
REPUBLICAN RIVER COMPACT ARBITRATION

**Pursuant to Section VII,
Final Settlement Stipulation
(December 15, 2002)**



N-CORPE AUGMENTATION PLAN



BEFORE MR. JEFFREY C. FEREDAY, ARBITRATOR



**DIRECT TESTIMONY OF DR. JASPER E. FANNING RE: N-CORPE
AUGMENTATION PLAN**



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1 **1. Q: Please state your name and current position for the record.**

2 A: Dr. Jasper E. Fanning. I am the Manager of the Upper Republican Natural Resources
3 District, which is a member agency of the Nebraska Cooperative Republican Platte
4 Enhancement Project (“N-CORPE”).

5 **2. Q: Please describe your education, training, and experience as it relates to water
6 management.**

7 A: That all remains as stated in my Direct Testimony as filed in the Rock Creek
8 Arbitration before Arbitrator Jeffrey C. Fereday. J100:WSY/RC N20000.

9 **3. Q: What is the purpose of your Direct Testimony today?**

10 A: The purpose of my testimony is to provide background on the development of the
11 N-CORPE Project.

12 **4. Q: First, what is N-CORPE?**

13 A: N-CORPE is an inter-local agency formed pursuant to NEB. REV. STAT. §§ 13-801 *et*
14 *seq.*, in the fall of 2012 by four Natural Resources Districts (“NRD”): Twin Platte NRD,
15 Upper Republican NRD, Middle Republican NRD, and Lower Republican NRD. A copy
16 of the organizational document is marked as N30001. N-CORPE is now responsible for
17 operating the N-CORPE Project.

18 **5. Q: What is the N-CORPE Project?**

19 A: The N-CORPE Project is designed to pump up to 60,000 acre-feet of water annually
20 for Compact compliance purposes in the Republican River Basin, and to support
21 management goals in the Platte River Basin. The total project area is 19,500 acres and is
22 located between the Platte and Republican Rivers. It includes about 15,800 previously
23 certified irrigated acres, nearly all of which have been or will be retired. A map is
24 included at Exhibit N30021. Approximately 30 augmentation wells will be utilized for

1 the Project, with the balance (over 80 wells) retired permanently. The lands that were
2 previously cropped will be seeded back to native grasses. Water pumped from the new
3 augmentation wells will be delivered by means of two separate pipelines: one that
4 currently spans the approximately six miles from the wells to the discharge location
5 directly into Medicine Creek (a tributary of the Republican River), and the other (yet to
6 be designed) to carry water north to the South Platte River.

7 **6. Q: Why is Twin Platte NRD involved in the N-CORPE Project?**

8 **A:** We aren't the only ones progressively managing our hydrologically connected water
9 supplies. Twin Platte NRD has a desire to increase stream flows in the Platte River to
10 help meet goals and objectives related to the Platte River Recovery Implementation Plan.
11 I am only generally familiar with that program, but I know the water could be used to
12 offset depletions that result from water uses along the Platte River system.

13 **7. Q: How do you think the N-CORPE Project will affect the local aquifer?**

14 **A:** There is an abundant supply of groundwater underlying the N-CORPE Project. The
15 saturated thickness of the Ogallala Aquifer in the area is approximately 400-600 feet.
16 Thus, I don't think there will be much impact at all.

17 **8. Q: Does N-CORPE have the ability to finance the Project?**

18 **A:** Yes. N-CORPE sold more than \$92 million in bonds to cover the purchase. The total
19 estimated cost of the project, including land and construction costs, is an estimated \$120
20 million - \$130 million and will be paid for largely using an occupation tax on irrigation.
21 The three Republican River NRDs already impose the tax; Twin Platte NRD will begin to
22 levy an occupation tax over the next couple years.

23 **Q: When and why did you identify the N-CORPE augmentation site?**

24 **A:** With assistance from the Department of Natural Resources ("DNR"), we evaluated

1 the site using the criteria established under prior augmentation project studies and
2 determined that, in many ways, it was an ideal site for an augmentation project: The
3 saturated thickness of the underlying aquifer was substantial and yields high capacity
4 wells, it was just a few miles from a Republican tributary, and the RRCA groundwater
5 model showed relatively minor impacts on stream flow caused by groundwater pumping.
6 In addition, a parcel of this size in contiguous configuration is fairly uncommon. For this
7 reason, we formed N-CORPE and acted as quickly as possible to secure the site.

8 **9. Q: Once you acquired the land, what did you do to develop the N-CORPE Project?**

9 **A:** N-CORPE began the process of designing the augmentation infrastructure with our
10 engineers, Miller & Associates and HDR, Inc.

11 **10. Q: What was the outcome of the design process?**

12 **A:** Thirty well locations were chosen and redeveloped throughout the property, and a
13 design was selected that minimized trunk lines from the wells to the main, 42” pipeline.
14 The main pipeline takes a direct, southern route to the Medicine Creek channel where
15 water is discharged just above the area where Medicine Creek has perennial flow. All
16 pumping, transmission, and discharge information is tracked with a SCADA (supervisory
17 control and data acquisition) system, which provides us centralized control over the
18 N-CORPE Project. We will, of course, report all relevant information to DNR for
19 purposes of Compact accounting efforts during our annual reporting cycle.

20 **11. Q: Did you encounter any difficulties in project implementation?**

21 **A:** Well, with big ideas often come big challenges. It suffices to say, despite the fact our
22 decisions are all made by Members who are elected officials, a vocal minority in the
23 Basin generally loathes groundwater pumping and disagrees with the manner in which we
24 choose to comply with the Compact on their behalf. For example, a group of surface

1 water users sued in federal district court in late 2012 to stop the N-CORPE Project.

2 Some of these same entities actually appeared as witnesses for Kansas in the recent
3 litigation before Special Master William J. Kayatta in *Kansas v. Nebraska*, No. 126 Orig.
4 In their suit, they alleged violations of the Nebraska constitution, Nebraska statutes,
5 federal Reclamation law, and even the Compact itself.

6 **12. Q: What happened to that litigation?**

7 **A:** All the defendants (including the State, Upper Republican NRD, and N-CORPE)
8 immediately filed motions to dismiss the case, and it was dismissed last summer without
9 a hearing.

10 **13. Q: Was that the only trouble?**

11 **A:** The litigation affected the timing of our financing, but the commitment among our
12 members was strong enough to successfully navigate that challenge.

13 **Q: Was that it?**

14 **A:** No. We also experienced some technical difficulties related to high groundwater
15 levels along the pipeline route. These forced us to dewater areas of the pipeline route,
16 including the area immediately adjacent to the outfall. Downstream, we have
17 experienced problems with what I might call “floating” culverts that have a hard time
18 staying in place during installation due to high groundwater levels.

19 **14. Q: What is the total cost of the N-CORPE Project?**

20 **A:** The total cost of the Project, including land purchases, pipeline installation and well
21 field development, is approximately \$120 million. We anticipate ongoing operation
22 (including energy), maintenance, and repair costs of about \$3 million annually. In
23 addition, there is the obvious cost associated with taking irrigated acreage out of

1 production. In this case, over 100 center pivots were taken out and the corresponding
2 loss in revenue from forgone cropping impacts the local economy.

3 **15. Q: What is the purpose of the N-CORPE Project?**

4 **A:** Compact compliance in the Republican Basin and offsetting depletions in the Platte
5 Basin. It is possible, depending upon the level of cooperation provided by irrigation
6 districts and the U.S. Bureau of Reclamation, that the N-CORPE Project could be
7 operated in a non-Compact Call Year, when action isn't required for Compact
8 compliance. But under this scenario, water would be stored in a downstream reservoir
9 for release in a Compact Call Year, thus operations in a non-Compact Call year would
10 still be for compact compliance. Should storage in a non-Compact Call year not be
11 pursued for any reason, it is expected that the N-CORPE Project would only be operated
12 to provide water in Compact Call Years and as necessary during "State Based Operation"
13 Years as described in the N-CORPE Plan to avoid new net depletions.

14 **16. Q: How do the goals and objectives of N-CORPE square with those of the State?**

15 **A:** They are concurrent insofar as they relate to compliance with the Compact. The
16 Integrated Management Plans of all the Republican Basin NRDs state intent to implement
17 programs including augmentation and list augmentation as a potential management action
18 in a Compact Call Year when the State projects action is needed to maintain compliance.

19 **17. Q: Is the Project currently operational?**

20 **A:** Yes. We anticipate delivery of something on the order of 50,000 acre-feet this year.

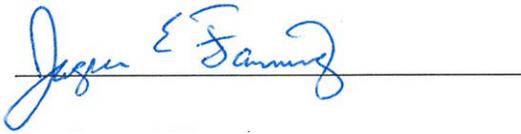
21 **18. Q: What benefits would the approval of the N-CORPE plan provide?**

22 **A:** Obvious cost savings that would result from not having to over-deliver the amount
23 necessary to offset or replace stream depletions. Also, conservation of the groundwater
24 resource itself. Kansas' refusal to approve the Plan requires N-CORPE to pump 187%

1 of the groundwater it would otherwise have to pump under the Plan. This provides
2 Kansas a windfall and creates a perverse incentive to reject the Plan. Therefore, RRCA
3 approval should eliminate the long-term sustainability issues raised by Kansas.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 24th day of February, 2014.



Dr. Jasper E. Fanning

N-CORPE AUGMENTATION PLAN

CERTIFICATE OF SERVICE

I, Justin D. Lavene, Assistant Attorney General for the State of Nebraska in the above-captioned matter, hereby certify that on February 24, 2014, I made service of the **DIRECT TESTIMONY OF DR. JASPER E. FANNING RE: N-CORPS AUGMENTATION PLAN**, by causing a paper copy and an electronic copy to be delivered by UPS Overnight Mail and/or electronic mail pursuant to Section E of the Arbitration Agreement and Paragraph 8 of the Arbitrator's Pre-Hearing Order on the following:

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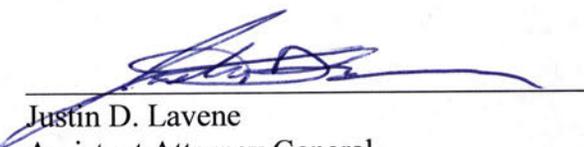
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