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## Platte River Policy Preferences

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# Cornhusker Economics

## Cooperative Extension

Institute of Agriculture & Natural Resources  
Department of Agricultural Economics  
University of Nebraska – Lincoln

### Platte River Policy Preferences

Market Report	Yr Ago	4 Wks Ago	8/17/01
<b><u>Livestock and Products,</u></b>			
<b><u>Average Prices for Week Ending</u></b>			
Slaughter Steers, Ch. 204, 1100-1300 lb Omaha, cwt	\$65.33	\$72.31	\$70.79
Feeder Steers, Med. Frame, 600-650 lb Dodge City, KS, cwt	84.00	96.53	99.00
Feeder Steers, Med. Frame 600-650 lb, Nebraska Auction Wght. Avg	105.92	108.67	107.79
Carcass Price, Ch. 1-3, 550-700 lb Cent. US, Equiv. Index Value, cwt	101.41	111.99	108.65
Hogs, US 1-2, 220-230 lb Sioux Falls, SD, cwt	44.50	49.50	50.75
Feeder Pigs, US 1-2, 40-45 lb Sioux Falls, SD, hd	*	36.00	*
Vacuum Packed Pork Loins, Wholesale, 13-19 lb, 1/4" Trim, Cent. US, cwt	120.70	125.30	124.30
Slaughter Lambs, Ch. & Pr., 115-125 lb Sioux Falls, SD, cwt	*	58.70	43.00
Carcass Lambs, Ch. & Pr., 1-4, 55-65 lb FOB Midwest, cwt	168.00	162.58	135.21
<b><u>Crops,</u></b>			
<b><u>Cash Truck Prices for Date Shown</u></b>			
Wheat, No. 1, H.W. Omaha, bu	2.82	3.15	3.00
Corn, No. 2, Yellow Omaha, bu	1.47	1.77	1.86
Soybeans, No. 1, Yellow Omaha, bu	4.36	4.68	5.03
Grain Sorghum, No. 2, Yellow Kansas City, cwt	2.75	3.50	3.63
Oats, No. 2, Heavy **Minneapolis, MN, bu	1.18	*	1.50
<b><u>Hay,</u></b>			
<b><u>First Day of Week Pile Prices</u></b>			
Alfalfa, Sm. Square, RFV 150 or better Platte Valley, ton	115.00	102.50	102.50
Alfalfa, Lg. Round, Good Northeast Nebraska, ton	77.50	75.00	67.50
Prairie, Sm. Square, Good Northeast Nebraska, ton	77.50	105.00	105.00
* No market.			
** The Sioux City portion of the report has been discontinued - we will be getting oat prices from Minneapolis, MN.			

The Platte River system consists of the North Platte and South Platte Rivers. The North Platte begins in North Central Colorado, passes through South Central Wyoming, crosses all of Nebraska and joins the Missouri River at Omaha, Nebraska. The South Platte begins in East Central Colorado and joins the North Platte River at North Platte, Nebraska. The Platte system provides irrigation water to over one million acres, supplies 300 MW of hydroelectric power, supports in excess of two million visitor days of recreation each year and provides critical habitat for fish and wildlife. The reach of the Platte River between Lexington and Grand Island, Nebraska, which is often called the Middle Platte or the Big Bend Reach, is especially critical ecologically. It provides critical habitat for several protected species, including the Interior Least Tern, Piping Plover and Whooping Crane. The Middle Platte also serves as a migration staging area for thousands of Sandhill Cranes, and each year is the site of an internationally acclaimed bird watching spectacle.

The central resource management problem is that there is insufficient water available in the Platte system to meet all competing demands. Environmental interests in all political jurisdictions (Colorado, Wyoming, Nebraska and the U.S. Fish and Wildlife Service) want increased stream flow and management of riparian lands for endangered species protection. Upstream surface water irrigators want the right to continue irrigating and, in some instances, the right to develop additional acreage. Downstream surface water irrigators want their water supply protected against additional depletions from upstream irrigation or from environmental demands. Most groundwater irrigators want the right to pump at will, irrespective of stream flow considerations. Hydropower interests want high reservoirs to maximize feet of head and would like to make reservoir releases during the summer months when electricity is worth the most. Coal fired electric utilities want assured



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cooling water supplies and expansion opportunities. Finally, recreation interests have mixed demands, including moderate reservoir storage levels, stream flows which sustain fishing and waterfowl hunting and easy access to the river and to bird watching opportunities.

Plans for management of the Middle Platte ecosystem have been mired in controversy for over two decades. The controversy has been intractable because of competing interests, because of scientific disagreements and because the parties have been reluctant to potentially undercut their respective negotiating positions by revealing their true preferences. Significant progress was made in 1997 with the signing of the Cooperative Agreement (CA). This agreement established an interim endangered species water supply target of 140,000 acre-feet in contrast to the USFWS request for 420,000 acre-feet, but it did not establish a long-term water requirement, or where all the water was to come from and at what cost. A recent study funded by USEPA and the Agricultural Research Division, IANR explored the use of game theory as a resource management tool for addressing these policy issues.

This study defined the Middle Platte management problem in terms of two game models: Model I, which addressed who should provide and pay for environmental water; and Model II, which addressed how much water should be allocated to environmental use. Data for both models was collected in a survey of households in Colorado, Nebraska and Wyoming. Just a few of the results from this study are discussed in this article.

The study found that the most important differences of opinion regarding Middle Platte management policies existed between agricultural and environmental interest groups within each state, rather than between states. At the aggregate level, all three states preferred an adaptive management policy which minimized the reallocation of water from agriculture to environmental uses and involved a mid-range level of investment, with the costs shared equally between the federal government, the states and private environmental interests. Agricultural interests within each state, however, favored minimal investments in endangered species protection, with little if any water reallocated from agricultural to environmental uses. Environmental interests preferred a policy of meeting all endangered species needs at whatever the necessary cost, using methods which minimized the reallocation of water. Surprisingly, all interest groups preferred that a significant part of the cost be paid by private environmental interests, a policy option which is not a part of any current proposal. All interest groups were also quite receptive to the concept of adaptive management that is incorporated in the Cooperative Agreement. Adaptive management calls for making smaller, short-term changes and observing the conse-

quences, an approach to policy which is especially appropriate when needs and consequences cannot be determined with a reasonable degree of scientific certainty.

An analysis of policy preferences using three different sets of bargaining rules found that a negotiated solution is most likely to consist of an adaptive management approach that minimizes the reallocation of water, requires a modest level of investment and involves an equal sharing of the costs between federal, state and private entities.

An analysis of the impact of technical knowledge on policy preferences found that much of the disagreement between agricultural and environmental interest groups would cease to exist if both groups had technical beliefs that were similar to those held by well informed individuals. This suggests that management disputes can be significantly reduced with technical education programs.

In total, the people in all three states who have been patiently searching for ways to equitably and agreeably allocate a very limited Platte River water supply among competing uses can find some encouragement in the results of this analysis. Game model results suggest that there are solutions which all sides are likely to find acceptable. The finding that differences in interest group views may be due primarily to differences in technical beliefs rather than values is especially encouraging. Education and science can address differences in technical beliefs in a search for mutually acceptable outcomes, but value difference can only be addressed in a political or legal fight where there are inevitably losers as well as winners.

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