

**BEFORE THE OFFICE OF THE STATE ENGINEER  
STATE OF COLORADO**

**IN THE MATTER OF THE PETITION FOR NONTRIBUTARY )  
DETERMINATION FOR PRODUCED WATER FROM COAL ) 10SEO2  
BED METHANE WELLS IN THE CENTRAL RATON BASIN – )  
RATON AND VERMEJO FORMATIONS )**

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**FINDINGS OF FACT, CONCLUSIONS OF LAW, AND  
FINAL DECISION OF THE STATE ENGINEER**

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This matter involves a petition filed by Pioneer Natural Resources USA, Inc. (“Pioneer”), XTO Energy Inc. (“XTO”), El Paso EP Company, L.P. (“El Paso”), and Red River Ranch Holdings, LLC (“Red River”) (collectively, the “Petitioners”), with the State Engineer’s Office (“SEO”) on January 8, 2010, requesting a determination by the State Engineer of the extent to which ground water produced from coal bed methane (“CBM”) wells in the Raton and Vermejo Formations in the Central Raton Basin meets the statutory definition of nontributary ground water (the “Petition”). A hearing on the Petition was held before the State Engineer on March 9, 2010. Pioneer, XTO and El Paso were represented by Christopher L. Thorne and Douglas L. Abbott, and Red River was represented by James Killean. The Southeastern Colorado Water Conservancy District (the “Southeastern District”) was represented by Joshua McMahon. The Staff of the SEO (the “Staff”) was represented by John Cyran. No other parties appeared. Dick Wolfe, the State Engineer, served as the Hearing Officer.

Having reviewed and considered all of the prehearing and rebuttal statements, the factual and expert evidence and testimony submitted by the parties, and the arguments of counsel, the Hearing Officer hereby enters the following Findings of Fact, Conclusions of Law, and Final Decision of the State Engineer.

**FINDINGS OF FACT**

1. The hearing was conducted in accordance with the Division of Water Resources Procedural Regulations, 2 CCR 402-5; the Produced Nontributary Ground Water Rules, 2 CCR 402-17; and the Colorado Administrative Procedures Act, C.R.S. § 24-4-105.
2. The Petition for an adjudicatory proceeding was filed with the State Engineer on January 8, 2010, and complied with the requirements of the Produced Nontributary Ground Water Rules, 2 CCR 402-17, Rules 17.5 and 17.6.
3. Public notice of the Petition was provided by: (a) service on January 8, 2010 by e-mail notification to all subscribers to the Division 2 Substitute Water Supply Plan Notification List; (b) service on January 8, 2010 by e-mail notification to all parties in the Produced Nontributary Ground Water Rulemaking; (c) separate notice via e-mail from the SEO to various

interested parties; and (d) verified publication of the Petition in two local newspapers of general circulation in the area of the Central Raton Basin, the (Trinidad) Chronicle News and the Trinidad Times Independent. Beginning with the Petition, all filings in these proceedings were promptly posted to and publicly available on the website of the Colorado Division of Water Resources.

4. On January 19, 2010, the State Engineer issued a Notice of Hearing and Prehearing Order, which scheduled a hearing on the Petition and required, among other things, that testimony offered into evidence be provided in writing and summarized at the hearing.

5. The following parties filed timely requests for party status which were granted by the State Engineer: the City of Trinidad, Colorado; the City of Raton, New Mexico; the Purgatoire River Water Conservancy District (the "Purgatoire District"); and the Southeastern Colorado Water Conservancy District ("Southeastern District"). The Staff also participated as a party in these proceedings.

6. Petitioners have entered into and filed in these proceedings the following stipulations with various parties, which are part of the hearing record and are hereby incorporated by reference:

A. Stipulation Between City of Raton, New Mexico and Petitioners, dated February 17, 2010 (Attachment A);

B. Stipulation and Agreement Between the Purgatoire River Water Conservancy District, the Southeastern Colorado Water Conservancy District and Petitioners, dated March 8, 2010 (Attachment B); and,

C. Stipulation and Agreement Between the City of Trinidad and Petitioners, dated March 12, 2010 (Attachment C).

7. Pursuant to the above-referenced stipulations and prior to the March 9, 2010 hearing, Petitioners amended the Petition to claim as nontributary only those portions of the Raton and Vermejo Formations identified on Exhibits 10SEO2-A and 10SEO2-B ("Amended Claims"). The Amended Claims are attached hereto as Attachment D.

8. During the prehearing process, substantial written testimony, largely of a technical nature, was filed by the Petitioners, the Purgatoire District, the Southeastern District, and the Staff.

9. An adjudicatory hearing on the Petition was conducted before the State Engineer on March 9, 2010. Petitioners appeared and presented oral testimony and other evidence. No other parties offered additional evidence or testimony at the hearing, except Brian Ahrens and Kevin Rein of the Colorado Division of Water Resources, who were sworn as witnesses and responded to questions posed by the State Engineer.

10. Petitioners operate CBM natural gas wells in the Central Raton Basin, an area which includes portions of the drainages of the Purgatoire, Canadian, and Apishipa Rivers. Petitioners' CBM wells withdraw ground water to facilitate or permit mining of minerals. Pursuant to House Bill 09-1303 ("H.B. 09-1303") and the Colorado Supreme Court's decision in *Vance, et al. v. Wolfe*, 205 P.3d 1165 (Colo. 2009), Petitioners' CBM wells are subject to certain water well permitting and water rights administration requirements under the Colorado Ground Water Management Act, C.R.S. §§ 37-90-101 to -143 ("Ground Water Act"), and the Colorado Water Right Determination and Administration Act, C.R.S. §§ 37-92-101 to -602 ("1969 Act").

11. In order to ensure compliance with applicable well permitting and water rights administration requirements, including without limitation C.R.S. § 37-90-137(7), Petitioners requested a determination by the State Engineer of the extent to which ground water produced from CBM wells in the Raton and Vermejo Formations in the Central Raton Basin meets the statutory definition of nontributary ground water. *See* C.R.S. § 37-90-103(10.5).

12. The Petition was supported by a sophisticated numerical ground water model of the Central Raton Basin (the "CRB Model"), which utilized the United States Geological Survey's MODFLOW modeling code. The CRB Model, and the conceptual model of the Central Raton Basin ground water system upon which the CRB Model is based, are described and documented in detail in a modeling report prepared by Norwest Corporation and Martin & Wood Water Consultants, Inc., dated January 8, 2010 (the "Modeling Report"). In addition to the Modeling Report, Petitioners' witnesses provided comprehensive written and oral testimony in support of the CRB Model and the Amended Claims.

13. Development of the CRB Model included the development of a conceptual model of the Central Raton Basin; construction of the numerical model; steady-state model calibration; transient simulation; sensitivity analyses; and ultimately the evaluation of stream depletion and the identification of tributary/nontributary ground water boundaries in the Raton and Vermejo Formations.

14. The CRB Model was subjected to a rigorous peer review process, which included extensive review and comment by Phil Martin of Martin & Wood Water Consultants, Inc., Mark Palumbo of HRS Water Consultants, Inc.; and Dr. Willem Schreüder of Principia Mathematica, Inc. The Staff also provided technical review and comment during model development. During the model development process, the CRB Model was refined to incorporate specific feedback received from the peer reviewers.

15. As described in the Modeling Report, and as supported by the testimony of the Staff, the Central Raton Basin conceptual model was accurately and adequately defined with respect to all important components, including, but not limited to, the geology, stratigraphy, geologic structure, precipitation, aquifer hydraulic properties, aquifer recharge, evapotranspiration, overall basin water budget, model areal extent, stresses, boundary conditions, and surface water flows. The State Engineer finds that the conceptual model of the Central Raton Basin, as described in the Modeling Report, is sufficiently refined and supported by reliable evidence, to reliably identify the relevant mechanisms of the flow system for the purposes of determining the tributary nature of groundwater.

16. The numerical model is a highly complex and sophisticated MODFLOW model. The model has eight layers representing the hydrogeologically significant formations within the Central Raton Basin that comprise the flow system, including the Raton and Vermejo Formations associated with CBM development. Aquifer properties such as horizontal and vertical hydraulic conductivity and storage parameters are appropriate, and were established from measurements, values reported in literature, and model calibration.

17. The CRB Model appropriately includes all perennial streams within the model domain that are identified in the National Hydrography Dataset.

18. The CRB Model was successfully calibrated. The CRB Model simulates heads within the flow regime within acceptable target tolerances for models of this type and accurately simulates the baseflows in the streams simulated in the model. The State Engineer finds that the CRB Model is sufficiently calibrated to reliably quantify the relevant mechanisms of the flow system for purposes of determining the tributary nature of ground water.

19. A transient verification simulation was performed and demonstrated that historical and projected levels of water production from CBM wells are reasonable and in line with anticipated drawdowns in the Central Raton Basin.

20. A sensitivity analysis was performed to test the sensitivity of the CRB Model to various input parameters. The sensitivity analysis showed that where the CRB Model is sensitive to various parameters, the values of those parameters could be adequately established using data or during calibration.

21. In sum, the State Engineer finds that the CRB Model was developed, constructed and operated in a manner that is consistent with commonly accepted modeling techniques. *See City of Aurora v. Simpson*, 105 P.3d 595 (Colo. 2005). Without limitation, the calibration, verification and sensitivity analysis demonstrate that the CRB Model is able to reproduce conditions in the Central Raton Basin to a reasonable degree of accuracy and scientific certainty.

22. The State Engineer finds as credible and well-supported, the testimony of Phillippe Martin, Mark Palumbo and Dr. Willem Schreüder that due to the incorporation of numerous conservative assumptions regarding the modeled conditions, the CRB Model tends to overstate the extent of tributary ground water within the studied formations.

23. The State Engineer finds that the CRB Model is sufficiently refined to reliably quantify the relevant mechanisms of the flow system. It is an accurate tool for purposes of evaluating stream depletions from CBM well pumping and determining the tributary nature of ground water in the Raton and Vermejo Formations in the Central Raton Basin.

24. The State Engineer finds that the maps resulting from the CRB Model, as reflected in the Attachment D are reliable and conservative representations of the nontributary areas within the Raton and Vermejo Formations in the Central Raton Basin.

25. As testified by Kevin Rein of the Staff at the hearing, the State Engineer finds that the CRB Model is appropriate for evaluating, determining and administering well permits and substitute water supply plans for CBM wells in the Central Raton Basin.

### CONCLUSIONS OF LAW

26. The findings of fact above are incorporated herein inasmuch as they may constitute conclusions of law.

27. Notice of the Petition and these proceedings was sufficient to put interested parties on notice of the nature and scope of the relief sought.

28. The State Engineer has jurisdiction over the Petition and over all parties who appeared or who could have appeared.

29. The State Engineer has the authority to make the nontributary determinations requested in the Petition. The General Assembly has plenary authority over nontributary ground water. *Colorado Ground Water Commission v. North Kiowa-Bijou Ground Water Management Dist.*, 77 P.3d 62, 70 (Colo. 2003). The General Assembly has granted the State Engineer the authority to make nontributary determinations. C.R.S. § 37-90-137. This authority necessarily involves the determination and designation by the State Engineer of those areas of the state where the State Engineer shall regard ground water as nontributary. In passing H.B. 09-1303, the General Assembly contemplated that determinations would need to be made in various geographic areas. *See* C.R.S. § 37-90-137(7)(c) (venue for judicial review of the rules shall lie with the water judge in the water division “within which the ground water that is the subject of such rules is located”).

30. Pursuant to H.B. 09-1303, on December 30, 2010, the State Engineer promulgated the Produced Nontributary Ground Water Rules, 2 CCR 402-17. The Produced Nontributary Ground Water Rules were published in *The Colorado Register* on January 10, 2010, and became final on January 30, 2010. Although the Rules became effective after the Petition in this matter was filed, the Petition conformed to the requirements of those rules.

31. The State Engineer’s determination is limited to “groundwater removed from geologic formations to facilitate or permit the mining of minerals” as set forth in Produced Nontributary Ground Water Rules, 2 CCR 402-17, Rule 17.3(A).

32. The hearing on the Petition was conducted in accordance with the Division of Water Resources Procedural Regulations, 2 CCR 402-5; the Produced Nontributary Ground Water Rules, 2 CCR 402-17; and the Colorado Administrative Procedures Act, C.R.S. § 24-4-105.

33. The proceedings on the Petition, including the adjudicatory hearing, afforded interested parties a meaningful opportunity to participate.

34. The State Engineer has considered all relevant facts.

35. Under Colorado law, all ground water is presumed to be tributary unless proven otherwise. *Simpson v. Bijou Irrigation Co.*, 69 P.3d 50, 57 n. 7 (Colo. 2003).

36. Nontributary ground water is defined by Colorado statute as “that ground water, located outside the boundaries of any designated ground water basins . . . the withdrawal of which will not, within one hundred years of continuous withdrawal, deplete the flow of a natural stream, including a natural stream as defined in sections 37-82-101(2) and 37-92-102(1)(b), at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal.” C.R.S. § 37-90-103(10.5).

37. As proponents of an order designating portions of the Raton and Vermejo Formations in the Central Raton Basin as nontributary, the Petitioners had the burden of proof. C.R.S. § 24-4-105(7).

38. The testimony and evidence presented in support of the Petition, including but not limited to the CRB Model, constitutes relevant and reliable scientific evidence. *See People v. Shreck*, 22 P. 3d 68 (Colo. 2001); *City of Aurora*, 105 P.3d at 612. The CRB Model is a scientifically reliable tool for evaluation of stream depletions and determination of nontributary areas within the Raton and Vermejo Formations in the Central Raton Basin.

39. The testimony and evidence in the record provides clear and convincing evidence that the ground water within those areas of the Raton and Vermejo Formations identified in the Amended Claims is nontributary ground water as defined by C.R.S. § 37-90-103(10.5).

#### **FINAL DECISION OF THE STATE ENGINEER**

40. The findings of fact and conclusions of law above are incorporated herein.

41. Clear and convincing evidence demonstrates that the ground water within the delineated areas of the Raton and Vermejo Formations depicted in Attachment D is nontributary ground water as defined by C.R.S. § 37-90-103(10.5).

42. Accordingly, it is ORDERED that the Petition, as modified by the Amended Claims, is granted. The areas in the Raton and Vermejo Formations within the Central Raton Basin that are identified in Attachment D are hereby determined to be nontributary for purposes of permitting and administration of CBM wells pursuant to the requirements of the Ground Water Act and the 1969 Act.



\_\_\_\_\_  
Dick Wolfe, State Engineer

Dated this 25th day of March, 2010.

**BEFORE THE OFFICE OF THE STATE ENGINEER  
STATE OF COLORADO**

**IN THE MATTER OF THE PETITION FOR NONTRIBUTARY )  
DETERMINATION FOR PRODUCED WATER FROM COAL BED )  
METHANE WELLS IN THE CENTRAL RATON BASIN – RATON ) 10SE02  
AND VERMEJO FORMATIONS )**

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**STIPULATION BETWEEN CITY OF RATON AND PETITIONERS**

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Pioneer Natural Resources USA, Inc., XTO Energy Inc., El Paso E&P Company, L.P., and Red River Ranch Holdings LLP (collectively, “Petitioners”), and the City of Raton, New Mexico (the “City”), by and through their undersigned counsel, hereby enter this Stipulation, effective as of the 17<sup>th</sup> day of February, 2010. Petitioners and the City may be collectively referred to hereafter as “the Parties”.

WHEREAS, Petitioners operate coal bed methane (“CBM”) gas wells in the Central Raton Basin that withdraw water from the Vermejo and Raton formations in conjunction with CBM production;

WHEREAS, Petitioners filed a petition with the State Engineer’s Office (“SEO”) on January 8, 2010, requesting an adjudication determining that portions of the Vermejo and Raton geologic formations within the Central Raton Basin where water is produced from CBM wells are nontributary under Colorado law (“Request for Adjudication”), pursuant to Rule 17.5 of the Produced Nontributary Ground Water Rules, 2 Colo. Code Regs. 402-17;

WHEREAS, subject to the terms and conditions of this Stipulation, Petitioners will not seek in these proceedings to have determined as nontributary within Colorado the ground water beneath:

the south half of T.34S, R.63W and the south half of T34S, R.62W as both would project into the Maxwell Grant; the south half of T.34S, R.61W; all of T35S, R.63W and all of T.35S, R.62W as both would project into the Maxwell Grant; all of T.35S, R.61W; and all of T.35S, R.61W

All of the foregoing areas are described collectively hereinafter as the “Subject Area.”

WHEREAS, the City desires to protect sources of its municipal water supply located in the Canadian River drainage in the south central part of the Central Raton Basin, including portions of the Subject Area;

WHEREAS, Petitioners’ CBM operations in the Central Raton Basin do not currently involve leases or wells in the Subject Area;

**STIPULATION BETWEEN CITY OF RATON, NEW  
MEXICO AND PETITIONERS,  
DATED FEBRUARY 17, 2010 – ATTACHMENT A**

WHEREAS, the Parties disagree about the tributary character of the ground water underlying the Subject Area;

WHEREAS, the Parties desire to avoid a hearing on the question of whether the permitting provisions of C.R.S. § 37-90-137(7) should be applied to the Subject Area, and on related questions and issues;

WHEREAS, none of the Parties concede any positions regarding the facts or law in this matter;

WHEREAS, the Parties desire to resolve the matters addressed herein by means of this Stipulation, rather than through litigation, and for good and just consideration, the City and the Petitioners agree:

1. Petitioners shall amend the Request for Adjudication to exclude the Subject Area.
2. Petitioners shall amend its technical evidence by substituting new maps/figures to exclude any nontributary claim related to the Vernejo and Raton formations beneath the Subject Area.
3. Petitioners shall provide to the City a draft of its amendment to the Request for Adjudication prior to filing, in order to ensure that the amendment is consistent with this Stipulation.
4. The City shall remain a party to the hearing for the sole purpose of monitoring the proceedings to ensure that the Hearing Officer does not hear evidence related to the ground water beneath the Subject Area, and shall not present any evidence or legal argument or otherwise actively participate in these proceedings.
5. The City shall not file or participate in any appeal of or legal challenge to the SEO's decision on the Request for Adjudication; nor shall the City oppose any application by Petitioners to the SEO for approval of a Substitute Water Supply Plan or any application by Petitioners to the Water Court for approval of an augmentation plan, provided that such applications do not assert a claim for ground water or surface water in or under the Subject Area.
6. Each of the Petitioners shall notify the City in the event it acquires an interest in minerals underlying the Subject Area. Said notice shall be in writing and shall be hand delivered, sent by a nationally recognized overnight delivery service, or sent by registered or certified mail, postage prepaid, return receipt requested. Any of the Parties may change their address for purposes of this Stipulation by written notice to all other Parties as provided for in this paragraph. Notice shall be effective upon delivery if the notice is provided by hand delivery and shall be effective upon receipt if given by overnight delivery or by certified or registered mail. Notice shall be provided as follows:

To the City:

City of Raton  
c/o Dan Campbell, General Manager  
City of Raton Municipal Utility  
224 Savage Avenue  
Raton, NM 87740

To Pioneer:

Ronald Schindler, Esq.  
Senior Associate General Counsel  
Pioneer Natural Resources USA, Inc.  
1401 17<sup>th</sup> Street, Suite 1200  
Denver, CO 80202

To XTO:

Lisa Winn  
Manager of Government Affairs – Rockies  
XTO Energy Inc.  
810 Houston Street  
Fort Worth, TX 76102

To El Paso:

Daniel R. Cabianca, Esq.  
Senior Counsel  
El Paso E&P Company, L.P.  
1010 Travis Street, Suite 9.041  
Houston, TX 77002

To Red River:

Red River Ranch Holdings, LLC  
Attn: Legal Department  
1251 Avenue of the Americas, 53<sup>rd</sup> Floor  
New York, NY 10020

7. This Stipulation shall be governed, construed, applied, and enforced in accordance with the laws of the State of Colorado.
8. This Stipulation shall be binding on the Parties' successors and assigns.
9. The Parties shall bear their own costs and fees in this matter.

Respectfully submitted, this 17<sup>th</sup> day of February, 2010.

/s/ Christopher L. Thorne

Christopher L. Thorne  
Douglas L. Abbott  
William H. Caile, Esq.  
Holland & Hart LLP  
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ATTORNEYS FOR PIONEER NATURAL RESOURCES  
USA, INC.; XTO ENERGY INC.; AND EL PASO E&P  
COMPANY, L.P.

/s/ James J. Killean

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ATTORNEYS FOR RED RIVER RANCH HOLDINGS,  
LLC

/s/ Sarah A. Klahn

Sarah A. Klan  
Alan E. Curtis  
White & Jankowski, LLP  
511 16<sup>th</sup> Street, Suite 500  
Denver, CO 80202  
Telephone: 303-595-9441

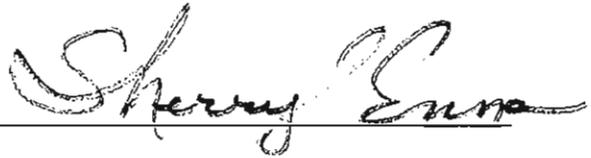
ATTORNEYS FOR CITY OF RATON

**CERTIFICATE OF SERVICE**

I hereby certify that three copies of the **STIPULATION BETWEEN CITY OF RATON AND PETITIONERS** was submitted on the 17th day of February, 2010 by delivery to the following address:

Office of the State Engineer  
Central Raton Basin Produced Ground Water Hearing  
1313 Sherman Street, Suite 818  
Denver, Colorado 80203

and by electronic mail addressed to [laura.kalafus@state.co.us](mailto:laura.kalafus@state.co.us) and [casey.shpall@state.co.us](mailto:casey.shpall@state.co.us), and further was served by electronic mail on all parties of record.



A handwritten signature in cursive script, reading "Sherry Enna", is written over a horizontal line.

**BEFORE THE OFFICE OF THE STATE ENGINEER  
STATE OF COLORADO**

**IN THE MATTER OF THE PETITION FOR NONTRIBUTARY )  
DETERMINATION FOR PRODUCED WATER FROM COAL BED )  
METHANE WELLS IN THE CENTRAL RATON BASIN – RATON ) 10SE02  
AND VERMEJO FORMATIONS )**

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**STIPULATION AND AGREEMENT BETWEEN THE PURGATOIRE RIVER WATER  
CONSERVANCY DISTRICT, THE SOUTHEASTERN COLORADO WATER  
CONSERVANCY DISTRICT AND PETITIONERS**

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Pioneer Natural Resources USA, Inc., XTO Energy Inc., El Paso E&P Company, L.P., and Red River Ranch Holdings LLP (collectively, “Petitioners”), the Purgatoire River Water Conservancy District (the “Purgatoire District”), and the Southeastern Colorado Water Conservancy District (“Southeastern District”), by and through their undersigned counsel, hereby enter this Stipulation and Agreement (“Stipulation”), effective as of March 8, 2010. Petitioners, the Purgatoire District, and the Southeastern District may be collectively referred to hereafter as “the Parties”.

Stipulation

1. Petitioners filed a petition with the State Engineer’s Office (“SEO”) on January 8, 2010, requesting an adjudication determining that portions of the Vermejo and Raton geologic formations within the Central Raton Basin (the “Subject Formations”) from which water is produced from Petitioners’ CBM wells are nontributary under Colorado law (“Request for Adjudication”), pursuant to Rule 17.5 of the Produced Nontributary Ground Water Rules, 2 Colo. Code Regs. 402-17. The Request for Adjudication was amended on February 17, 2010 by Petitioners to reduce the extent of the Petitioners’ nontributary claims pursuant to a stipulation with the City of Raton, New Mexico.

2. The Purgatoire District and the Southeastern District each timely requested and were granted party status in these proceedings, and have presented written testimony and arguments in opposition to certain aspects of the Request for Adjudication.

3. Among other things, the Parties disagree on the extent to which ground water within portions of the Subject Formations meets the statutory definition of nontributary.

4. To avoid a contested hearing in this matter, and to settle and compromise certain issues in dispute, the Parties have agreed as follows:

a. Petitioners hereby amend their Request for Adjudication to claim as nontributary only those portions of the Subject Formations reflected in Exhibits 1 and 2 attached hereto (the “Amended Claim”);

**STIPULATION AND AGREEMENT BETWEEN THE PURGATOIRE  
RIVER WATER CONSERVANCY DISTRICT, THE SOUTHEASTERN  
COLORADO WATER CONSERVANCY DISTRICT AND PETITIONERS,  
DATED MARCH 8, 2010 – ATTACHMENT B**

b. The Purgatoire District and the Southeastern District consent to and shall not oppose the entry of a final decision or order by the State Engineer in these proceedings approving the Amended Claim and determining as nontributary the areas in the Subject Formations identified in the Amended Claim;

c. Neither the Purgatoire District nor the Southeastern District shall pursue any appeal of a final decision or order issued by the SEO as described in paragraph 4.b. above;

d. Petitioners shall amend their February 1, 2010 Request for Substitute Water Supply Plan ("SWSP") approval to conform to the Amended Claim, and shall base all future SWSP filings and renewal requests on the Amended Claim;

e. The Purgatoire District hereby withdraws its comments and objections to the Petitioners' pending SWSP request, and shall not oppose any amendment of that request or any future SWSP filings or SWSP renewal requests by Petitioners that conform to the Amended Claim;

f. The Southeastern District shall not oppose any amendment of Petitioners' pending SWSP request or future SWSP filings or SWSP renewal requests by Petitioners that conform to the Amended Claim; and

g. This Stipulation and Agreement does not preclude any of the Parties from asserting any legal or factual arguments in Case No. 10CW02 (Water Div. 2), which involves Petitioners' request for approval of a plan for augmentation, including exchanges, and the Parties expressly reserve all rights to assert any such arguments.

5. This Stipulation shall be governed by and enforced in accordance with the laws of the State of Colorado.

6. This Stipulation shall be binding on the Parties' successors and assigns.

7. The Parties shall bear their own costs and fees in this matter.

Respectfully submitted, this 8th day of March, 2010.

*/s/ Christopher L. Thorne*

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Christopher L. Thorne  
Douglas L. Abbott  
William H. Caile  
Holland & Hart LLP  
555 17th Street, Suite 3200  
Denver, Colorado 80201-8749  
Telephone:(303) 295-8000

ATTORNEYS FOR PIONEER NATURAL RESOURCES  
USA, INC.; XTO ENERGY INC.; AND EL PASO E&P  
COMPANY, L.P.

*/s/ James J. Killean*

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James J. Killean  
Ireland Stapleton Pryor & Pascoe, PC  
1675 Broadway, Suite 2600  
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Telephone: 303-628-3608

ATTORNEYS FOR RED RIVER RANCH HOLDINGS,  
LLC

*/s/ Stephen H. Leonhardt*

---

Stephen H. Leonhardt  
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Greenwood Village, CO 80111  
Telephone: (303) 796-2626

ATTORNEYS FOR SOUTHEASTERN COLORADO  
WATER CONSERVANCY DISTRICT

*/s/ Julianne M. Woldridge*

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Julianne M. Woldridge  
MacDougall, Woldridge & Worley, P.C.  
530 Communication Circle, Suite 204  
Colorado Springs, CO 80905  
Telephone: 719-520-9288

ATTORNEYS FOR PURGATOIRE RIVER WATER  
CONSERVANCY DISTRICT

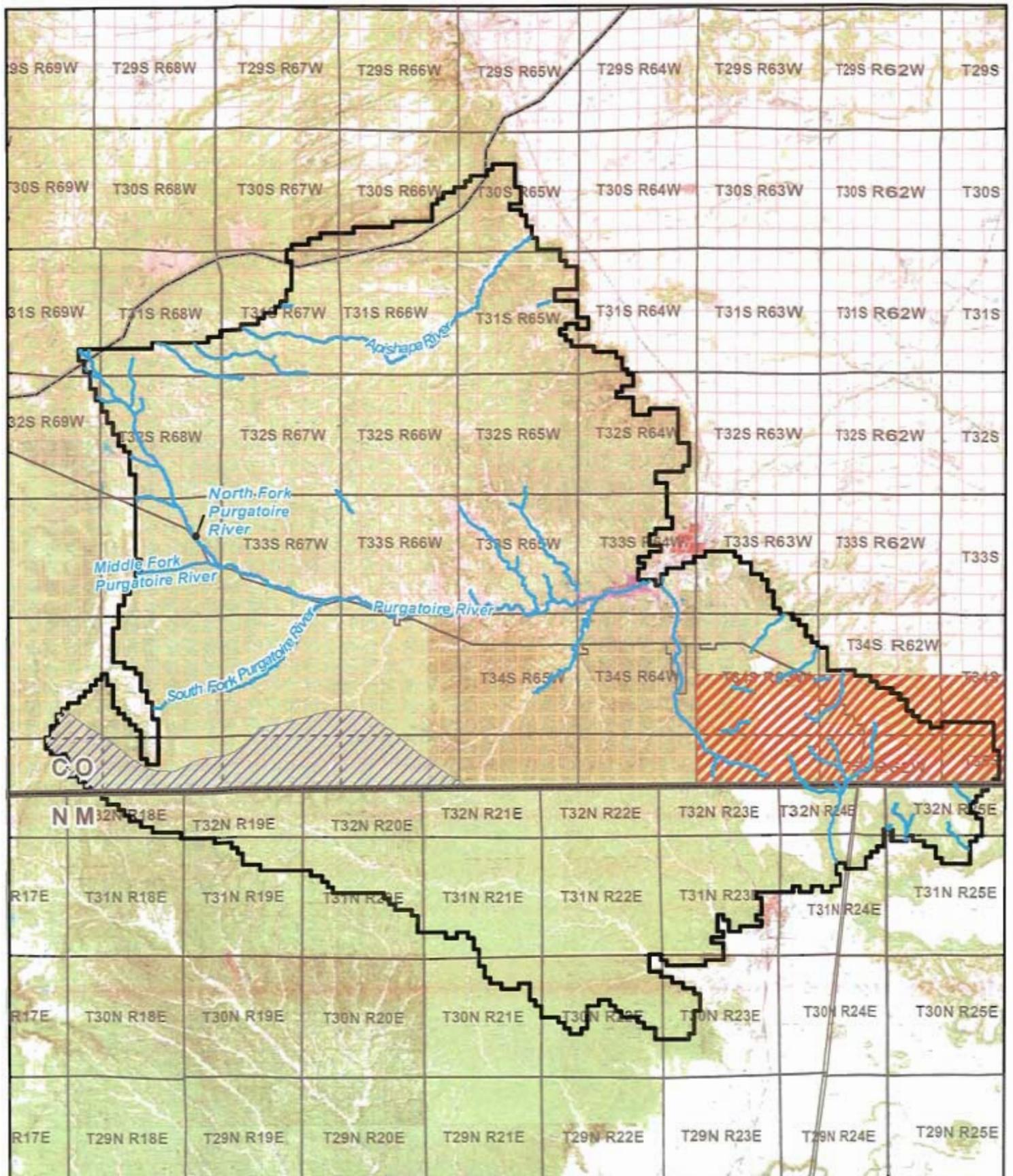
**CERTIFICATE OF SERVICE**

I hereby certify that three copies of this **STIPULATION AND AGREEMENT BETWEEN PURGATOIRE RIVER WATER CONSERVANCY DISTRICT, SOUTHEASTERN COLORADO WATER CONSERVANCY DISTRICT, AND PETITIONERS** will be submitted on the 9th day of March, 2010 by delivery to the following address:

Office of the State Engineer  
Central Raton Basin Produced Ground Water Hearing  
1313 Sherman Street, Suite 818  
Denver, Colorado 80203

and was served on this 8th day of March, 2010 by electronic mail addressed to [laura.kalafus@state.co.us](mailto:laura.kalafus@state.co.us), [casey.shpall@state.co.us](mailto:casey.shpall@state.co.us), and all parties of record.

*/s/ Christopher L. Thorne* \_\_\_\_\_



**Legend**

- NHD-designated Perennial River\*
- Raton Non-Tributary Boundary
- Model Boundary
- No nontributary claim for this area
- Counties
- Townships
- Sections
- Interpreted Sections\*

\* Interpreted Townships & Ranges and Sections cover land grant areas that lack PLSS.

N

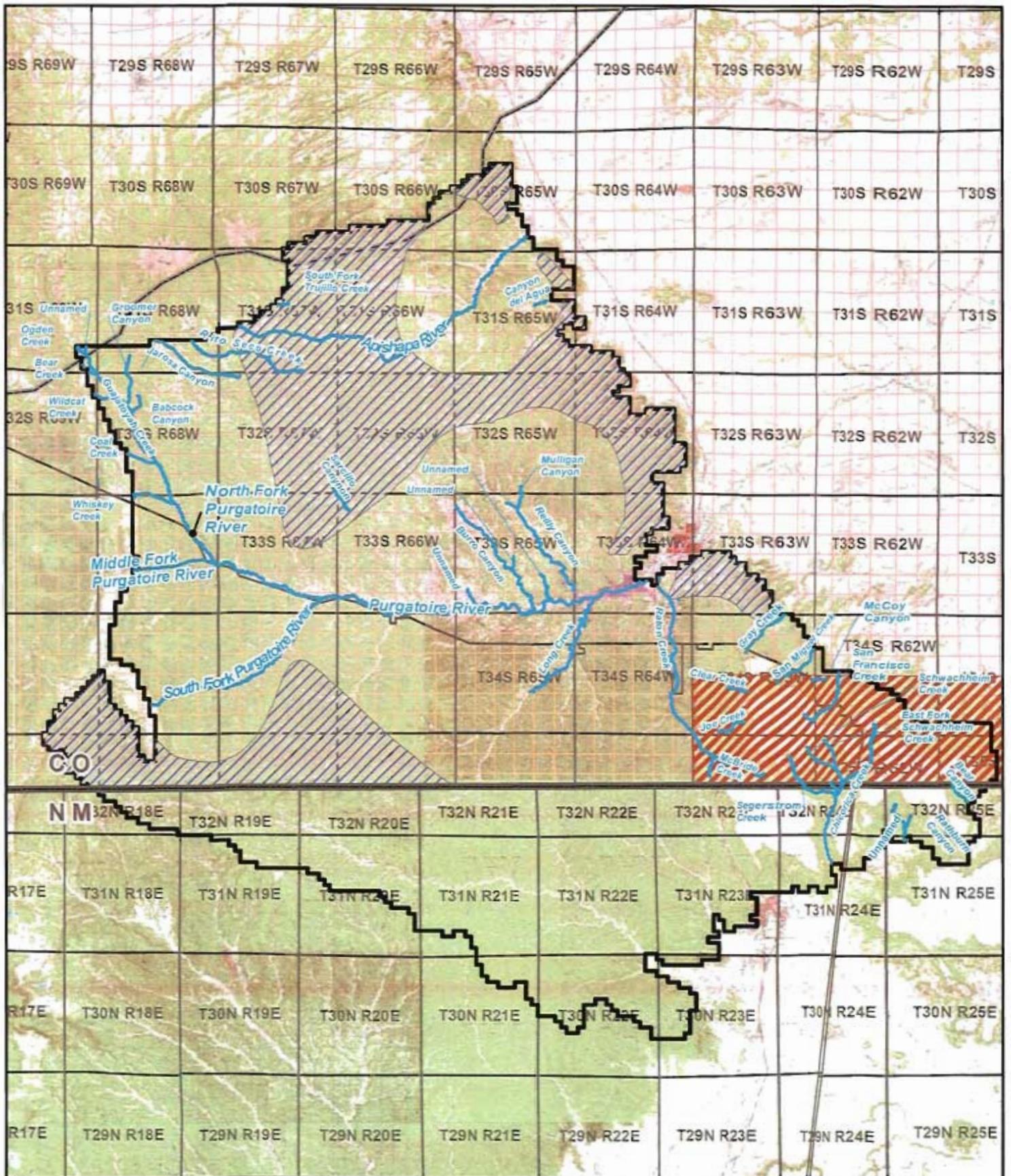
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**FIGURE 8-1** (Revised - March 8, 2010)

**CRB Raton Formation  
Nontributary Boundary**

**NORWEST  
CORPORATION**



**FIGURE 8-2** (Revised - March 8, 2010)

**CRB Vermejo Formation  
Nontributary Boundary**

**NORWEST**  
CORPORATION

**BEFORE THE OFFICE OF THE STATE ENGINEER  
STATE OF COLORADO**

**IN THE MATTER OF THE PETITION FOR NONTRIBUTARY )  
DETERMINATION FOR PRODUCED WATER FROM COAL BED )  
METHANE WELLS IN THE CENTRAL RATON BASIN – RATON ) 10SE02  
AND VERMEJO FORMATIONS )**

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**STIPULATION AND AGREEMENT BETWEEN THE CITY OF TRINIDAD  
AND PETITIONERS**

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Pioneer Natural Resources USA, Inc., XTO Energy Inc., El Paso E&P Company, L.P., and Red River Ranch Holdings LLP (collectively, “Petitioners”), and the City of Trinidad (“Trinidad”), by and through their undersigned counsel, hereby enter this Stipulation and Agreement (“Stipulation”), effective as of March 12, 2010. Petitioners and Trinidad may be collectively referred to hereafter as the “Parties”.

Stipulation

1. Petitioners filed a petition with the State Engineer’s Office (“SEO”) on January 8, 2010, requesting an adjudication determining that portions of the Vermejo and Raton geologic formations within the Central Raton Basin (the “Subject Formations”) from which water is produced from Petitioners’ CBM wells are nontributary under Colorado law (“Request for Adjudication”).

2. The Request for Adjudication was amended on February 17, 2010 by Petitioners to reduce the extent of the Petitioners’ nontributary claims pursuant to a stipulation with the City of Raton, New Mexico. The Request for Adjudication and the Petitioners’ nontributary claims were further amended on March 8, 2010 by Petitioners (the “Amended Claim”), pursuant to a Stipulation and Agreement entered that day among the Purgatoire River Water Conservancy District, the Southeastern Colorado Water Conservancy District, and Petitioners.

2. Trinidad timely requested and was granted party status, but has not otherwise actively participated in these proceedings.

3. The Parties agree as follows:

a. Trinidad consents to and shall not oppose the entry of a final decision or order by the State Engineer in these proceedings approving the Amended Claim and determining as nontributary the areas in the Subject Formations identified in the Amended Claim;

b. Trinidad shall not pursue any appeal of a final decision or order issued by the SEO as described in paragraph 3.a. above;

**STIPULATION AND AGREEMENT BETWEEN THE  
CITY OF TRINIDAD AND PETITIONERS,  
DATED MARCH 13, 2010 – ATTACHMENT C**

c. Trinidad shall not oppose Petitioners' February 1, 2010 Request for Substitute Water Supply Plan ("SWSP"); any amendment of that SWSP to conform to the Amended Claim; or any future SWSP filings or SWSP renewal requests by Petitioners that conform to the Amended Claim; and

d. This Stipulation does not preclude the Parties from asserting any legal or factual arguments in Case No. 10CW02 (Water Div. 2), which involves Petitioners' request for approval of a plan for augmentation, including exchanges, and the Parties expressly reserve all rights to assert any such arguments.

5. This Stipulation shall be governed by and enforced in accordance with the laws of the State of Colorado.

6. This Stipulation shall be binding on the Parties' successors and assigns.

7. The Parties shall bear their own costs and fees in this matter.

Respectfully submitted, this 12th day of March, 2010.

*/s/ Christopher L. Thorne*

\_\_\_\_\_  
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Douglas L. Abbott  
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ATTORNEYS FOR PIONEER NATURAL RESOURCES  
USA, INC.; XTO ENERGY INC.; AND EL PASO E&P  
COMPANY, L.P.

*/s/ James J. Killean*

\_\_\_\_\_  
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LLC

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Jeffrey J. Kahn

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ATTORNEYS FOR CITY OF TRINIDAD

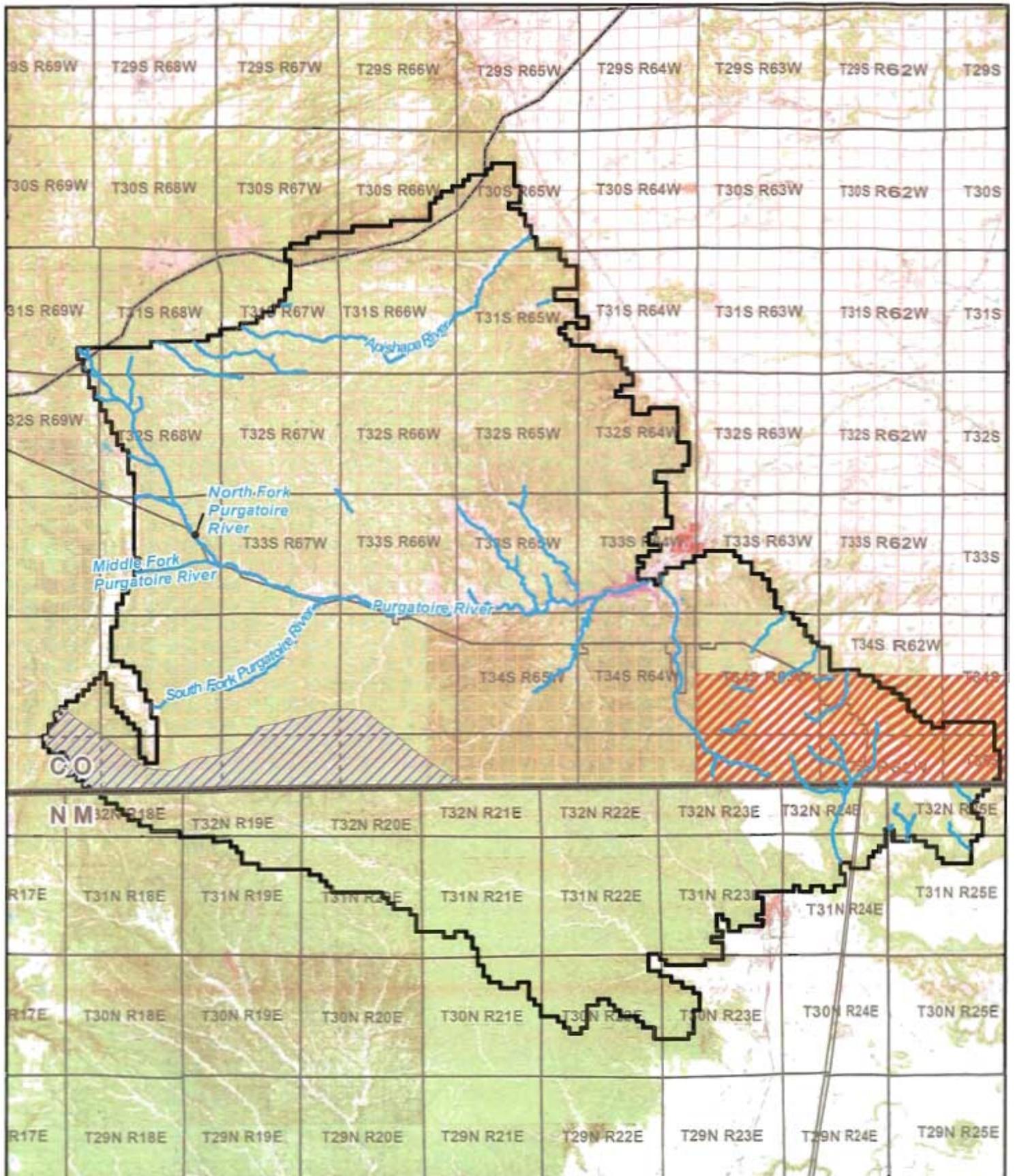
**CERTIFICATE OF SERVICE**

I hereby certify that three copies of this **STIPULATION AND AGREEMENT BETWEEN CITY OF TRINIDAD AND PETITIONERS** were be submitted on the 12th day of March, 2010 by delivery to the following address:

Office of the State Engineer  
Central Raton Basin Produced Ground Water Hearing  
1313 Sherman Street, Suite 818  
Denver, Colorado 80203

and was served on this 12th day of March, 2010 by electronic mail addressed to [laura.kalafus@state.co.us](mailto:laura.kalafus@state.co.us), [casey.shpall@state.co.us](mailto:casey.shpall@state.co.us), and all parties of record.

*/s/ Deborah F. Malandra* \_\_\_\_\_



**Legend**

- IADC-designated Perennial River\*
- Raton Non-Tributary Boundary
- Model Boundary
- No nontributary claim for this area
- Counties
- Townships
- Sections
- Interpreted Sections\*

\* Interpreted Townships & Ranges and Sections cover land grant areas that lack PLSS.

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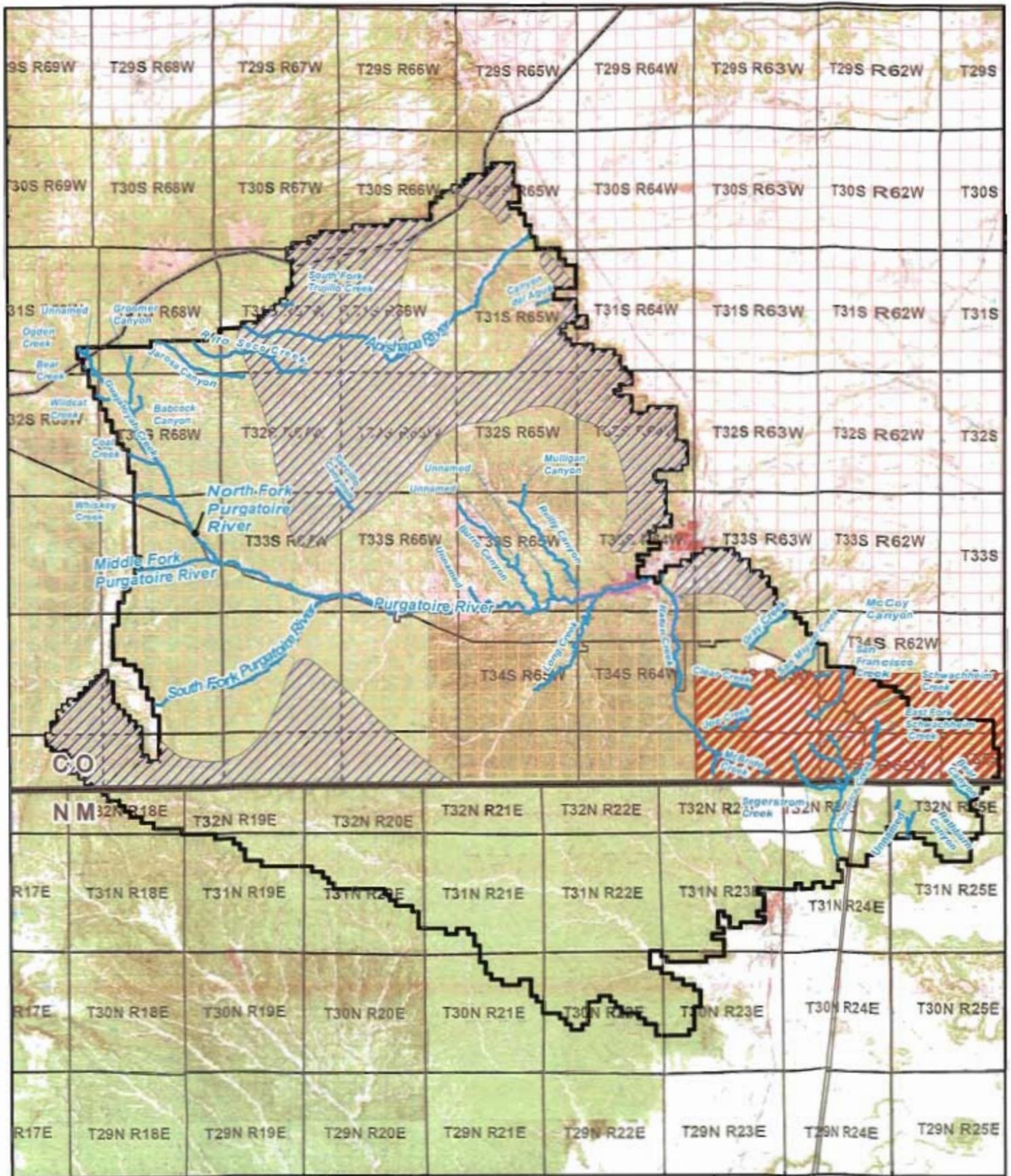
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**FIGURE 8-1** (Revised - March 8, 2010)

**CRB Raton Formation  
Nontributary Boundary**

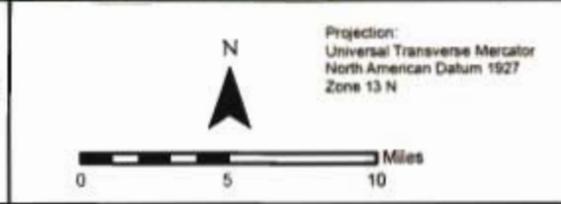
**NORWEST**  
CORPORATION



**Legend**

- NHD-designated Perennial River\*
- Vermejo Non-Tributary Boundary
- Model Boundary
- No Nontributary claim for this area
- Countries
- Townships
- Sections
- Interpreted Sections\*

\* Interpreted Townships & Ranges and Sections cover land grant areas that lack PLSS



**FIGURE 8-2** (Revised - March 8, 2010)  
**CRB Vermejo Formation Nontributary Boundary**  
**NORWEST CORPORATION**