

Supplementary Material

Investigating the micro-level dynamics of water reuse adoption by farmers and the impacts on local water resources using an agent-based model

**Table S1:** Level of parameters used in the water reuse adoption sub-model (source: Suri et al., 2019)

Parameter	Age	Concern	Knowledge	Education	Race	
Levels	18-29	Yes	Very	Doctorate	American-Indian	
	30-49	Somewhat	Somewhat	Graduate degree	Asian	
	50-69	No	A little	Some college	Black/African-American	
	70-89			No	4-year degree	Native American
				2-year degree	White	
				High school graduate	Prefer-not-to-answer	
Less than high school						
Parameter	Sex	Importance	Attitude	Access		
Levels	Female	Very	Positive	Yes		
	Male	Moderately	Negative	I do not know		
		Not		No		

**Table S2:** Demographics of agents (farmers in the Southwest, U.S.), based on Suri et al., 2019.

Parameter	Age	Knowledge
Levels (n (%))	18-29 (31.2)	Very (11.7)
	30-49 (36.5)	Somewhat (40.7)
	50-69 (27.7)	A little (36.9)
	70-89 (4.6)	No (10.7)
Parameter	Sex	Access
Levels (n (%))	Female (33.7)	Yes (20.9)
	Male (66.3)	I do not know (18.1)
		No (61)
Parameter	Education	Race
Levels (n (%))	Doctorate (1.2)	American Indian / Alaskan Native (2.8)
	Graduate degree (17.8)	Asian (includes India and the Middle East) (4.5)
	Some college (24.7)	Black/African-American (3.4)
	4-year degree (38.5)	White (73.4)
	2-year degree (8)	Prefer not to answer (15.9)
	High school graduate (8)	
	Less than high school (1.2)	
	Prefer not to answer (0.6)	

**Table S3:** Discrete probabilities distributions used in determining agents’ concerns about water reuse, based on Suri et al., 2019.

Concern	Yes	No	Somewhat	Total
Age:18-29	60.4%	18.9%	20.7%	100%
Age:30-49	62.9%	11.3%	25.8%	100%
Age:50-69	83%	10.6%	6.4%	100%
Age:70-69	75%	25%	0%	100%

**Table S4:** Discrete probabilities distributions used in determining agents’ importance of water reuse, based on Suri et al., 2019.

Importance	Very important	Moderately important	Not important	Not answered	Total
Concern: Yes	51.2%	38.8%	10%	0%	100%
Concern: No	22.2%	48.1%	25.9%	3.8%	100%
Concern: Somewhat	40.6%	46.9%	12.5%	0%	100%
Knowledge: Very	32.4%	16.2%	5.4%	46%	100%
Knowledge: Somewhat	33.3%	21.7%	7%	38%	100%
Knowledge: A little	17.1%	24.8%	6.8%	51.3%	100%
Knowledge: No	17.6%	35.3%	11.8%	35.3%	100%
Access: Yes	70.3%	29.7%	0%	0%	100%
Access: No	39.8%	43.5%	16.7%	0%	100%
Access: I don’t know	34.4%	53.1%	12.5%	0%	100%
Education: Less than high school	0%	100%	0%	0%	100%
Education: High school graduate	42.9%	35.7%	21.4%	0%	100%
Education: 2-year degree	57.1%	35.7%	7.2%	0%	100%
Education: 4-year degree	38.8%	44.8%	14.9%	1.5%	100%
Education: Some college	39.5%	53.5%	7%	0%	100%
Education: Graduate degree	61.3%	25.8%	12.9%	0%	100%
Education: Doctorate	100%	0%	0%	0%	100%
Education: Prefer not to answer	0%	0%	100%	0%	100%

**Table S5:** Discrete probabilities distributions used in determining agents’ attitude toward water reuse, based on Suri et al., 2019.

Attitude	Yes	No	Not answered	Total
Importance: Very important	74.1%	4.9%	21%	100%
Importance: Moderately important	54.7%	13.3%	32%	100%
Importance: Not important	52.2%	13%	35%	100%
Race: American Indian / Alaskan Native	60%	40%	0%	100%
Race: Asian (includes India and Middle East)	62.5%	37.5%	0%	100%
Race: Black/African-American	66.7%	16.7%	16.6%	100%
Race: White	65.1%	7.8%	27.1%	100%
Race: prefer not to answer	57.1%	3.6%	39.3%	100%
Sex: Female	56.1%	1.8%	42.1%	100%
Sex: Male	67%	13.4%	19.6%	100%

**Table S6:** Design Table for sensitivity analysis in this study (randomized).

Run	Blk	A	B	C	D	E	F	G
1	1	-	-	+	-	+	+	+
2	1	-	+	-	+	+	-	+
3	1	+	+	-	+	-	-	-
4	1	-	+	+	+	-	+	-
5	1	+	-	+	-	-	+	-
6	1	+	-	+	+	-	-	+
7	1	-	+	+	-	-	-	+
8	1	+	-	-	-	+	-	+
9	1	0	0	0	0	0	+	+
10	1	0	0	0	0	0	+	-
11	1	+	+	+	+	+	+	+
12	1	-	-	-	+	-	+	+
13	1	-	-	-	-	-	-	-
14	1	-	+	-	-	+	+	-
15	1	0	0	0	0	0	-	+
16	1	0	0	0	0	0	-	-
17	1	+	+	-	-	-	+	+
18	1	-	-	+	+	+	-	-
19	1	+	+	+	-	+	-	-
20	1	+	-	-	+	+	+	-
Total		0	0	0	0	0	0	0