

Economic Impact of Reduced Irrigation in the Republican River Basin



April 20, 2007

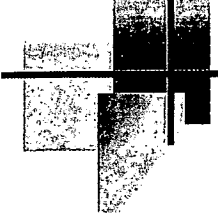
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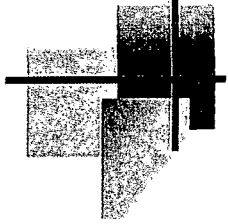
Outline

- Treat like any other regulation
- Regulations in most cases reduce economic activity
- Reduced activity in both the short-run and the long-run



Features of Study

- Based on current prices
- Examines economic impact from lost government revenue
- Partially examines the issue of forward linkages



Features of Study

- 15% reduction in upland acres, 40% reduction in quick response acres
 - Reductions from certified irrigated acres and average allocation in Supalla and Nedved (2004)
- Simple Scenario – reduction in irrigation on each irrigated acre rather than movement to dry-land production
- UNL Agricultural Economics Department - Water Optimizer software

Table 1 Annual Economic Impact Lost Crop Sales

Natural Resource Districts	Annual Loss in Crop Sales	Output	Total Annual Economic Impact		Jobs
			Value Added	Labor Income	
Lower Republican	-\$15.6M	-\$19.9M	-\$13.7M	-\$11.0M	-97
Middle Republican	-\$18.6M	-\$26.1M	-\$18.0M	-\$14.9M	-135
Upper Republican	-\$23.4M	-\$26.9M	-\$17.8M	-\$15.0M	-104
Overall Total	-\$57.6M	-\$72.9M	-\$49.5M	-\$40.9M	-336

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Table 2 Annual Economic Impact Lost Property Value & Forward Linkages

Natural Resource Districts	Lost Property Value	Annual ¹ Loss of Tax Revenue	Total Annual Economic Impact			
			Output	Value Added	Labor Income	Jobs
Lower Republican	-\$82.1M	-\$1.1M	-\$2.9M	-\$2.3M	-\$1.6M	-57
Middle Republican	-\$93.1M	-\$1.2M	-\$3.2M	-\$2.5M	-\$1.8M	-53
Upper Republican	-\$102.3M	-\$1.3M	-\$2.5M	-\$2.1M	-\$1.6M	-57
Overall Total	-\$277.5M	-\$3.6M	-\$8.6M	-\$6.9M	-\$5.0M	-167

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Table 3 Overall Annual Economic Impact

Natural Resource Districts	Overall Annual Economic Impact			
	Output	Value Added	Labor Income	Jobs
Lower Republican	-\$22.9M	-\$16.0M	-\$12.6M	-154
Middle Republican	-\$29.3M	-\$20.5M	-\$16.6M	-188
Upper Republican	-\$29.4M	-\$19.9M	-\$16.6M	-161
Overall Total	-\$81.6M	-\$56.4M	-\$45.8M	-503

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Table 4 Annual Impact Upper Republican NRD versus Hypothetical Omaha Example

Economic Measure	Percent Loss in	Percent Loss in
	Upper Republican Economy with 15%/40% Regulation	Douglas County Economy 50% Loss in Insurance Carriers
Output	3.5%	5.5%
Value-Added	4.8%	4.8%
Labor Income	7.4%	4.6%
<u>Employment</u>	<u>2.5%</u>	<u>4.3%</u>

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