STATE ENGINEER'S STATEMENT OF BASIS AND PURPOSE FOR RULES AND REGULATIONS GOVERNING THE DIVERSION AND USE OF WATER RESOURCES IN THE REPUBLICAN RIVER COMPACT ADMINISTRATION GROUNDWATER MODEL DOMAIN FOR COMPLIANCE WITH THE REPUBLICAN RIVER COMPACT

This Statement of Basis and Purpose discusses the history of water development in the Republican River Compact Basin, the State Engineer's authority to enact rules that assist in administering the diversion and use of water within the Basin, the need for the Rules, and the public process by which they were developed. This Statement of Basis and Purpose also summarizes each rule and its purpose, and explains how the State Engineer will implement each rule. Terms used in this Statement of Basis and Purpose that are defined in Rule 4 have the same meaning here.

The State Engineer filed the Rules and Regulations Governing the Diversion and Use of Water Resources in the Republican River Compact Administration Groundwater Model Domain for Compliance with the Republican River Compact ("Republican River Compact Rules" or "Rules") in the Water Division No. 1 Water Court on January 11, 2018. The State Engineer adopts these Rules in order to regulate the diversion, use, and storage of waters so as to ensure that Colorado meets the requirements of the Republican River Compact and the terms and conditions of the Final Settlement Stipulation. §§ 37-80-102(1), -104; 37-67-101 through 102, C.R.S.

I. History of water development in and interstate disputes over the Basin.

The Republican River originates in Colorado; crosses the northwestern corner of Kansas into Nebraska; flows through much of southwestern Nebraska; and finally cuts back into northern Kansas. *Kansas v. Nebraska*, 135 S. Ct. 1042, 1049 (2015). Along with its many tributaries, the river drains a 24,900-square-mile watershed known as the Republican River Basin ("Basin"). *Id.* During the Dust Bowl of the 1930s, the watershed experienced an extended drought, interrupted once by a deadly flood. *Id.* In response, the federal government proposed constructing reservoirs in the Basin to control flooding, as well as undertaking an array of irrigation projects to disperse the stored water. *Id.* But the government insisted that the three states of the Basin first agree to an allocation of its water resources. As a result of that prodding, the states negotiated and ratified the Republican River Compact ("Compact"); and in 1943, as required under the Constitution, Art. I, 10, cl. 3, Congress consented to that agreement. *See* Act of May 26, 1943, ch. 104, 57 Stat. 86. The Colorado General Assembly ratified the Compact shortly thereafter. § 37-67-101, C.R.S.

The Compact defines the Basin's average annual "Virgin Water Supply" as the "water supply within the Basin undepleted by the activities of man." *See* Compact art. II. The Compact allocates to each state its share of that Virgin Water Supply annually "for beneficial consumptive use." Compact art. IV. "Beneficial Consumptive Use" is defined as "that use by which the water supply of the Basin is consumed through the activities of man." *Id*. art. II. The Compact requires each of the states to administer the Compact through the official charged with administering the public water supplies. *Id.* art. IX. By regulations adopted in 1959 pursuant to

Article IX, the states established the Republican River Compact Administration ("RRCA"). The three members of the RRCA, including the Colorado State Engineer, compute the Virgin Water Supply within the Basin, and the Beneficial Consumptive Use of each state.

A. Designation of the Northern High Plains Basin.

On May 13, 1966, following notice and a hearing pursuant to the 1965 Ground Water Management Act, the Ground Water Commission designated the Northern High Plains Basin. *In the Matter of the Proposed Designated Ground Water Basin – of the Northern High Plains of the State of Colorado, Findings of Fact, Conclusions of Law, Final Order* at 3, attached as Exhibit A. The Basin includes the Ogallala alluvial formation as designated ground water. *Id.* The Commission determined that the ground water was designated because "in its natural course it would not be available to and required for the fulfillment of decreed surface rights." *Id.* Existing surface rights in the Basin were determined to be outside the jurisdiction of the Commission and instead governed by the provisions of the Republican River Compact and surface water laws. *Id.* at 4.

B. Original Action No. 126.

Litigation under the Compact began in 1998 when the Supreme Court of the United States granted Kansas' motion for leave to file a bill of complaint alleging Nebraska had violated the Compact. *Kansas v. Nebraska*, 525 U.S. 1101 (1998). Kansas named Colorado as a defendant but brought no claims against the State. The principal cause of that action was "the proliferation and use of thousands of wells [in Nebraska] hydraulically connected to the Republican River and its tributaries." Kansas Bill of Complaint, ¶ 7, *Kansas v. Nebraska*, No. 126 Orig. (May 26, 1998). In brief, Kansas maintained that, to the extent groundwater pumping depleted stream flow in the Basin, it constituted consumption that must be counted against the allocated share of the pumping State. In response, Nebraska argued the Compact did not allocate groundwater. Colorado maintained that the Compact only allocated groundwater pumping from tributary wells in the alluvium of the Republican River and its tributaries.

The Court appointed the Honorable Vincent L. McKusick as Special Master. 528 U.S. 1001 (1999). Special Master McKusick observed "the language of the Compact is not ambiguous. A straightforward reading of its terms yields the conclusion that a State's groundwater pumping, to the extent it depletes stream flow in the Basin, is intended to be allocated as part of the virgin water supply and to be counted as consumptive use by the pumping State." *Kansas v. Nebraska*, No. 126 Orig., First Report of the Special Master, at 23 (Jan. 28, 2000) ("First Report"). The Court denied Nebraska's exceptions to the First Report and recommitted the case to Special Master McKusick for further proceedings. *Kansas v. Nebraska*, 530 U.S. 1272 (2000).

Kansas, Nebraska, and Colorado thereafter entered into settlement discussions aimed primarily at determining how best to ascertain and reflect in Compact accounting the consumptive use arising from groundwater pumping. On December 15, 2002, the parties executed a "Final Settlement Stipulation" ("FSS"), which was later approved by the Court. *See*

Kansas v. Nebraska, No. 126 Orig., Second Report of the Special Master, at 22-26 (Apr. 16, 2003); *Kansas v. Nebraska*, 538 U.S. 720 (2003).

The FSS does not alter the Compact, but instead resolves certain matters of Compact interpretation and enforcement. The FSS also provides detailed mechanisms for determining compliance, including the RRCA Accounting Procedures and the RRCA Groundwater Model. In addition, the FSS provides that compliance with the Compact's allocation limits is determined based on multi-year running averages in order to smooth out year-to-year deviations and to provide the States with increased flexibility.

The primary purpose of the RRCA Groundwater Model is to determine the amount and timing of streamflow depletions to the Republican River caused by well pumping statewide and to determine streamflow accretions from recharge of water imported from the Platte River Basin in Nebraska. *Kansas v. Nebraska*, No. 126 Orig., Final Report of the Special Master with Certificate of Adoption of RRCA Groundwater Model at 8 (Sep. 17, 2003) (hereafter, "Final Report"). The RRCA Groundwater Model was constructed and calibrated to represent the physical and hydrogeological characteristics of the Republican River Basin to a reasonable degree for the period 1918 to 2000. *Id.* The Model simulates historical and current physical conditions on a regional scale; it is not an optimization or operational model and does not assess the local or statewide impact of pumping individual wells or land use and conservation practices. *Id*.

In order to include all groundwater resources that affect stream flows within the Republican River Basin, the RRCA Model domain was extended beyond the Republican River watershed. *Id.* at 10. The model domain boundaries extend from the Platte River in the north to the Ogallala Aquifer outcrops on the southern, eastern, and western boundaries. *Id.* at 10-11. The model domain encompasses approximately 30,000 square miles. *Id.* at 11. The Groundwater Model was adopted by the States, as certified in the Final Report of Special Master. *Id.* at 51.

Litigation resumed in 2010 when Kansas filed another motion for leave to sue Nebraska. This time Kansas alleged it had been damaged by Nebraska's overuse of approximately 79,000 acre-feet of water during 2005 and 2006. The Court appointed the Honorable William Kayatta, Jr. as Special Master. *See Kansas v. Nebraska*, 135 S. Ct. at 1051. After two years of taking evidence and hearing testimony, the Special Master found that Nebraska failed to put in place "adequate mechanisms for staying within its allotment in the face of a known substantial risk that it would otherwise violate Kansas's rights." *Id*. at 1054. The Special Master found that Nebraska's water management plans calling for a 5% reduction in groundwater pumping was too little and too late. *Id.* at 1055. And the State had created no way to enforce the small goals set in the plans. *Id.* The Nebraska Legislature chose to leave operational control of water use in the hands of district boards consisting primarily of irrigators, who are among the immediate beneficiaries of pumping. *Id.* No sanctions or other mechanisms held those local bodies to account if they failed to meet the plans benchmark. *Id.* They bore no legal responsibility for complying with the Compact, and assumed no share of the penalties the State would pay for violations. *Id.* For these and other reasons, the Supreme Court agreed with the Special Master that "Nebraska knowingly exposed Kansas to a substantial risk of receiving less water than the

Compact provided, and so knowingly failed to comply with the obligations that agreement imposed." *Id.* Ultimately, the Court awarded Kansas $5.5 million. *Id*. at 1056, 1059.

II. Developments in the Basin following Original Action No. 126.

A. Republican River Water Conservation District.

The Colorado General Assembly created the Republican River Water Conservation District ("RRWCD") in 2004. §§ 37-50-101 to -142, C.R.S. The purposes of the RRWCD are "the conservation, use, and development of the water resources of the Republican river, its tributaries, and that portion of the Ogallala aquifer underlying the district to cooperate with and assist this state to carry out the state's duty to comply with the limitations and duties imposed upon the state by the Republican River Compact." § 37-50-104, C.R.S.

Immediately after its creation, the Board of Directors of the RRWCD began to investigate options and then took specific steps to assist the State of Colorado in complying with the Compact by reducing irrigated agriculture and groundwater consumption within the Colorado portion of the Basin. The RRWCD provided local cost-sharing to willing producers to temporarily or permanently dry up irrigated lands through the Conservation Reserve Enhancement Program, and the Agricultural Water Enhancement Program. These efforts have resulted in the permanent retirement of approximately 36,000 previously irrigated acres within the Republican River Basin in Colorado. The RRWCD has also purchased or leased surface water rights to reduce irrigation and improve streamflows. These purchases and leases have reduced Colorado's beneficial consumptive use over and above the reduction achieved through retiring the 36,000 acres.

In 2007, the RRWCD first proposed and designed the Compact Compliance Pipeline ("CCP") to deliver ground water to the North Fork of the Republican River to offset stream depletions occurring throughout the Basin. The CCP consists of fifteen well sites, a collector pipeline, a storage tank, and a main transmission pipeline. The water rights associated with the pipeline were purchased by the RRWCD in 2009. These groundwater rights were historically used for irrigation within the Republican River Basin in Colorado. The RRWCD applied to change the use of these groundwater rights from irrigation to augmentation and consolidate the rights into eight existing wells that would be used to pump groundwater from the Ogallala aquifer to the North Fork of the Republican River. An additional seven existing wells are alternate points of diversion that may be brought into production in the future if needed. The pumping of groundwater for the CCP is limited to the historic consumptive use of the wells for the past irrigation. Groundwater pumped by the CCP wells is delivered through collector pipelines to a storage tank and then by a main pipeline to the North Fork of the Republican River a short distance upstream from the streamflow gage at the Colorado-Nebraska state line.

The CCP began operating in 2014 under temporary approval from the RRCA. It operated under temporary approvals again in 2015 and 2016. Finally, on August 24, 2016, the RRCA adopted a resolution approving operation of the CCP indefinitely. During each year it has operated, the CCP has pumped and delivered water to meet the State's statewide obligations under the Compact. To operate the CCP, the State Engineer and RRWCD calculate the State's

anticipated replacement requirement at several points during the year. Those estimates are used to determine how much replacement water the CCP will deliver, although the State's actual consumption and, therefore, actual replacement requirement are not known until the end of the calendar year. However, any deficit or surplus from the previous year's pumping is included in the next year's estimates and final accounting. The Rules intend to follow this same general approach for the RRWCD Plan and CCP. To the extent some uses are not covered by the RRWCD Plan in the future, the Rules require the calculation of the proportional share of the State's total replacement requirement that those uses must replace.

B. Groundwater Wells outside the RRWCD but within the RRCA Groundwater Model Domain.

The RRWCD boundary excludes approximately 340 wells that are within the RRCA Groundwater Model domain and included in the RRCA Accounting Procedures but located outside the overlying Republican River watershed. The RRCA Groundwater Model and Accounting Procedures calculate beneficial consumptive use from pumping those wells and their depletions are counted against Colorado's Compact compliance. And since 2014, the CCP has delivered water to the North Fork Republican River to offset depletions from those wells. However, the District cannot unilaterally assess fees on those wells that are located outside its boundaries. One purpose of these rules is to require that all water uses subject to the Compact contribute to Compact compliance.

C. Litigation challenging the State Engineer's administration

On February 23, 2015, the Jim Hutton Educational Foundation filed a Complaint in the Water Court for Division 1, seeking injunctive and declaratory relief against the Division of Water Resources and other parties. With respect to the Colorado Division of Water Resources, the Hutton Foundation asserted that the State Engineer's current administration of surface water and designated groundwater for Compact compliance was contrary to Colorado law. That case is currently pending before the Water Court.

III. These Rules are intended to provide certainty for water users

These rules provide clear conditions for use of water within the Basin. In previous years, the State Engineer has curtailed surface water rights to reduce consumption in the Basin in order to help the State meet its commitments under the Compact. In addition, the RRWCD Plan has further reduced consumption from groundwater wells and surface water uses and replaced depletions from the remaining uses in order to help the State meet its commitments under the Compact. The rules define how the State Engineer will administer water uses in the Republican River Basin for Compact compliance in the future.

IV. Authority for Rules

Section 37-80-104 of the Colorado Revised Statutes provides the State Engineer both the authority and duty to administer all water rights that are subject to the Compact if such administration is necessary to meet the requirements of the Compact, *Hinderlider v. La Plata*

River & Cherry Creek Ditch Co., 304 U.S. 92, 108-110 (1938), and the State Engineer has determined that such administration is necessary here. In order to promulgate and enforce rules for compliance with Compact commitments, the State Engineer must also promulgate and enforce appropriate rules for the administration of water rights. *Kuiper v. Gould*, 583 P.2d 910, 913 (Colo. 1978). The Colorado Supreme Court has declared that the latter rules must of necessity be under the authority of the "water rule power" and that any achievement under the "compact rule power" will be dependent upon and inextricably commingled with rules under the "water rule power." *Id*.

V. Public process for developing rules

On June 23, 2016, the State Engineer issued an Order Establishing an Advisory Committee for Rules and Regulations Governing the Diversion, Use, and Storage of Water Resources in the Republican River Compact Administration Model Domain for Compliance with the Republican River Compact ("Advisory Committee"). To ensure that the Advisory Committee included a wide representation of interests and expertise, the State Engineer invited a broad stakeholder group to take part in the development of the Rules. From many different categories of entities, he invited nominations of individuals interested in serving on the Advisory Committee. The invitations were sent to groundwater management districts, the RRWCD, water user associations, municipalities, counties, and state and federal agencies. The State Engineer sought representatives who were water users, engineers and attorneys familiar with the Republican River Basin. There are a total of 42 members on the Advisory Committee. Attendance at the meetings was not limited to the members of the Advisory Committee and many more people attended the meetings. As spelled out in the Order, responsibility of the Advisory Committee was to provide advice and recommendations to the State Engineer on rules and regulations to assure compliance with the Republican River Compact.

The Advisory Committee met five times in 2016 (July 19, August 15, September 14, November 7, and December 7), three times in 2017 (February 9, March 21, April 24), and one time in 2018 (August 13, 2018). Between April 2017 and August 2018, the State Engineer delayed the rulemaking to allow parties to explore legislative solutions to issues associated with these rules. All meetings have been open to the public, noticed on the State Engineer's website, and written notice was sent to each committee member and to all others who provided contact information. At the first meeting, the State Engineer's team provided members with a binder containing key documents for study and discussion.[1] As the meetings progressed, the State Engineer also invited experts to give presentations on the Republican River Compact, groundwater modeling, and other topics. A webpage devoted to the Advisory Committee was established by the Division of Water Resources. This webpage contains all comments regarding the proposed Rules, minutes of all meetings, and experts' power point presentations.

[1] The documents provided were the Colorado Republican River Compact (RRC) Compliance Use Rules (Outline) – Draft Version 2016_1.0; State Engineer Order Establishing Advisory Committee; RRC Final Settlement Stipulation - Dec. 15th 2002; Presentation on the Republican River Compact Administration Groundwater Model and RRCA Accounting; RRCA Compliance Use Rulemaking FAQs; Presentation on History/Timeline of RRC; Advisory Committee Contact List; and RRCA Accounting Procedures and Reporting Requirements.

At all times, a working draft of the Rules has been posted on the Division of Water Resources website. These working drafts include suggestions and comments made at meetings, provided in writing, or made in person. Nine draft versions of the Rules have been posted on the website since the original outline of a draft was presented to the Advisory Committee on July 19, 2016

VI. Discussion of Principles and Findings

This section of the Rules describes the purpose and necessity of the Rules to assist the State of Colorado to comply with the Republican River Compact and the FSS. It describes the State Engineer's authority to promulgate and enforce the Rules. It describes how the RRCA Groundwater Model should be used in compliance plans under the Rules. And it describes how the State Engineer should administer surface and groundwater rights under the Compact. It describes the RRWCD and its Plan to reduce consumption and replace depletions. And it describes the State Engineer's determination that Alternative Compliance Plans are necessary to ensure that water users who do not participate in the RRWCD Plan participate with the State of Colorado in carrying out the State's duty to comply with the limitations and duties imposed on the State by the Republican River Compact.

VII. Overview of the Rules.

Rules 1 and 2: Title and Authority

These Rules state the title and statutory authority for the Rules, which are discussed above in Section IV.

Rule 3: Purpose and Scope

This Rule describes the broad purpose of the Rules as well as the scope of the Rules. Rule 3.1 explains that all water uses accounted for in the RRCA Accounting must contribute to Compact compliance through a Compact compliance plan as defined in the Rules. Rule 3.2 outlines the geographic scope of the Rules. For surface water rights, the geographic scope is the Republican River Basin within Colorado. For groundwater uses, the geographic scope is the RRCA Groundwater Model Domain within Colorado, which is a greater area than the surface water basin, because groundwater uses outside of the surface water basin still cause depletions to the surface streams in the basin.

Rule 3.3 describes water uses that the State Engineer has determined shall be excluded from the scope of the Rules. Rule 3.3.1 excludes water use from certain structures such as small capacity domestic wells and rooftop precipitation collection systems, because these structures are excluded from the RRCA Accounting. Similarly, Rule 3.3.2 excludes small reservoirs from the scope of the Rules because those reservoirs are excluded from RRCA Accounting. Rules 3.3.3. and 3.3.4 exclude surface water and groundwater uses that are considered "pre-Compact." Those pre-Compact rights are included in the Accounting to determine Colorado's compliance with the Compact. However, section 37-80-104 of the Colorado Revised Statutes, which provides compact rulemaking authority to the State Engineer, indicates that any compact rules should

"restore lawful use conditions as they were before the effective date of the compact insofar as possible." Thus, while the State Engineer has the authority to administer pre-Compact water uses for Compact compliance if necessary, he has determined that, consistent with § 37-80-104, such administration is not necessary here. Lastly, Rule 3.3.5 excludes water uses that divert pursuant to a decreed plan of augmentation where those depletions are remedied with pre-Compact surface water rights excluded from operation of the Rules under Rule 3.3.3. This Rule 3.3.5 exclusion addresses situations where the current diversion and use might be post Compact, but that water use is remedied with pre-Compact water rights pursuant to water court decree.

Rule 3.4 merely explains that the Rules themselves cannot be used as support for a determination that a particular water use does or does not meet the definition of "designated groundwater" contained in section 37-90-103(6)(a), C.R.S. Rule 3.5 makes clear that compliance with these Rules does not relieve any Water User, as that term is defined in Rule 4.19, of complying with the terms of their applicable water court decrees, final well permits, or any other applicable rules.

Rule 4: Definitions

Rule 4 contains all of the defined terms used in these Rules. For the sake of consistency, many of the terms use the same definitions that are used in the Compact, FSS, Colorado statute, or the RRCA Accounting Procedures. Moreover, most of the remaining definitions speak for themselves, and no further explanation is needed. However, a few of the definitions are discussed further herein.

The Alternative Compliance Plan Replacement Requirement, Rule 4.2, is a central component of any Alternative Compliance Plan, as it is the amount of water that a Water User would be required to replace at the appropriate Compact Accounting Point if that Water User chooses not to join the RRWCD Plan and instead seeks to join or create an Alternative Compliance Plan. This replacement requirement is calculated by multiplying the Alternative Compliance Plan's Proportional Share, Rule 4.10, by the Total Statewide Replacement Requirement, Rule 4.19. The Proportional Share is the ratio of an Alternative Compliance Plan's Computed Beneficial Consumptive Use to the statewide Computed Beneficial Consumptive Use.

The Computed Beneficial Consumptive Use of an Alternative Compliance Plan may include both surface water and groundwater. The CBCU of surface water included in the Plan is calculated as it is in the RRCA Accounting. However, the RRCA Groundwater Model cannot be used to determine the precise stream depletions attributable to a particular groundwater use, so the Computed Beneficial Consumptive Use of groundwater included in an Alternative Compliance Plan must be calculated as shown in Rule 4.10, which calculates that use as a ratio of the Alternative Compliance Plan's Beneficial Consumptive Use to the total statewide Beneficial Consumptive Use, then multiplies that ratio by the total statewide Computed Beneficial Consumptive Use. Using the Rule 4.10 calculation for groundwater CBCU and the RRCA Accounting calculation for surface water CBCU allows all Plans to replace depletions according to the best estimation of the Plan's total Computed Beneficial Consumptive Use.

The following two examples describe this calculation, though the numbers are not representative of any particular Compact scenario:

Example 1: Alternative Compliance Plan with Groundwater Use

In this example, the total statewide Beneficial Consumptive Use is 600,000 acre-feet, a proposed Alternative Compliance Plan's Beneficial Consumptive Use of groundwater is 6,000 acre-feet, the statewide Computed Beneficial Consumptive Use is 60,000 acre-feet, and the Total Statewide Replacement Requirement is 12,000 acre-feet. The Plan's groundwater CBCU would be calculated as its individual BCU divided by the total statewide BCU times the total statewide Computed Beneficial Consumptive Use = (BCUi/BCUt) x CBCUt = (6000/600,000) x 60,000 = 600 acre-feet.

The Plan Replacement Requirement is the Plan's Proportional Share x the Total Statewide Replacement Requirement. The Proportional Share for the Plan is CBCUi (600 acre-feet) divided by CBCUt (60,000), or 0.01. If the Total Statewide Replacement Requirement is 12,000 acre-feet, then the Plan Replacement Requirement is 0.01 x 12,000 = 120 acre-feet, delivered to the appropriate Compact Accounting Point.

Example 2: Alternative Compliance Plan with Groundwater Use and Surface Water Use

If the Plan in Example 1 also included surface water CBCU, then the surface water CBCU – as calculated by the RRCA Accounting – would be added to the Plan's groundwater CBCU to determine the total Plan CBCU. For this example, the proposed Alternative Compliance Plan's surface water CBCU is 600 acre-feet, which added to the Plan's groundwater CBCU of 600 acre-feet, calculated in Example 1, brings the Plan total to 1200 acre-feet of CBCU.

The Plan Replacement Requirement is still the Proportional Share x the Total Statewide Replacement Requirement, as described above. The Proportional Share for the Plan is its CBCU (1200 acre-feet) divided by the statewide CBCU (60,000), or 0.02. If the Total Statewide Replacement Requirement is 12,000 acre-feet, then the Plan Replacement Requirement is 0.02 x 12,000 = 240 acre-feet, delivered to the appropriate Compact Accounting Point.

This approach to separately calculating groundwater CBCU and surface water CBCU accurately and fairly allocates Colorado's water usage under the Compact. The Compact allows the State of Colorado to deplete the river by a certain amount, with no replacement obligation, while any depletion in excess of that amount must be replaced. The Proportional Share calculation ensures that Colorado's allocation is shared fairly –and proportionally to a Water User's CBCU – among all post-compact water uses. The Total Statewide Replacement Requirement is, therefore, an obligation also shared fairly and proportionally among all post-Compact Colorado water uses, regardless of whether those water uses are administered intrastate as surface water or designated groundwater. The Proportional Share calculation does this by distributing Colorado's allocation and Total Statewide Replacement Requirement according to the river depletion attributable to the post-Compact water use.

Rule 5: Principles and Findings

As a general matter, Rule 5 describes the legal and factual underpinnings of the Rules. Rule 5.1 explains that the State Engineer has determined that these Rules are necessary in order to ensure that Colorado continues to comply with the Compact. Rule 5.2 notes that Colorado's Compact compliance efforts are constrained by a number of different authorities, including the Compact itself, the FSS, the RRCA Accounting Procedures, and the RRCA Groundwater Model. Together, these authorities require that Colorado account for both surface water use with the Republican River Basin and groundwater use within the RRCA Groundwater Model Domain. This is so even though that groundwater is considered "designated groundwater" under Colorado law and, therefore, as a matter of state law is not hydrologically connected to surface water supplies in the Basin.

The Colorado Supreme Court has held that rules promulgated for compact compliance under section 37-80-104, C.R.S. must be promulgated under the "water rule power" of section 37-92-501, C.R.S. *Kuiper*, 583 P.2d at 913. This is so for any waters subject to an interstate compact, regardless of how those waters are treated for intrastate administration. *See id.*; *see also Hinderlider*, 304 U.S. at 108-10. Rule 5.3 restates this legal principle.

Rule 5.4 acknowledges the unique character of the Republican River Basin, and clarifies that these Rules are not to be used as precedent or guidance in the establishment of rules for any other river basin in Colorado or as the basis for any actions within the Republican River Basin not explicitly authorized by these Rules. Rule 5.5 recognizes that surface water rights within the Basin are administered under the Water Right Determination and Administration Act of 1969, §§ 37-92-101 to -602, C.R.S. ("1969 Act"), and that these Rules do not alter that administration, except insofar as these surface water rights are subject to the requirements of the Rules. Similar to Rule 5.5, Rule 5.6 recognizes that groundwater rights within the RRCA Groundwater Model Domain are administered under the Colorado Groundwater Management Act, §§ 37-90-101 to -143, C.R.S. ("1965 Act"), and that these Rules do not alter that administration, except insofar as such groundwater rights are subject to the requirements of the Rules. Together, Rules 5.5 and 5.6 are intended to further clarify that surface water rights administration and groundwater rights administration are not integrated into one priority system under these Rules.

Rule 5.7 describes the State Engineer's statutory authority and duty to promulgate compact rules when such rules are necessary to achieve compact compliance. Rule 5.8 quotes language from section 37-80-104, C.R.S., which describes standards for compact compliance rules. Rule 5.9 explains that the State Engineer has the authority under section 37-80-104, C.R.S., to administer pre-Compact water rights where such administration is necessary to achieve Compact compliance. The United States Supreme Court confirmed this authority in *Hinderlider*, 304 U.S. at 108-10. However, the State Engineer has determined that Compact compliance can be achieved without requiring pre-Compact water rights to participate in a compact compliance plan. Thus, in accordance with the language of section 37-80-104, C.R.S., the State Engineer has determined that adjudicated water rights appropriated before the effective date of the Compact shall not be subject to these Rules.

Rule 5.10 explains the purpose for and the appropriate uses of the RRCA Groundwater Model. The RRCA Accounting Procedures require that the RRCA Groundwater Model be used for Compact accounting. However, the model was designed as a regional model, and it does not provide the details necessary to determine the precise stream depletions attributable to a particular water user or users. Thus, the State Engineer has determined that best use of the RRCA Groundwater Model for intrastate Compact administration of Alternative Compliance Plans and the RRWCD Plan is to require all Plans to replace depletions according to the ratio of their total Computed Beneficial Consumptive Use to the Computed Beneficial Consumptive Use of all water uses included in the RRCA Accounting. This ratio is called the Proportional Share in these Rules, defined in Rule 4.10.

Rule 5.11 explains a critical legal constraint that the State Engineer had to consider in promulgating these Rules. The Colorado Supreme Court requires that Compact administration must conform to Colorado law to the extent possible. Under Colorado law, groundwater within the RRCA Groundwater Model Domain must be administered as designated groundwater under the 1965 Act, and surface water within the Republican River Basin must be administered as waters of the state under the 1969 Act. As a matter of law, waters under the 1969 Act are completely independent and unconnected from waters under the 1965 Act, and vice versa. Moreover, the capabilities of the RRCA Groundwater Model provide an additional, factual, constraint, as it cannot predict stream depletions from individual water uses. Thus, while the Hutton Foundation, in its litigation referenced in Section II.C., above, has argued that the State Engineer should implement an integrated priority administration of both surface water and designated groundwater, such an administrative scheme would violate Colorado law. Moreover, it would present significant administrative hurdles, because the RRCA Groundwater Model does not provide the level of detail that would be necessary to implement such administration. The State Engineer has, therefore, created Rules that respect and maintain the two independent water administration regimes while still requiring that all water users subject to these Rules, in both legal regimes, contribute to Compact compliance, as found in Rule 5.13. In that manner, the State Engineer has complied with § 37-80-104, C.R.S., which mandates that Compact rules be both "legal and equitable."

At numerous meetings of the Special Advisory Committee, water users expressed fear that these Rules were an attempt at imposing "curtailment rules." Rule 5.14 expresses the position of the State Engineer that Compact compliance can be achieved through these Rules without the need for curtailment for any reason other than failure to participate in an approved plan, as required under the Rules. Rule 5.15 explains that the RRWCD was created to assist the State with Compact compliance efforts. Towards that end, the RRWCD has instituted extensive conservation efforts and will continue to do so. The RRWCD also constructed and operates the Compact Compliance Pipeline, and will continue to do so according to the terms of the August 24, 2016 RRCA Resolution, or under such other operational plan as may be approved by the RRCA in the future. Rule 5.16 establishes that these efforts of the RRWCD towards Compact compliance are now formally approved as the RRWCD Plan. So long as the RRWCD Plan continues to operate in accordance with Rule 8.1, Water Users that are covered by the RRWCD Plan shall be considered in compliance with the Rules.

All Water Users subject to these Rules must contribute to Compact compliance. For most Water Users, that means joining the RRWCD Plan. However, some Water Users are not currently part of the RRWCD Plan yet the RRWCD Plan has been replacing depletions from those Water Users. Rule 5.17 explains that, to the extent Water Users subject to these Rules are not covered by the RRWCD Plan, they must participate in an Alternative Compliance Plan, in order to assist the State in meeting its Compact obligations.

Rule 6: Requirement for Water Use

Rule 6 contains the core concept of the Rules. It provides that all waters uses subject to the Rules must either be covered by the RRWCD Plan or be covered by an Alternative Compliance Plan. In this manner, all water uses subject to the Rules contribute to Compact compliance.

Rule 7: Total Statewide Replacement Requirement

The Total Statewide Replacement Requirement is, according to Rule 4.19, the total statewide CBCU in excess of Colorado's total statewide Compact allocation, using a five-year rolling average, estimated each year in accordance with the RRCA Accounting. Stated another way, the Total Statewide Replacement Requirement is the amount of water Colorado must replace to Compact Accounting points in order to remain in Compact compliance. This number is used to determine the replacement obligations of the RRWCD Plan and any Alternative Compliance Plans. Rule 7 requires the State Engineer to estimate the Total Statewide Replacement Requirement twice annually. The first calculation will estimate the likely Total Statewide Replacement Requirement based on data from previous years. The second calculation will estimate the Total Statewide Replacement Requirement based on use and precipitation data from that year. As explained above, these numbers estimate the total cumulative amount of replacement water that must be delivered for all compliance plans.

Rule 8: Annual Replacement Requirements for the RRWCD Plan

Rule 8 describes how the RRWCD Plan will operate and how its replacement obligations are determined. The Rule explains that the RRWCD Plan will continue to operate according to the terms of the August 24, 2016 Resolution of the RRCA. Rule 8 also provides flexibility in the event that the 2016 Resolution is no longer in effect. If that Resolution is terminated, then the RRWCD Plan may be operated according to the terms of any future approval of the RRCA. Absent such RRCA approval, the State Engineer and RRWCD may agree to terms by which to operate the Plan to achieve Compact compliance. Rule 8.1.1. requires the RRWCD to annually inform the State Engineer of those uses and structures that are covered under the RRWCD Plan. Rule 8.2 explains that the amount of water delivered from the CCP may change if Alternative Compliance Plans are approved.

Rule 9: Annual Replacement Requirements for Alternative Compliance Plans

Rule 9 explains that the State Engineer will calculate an Alternative Compliance Plan's Annual Replacement Requirement based on that plan's Proportional Share. Each Alternative

Compliance Plan should include the date(s) by which that calculation should occur. The Alternative Compliance Plan must then deliver its replacement requirement to one or more of the Compact Accounting Points, as is required in that particular Alternative Compliance Plan. Rule 9 further explains that each Alternative Compliance Plan must be operated according to the terms and conditions of its approval.

Rule 10: Application Requirements for an Alternative Compliance Plan

Rule 10 describes the application requirements for Alternative Compliance Plans. Applications can be submitted at any time during the year, but water rights included in the application will not be allowed to divert until the plan is approved. Applications must demonstrate how the Alternative Compliance Plan will deliver water at required locations. The Application must also provide data sufficient for the State Engineer's review. Rule 10.2 and its subparts describe the minimum data required for an application. Rule 10.3 requires the State Engineer to provide Notice of applications for Alternative Compliance Plans. Rules 10.4 and 10.5 establish a timeframe for the State Engineer's review and decision regarding applications and the procedures a hearing regarding an application.

Rule 11: State Engineer Review and Approval of Alternative Compliance Plans

Rule 11 describes the State Engineer's review and approval process for Alternative Compliance Plans and allows the State Engineer to impose terms and conditions upon a plan's approval. If the State Engineer determines that approval of the RRCA is required for operation of the Alternative Compliance Plan, the State Engineer may submit the plan to the RRCA.

Rule 12: Orders/Violations

Rule 12 describes the process by which the State Engineer may issue orders for violations of the Rules and the process by which the State Engineer may enforce such orders. Because rules promulgated for Compact compliance under section 37-80-104, C.R.S. must be promulgated under the "water rule power" of section 37-92-501, C.R.S., they must also be enforced following the procedures set forth in section 37-92-503, C.R.S.

Rule 13: Variances

Rule 13 describes the process by which a water user may obtain a variance from the Rules. Rule 13.1 explains that a variance from Rule 6 will not be granted; all water uses subject to the Rules must either be covered by the RRWCD Plan or covered by an Alternative Compliance Plan, without exception. Rule 13.2 describes the minimum requirements that must be contained in a request for variance. Rule 13.4 describes the procedures by which the State Engineer will determine whether to grant a variance and it clarifies that demonstration of a *de minimus* impact from diversion, use, or storage, does not meet the required burden of proof.

Rule 14: Process to Appeal a Decision Under These Rules

Rule 14 explains the process and procedure that applies to any appeal of an adverse administrative decision by the State Engineer, including an order issued under Rule 12. Such administrative appeals, if timely filed as explained in Rules 14.1 and 14.2, shall be governed by the adjudicatory procedures of the State Engineer's Procedural Regulations, 2 CCR 402-5. Rule 14 does not, however, preclude judicial review of an adverse decision of the State Engineer, but rather is intended to provide a timely and less expensive alternative to a person adversely affected by a decision of the State Engineer.

Rule 15: Phase-in

The State Engineer recognizes that water users subject to the Rules and not participating in the RRWCD Plan need time to create and implement an Alternative Compliance Plan. Rule 15 provides a phase-in period of one year after all protests to the Rules have been resolved.

Rule 16: Notice of Changes

This Rule requires the State Engineer to provide Notice to interested parties when substantial updates to the RRCA Groundwater Model or RRCA Accounting are approved by the RRCA.

Rule 17: Severability

Rule 17 explains that the Rules are severable and, if, a court invalidates one part of the Rules, the other parts of the Rules shall remain in full force and effect.

Rule 18: Effective Date

Rule 18 explains that the Rules become effective 60 days after publication, unless protests to the Rules are filed. If any such protests are filed, the effective date of the Rules will be the date on which all protests have been resolved.

APPENDIX A

BEFORE THE GROUND WATER COMMISSION

OF THE STATE OF COLORADO

IN THE MATTER OF THE PROPOSED	)	
	)	FINDINGS OF FACT
DESIGNATED GROUND WATER BASIN -	)	
	)	CONCLUSIONS OF LAW
OF THE NORTHERN HIGH PLAINS	)	
	)	FINAL ORDER
OF THE STATE OF COLORADO	)	

This matter having come on for hearing in Wray, Colorado, on April 14, 1966, pursuant to published notice, the Ground Water Commission does hereby find from said hearing the following:

FINDINGS OF FACT

1. That this hearing was commenced, pursuant to published notice at 10:00 A.M., on Thursday, April 14, 1966, in the Municipal Auditorium, Wray, Colorado.

The following members of the Commission were present:

John Cuykendall, Chairman
Harold Colglazier
Martin Buol
Warren Hofstra
Michael Strang
A. Ralph Owens, State Engineer

At 12:50 P.M., April 14, 1966, said hearing was closed.

2. As required by Section 148-18-11, CRS, 1963, as amended, the following objector filed a written protest with the Commission which set forth its objection to the determination of a designated ground water basin of the Northern High Plains of the State of Colorado:

Pioneer Irrigation District, Laird, Colorado

The following parties each filed written statements favorable to the determination of said designated ground water basin:

H. F. Kerst, Northwestern Colorado Water Development Committee
Guy Poe, Phillips County, Colorado
J.A. Spiers, Yuma County, Colorado
Duane Kjeldgaard, Washington County, Colorado
Mirel White, Cheyenne County, Colorado
Bill Hinkhouse, Kit Carson County, Colorado
Eldon Reinert, Kiowa-Prowers County, Colorado
Samuel Chutkow, Denver, Colorado

3. Pursuant to Section 148-18-5 (2), CRS, 1963, as amended, a map clearly showing all lands included within the boundaries of the proposed designated ground water basin, and a written description thereof, sufficient to apprise interested parties of the boundaries of the proposed basin, were on file in the office of the State Engineer prior to this hearing.

4. Pursuant to Section 148-18-11, CRS, 1963, as amended, notice of said hearing concerning the proposed Designated Ground Water Basin in the Drainage Areas of the Northern High Plains was published in the:

a. Cheyenne Wells Record in the County of Cheyenne,
b. Burlington Record in the County of Kit Carson,
c. Kiowa County Press in the County of Kiowa,
d. Akron News-Reporter in the County of Washington
e. Wray Gazette in the County of Yuma,
f. Holyoke Enterprise in the County of Phillips,
g. Limon Leader in the County of Lincoln
h. Sterling Journal-Advocate in the County of Logan,
i. Julesburg Grit-Advocate in the County of Sedgwick.

The affidavits of publication are Exhibits B-1 through B-9, and are included as part of the record of this hearing.

5. Pursuant to Section 148-18-5 (1) (b), CRS, 1963, as amended, the name or names of the water bearing geological members of a defined formation included within the boundaries of the proposed basin are:

a. Ogallala-Alluvium formation;
b. Chadron formation (considered as part of Ogallala-Alluvium formation);
c. Niobrara formation;
d. Benton formation;
e. Dakota formation;
f. Morrison formation.

6. Pursuant to Section 148-18-5 (1) (c), CRS, 1963, as amended, the boundary of the Ogallala-Alluvium formation is shown on maps Exhibit E-1 through E-3. Because of the areal extent of the other formations involved, the boundary of these formations will be the boundary of the basin and shown on the maps, Exhibit E-1 through E-3.

7. Pursuant to Section 148-18-5 (1) (d), CRS, 1963, as amended, the estimated quantity of water stored in the Ogallala-Alluvium aquifer is 96,688,000 acre-feet.

No estimated quantity is made for the remaining formations, since it is considered they do not produce water of sufficient quantities to be significant.

8. Pursuant to Section 148-18-5 (1) (e), CRS, 1963, as amended, the estimated annual rate of recharge of the Ogallala-Alluvium aquifer is 423,500 acre-feet.

9. Pursuant to Section 148-18-5 (1) (f), CRS, 1963, as amended, the estimated use of ground water in the area under consideration in the year 1966 is 331,360 acre-feet.

10. Pursuant to Section 148-18-5 (1) (g), CRS, 1963, as amended, the estimated projected use of ground water in the succeeding 50 years, at 10 year intervals, is:

Year	Acre-feet
1975	1,035,000
1985	1,704,000
1995	2,371,000
2005	3,039,000
2015	3,706,000

11. Pursuant to Section 148-18-2 (3), CRS, 1963, as amended, the ground water is that ground water which in its natural course would not be available to and required for the fulfillment of decreed surface rights.

CONCLUSIONS OF LAW

1. The ground water found in the Ogallala-Alluvium aquifer of the drainage area of the Northern High Plains of the State of Colorado is "designated ground water" as defined in Section 148-18-2 (3), CRS, 1963, as amended, and is ground water which in its natural course would not be available to and required for the fulfillment of decreed surface rights.

2. The requirements of Article 18 of Chapter 148, CRS, 1963, as amended, have been fully met in this hearing.

FINAL ORDER

1. It is hereby ordered, adjudged and decreed that the following described area is found to be a designated ground water basin and shall be so designated and called the Northern High Plains Ground Water Basin.

2. The vested surface water rights within the designated ground water basin are recognized and specifically noted as being without the jurisdiction of the Ground Water Commission and are wholly governed by the provisions of the Republican River compact where applicable or otherwise by the surface water laws concerning tributary waters.

All the following are west of the 6th P.M.

T. 11 N., R. 42 W., Sections 7, 8, 17, 18, 19, 20, 29, 30, 31, and 32 -- T. 11 N., R. 43 W., Sections 13 thru 16 (incl.), and 20 thru 36 (incl.) -- T. 11 N., R. 44 W., Sections 25 thru 29 (incl.), and 31 thru 36 (incl.) -- T. 10 N., R. 42 W., thru R. 44 W., (incl.), All Sections -- T. 10 N., R. 45 W., Sections 1 thru 4 (incl.), and 7 thru 36 (incl.) -- T. 10 N., R. 46 W., Sections 8 thru 36 (incl.) -- T. 10 N., R. 47 W., Sections 13, 24 thru 28 (incl.), and 32 thru 36 (incl.) -- T. 9 N., R. 42 W., thru R. 47 W., (incl.), All Sections -- T. 9 N., R. 48 W., Sections 1, 2, 9 thru 17 (incl.), and 19 thru 36(incl.) -- T. 9 N., R. 49 W., Sections 23, 24, 25, 26, 27, and 33, 34, 35, 36 -- T. 8 N., R. 42 W., thru R. 49 W. (incl.), All Sections T. 8 N., R. 50 W., Sections 11 thru 15 (incl.), 21 thru 29 (incl.), and 32 thru 36 (incl.) -- T. 7 N., R. 42 W., thru R. 50 W. (incl.), All Sections -- T. 7 N., R. 51 W., Sections 12, 13, 14, 23, 24, 25, 26, 35, and 36 -- T. 6 N., R. 42 W., thru R. 50 W. (incl.), All Sections -- T. 6 N., R. 51 W., Sections 1, 2, 3, 9 thru 16 (incl.), 20 thru 28 (incl.), and 33, 34, 35, 36 -- T. 5 N., R. 42 W., thru R. 50 W. (incl.), All Sections -- T. 5 N., R. 51 W., Sections 1, 2, 3, 4, 8 thru 17 (incl.), and 19 thru 36 (incl.) -- T. 4 N., R. 42 W., thru R. 50 W. (incl.), All Sections -- T. 4 N. R. 51 W., Sections 1, 2, 3, 4, 5, 8 thru 17 (incl.), 19 thru 27 (incl.), and 33, 34, 35, 36 -- T. 3 N., R. 42W., thru R. 50 W. (incl.), All Sections -- T. 3 N., R. 51 W., Sections 1, 2, 3, 4, 5, and 7 thru 36 (incl.) -- T. 3 N., R. 52 W., Sections 13, 14, 15, 21 thru 28 (incl.), and 32,33, 34, 35, 36 -- T. 2 N., R. 42 W., thru R. 52 W (incl.), All Sections -- T. 2 N., R. 53 W., Sections 12, 13, 14, 23, 24, 25, 26, 35 and 36 -- T. 1 N., R. 42 W., thru R. 52 W. (incl.), All Sections -- T. 1 N., R. 53 W., Sections 1, 11, 12, 13, 14, 15, 22 thru 27 (incl.)

and 33, 34, 35, 36 -- T. 1 S., R. 42 W., thru R. 52 W. (incl.), All Sections -- T. 1 S., R. 53 W., Sections 1, 2, 3, 10 thru 15 (incl.), 22 thru 27 (incl.), and 33, 34, 35, 36 -- T. 2 S., R. 42 W., thru R. 52 W. (incl.) All Sections -- T. 2 S., R. 53 W., Sections 1, 2, 3, 10 thru 15 (incl.), 22 thru 29 (incl.), and 32, 33, 34, 35, 36 -- T. 3 S., R. 42 W., thru R. 52 W (incl.), All Sections -- T. 3 S., R. 53 W., Sections 1 thru 5 (incl.), 9 thru 16 (incl.), 21 thru 28 (incl.), 33, 34, 35, 36 -- T. 4 S., R. 42 W., thru R. 52 W. (incl.), All Sections -- T. 4 S., R. 53 W. Sections 1, 2, 3, 4, 9 thru 16 (incl.), and 20 thru 36 (incl.) -- T. 5 S., R. 42 W., thru R. 53 W. (incl.), All Sections -- T. 5 S., R. 54 W., Sections 11 thru 16 (incl.) and 19 thru 36 (incl.) -- T. 5 S., R. 55 W., Sections 25, 34, 35, and 36 -- T. 5½ S., R. 42 W., thru R. 50 W. (incl.), All Sections -- T. 6 S., R. 42 W., thru R. 54 W. (incl.), All Sections -- T. 6 S., R. 55 W., Sections 1, 2, 3, 10 thru 16 (incl.), and 20 thru 36 (incl.) -- T. 7 S., R. 42 W., thru R. 55 W. (incl.), All Sections -- T. 7 S., R. 56 W., Sections 1, 2, 3, 4, 9 thru 16 (incl.), and 21 thru 36 (incl.) -- T. 8 S., R. 42 W., thru R. 55 W. (incl.) All Sections -- T. 8 S., R. 56 W., Sections 1 thru 6 (incl.), and 9, 10, 11, 12 -- T. 9 S., R. 42 W., thru R. 52 W. (incl.), All Sections -- T. 9 S., R. 53 W., Sections 1 thru 31 (incl.), and 34, 35, 36 -- T. 9 S., R. 54 W., Sections 1 thru 26 (incl.), and 36 -- T. 9 S., R. 55 W., Sections 1, 2, 3, 4, 11, 12, and 13 -- T. 10 S., R. 42 W., thru R. 52 W. (incl.), All Sections -- T. 10 S., R. 53 W., Sections 1, 2, 3, 10 thru 15 (incl.), 22 thru 26 (incl.), 35 and 36 -- T. 11 S., R. 41 W., thru R. 50 W. (incl.), All Sections -- T. 11 S., R. 51 W., Sections 1 thru 30 (incl.), N/2 of 33, and 35 and 36 -- T. 11 S., R. 52 W., Sections 1 thru 6 (incl.), 8 thru 16 (incl.), and 22 thru 27 (incl.) -- T. 11 S., R. 53 W., Section 1 -- T. 12 S., R. 41 W., thru R. 46 W. (incl.), All Sections -- T. 12 S., R. 47 W., Sections 1 thru 18 (incl.), and 22 thru 27 (incl.) -- T. 12 S., R. 48 W., Sections 1, 2, 3, 4, and 10 thru 15 (incl.) - T. 13 S., R. 41 W., thru R. 45 W., (incl.) All Sections -- T. 13 S., R. 46 W.,

Sections 1 thru 5 (incl.), 9 thru 16 (incl.), 22 thru 26 (incl.), 35 and 36 -- T. 14 S., R. 41 W., thru R. 45 W. (incl.), All Sections -- T. 14 S., R. 46 W., Sections 1, 2, 11, 12, 13, 14, 23, 24, 25, 26 and 34, 35, 36 -- T. 15 S., R. 41 W., thru R. 45 W. (incl.), All Sections -- T. 15 S., R. 46 W., Sections 1, 2, 3, 10, 11, 12, 13, 14, 23, 24, 25, and 36 -- T. 16 S., R. 41 W., thru R. 44 W. (incl.), All Sections -- T. 16 S. R. 45 W., Sections 1 thru 5 (incl.), 9 thru 14 (incl.), 23, 24, 25, and 36 -- T. 17 S., R. 41 W., thru R. 43 W. (incl.), All Sections -- T. 17 S., R. 44 W., Sections 1 thru 17 (incl.), 21 thru 27 (incl.), 35 and 36 -- T. 18 S., R. 41 W., thru R. 43 W. (incl.), All Sections -- T. 18 S., R. 44 W., Sections 1, 2, 12, 13, 24, 25, 26, 35 and 36 -- T. 19 S., R. 41 W., thru R. 42 W. (incl.), All Sections -- T. 19 S., R. 43 W., Sections 1 thru 30 (incl.) -- T. 19 S., R. 44 W., Sections 1, 2, 11, 12, 13, 14, 15, 22, 23, 24, and 25 -- T. 20 S., R. 41 W., Sections 5, 6, 7, 8, 17 and 18 -- T. 20 S., R. 42 W., Sections 1, 2, 3, and 12.