

NCORPE PROJECT UPDATE

The four NRDs partnering on the Nebraska Cooperative Republican Platte Enhancement augmentation project (NCORPE) project in Lincoln County are hoping to begin construction of the pipeline this year and are currently seeking financing for the project. A lawsuit filed by Bostwick Irrigation District and Frenchman Cambridge Irrigation District has prevented bonds from being issued to finance construction of the project. The participating NRDs are the Upper Republican, Lower Republican, Middle Republican and Twin Platte.

Conceptually, the project is the same as the Rock Creek augmentation project, just larger. Nearly 16,000 acres will be retired from irrigated production so that water that otherwise would have been used to irrigate crops can instead be used to increase stream flow to maintain compliance with the Republican River Compact. The project has the potential to prevent at least 100,000 irrigated acres near the Republican River and its tributaries from being shut down in dry times to maintain Compact compliance. While the cost of the project is very significant – an estimated \$120 million, including land costs and both pipelines to aid the Republican and Platte basins – it is expected to be significantly cheaper than other alternatives.

Per acre foot, the cost of the water supplied by the project will be approximately \$300-\$500. Purchasing surface water from irrigation districts can cost four or five times



that amount. The cost of an acre foot of water generated by permanently retiring irrigated acres can cost more than \$5,000. Another option to maintain compliance would be to rely on regulations applied across all irrigated acres in each of the NRDs. Doing so would require cutting current allocations by more than half. A study has not been conducted to determine the impact of such an action on private and public sector revenues, but it would likely be very substantial and exceed the cost of the project.

In the Republican Basin, the project could generate approximately 36,000 acre feet and possibly more water in a dry year. To date, the largest deficit Nebraska has had under the Compact is about 42,000 acre feet. Combined, the Rock Creek and NCORPE projects will be able to provide significantly more water than that. The water will be transported to Medicine Creek via a 48-inch pipeline connected to 30 wells on the NCORPE property. The property is located in an area with large amounts of water – the saturated thickness of the aquifer is 400-600 feet – that is largely from the Platte Basin. The wells that will be used are in an area where groundwater pumping has minimal impacts on stream flow, the stream flow depletion factors (SDF) ranging from 5% to 10%. The project will also have a pipeline that goes north to the Platte River and help Twin Platte NRD meet its obligations under state law and with the three-state Platte River Cooperative Agreement.

S.C.O.R.E. CAMP SLATED FOR JUNE IN CHASE COUNTY

S.C.O.R.E. Camp (Science Camps Offer Rewarding Experiences) will be held this summer in Chase County, making it the 15th year the camp founded by Sue Renken and Marla Smith will have been held in the area. The camp will be held June 10-14 at Chase County Schools and Champion Lake and the application deadline is June 3.

Parents are urged to apply online at www.scorecamp.com. Applications are also available at the Upper Republican NRD office. For 1st and 2nd graders, the camp will be held June 10-12. For 3rd and 4th graders, camp will be June 12-14. And 5th and 6th graders will go to camp June 11-13. The camps offer exciting programs and activities that have the potential to stimulate young scientists, inspiring them through hands-on activities in open, natural

settings. The cost of the camp is \$100 for each student; a grant from the Upper Republican NRD has helped reduce the cost for each camper.

Among the highlights of the camp this year will be an unmanned hot-air balloon launch by the Strategic Air and Space Museum and the opportunity for camp-goers to view live eagles, hawks, owls and falcons up-close. A herpetologist from the University of Nebraska-Lincoln will bring reptiles and amphibians that live in Nebraska, allowing 5th and 6th graders to explore the worlds of those animals.

S.C.O.R.E. Camp is presented by Chase County Schools Education Foundation in cooperation with Chase County Schools.

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Upper Republican Natural Resources

REPORT

"Sustainably Managing Resources for Today and Tomorrow"

May 2013

BOARD APPROVES RULES AFFECTING CARRY-FORWARD USE, BORROWING ALLOCATION

After listening and reacting to constituent concerns, the URNRD Board of Directors in early April approved rules changes meant to help the District meet groundwater pumping targets and further ensure compliance with the Republican River Compact over the long term. The new rules were approved unanimously by the board during its April 2 meeting.

The new rules establish a five year base allocation of 65 inches. Annualized, that is 13 inches a year, the same allocation as the previous five-year period. The primary changes to the rules meant to reduce water usage regard unused allocation, or "carry-forward," and borrowing allocation from the next allocation period.

Under the new rules, carry-forward from previous years is still available to irrigators and they can continue to accumulate carry-forward during the new allocation period. However, there is a limit on how much carry-forward can be used without incurring a penalty. It is the first limit on carry-forward use in the District's 34-year history of regulating groundwater use.

During the five-year allocation period, irrigators can use up to 7.5 inches of carry-forward without incurring a penalty. As always, use of carry-forward begins once an irrigator has used the entire five-year allocation of 65 inches, not the one-year annualized allocation of 13 inches. In other words, the first inch of carry-forward used is the 66th inch applied by the irrigator during the allocation period, not the 14th inch that may be used in a given year during the allocation period.

The new rule says that once more than 7.5 inches of carry-forward is used during the allocation period, an irrigator will lose an additional inch of carry-forward for every inch that is used. For instance, if 72.5 inches were used during the allocation period (7.5 inches above the 65-inch allocation), available carry-forward would be reduced at a 1-to-1 rate by the same 7.5 inches, just as the rules have operated in the past. But if 73.5 inches were used (8.5 inches above the 65-inch allocation), the available carry-forward would be reduced by a total of 9.5 inches: 7.5 inches of carry forward would be docked as usual because that was what was used, but an additional inch would be subtracted because carry forward used exceeded 7.5 inches.

Carry-forward reduced in the 2-to-1 accounting could be retroactively returned to producers. This would occur if they underused their allocation during the next allocation period. For each inch of water use below the allocation during the next

five-year allocation period, an inch of carry-forward that was lost during the current allocation period under the 2-to-1 penalty would be regained.

The Board also approved a significant change that will affect those who are out of carry-forward and allocation and "borrow" allocation from the next allocation period, which will begin in 2018. Currently, irrigators who run out of allocation in the last year of an allocation period and continue to irrigate see their allocation for the next period reduced by the same amount by which they exceeded their allocation. The Board approved a rules' change that makes the 2-to-1 accounting approved for carry-forward also apply to those who borrow allocation from the next allocation period. Except in the case of borrowing allocation, the 2-to-1 accounting will begin as soon as his/her allocation is exceeded during the current allocation period. For example, if an irrigator without carry-forward in the last year of the allocation period uses 66 inches over the next five years – 1 inch more than the 65-inch allocation – the allocation for the subsequent period would be reduced by a total of 2 inches instead of one.

That change is expected to significantly reduce water use in the District and encourage irrigators to improve their water-use planning over the allocation period.

The last significant changes the Board made to the rules regard pooling. The first change will make rules on how much carry-forward can be brought into a pool by a tract mirror rules on how much carry-forward can be moved in an irrigated-acres transfer. The new rule says that the amount of carry-forward any tract can add to a pool is limited to three years of allocation, or 39 inches for the current allocation period. Previously, there was no limit. If you wish to pool tracts of ground that are not currently pooled, irrigators have until May 6 to do so without the 39-inch allocation.

The other change in the pooling regulations approved by the Board says the allocation granted to all tracts in a pool shall be averaged across each floating township or township of the pool. A pool with multiple townships or floating townships will be considered separate pools, and a pool with multiple floating townships may be averaged across all tracts at the request of landowners on or by July 1, 2013.

If you have any questions about the new rules, feel free to contact URNRD staff at 308-882-5173 or stop by the office.



PROJECTS INTENDED TO PREVENT SUDDEN SHUTDOWNS NEAR RIVER

Now that we are in the midst of a drought and a Compact Call Year that requires the State and NRDs to take action to maintain compliance with the Republican River Compact, it's useful to ask some "what if" questions to understand the intent of District projects. The main question

is this: What if our District lacked the Rock Creek Augmentation Project and had to rely solely on regulations to maintain Compact compliance?

Answer: Wells would be shut off on about 23,000 acres near the Republican River and tributaries this year. Those acres comprise the Rapid Response Area in our District where at least 10% of the amount of groundwater pumped over a two year period would have otherwise resulted in stream flow.

Shutting down that number of acres in our District would undoubtedly be a painful, expensive experience for all involved. And the reality is a shutdown of that magnitude wouldn't generate the amount of stream flow the State projects our District will need this year. The State estimates that having a 0-inch allocation on those Rapid Response acres would generate about 3,200 acre feet of water in our District. We need 10,680 acre feet this year. Lacking an augmentation project, that gap could have required irrigation shutdowns on significantly more acres than what are in the Rapid Response Area and even more regulation of surface water users. While the NRD does not administer or regulate surface water users, the augmentation project makes up the projected shortfall of noncompliance, which is intended to result in the State regulating surface water to pass the volume of water the NRDs are providing for

compliance and not have to regulate surface users to make up for any volume that regulating groundwater would not provide.

The Rock Creek Augmentation Project, paid for by the occupation tax in our District, is now operating at full capacity and has been operating at least half capacity since Feb. 18. The project will generate the 10,680 acre feet needed without requiring any shut downs or reductions of allocations in the Rapid Response Area.

There have been some questions about the effect the pumping will have on the aquifer in the area and Rock Creek itself. It's important to note that the project will not be operated in some years. On average, the amount of water pumped under the project will, at most, not be significantly different than what otherwise would have been pumped had the land remained in irrigated production. We are also required to offset any additional depletion to Rock Creek stream flow that using the project may have. The District is meeting these requirements, in part, with its most recent land purchase. In essence, the project helps the District avoid severe and unnecessary shutdowns and allows water-use reductions to be made more gradually, over time.

Recently, there has been some talk in the Nebraska Legislature about what is being done in the Republican Basin to ensure that water users are treated fairly as the State and NRDs work to maintain Compact compliance. As they discuss issues of equity, I'd hope they consider asking some "what if" questions. Chief among them: What if all Southwest Nebraskans who have paid millions of dollars in occupation taxes in recent years to maintain compliance with the Compact were required to completely forgo their use of water even though projects funded by the occupation tax prevented the need for such a shutdown.

ROCK CREEK PROJECT HELPING DISTRICT, STATE MAINTAIN COMPLIANCE

The Rock Creek Augmentation Project initiated by the Upper Republican NRD is operating at nearly maximum capacity to help the District and State of Nebraska maintain Republican River Compact Compliance. The District also recently purchased approximately 1,900 acres for \$8.25 million near the original project site and will retire the ground from irrigation. Doing so provides the water-use offset needed to operate the Rock Creek project at full capacity this year.

Had the project not been operational this year, the District likely would have been forced to severely reduce or even prohibit groundwater irrigation on at least 22,300 acres close to the Republican River and its tributaries throughout the District, the so-called "rapid response area." All of those acres are in Dundy and Chase Counties.

While preventing sudden groundwater irrigation shutdowns, it is also possible that in the future the project could help surface water users. The District is aware that the state Department of Natural Resources issued notices early this year to surface water irrigators prohibiting them from diverting water. That action was taken by the state because 2013 has been declared a Compact Call Year – essentially a year in which the state has determined that actions must be taken to maintain compliance with the Republican River Compact. The District believes it is possible that the Rock Creek project and other augmentation projects such as the NCRPE project being developed in Lincoln County could reduce the amount of time that surface water users are barred from diverting water. This could occur if the projects provide the amount of water the state projects is needed to maintain compliance during a Compact Call Year before or during the irrigation season. Unfortunately, two irrigation districts in the Republican Basin – Frenchman Cambridge Irrigation District based in Cambridge and Bostwick Irrigation District based in Red Cloud – have sued to stop the Rock Creek and NCRPE projects. The URNRD believes that action is very counterproductive to surface water irrigators throughout the Basin. Currently, nine wells at the Rock Creek project site in Dundy County are pumping water into Rock Creek, a tributary of the Republican River. The United States Geological Survey operates a stream gauge at Parks and recent readings from the gauge show flows of approximately 30-34 cubic feet per second. Flows before the NRD began operating the project were about 7 cfs. Engineers have determined that Rock Creek has plenty of capacity to handle the additional flows.

"We're very pleased that the project is operating as we expected and such a large percentage of the water we are providing is already reaching the Republican River," said Jasper Fanning, general manager of the Upper Republican NRD. "It will help both groundwater and surface water users throughout the Republican Basin without creating additional demands on the Ogallala Aquifer that is so vital to the future of this region."

The state projected that the District would have to generate



The above photo shows water being discharged into Rock Creek by the pipeline recently completed in Dundy County. Water began being discharged into Rock Creek in mid February.

approximately 10,700 acre feet of stream flow in 2014 to maintain compliance with the Compact. Under the Compact, Nebraska is credited with 69% of the water in the Rock Creek basin, meaning that the project will likely have to be operated all year to meet the 10,700 acre foot target. Nebraska and the District would get 100% credit for the water provided under the project if it was formally approved by the Republican River Compact Administration (RRCA). It is comprised of representatives from Kansas, Colorado and Nebraska. But during a recent RRCA meeting, Kansas voted against the project. Colorado voted for it, but for motions to be approved in the RRCA there must be unanimous support. During the meeting, Kansas officials didn't state why they voted against the project. Nebraska and the State are still hopeful they can get 100% credit for the water through legal processes.

The project was made possible by the Upper Republican's purchase in early 2011 of 3,260 irrigated acres located several miles north of Parks near what used to be the headwaters of Rock Creek. By retiring the land from irrigated production, the NRD is able to use water that otherwise would have been irrigated on and consumed by crops to increase stream flows. Ten wells on the property are plumbed together and connected to a main, 24-inch pipeline that is approximately seven miles long. The end of the pipeline is located a little more than a mile north of the Rock Creek Fish Hatchery, an important hatchery to the State of Nebraska. It contributes to the production of nearly half of the trout stocked throughout Nebraska.

If you have questions about the Rock Creek project, contact the Upper Republican NRD at 308-882-5173.

COST SHARE FOR WATER-SAVING MOISTURE PROBES OFFERED

Farmers interested in using soil-moisture probes during the upcoming irrigation season can now apply for cost-share under a program administered by the Upper Republican NRD.

The program is possible because of a new grant the NRD received this year from the Nebraska Environmental Trust to provide cost share on soil-moisture probes. A grant received last year from the Bureau of Reclamation WaterSMART Water and Energy Efficiency Program will also help fund the program.

The Nebraska Legislature created the Nebraska Environmental Trust in 1992. Using revenue from the Nebraska Lottery, the Trust has provided more than \$195 million in grants to more than 1,500 projects in the state. The Trust works to preserve, protect and restore natural resources for future generations.

Under the program, farmers can be reimbursed for up to 2/3 of the costs of soil-moisture probes used in 2013. Reimbursement will be capped at \$3,000 per probe that is purchased, and \$1,500 per probe that is leased.



The Nebraska
Environmental Trust

preserving NATURAL NEBRASKA™ for future generations

There was strong interest in a similar program last year. To increase the number of people that are exposed to use of the probes using the funds, enrollees in this year's program must not be signed up for the program launched by the NRD last year or receiving cost share for probes under Natural Resources Conservation Services Programs.

Reimbursement under the new program will be limited to two probes per person for 2013. There are no restrictions on what types of soil-moisture probes can be used. The probes must be used within the Upper Republican NRD.

The NRD is now taking applications for the program. Application forms are available on the NRD website at www.urnrd.org or can be picked up at the NRD office at 511 East Fifth St. in Imperial. Completed forms can be dropped off at the office, mailed to the office at Upper Republican NRD, PO Box 1140, Imperial, NE 69033, scanned and emailed to natejenkins@urnrd.org, or faxed to 308-882-4521.

JULY 1 DEADLINE TO AVERAGE ALLOCATIONS IN POOLS WITH MULTIPLE TOWNSHIPS

Irrigators with pools that include multiple townships or floating townships have until July 1 to request that the allocations associated with tracts in those pools be set at the pool average. The deadline has been set because of a rules' change approved by the Board in April.

Because of the change, pools with multiple townships or floating townships will be considered separate pools. The

pool boundaries will be drawn along township or floating township lines. Another consequence of the rules' change is that allocations of tracts within existing pools that don't include multiple townships or floating townships will automatically be set at the pool average. In other words, all tracts of ground in those pools will have the same allocation as the pool average.

ACE CAMP FOR KIDS COMING SOON: NRD OFFERS SCHOLARSHIPS

Sixth, seventh and eighth graders can sign up now for the fourth annual Adventure Camp about the Environment (ACE). ACE is for middle school students who have completed sixth, seventh or eighth grades in the 2012-2013 school year and are interested in having fun and learning about Nebraska Natural Resources. ACE is hosted at the State 4-H Youth Camp near Halsey, June 16th-19th and is organized by Nebraska's Natural Resources Districts and the Nebraska Association of Resources Districts (NARD).

The four-day adventure camp focuses on water resources, soil and land, forestry, range and grassland, wind energy and wildlife, while educating campers through hands-on activities on the importance of protecting our natural resources. During ACE, campers have the opportunity to roll up their sleeves and dig into nature and form a new understanding of the environment through

interactive participation.

Campers also will learn about possible careers in the area of natural resources from the professionals who work there every day. This is a great opportunity for youth to learn about natural resources through hands-on activities with experts who are excited about natural resources.

Fees and registration are \$190.00 dollars per camper. The Upper Republican NRD is offering a total of six scholarships to sixth, seventh and eighth graders in Perkins, Chase and Dundy counties. The scholarships are \$95 apiece and applications can be picked up at schools in those counties or the NRD office at 511 E. Fifth St. in Imperial. The application deadline is May 25.

To find out more information about ACE or to get a copy of a registration form and scholarship application contact the Upper Republican NRD.