

APPENDIX C – FOLLOW UP ANALYSES

1.0 Follow-up Analyses on Message Treatments

To further explore variation in message effectiveness among specific use groups, we conducted follow-up analyses on message treatments that respondents considered to be most effective at encouraging Clean, Drain, Dry. Following the presentation of the message/image to respondents, respondents were asked, “In your opinion, how effective would this message be at increasing boaters’ Clean, Drain, Dry behaviors?” Responses ranged along a 5-point scale where 1=“not at all effective” through 5=“extremely effective”. Messages respondents considered most effective (with means ≥ 3.4) consisted of all four metaphor based messages, economic loss and ecological gain, and the injunctive norm message. For these messages, we examined variation by watercraft type, activity type, household income, gender, and age. Based on comparisons presented in Appendix B, most variation among specific use groups was seen within these groups. Mean variation was conducted using independent sample t-tests and ONEWAY ANOVAs.

1.1 Science-Based Metaphor

Tables 1 through 5 report the findings for the science-based metaphor. We observed little statistical variation among groups. In some instances, the lack of statistical variation can be attributed the small number of cases within the various categories. While houseboat owners considered the message most effective ($M=4.0$), only three respondents who received this message reported owning a houseboat (Table 1). Jet ski owners considered the message least effective. Alternately, among recreational activities, wake sports participants ($M=3.50$), recreational anglers ($M=3.48$), and pleasure cruisers considered the science metaphor most effective, whereas tournament anglers ($M=3.29$) considered the message least effective (Table 2). Men (Table 3, $M=3.47$) and respondents with household incomes ranging from \$80,000 to \$139,999 (M range 3.60 to 3.64) considered the message most effective whereas younger respondents (36-45 years, $M=3.04$; Table 5) considered the message least effective.



Figure 1. Science-based Metaphor Message

Table 1. The extent you feel the science metaphor message would be effective at increasing boaters Clean, Drain, Dry Behaviors by watercraft type

Watercraft Type	Yes	No	<i>t</i> (df)	<i>p</i> -value	Cohen's <i>d</i>
	n M (SD)	n M (SD)			
Ski or Wakeboard Boat	51 3.53 (.78)	148 3.39 (.75)	-1.11 (197)	.267	-.181
John Boat or Bass Boat	83 3.34 (.74)	116 3.49 (.77)	1.41 (197)	.160	.203
Cabin Cruiser or Center Console	27 3.48 (.64)	172 3.42 (.78)	-.40 (197)	.691	-.082
Pontoon Boat	25 3.60 (.76)	174 3.40 (.76)	-1.22 (197)	.225	-.260
Houseboat ^a	3 4.00 (.00)	196 3.42 (.76)	-10.66 (195)	<.001***	-.766
Sailboat	6 3.50 (.84)	193 3.42 (.76)	-.24 (197)	.812	-.098
Jet Ski	17 3.29 (.96)	182 3.42 (.80)	.75 (197)	.453	.191
Kayak, Canoe, or Paddleboard	62 3.44 (.67)	137 3.42 (.80)	-.10 (197)	.917	-.016
Other	37 3.38 (.79)	162 3.44 (.76)	.43 (197)	.667	.079

^aEqual variance not assumed

* $p < .05$, ** $p < .01$, *** $p < .001$

1=not at all effective through 5=extremely effective

Table 2. The extent you feel the science metaphor message would be effective at increasing boaters Clean, Drain, Dry Behaviors by activity type

Activity Type	Yes	No	<i>t</i> (df)	<i>p</i> -value	Cohen's <i>d</i>
	n M (SD)	n M (SD)			
Recreational Fishing	153 3.48 (.77)	46 3.26 (.71)	-1.70 (197)	.091	-.285
Tournament Fishing	7 3.29 (.76)	192 3.43 (.76)	.50 (197)	.618	.192
Wake Sports	50 3.46 (.79)	149 3.42 (.75)	-.35 (197)	.725	-.058
Pleasure Cruising	84 3.50 (.74)	115 3.37 (.78)	-1.16 (197)	.249	-.166
Hunting	31 3.39 (.67)	168 3.43 (.78)	.32 (197)	.751	.062
Other	12 3.08 (.79)	187 3.45 (.76)	1.62 (197)	.107	.483

* $p < .05$, ** $p < .01$, *** $p < .001$

1=not at all effective through 5=extremely effective

Table 3. The extent you feel the science metaphor message would be effective at increasing boaters Clean, Drain, Dry Behaviors by gender identification

	M	SD	n
Female	3.18	.73	17
Male	3.47	.76	176
Prefer not to answer	2.83	.75	6
Total	3.43	.76	199

$F=3.11$ (df=2, 196), $p=.047$, $\eta^2=.031$

Note: post-hoc test revealed no statistical difference between groups

1=not at all effective through 5=extremely effective

Table 4. The extent you feel the science metaphor message would be effective at increasing boaters Clean, Drain, Dry Behaviors by income

Age (years)	M	SD	n
<\$20,000	3.50	.71	2
\$20,000-\$39,999	3.57	.53	7
\$40,000-\$59,999	3.38	.65	13
\$60,000-\$79,999	3.23	.92	22
\$80,000-\$99,999	3.64	.85	22
\$100,000-\$119,999	3.61	.72	23
\$120,000-\$139,999	3.60	.63	15
\$140,000-\$159,999	3.55	.69	20
\$160,000+	3.27	.76	70
Prefer not to answer	3.60	.89	5
Total	3.43	.76	199

$F=1.03$ (df=9, 189), $p=.415$, $\eta^2=.047$

1=not at all effective through 5=extremely effective

Table 5. In your opinion, how effective would this message be at increasing boaters' Clean, Drain, Dry behaviors by age

Age (years)	M	SD	n
18-25	--	--	--
26-35	--	--	--
36-45 ^a	3.04	.66	26
46-55 ^{ab}	3.47	.88	36
56-65 ^{ab}	3.37	.75	73
66-75 ^b	3.71	.63	45
> 75 ^{ab}	3.47	.83	15
Total	3.43	.77	195

$F=3.53$ (df=4, 190), $p=.008$, $\eta^2=.069$

Note: Values not sharing the same superscript are significantly different at $p < .05$

1=Not at all effective through 5=Extremely effective

1.2 Protect Metaphor

Tables 6 through 10 report the analyses for the protective metaphor. We observed no statistically significant variation across groups. All groups considered the message moderately effective for encouraging Clean, Drain, Dry.



Figure 2. Protective Metaphor Message

Table 6. The extent you feel the protective metaphor message would be effective at increasing boaters Clean, Drain, Dry Behaviors by watercraft type

Watercraft Type	Yes	No	<i>t</i> (df)	<i>p</i> -value	Cohen's <i>d</i>
	n M (SD)	n M (SD)			
Ski or Wakeboard Boat	58 3.34 (.78)	159 3.43 (.82)	.71 (215)	.476	.110
John Boat or Bass Boat	74 3.39 (.86)	143 3.42 (.79)	.24 (215)	.812	.034
Cabin Cruiser or Center Console	28 3.36 (.91)	189 3.42 (.80)	.37 (215)	.712	.075
Pontoon Boat	19 3.47 (.90)	198 3.40 (.81)	-.36 (215)	.722	-.086
Houseboat	7 3.86 (.90)	210 3.40 (.81)	-1.48 (215)	.139	-.570
Sailboat	10 3.50 (.71)	207 3.41 (.82)	-.36 (215)	.721	-.116
Jet Ski	22 3.50 (.91)	195 3.40 (.80)	-.55 (215)	.585	-.123
Kayak, Canoe, or Paddleboard	66 3.30 (.80)	151 3.46 (.81)	1.29 (215)	.200	.190
Other	50 3.42 (.70)	167 3.41 (.84)	-.10 (215)	.922	-.016

* $p < .05$, ** $p < .01$, *** $p < .001$

1=not at all effective through 5=extremely effective

Table 7. The extent you feel the protective metaphor message would be effective at increasing boaters Clean, Drain, Dry Behaviors by activity type

Activity Type	Yes	No	<i>t</i> (df)	<i>p</i> -value	Cohen's <i>d</i>
	n M (SD)	n M (SD)			
Recreational Fishing	154 3.37 (.84)	63 3.51 (.74)	1.15 (215)	.258	.170
Tournament Fishing	10 3.30 (.67)	207 3.42 (.82)	.44 (215)	.662	.142
Wake Sports	48 3.33 (.83)	169 3.43 (.81)	.74 (215)	.459	.121
Pleasure Cruising	97 3.34 (.84)	120 3.47 (.79)	1.14 (215)	.255	.156
Hunting	27 3.26 (.76)	190 3.43 (.82)	1.03 (215)	.303	.212
Other	22 3.50 (.67)	195 3.40 (.83)	-.55 (215)	.585	.123

* $p < .05$, ** $p < .01$, *** $p < .001$

1=not at all effective through 5=extremely effective

Table 8. The extent you feel the protective metaphor message would be effective at increasing boaters Clean, Drain, Dry Behaviors by gender identification

	M	SD	n
Female	3.45	.94	20
Male	3.42	.81	189
Prefer not to answer	3.13	.64	8
Total	3.41	.81	217

$F=.52$ (df=2, 214), $p=.593$, $\eta^2=.005$

1=not at all effective through 5=extremely effective

Table 9. The extent you feel the protective metaphor message would be effective at increasing boaters Clean, Drain, Dry Behaviors by income

Age (years)	M	SD	n
<\$20,000	3.67	1.15	3
\$20,000-\$39,999	3.18	.98	11
\$40,000-\$59,999	3.56	.81	16
\$60,000-\$79,999	3.27	.92	26
\$80,000-\$99,999	3.19	.98	16
\$100,000-\$119,999	3.78	.74	23
\$120,000-\$139,999	3.48	.51	21
\$140,000-\$159,999	3.50	.76	20
\$160,000+	3.28	.83	68
Prefer not to answer	3.69	.48	13
Total	3.41	.81	217

$F=1.39$ (df=9, 207), $p=.197$, $\eta^2=.057$

1=not at all effective through 5=extremely effective

Table 10. In your opinion, how effective would this message be at increasing boaters' Clean, Drain, Dry behaviors by age

Age (years)	M	SD	n
18-25	--	--	--
26-35	3.00	.71	5
36-45	3.29	.95	24
46-55	3.38	.85	42
56-65	3.39	.80	82
66-75	3.52	.71	50
> 75	3.73	.65	11
Total	3.42	.80	214

$F=.92$ ($df=5, 208$), $p=.468$, $\eta^2=.022$

1=Not at all effective through 5=Extremely effective

1.3 Militaristic Metaphor

Tables 11 through 15 report the analyses for the militaristic metaphor. We observed little statistically significant variation across groups. While most groups considered the message moderately effective for encouraging Clean, Drain, Dry, kayak/canoe/paddleboarders (Table 11; $M=3.20$) were more likely to consider the message less effective.



Figure 3. Militaristic Metaphor Message

Table 11. The extent you feel the militaristic metaphor message would be effective at increasing boaters Clean, Drain, Dry Behaviors by watercraft type

Watercraft Type	Yes	No	<i>t</i> (df)	<i>p</i> -value	Cohen's <i>d</i>
	n M (SD)	n M (SD)			
Ski or Wakeboard Boat	50 3.52 (.76)	153 3.36 (.79)	-1.26 (201)	.211	-.205
John Boat or Bass Boat ^a	66 3.38 (.91)	137 3.34 (.72)	.23 (106.1)	.815	.038
Cabin Cruiser or Center Console	24 3.46 (.59)	179 3.39 (.81)	-.39 (201)	.695	-.085
Pontoon Boat	28 3.39 (.79)	175 3.40 (.79)	.04 (201)	.965	.009
Houseboat	8 3.63 (.52)	195 3.39 (.79)	-.83 (201)	.408	-.299
Sailboat	10 3.30 (.67)	193 3.40 (.79)	.41 (.201)	.684	.132
Jet Ski	25 3.52 (.92)	178 3.38 (.77)	-.82 (201)	.412	-.175
Kayak, Canoe, or Paddleboard	51 3.20 (.78)	152 3.47 (.78)	2.15 (201)	.033*	.348
Other	45 3.31 (.79)	158 3.42 (.78)	.85 (201)	.396	.144

^aEqual variance not assumed

p*<.05, *p*<.01, ****p*<.001

1=not at all effective through 5=extremely effective

Table 12. The extent you feel the militaristic metaphor message would be effective at increasing boaters Clean, Drain, Dry Behaviors by activity type

Activity Type	Yes	No	<i>t</i> (df)	<i>p</i> -value	Cohen's <i>d</i>
	n M (SD)	n M (SD)			
Recreational Fishing	149 3.36 (.81)	54 3.52 (.72)	1.31 (201)	.193	.208
Tournament Fishing	9 3.00 (1.12)	194 3.42 (.77)	1.56 (201)	.119	.533
Wake Sports	37 3.51 (.69)	166 3.37 (.80)	-.98 (201)	.328	-.178
Pleasure Cruising	79 3.41 (.76)	124 3.40 (.80)	-.09 (201)	.930	-.013
Hunting	15 3.20 (.86)	188 3.41 (.78)	1.02 (201)	.309	.274
Other	14 3.50 (.85)	189 3.39 (.78)	-.50 (201)	.619	-.138

p* < .05, *p* < .01, ****p* < .001

1=not at all effective through 5=extremely effective

Table 13. The extent you feel the militaristic metaphor message would be effective at increasing boaters Clean, Drain, Dry Behaviors by gender identification

	M	SD	n
Female	3.38	.82	24
Male	3.41	.78	172
Prefer not to answer	3.29	.95	7
Total	3.40	.79	203

$F=.092$ (df=2, 200), $p=.912$, $\eta^2=.001$

1=not at all effective through 5=extremely effective

Table 14. The extent you feel the militaristic metaphor message would be effective at increasing boaters Clean, Drain, Dry Behaviors by income

Age (years)	M	SD	n
<\$20,000	3.80	.84	5
\$20,000-\$39,999	3.60	.70	10
\$40,000-\$59,999	3.42	.84	19
\$60,000-\$79,999	3.54	.78	24
\$80,000-\$99,999	3.43	.66	23
\$100,000-\$119,999	3.22	.93	27
\$120,000-\$139,999	3.47	.77	19
\$140,000-\$159,999	3.73	.88	15
\$160,000+	3.23	.71	56
Prefer not to answer	3.20	.84	5
Total	3.40	.79	203

$F=1.57$ (df=9, 3890), $p=.118$, $\eta^2=.004$

1=not at all effective through 5=extremely effective

Table 15. In your opinion, how effective would this message be at increasing boaters' Clean, Drain, Dry behaviors by age

Age (years)	M	SD	n
18-25	--	--	--
26-35	2.86	.69	7
36-45	3.14	.91	21
46-55	3.49	.72	39
56-65	3.49	.82	63
66-75	3.38	.74	53
> 75	3.50	.71	18
Total	3.40	.78	201

$F=1.49$ (df=5, 195), $p=.196$, $\eta^2=.037$

1=Not at all effective through 5=Extremely effective

1.4 Nativist Metaphor

Tables 16 through 20 report the analyses for the militaristic metaphor. We observed little statistically significant variation across groups. Respondents checking ownership of “other” watercraft (Table 16; $M=3.16$) and participating in “other” activities (Table 17; $M=3.00$) each considered the message to be significantly less effective than the other boating categories combined.



Figure 4. Nativist Metaphor Message

Table 16. The extent you feel the nativist metaphor message would be effective at increasing boaters Clean, Drain, Dry Behaviors by watercraft type

Watercraft Type	Yes	No	<i>t</i> (df)	<i>p</i> -value	Cohen's <i>d</i>
	n M (SD)	n M (SD)			
Ski or Wakeboard Boat	65 3.52 (.83)	126 3.34 (.76)	-1.53 (192)	.127	-.233
John Boat or Bass Boat	54 3.52 (.72)	140 3.36 (.81)	-1.29 (192)	.200	-.206
Cabin Cruiser or Center Console	21 3.52 (.75)	173 3.39 (.79)	-.75 (192)	.453	-.174
Pontoon Boat	20 3.45 (.83)	174 3.40 (.78)	-.29 (192)	.774	-.068
Houseboat	5 3.80 (.45)	189 3.39 (.79)	-1.15 (192)	.251	-.521
Sailboat	9 3.22 (.97)	185 3.41 (.78)	.70 (192)	.482	.240
Jet Ski	22 3.41 (.80)	172 3.40 (.78)	-.04 (192)	.965	-.010
Kayak, Canoe, or Paddleboard ^a	55 3.25 (.64)	139 3.46 (.83)	1.84 (126.39)	.068	.264
Other	43 3.16 (.75)	151 3.47 (.78)	2.29 (192)	.023*	.396

^aEqual variance not assumed

p*<.05, *p*<.01, ****p*<.001

1=not at all effective through 5=extremely effective

Table 17. The extent you feel the nativist metaphor message would be effective at increasing boaters Clean, Drain, Dry Behaviors by activity type

Activity Type	Yes	No	<i>t</i> (df)	<i>p</i> -value	Cohen's <i>d</i>
	n M (SD)	n M (SD)			
Recreational Fishing	141 3.40 (.77)	53 3.40 (.82)	-.06 (192)	.950	-.010
Tournament Fishing	4 3.50 (.58)	190 3.40 (.79)	-.25 (192)	.801	-.127
Wake Sports	48 3.46 (.80)	146 3.38 (.78)	-.57 (192)	.568	-.095
Pleasure Cruising	88 3.35 (.73)	106 3.44 (.83)	.81 (192)	.422	.116
Hunting	20 3.15 (.75)	174 3.43 (.79)	1.52 (192)	.129	.360
Other	18 3.00 (.84)	176 3.44 (.77)	2.31 (192)	.022*	.572

p* < .05, *p* < .01, ****p* < .001

1=not at all effective through 5=extremely effective

Table 18. The extent you feel the nativist metaphor message would be effective at increasing boaters Clean, Drain, Dry Behaviors by gender identification

	M	SD	n
Female	3.52	.81	21
Male	3.37	.78	169
Prefer not to answer	4.00	.82	4
Total	3.40	.78	194

$F=1.543$ (df=2, 191), $p=.216$, $\eta^2=.016$

1=not at all effective through 5=extremely effective

Table 19. The extent you feel the nativist metaphor message would be effective at increasing boaters Clean, Drain, Dry Behaviors by income

Age (years)	M	SD	n
<\$20,000	3.20	1.10	5
\$20,000-\$39,999	3.00	.94	10
\$40,000-\$59,999	3.22	.83	9
\$60,000-\$79,999	3.39	.78	23
\$80,000-\$99,999	3.43	.60	21
\$100,000-\$119,999	3.20	.77	20
\$120,000-\$139,999	3.75	.84	28
\$140,000-\$159,999	3.41	.85	22
\$160,000+	3.39	.72	51
Prefer not to answer	3.60	.55	5
Total	3.40	.78	194

$F=1.19$ (df=9, 184), $p=.302$, $\eta^2=.055$

1=not at all effective through 5=extremely effective

Table 20. In your opinion, how effective would this message be at increasing boaters' Clean, Drain, Dry behaviors by age

Age (years)	M	SD	n
18-25	--	--	--
26-35	3.33	1.03	6
36-45	3.08	.88	24
46-55	3.44	.89	45
56-65	3.39	.63	67
66-75	3.49	.80	43
> 75	3.75	.71	8
Total	3.40	.78	193

$F=1.25$ (df=5, 187), $p=.284$, $\eta^2=.033$

1=Not at all effective through 5=Extremely effective

1.5 Ecological Gain

Tables 21 through 25 report the analyses for the ecological gain message treatment. We observed little statistical variation among groups. In some instances, the lack of statistical variation can be attributed to the small number of cases within the various categories. While sailboat owners considered the message most effective ($M=3.75$), only four respondents who received this message reported owning a sailboat (Table 21). Of categories with 20 or more cases, owners of jetskis ($M=3.57$) and non-motorized watercraft (kayak, canoe, paddleboard; $M=3.52$) considered the message most effective. Alternately, among recreational activities, gender, and household income, we observed little substantive variation (Tables 22 through 24). Where 36 to 45 years olds ($M=2.91$) considered the message least effective, older respondents (≥ 66 years; Table 25) considered the message most effective.



Figure 1. Ecological Gain Message

Table 21. The extent you feel the ecological gain message would be effective at increasing boaters Clean, Drain, Dry Behaviors by watercraft type

Watercraft Type	Yes	No	<i>t</i> (df)	<i>p</i> -value	Cohen's <i>d</i>
	n M (SD)	n M (SD)			
Ski or Wakeboard Boat	57 3.46 (.85)	148 3.40 (.75)	-.47 (203)	.637	-.074
John Boat or Bass Boat	68 3.34 (.75)	137 3.45 (.79)	.99 (203)	.324	.147
Cabin Cruiser or Center Console	21 3.24 (.94)	184 3.43 (.76)	1.10 (203)	.274	.253
Pontoon Boat	25 3.24 (.66)	180 3.44 (.79)	1.20 (203)	.232	.256
Houseboat	8 3.00 (.93)	197 3.43 (.77)	1.54 (203)	.125	.556
Sailboat	4 3.75 (.96)	201 3.41 (.78)	-.87 (203)	.386	-.439
Jet Ski	21 3.57 (.81)	184 3.40 (.78)	-.97 (203)	.331	-.224
Kayak, Canoe, or Paddleboard	60 3.52 (.081)	145 3.37 (.76)	-1.21 (203)	.228	-.185
Other	43 3.40 (.76)	162 3.42 (.79)	.18 (203)	.856	.031

* $p < .05$, ** $p < .01$, *** $p < .001$

1=not at all effective through 5=extremely effective

Table 22. The extent you feel the ecological gain message would be effective at increasing boaters Clean, Drain, Dry Behaviors by activity type

Activity Type	Yes	No	<i>t</i> (df)	<i>p</i> -value	Cohen's <i>d</i>
	n M (SD)	n M (SD)			
Recreational Fishing	149 3.40 (.77)	56 3.45 (.81)	.36 (203)	.721	.056
Tournament Fishing	9 3.44 (1.01)	196 3.41 (.77)	-.12 (203)	.907	-.040
Wake Sports	47 3.43 (.83)	158 3.41 (.77)	-.11 (203)	.913	-.018
Pleasure Cruising	105 3.39 (.77)	100 3.44 (.80)	.45 (203)	.650	.063
Hunting	22 3.41 (.85)	183 3.42 (.77)	.04 (203)	.972	.008
Other ²	11 3.27 (.47)	194 3.42 (.79)	.99 (13.52)	.341	.192

* $p < .05$, ** $p < .01$, *** $p < .001$

1=not at all effective through 5=extremely effective

Table 23. The extent you feel the ecological gain message would be effective at increasing boaters Clean, Drain, Dry Behaviors by gender identification

	M	SD	n
Female	3.40	.83	15
Male	3.43	.77	182
Prefer not to answer	3.13	.84	8
Total	3.41	.78	205

$F=.36$ (df=2, 202), $p=.559$, $\eta^2=.006$

1=not at all effective through 5=extremely effective

Table 24. The extent you feel the ecological gain message would be effective at increasing boaters Clean, Drain, Dry Behaviors by income

Age (years)	M	SD	n
<\$20,000	3.50	.58	4
\$20,000-\$39,999	3.50	.82	16
\$40,000-\$59,999	3.59	.87	17
\$60,000-\$79,999	3.46	.98	24
\$80,000-\$99,999	3.42	.72	24
\$100,000-\$119,999	3.50	.58	28
\$120,000-\$139,999	3.44	.89	16
\$140,000-\$159,999	3.46	.78	13
\$160,000+	3.30	.76	57
Prefer not to answer	3.00	.89	6
Total	3.41	.78	205

$F=1.57$ (df=9, 193), $p=.118$, $\eta^2=.004$

1=not at all effective through 5=extremely effective

Table 25. In your opinion, how effective would this message be at increasing boaters' Clean, Drain, Dry behaviors by age

Age (years)	M	SD	n
18-25	--	--	--
26-35 ^{ab}	3.56	.73	9
36-45 ^a	2.91	.79	23
46-55 ^{ab}	3.39	.86	38
56-65 ^{ab}	3.36	.74	64
66-75 ^b	3.56	.76	50
> 75 ^{bc}	3.78	.55	18
Total	3.41	.78	205

F=3.32 (df=5, 196), p=.007, $\eta^2=.078$

Note: Values not sharing the same superscript are significantly different at $p < .05$

1=Not at all effective through 5=Extremely effective

1.6 Economic Loss

Tables 26 through 30 report the analyses for the economic loss message treatment. We observed statistical and substantive variation among boat ownership groups. Of those boat owners who considered the message most effective, jets ski ($M=3.78$) and ski/wakeboard owners (3.64) conserved the message most compelling (Table 26). Sailboat owners (while only five respondents reported owning a sailboat) considered the message to be significantly least effective ($M=2.60$). We observed little substantive variation among recreational activities, gender, household income, and age, we observed little substantive variation (Table 27 through 30).

ATTENTION:

PROTECT YOUR WATERS
CLEAN, DRAIN, DRY.
It will cost our state (YOU) \$ millions.



✓ **CLEAN**

Clean all plants, mud, and debris from gear and equipment. This includes all types of watercraft, waders, boots, clothing, buckets — anything that comes in contact with the water. Never move a plant or animal from one location to another.

✓ **DRAIN**

Drain all water from your gear and equipment. This includes all types of watercraft, buckets, and anything that comes in contact with the water.

✓ **DRY**

Dry watercraft, equipment, and gear for a week or more. Leave wet compartments open to dry. Remove drain plugs during transport.



Figure X. Economic Loss Message

Table 26. The extent you feel the economic loss message would be effective at increasing boaters Clean, Drain, Dry Behaviors by watercraft type

Watercraft Type	Yes	No	<i>t</i> (df)	<i>p</i> -value	Cohen's <i>d</i>
	n M (SD)	n M (SD)			
Ski or Wakeboard Boat	58 3.64 (.81)	138 3.30 (.80)	-2.66 (194)	.008**	-.416
John Boat or Bass Boat	64 3.27 (.76)	132 3.47 (.83)	1.65 (194)	.100	.252
Cabin Cruiser or Center Console	30 3.30 (.84)	166 3.42 (.81)	.75 (194)	.452	.149
Pontoon Boat	30 3.50 (.90)	166 3.39 (.80)	-.71 (194)	.480	-.140
Houseboat	6 3.50 (.55)	190 3.40 (.82)	-.30 (194)	.768	-.123
Sailboat	5 2.60 (.89)	191 3.42 (.80)	2.26 (194)	.025*	1.023
Jet Ski	18 3.78 (.73)	178 3.37 (.81)	-2.07 (194)	.040*	-.511
Kayak, Canoe, or Paddleboard	56 3.27 (.80)	140 3.46 (.82)	1.48 (194)	.142	.233
Other ^a	33 3.15 (.80)	163 3.45 (.81)	1.99 (46.46)	.053	.374

^aEqual variance not assumed

p*<.05, *p*<.01, ****p*<.001

1=not at all effective through 5=extremely effective

Table 27. The extent you feel the economic loss message would be effective at increasing boaters Clean, Drain, Dry Behaviors by activity type

Activity Type	Yes	No	<i>t</i> (df)	<i>p</i> -value	Cohen's <i>d</i>
	n M (SD)	n M (SD)			
Recreational Fishing	141 3.37 (.78)	55 3.49 (.90)	.94 (194)	.347	.150
Tournament Fishing	12 3.33 (.78)	184 3.41 (.82)	.31 (194)	.760	.091
Wake Sports	40 3.60 (.90)	156 3.35 (.79)	-1.72 (194)	.086	-.306
Pleasure Cruising ^a	83 3.43 (.90)	113 3.38 (.75)	-.44 (156.77)	.661	-.065
Hunting	25 3.20 (.71)	171 3.43 (.83)	1.34 (194)	.182	.287
Other	7 3.29 (.49)	189 3.41 (.82)	.39 (194)	.699	.149

^aEqual variance not assumed

p* < .05, *p* < .01, ****p* < .001

1=not at all effective through 5=extremely effective

Table 28. The extent you feel the economic loss message would be effective at increasing boaters Clean, Drain, Dry Behaviors by gender identification

	M	SD	n
Female	3.30	.98	20
Male	3.41	.81	169
Prefer not to answer	3.43	.54	7
Total	3.40	.81	196

$F=.18$ (df=2, 193), $p=.837$, $\eta^2=.002$

Note: Like superscripts indicate no significant difference at $p<.05$

1=not at all effective through 5=extremely effective

Table 29. The extent you feel the economic loss message would be effective at increasing boaters Clean, Drain, Dry Behaviors by income

Age (years)	M	SD	n
<\$20,000	3.67	1.03	6
\$20,000-\$39,999	3.29	.49	7
\$40,000-\$59,999	3.36	.81	11
\$60,000-\$79,999	3.52	.51	27
\$80,000-\$99,999	3.10	.79	20
\$100,000-\$119,999	3.31	.98	36
\$120,000-\$139,999	3.40	.52	10
\$140,000-\$159,999	3.40	1.17	10
\$160,000+	3.42	.79	60
Prefer not to answer	4.00	.87	9
Total	3.40	.81	196

$F=1.05$ (df=9, 186), $p=.396$, $\eta^2=.049$

1=not at all effective through 5=extremely effective

Table 30. In your opinion, how effective would this message be at increasing boaters' Clean, Drain, Dry behaviors by age

Age (years)	M	SD	n
18-25	--	--	--
26-35	2.57	.98	7
36-45	3.67	.96	27
46-55	3.35	.84	52
56-65	3.40	.75	58
66-75	3.46	.72	39
> 75	3.38	.65	13
Total	3.40	.81	196

$F=2.19$ (df=5, 190), $p=.057$, $\eta^2=.054$

1=Not at all effective through 5=Extremely effective

1.7 Injunctive Norm Message

Tables 31 through 35 report the analyses for the injunctive norm message treatment. While we observed little variation across groups, pontoon boat (M=3.86) owners considered the message significantly more effective than other boat ownership categories as did older respondents (≥ 46 years) compared to younger cohorts (Table 35). Little substantive variation was seen among recreational activities, gender, and household income (Table 32 through 34).



Figure X. Injunctive Norm Message

Table 31. The extent you feel the injunctive norms message would be effective at increasing boaters Clean, Drain, Dry Behaviors by watercraft type

Watercraft Type	Yes	No	<i>t</i> (df)	<i>p</i> -value	Cohen's <i>d</i>
	n M (SD)	n M (SD)			
Ski or Wakeboard Boat	47 3.53 (.75)	134 3.35 (.80)	-1.36 (179)	.175	-.231
John Boat or Bass Boat	62 3.31 (.82)	119 3.45 (.77)	1.13 (179)	.261	.177
Cabin Cruiser or Center Console	17 3.29 (.77)	164 3.41 (.79)	.57 (179)	.569	.145
Pontoon Boat	21 3.86 (.73)	160 3.34 (.78)	-2.90 (179)	.004**	-.674
Houseboat ^a	5 3.20 (.45)	176 3.40 (.79)	.97 (4.75)	.377	.258
Sailboat	9 3.11 (.93)	172 3.41 (.78)	1.12 (179)	.263	.384
Jet Ski	22 3.36 (.66)	159 3.40 (.80)	.22 (179)	.829	.049
Kayak, Canoe, or Paddleboard	54 3.37 (.73)	127 3.41 (.81)	.31 (179)	.761	.050
Other	42 3.29 (.74)	139 3.43 (.80)	1.05 (179)	.293	.186

^aEqual variance not assumed

p*<.05, *p*<.01, ****p*<.001

1=not at all effective through 5=extremely effective

Table 32. The extent you feel the injunctive norms message would be effective at increasing boaters Clean, Drain, Dry Behaviors by activity type

Activity Type	Yes	No	<i>t</i> (df)	<i>p</i> -value	Cohen's <i>d</i>
	n M (SD)	n M (SD)			
Recreational Fishing	132 3.40 (.81)	49 3.39 (.73)	-10 (179)	.917	-.017
Tournament Fishing	6 3.17 (.75)	175 3.41 (.79)	.73 (179)	.466	.304
Wake Sports	47 3.55 (.85)	134 3.34 (.76)	-1.58 (178)	.166	-.268
Pleasure Cruising	76 3.39 (.77)	105 3.40 (.80)	.04 (179)	.965	.007
Hunting	22 3.36 (.66)	159 3.40 (.80)	.22 (179)	.829	.049
Other	21 3.33 (.80)	160 3.41 (.79)	.40 (179)	.691	.092

p* < .05, *p* < .01, ****p* < .001

1=not at all effective through 5=extremely effective

Table 33. The extent you feel the injunctive norms message would be effective at increasing boaters Clean, Drain, Dry Behaviors by gender identification

	M	SD	n
Female	3.41	.78	29
Male	3.40	.80	149
Prefer not to answer	3.33	.58	3
Total	3.40	.79	181

$F=.02$ (df=2, 178), $p=.984$, $\eta^2=.000$

Note: Like superscripts indicate no significant difference at $p<.05$

1=not at all effective through 5=extremely effective

Table 34. The extent you feel the injunctive norms message would be effective at increasing boaters Clean, Drain, Dry Behaviors by income

Age (years)	M	SD	n
<\$20,000	2.67	.58	3
\$20,000-\$39,999	3.67	.50	9
\$40,000-\$59,999	3.24	.97	17
\$60,000-\$79,999	3.38	.80	26
\$80,000-\$99,999	3.12	.78	17
\$100,000-\$119,999	3.12	.78	17
\$120,000-\$139,999	3.44	.62	18
\$140,000-\$159,999	3.75	.62	12
\$160,000+	3.51	.83	57
Prefer not to answer	3.60	.55	5
Total	3.40	.79	181

$F=1.57$ (df=9, 3890), $p=.118$, $\eta^2=.004$

1=not at all effective through 5=extremely effective

Table 35. In your opinion, how effective would this message be at increasing boaters' Clean, Drain, Dry behaviors by age

Age (years)	M	SD	n
18-25 ^a	--	--	--
26-35 ^a	2.60	.55	5
36-45 ^b	3.05	.84	22
46-55 ^b	3.62	.64	26
56-65 ^b	3.44	.84	59
66-75 ^b	3.40	.73	57
> 75 ^b	3.55	.69	11
Total	3.39	.78	180

$F=2.57$ (df=5, 174), $p=.029$, $\eta^2=.029$

Note: No significant difference in post-hoc comparisons.

1=Not at all effective through 5=Extremely effective