recommendations they had for the task force.

In February 2011, the task force met in McCook. Tri-Basin NRD's general manager, John Thorburn, spoke at the meeting as he could not attend the January 2011 event in Cambridge. He provided information from the Tri-Basin NRD's perspective. The task force followed up with the other NRD general managers. It spent the remainder of its time discussing the definition of water sustainability.

Near the end of February 2011, the task force heard an educational presentation from Stephen Gasteyer, Professor of Sociology at Michigan State University. Mr. Gasteyer discussed Michigan's experience with water sustainability principles and the work of a task force created there that had a similar charge to ours. His discussion revealed that the task force there did not spend considerable time defining water sustainability, but instead focused on the creation of indicators, governance structures, and procedures that would enable the state to achieve water sustainability.

In March 2011, the task force members completed another interim survey to reveal more information about their views of potential language for the water sustainability definition. Those results were used at a task force meeting later that month in Lincoln. At that meeting, the task force followed up with Mr. Gasteyer and heard additional educational information from Jesse Korus, groundwater geologist with the Conservation and Survey Division (CSD), in the School of Natural Resources at the University of Nebraska-Lincoln. Mr. Korus discussed the hydrologic impact of well pumping generally, focusing on the impacts groundwater pumping has on aquifer storage and streamflow. After the educational meeting, the task force finished its work in framing a general principle of water sustainability and began work on organizing itself to evaluate various water-resources actions that may help achieve water sustainability within the basin.

The task force met again in April 2011 to approve this preliminary report and continue its work on evaluating water-resources actions to achieve water sustainability. Mr. Bob Kline from the University of Nebraska - Lincoln Extension Office in North Platte gave a presentation regarding no-till practices. The task force also approved this report unanimously and formed committees for future work, as described below.

Report Progress

The Background Committee has pulled together a large amount of information concerning the Republican basin, its development, the applicable law, and water management. We have used that information to write a description of the basin that provides readers with a strong background understanding of the basin and the issues facing it. This information is in draft form at this time, awaiting further work in light of the direction we take in the remainder of the report. The Department of Natural Resources, the NRDs, and the surface-water interests in the basin have been very helpful in compiling this information and further refining the description of the basin.

Water Sustainability

As the chronology indicates, the task force has spent considerable time on the definition of water sustainability. This is, in part, because we are very excited at the prospect of framing a guiding principle for water management within the basin. But it is also due, in part, to the many various meanings this term could take. As we will explain more fully in the final report, the task of defining sustainability includes many ill-defined concepts and relationships that we concluded were worth discussing on a normative basis. Those discussions, in turn, have revealed a great deal about what the task force's members would like to see in planning for water sustainability. So even though our work has focused on one part of our charge, our discussions have revealed a great deal of information for discussions related to the other two.

Our current working definition of water sustainability is framed as a statement of what management for water sustainability would do:

Management for water sustainability allows use for a beneficial purpose, in an effective and efficient manner, to satisfy our socio-economic needs and obligations while minimizing the risk to water resources for future generations while recognizing their socio-economic needs and obligations.

The development of this language involved many choices related to present use, future use, and the relationship between the two. We will describe the finer points of these choices and the language we have finally chosen in detail in the final report. This preliminary language may change as we think more about what water sustainability means and what we recommend doing in the Republican basin.

III. Future Plans

Below, we discuss future plans concerning each aspect of the charge before us. In conjunction with each, we anticipate soliciting educational information from experts, as we have done in the past.

“to define water sustainability for the Republican River basin . . .”

The work remaining involves providing guidance on what the terms we have selected mean. Terms like “beneficial purpose”, “effective and efficient”, “socio-economic needs”, “obligations”, and “minimizing

the risk to water resources” beg for further clarification. And we have spent considerable time discussing these terms. Those discussions are where we will begin in developing guidance for you to include in the final report.

“to . . . develop and recommend a plan to help reach water sustainability in the basin . . .”

Developing and recommending a plan to achieve the broad goal that is framed in the definition of water sustainability will involve some formidable challenges and exciting opportunities. We will work toward selecting measurable indicators of water sustainability and identify actions that can be taken to create measurable improvements.

To do this, we formed committees to explore different aspects of water management in April 2011. Because it is clear that nearly every task force member has ideas about what we could do to achieve water sustainability, we have organized these committees in four rough categories, with the following brief descriptions:

1) water supply

The point of this committee is to consider those actions primarily geared at increasing the supply of water that can be used within the basin.

2) water use

The point of this committee is to consider those actions primarily geared at decreasing existing use within the basin.

3) conjunctive management of surface and groundwater use

The point of this committee is to consider how surface water use and groundwater use can be coordinated in order to make the best use of the resources within the basin.

4) compensation and funding

The point of this committee is to examine funding issues like project finance, taxes, fees, and compensation programs.

Within each of these groups, task force members will investigate actions we could take, consider how those actions further the broad goal of water sustainability, identify measurements that we can use to track and evaluate the action for success or failure, identify who should take these actions, and evaluate whether or not those actions are legally permissible. From this, we will be able to provide you with concrete advice concerning the pursuit of water sustainability.

These committees will meet at a task force meeting tentatively planned for July 2011. In the interim, the committees will discuss their subjects and coordinate their work.

As you can see from our educational events, we are making every effort to educate ourselves about the science of hydrology. We have come to realize that without an adequate understanding of the way in which

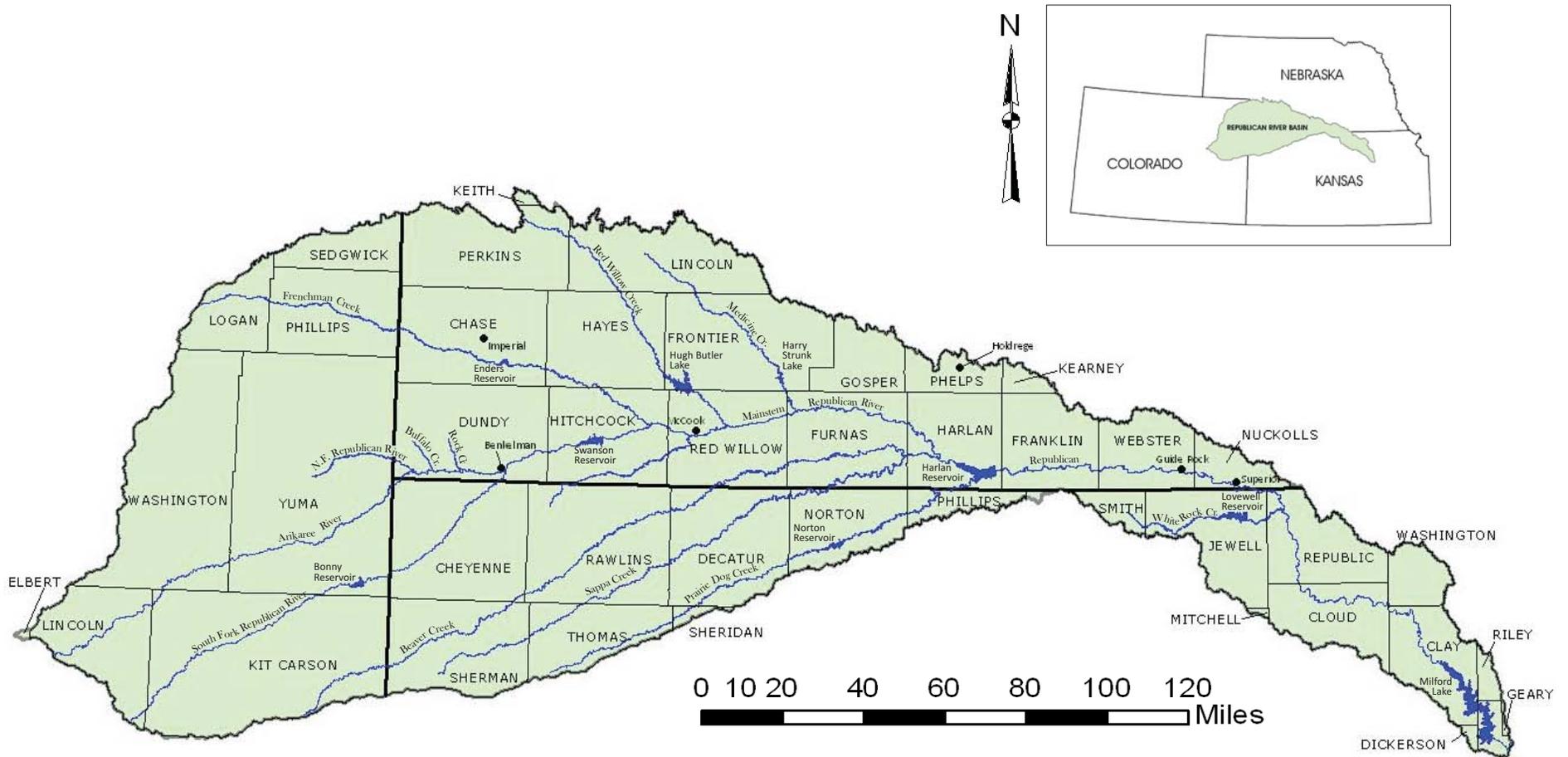
the resource behaves in response to various actions, it is impossible to identify how a particular action serves the goal of water sustainability, figure out how to measure it, and, ultimately, evaluate it for success.

“to . . . develop and recommend a plan to help avoid a water-short year in the basin.”

We have concluded that the main thrust of this charge is for the task force to consider the restraints the compact places on water users throughout the basin and identify ways of better operating within those restraints. We have also concluded that the compact is inextricably intertwined with the goal of water sustainability. But the overlap between the two is not complete. Some actions we recommend may primarily serve the goal of meeting our socio-economic needs now and into the future, but they may have little impact on our compact obligations. Other actions may have more of an impact on the latter than the former. In essence, every action we consider must be evaluated to consider how it affects both.

In recognition of this, we have included the term “obligations” in our statement of water sustainability to integrate the compact’s restraints in our broader consideration of water sustainability and water-sustainability planning and action. So the future plans identified above will give us a wealth of information that we can report to you about how the compact influences water management in the basin and how the plans we develop will serve it. We will clearly identify these matters in the final report.

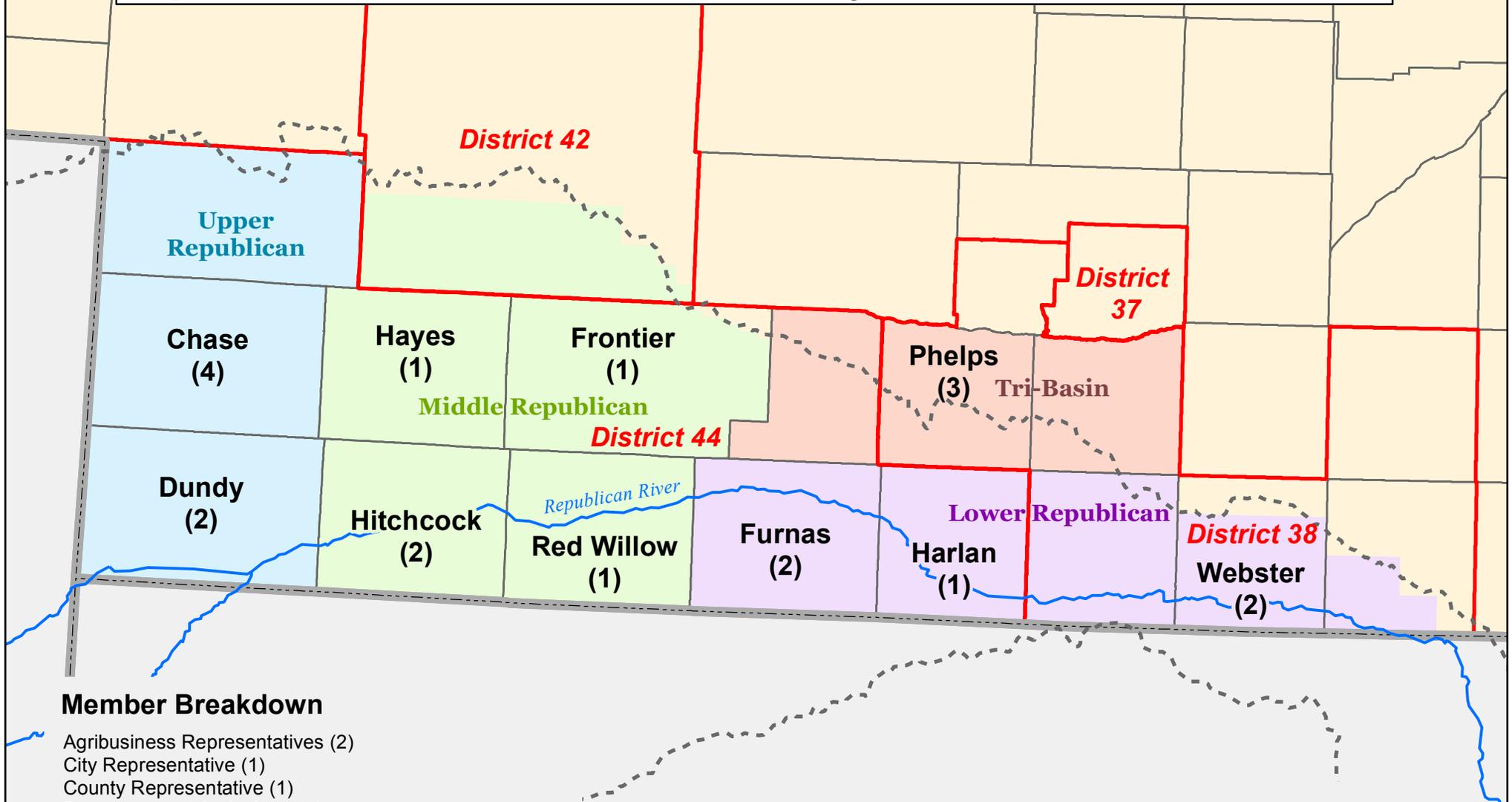
Republican River Basin



Attachment 1. Map of the Republican River Basin.

Source: Map produced by Paul Koester of the Nebraska Department of Natural Resources. For general reference only, April, 2012.

Republican River Basin Water Sustainability Task Force Member Locations



Member Breakdown

- Agribusiness Representatives (2)
- City Representative (1)
- County Representative (1)
- Department of Agriculture (1)
- Game & Parks (1)
- NRD Representatives: Upper (2), Middle (2), Lower (2)
- Public Power (1)
- School Representative (1)
- Surface Water Irrigation District Representatives (2)
- University Representative (1)
- Ex-Officio Legislators (5)

Number of Members by County

Number under the county name represents the number of members from each county

Also 2 members from Lincoln and 5 ex-officio legislators representing districts 37, 38, 42, 44, and the Natural Resources Committee

- Basin Outline
- State Boundaries
- Legislative District Boundaries
- County Boundaries