Appendix

A.1 The Consequence of the Declining Block Rate Pricing Structure for Colorado

Table A.1: The magnitude of potential bias when the endogeneity due to the declining block structure is untreated

	Model 1	Model 2	Model 3	Model 4
Pumping costs	-44.65***	-54.19***	-34.85***	-51.72***
	(6.05)	(3.98)	(5.70)	(3.85)
Pumping costs (squared)	3.36***	2.76***	2.97***	2.65***
	(0.58)	(0.41)	(0.55)	(0.40)
Well yield (WY)			0.15***	0.10***
			(0.03)	(0.02)
Precipitation (P)	-1.69**	-1.23*	-1.69**	-1.32*
	(0.66)	(0.68)	(0.66)	(0.68)
Evapotranspiration	-1.84	-0.80	-1.82	-0.97
	(1.76)	(1.73)	(1.73)	(1.73)
Growing Degree Days	0.26***	0.16*	0.22***	0.09
	(0.08)	(0.08)	(0.08)	(0.08)
Year FEs included?	Yes	Yes	Yes	Yes
Well-hp-price tier FEs included?	Yes	No	Yes	No
Well FEs included?	No	Yes	No	Yes
Num.Obs.	5916	5916	5916	5916
R2 Adj.	0.868	0.846	0.873	0.849

(Standard errors are clustered at the well level)
* p < 0.1, ** p < 0.05, *** p < 0.01

Table A.1 compares regression results using either well FE or well-hp-price tier FE. While well-hp-price tier FE avoids bias from spurious negative correlation between water use and marginal price due to DBR, well FE does not. Comparing columns 1 (with well-hp-price tier FE) and 2 (with well FE) indicate a significant negative bias due to the DBR structure. Columns 3 and 4 present regression results when well yield is included to the models presented in columns 1 and 2, respectively. The results presented in Column 3 are the main results reported in the paper. Comparing columns 2 and 4 shows that the variation in pumping costs generated by the DBR structure dominates the overall variation in pumping costs and that the inclusion of well yield does not help alleviate the bias.

A.2 Additional Figure

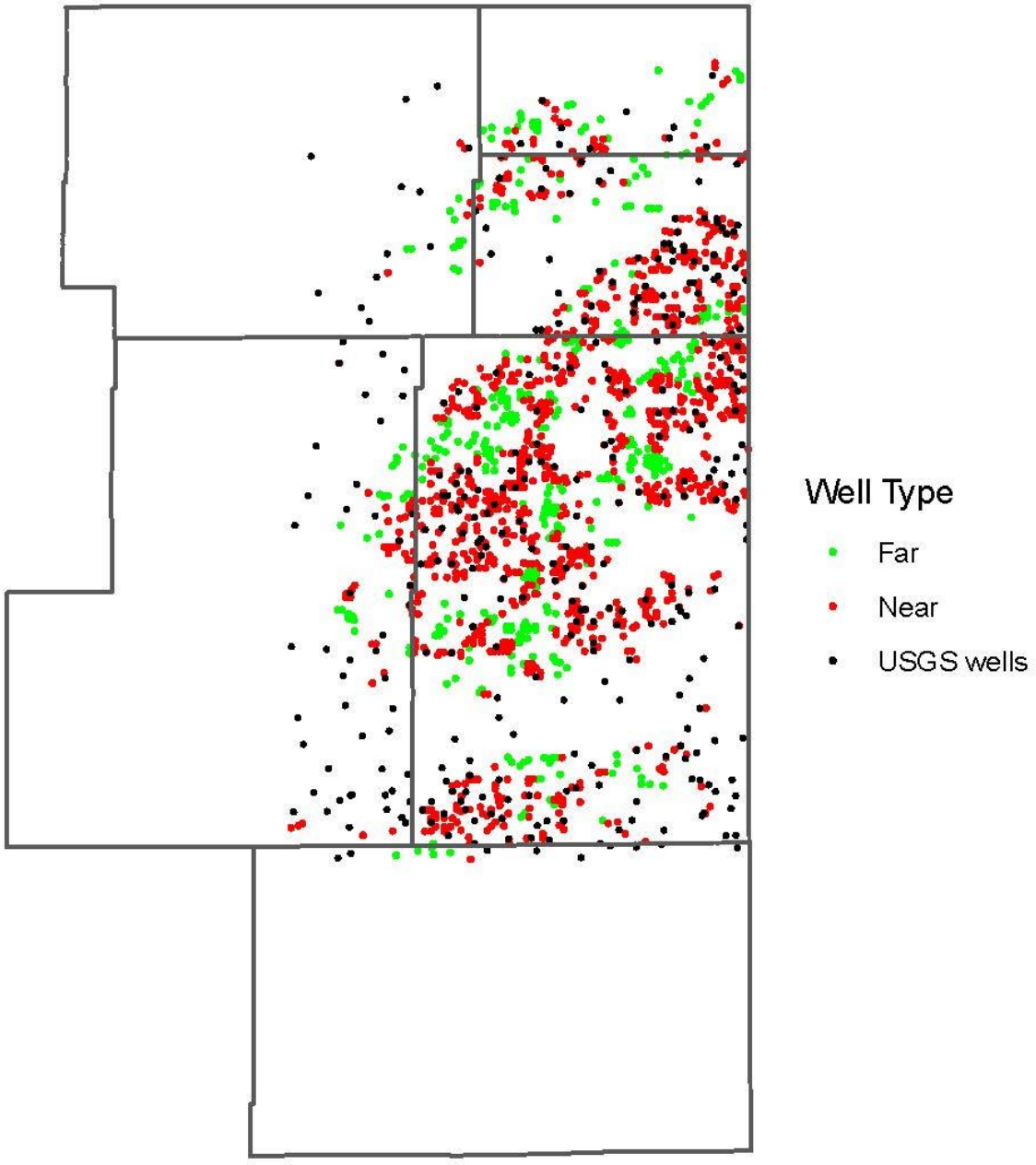

Figure A.1: Irrigation wells that are near and far from USGS monitoring wells