

Table SI-1 Correlations among sociodemographic variables and between sociodemographic variables and environmental worldview Spearman's rho, two-tailed)

Socio-demographic Variable	% of life lived in a coastal area	Environmental Worldview	Age	Gender	Household income
Environmental Worldview ¹	-.036 ⁴ .707 ⁵				
Age	-.092 .334	-.140 .142			
Gender ²	.135 .160	.132 .171	.013 .890		
Household income	-.059 .587	-.181 .091	.133 .215	-.147 .175	
Children/Grandchildren ³	-.135 .159	.048 .614	.268** .004	-.062 .527	
Education Level	.007 .942	.196* .039	.160 .091	.202* .036	.046 .633

¹Total score of NEP statements 2 through 14, higher score equates to greater pro-environmental worldview

²Positive correlation = female, inverse correlation = male ³Positive correlation = respondent indicated they DID have children or grandchildren <16 ⁴Spearman's rho (ρ) correlation coefficient ⁵Significance (p -value), two-tailed

*Correlation is significant at the 0.05 level (2-tailed) **Correlation is significant at the 0.01 level (2-tailed)

Table SI-2 Descriptive and internal consistency/reliability statistics for survey respondents' visual analog scale (VAS) rankings from 0 (low) to 10 (high) of their perceptions of each AI-generated image

Perception	Chronbach's α for set	Image	Mean	Std Dev	(N)
Attractiveness					
Natural salt marsh	.777	NSM 1	9.33	1.404	112
		NSM 2	8.68	1.832	112
Lawns without salt marsh	.896	L-SM 1	5.79	3.179	95
		L-SM 2	5.75	2.901	95
Lawns with salt marsh	.758	L+SM 1	7.70	2.317	110
		L+SM 2	7.75	2.297	110
Risk of danger					
Natural salt marsh	.959	NSM 1	4.28	3.034	95
		NSM 2	4.58	2.901	95
Lawns without salt marsh	.933	L-SM 1	5.34	3.416	105
		L-SM 2	5.42	3.373	105
Lawns with salt marsh	.866	L+SM 1	4.59	3.105	110
		L+SM 2	4.57	2.986	110
Naturalness					
Lawns without salt marsh	.920	L-SM 1	3.18	2.844	92
		L-SM 2	3.30	2.835	92
Lawns with salt marsh	.796	L+SM 1	6.83	2.759	107
		L+SM 2	6.16	3.044	107
Need for improvement					
Lawns without salt marsh	.843	L-SM 1	5.54	3.290	102
		L-SM 2	6.07	3.194	102
Lawns with salt marsh	.696	L+SM 1	4.23	2.871	95
		L+SM 2	4.59	3.187	95

Table SI-3. Tests of significance between average photo perception rankings (Wilcoxon Signed Rank Test, 2-tailed)

Mean Rank				
	Attractiveness	Naturalness	Need for Improvement	Sense of Danger
Natural Marsh (NSM) ¹	9.013			4.321
Lawn w/o marsh (L-SM) ²	5.554	2.901	5.505	5.205
Lawn w/marsh (L+SM) ³	7.562	6.469	4.087	4.503
Wilcoxon Signed Rank Test, 2 tailed				
	Attractiveness		Danger	
	L-SM ²	L+SM ³	L-SM ²	L+SM ³
Natural Marsh (NSM) ¹	-7.736 ^{a**}	-5.338 ^{a**}	-3.231 ^b	-.105 ^b
	<.001 ⁴	<.001	.073	.917
Lawn w/o marsh (L-SM) ²		-6.865 ^{b**}		-3.231 ^{a**}
		<.001		.001
	Naturalness		Need for Improvement	
		L+SM ³		L+SM ³
Lawn w/o marsh (L+SM) ²		-8.252 ^{**}		-5.615 ^{a**}
		<.001		<.001

¹Mean for Photos 1 & 2 ²Mean for Photos 3 & 4 ³Mean for Photos 5 & 6 ⁴Significance (*p*-value) ****Difference is significant at the 0.01 level** ^aBased on positive ranks ^bBased on negative ranks.

Table SI-4 Correlations between sociodemographic variables, total NEP score, and marsh perceptions (Spearman's rho, two tailed)

	% of life lived in a coastal area	Environmental Worldview ¹	Age	Gender ²	Household income	Education Level	Children or grandchildren under 16 ³
Attractiveness							
NSM	.140 ⁴ .138 ⁵	.185* .050	.195* .039	.047 .624	.100 .354	.206* .029	-.068 .477
L-SM	-.282** .003	-.433** <.001	.025 .794	-.012 .901	.110 .310	.022 .815	.103 .285
L+SM	-.013 .895	-.121 .202	.194* .040	.154 .109	.000 .999	.020 .837	.107 .262
Naturalness							
L-SM	-.273** .005	-.418** <.001	-.014 .885	.021 .830	.007 .953	-.059 .549	.053 .590
L+SM	-.032 .737	-.234* .013	.113 .238	.072 .460	.058 .592	.004 .963	-.034 .725
Need for Improvement							
L-SM	.239* .012	.368** <.001	.088 .366	-.110 .265	-.106 .334	.029 .763	-.038 .697
L+SM	.074 .464	.245* .014	.085 .403	-.063 .539	.016 .891	.075 .459	-.065 .525
Sense of Danger							
NSM	.056 .567	.044 .653	.068 .492	.125 .212	-.027 .807	.085 .391	.026 .795
L-SM	.221* .019	.236* .012	.198* .037	.034 .726	-.020 .853	.159 .905	.049 .611
L+SM	.147 .119	.017 .858	.122 .199	.070 .467	.035 .747	.157 .098	.069 .469

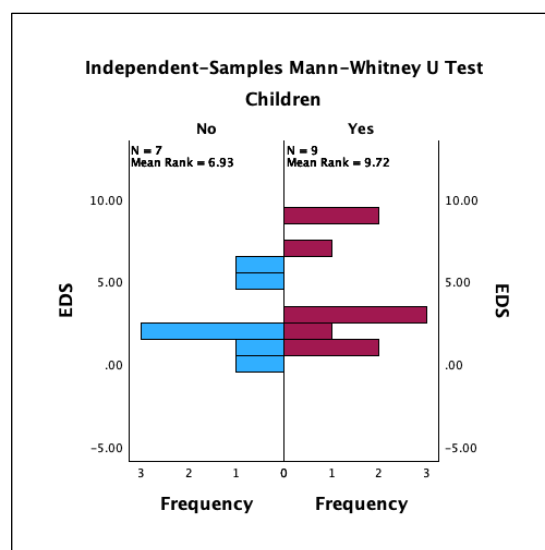
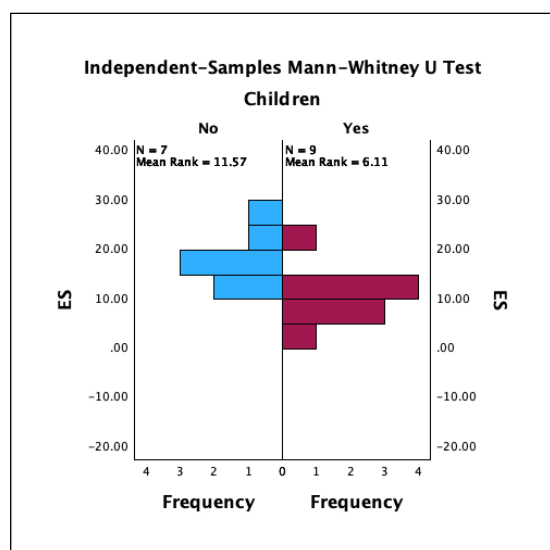
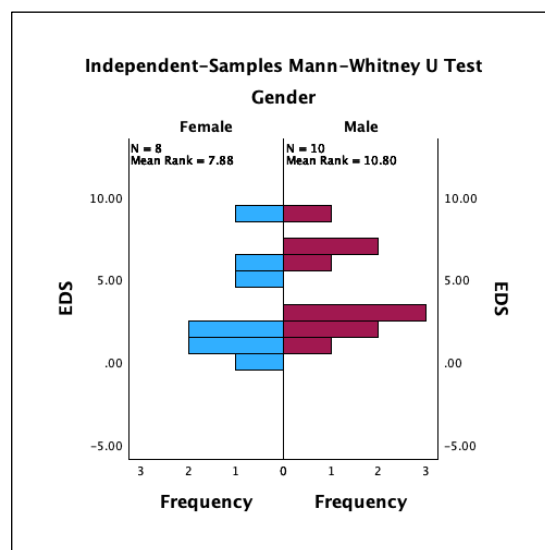
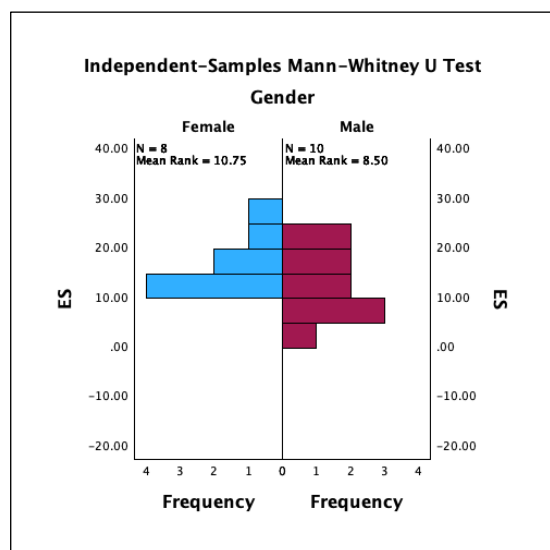
¹Total score of NEP statements 2 through 14, higher score equates to greater pro-environmental worldview

²Positive correlation = female, inverse correlation = male ³Positive correlation = respondent indicated they had children or

grandchildren <16 ⁴Spearman's rho (ρ) correlation coefficient ⁵Significance (p -value), two-tailed ***Correlation is significant at the 0.05 level (2-tailed) **Correlation is significant at the 0.01 level (2-tailed)**

Table SI-5 Tests of significance between average number of ecosystem services (ES) and ecosystem disservices (EDS) listed by interviewees by stated gender and existence of children or grandchildren under 16 years old (Mann-Whitney U Test)

Hypothesis Test Summary				Independent-Samples Mann-Whitney U Test Summary	
Null Hypothesis		Sig.^{a,b}	Decision	Total N	18
1	The distribution of ES is the same across categories of Gender.	.408 ^c	Retain the null hypothesis	Mann-Whitney U	30.000
2	The distribution of EDS is the same across categories of Gender.	.274 ^c	Retain the null hypothesis	Wilcoxon W	85.000
				Test Statistic	30.000
				Standard Error	11.231
				Standardized Test Statistic	-.890
				Asymptotic Sig. (2-sided test)	.373
				Exact Sig. (2-sided test)	.408
Null Hypothesis		Sig.^{a,b}	Decision	Total N	18
1	The distribution of ES is the same across categories of Children.	.023 ^c	Reject the null hypothesis	Mann-Whitney U	30.000
2	The distribution of EDS is the same across categories of Children.	.252 ^c	Retain the null hypothesis	Wilcoxon W	85.000
				Test Statistic	30.000
				Standard Error	11.231
				Standardized Test Statistic	-.890
				Asymptotic Sig. (2-sided test)	.373
				Exact Sig. (2-sided test)	.408



^aThe significance level is .050. ^bAsymptotic significance is displayed. ^cExact significance is displayed for this test.



Survey Consent

You are being invited to participate in a research study titled “Assessing Perceptions of Salt Marsh in the Residential Landscape in Central Coastal North Carolina” being conducted by Mary-Margaret McKinney, a student at East Carolina University in the Department of Coastal Studies. The goal is to survey 1000 individuals in Carteret County, North Carolina and then interview up to 100 survey respondents obtain additional information on their responses. The survey will take approximately 10 minutes. Follow-up interviews will take approximately 15 minutes and may be audio record for transcription purposes. Once transcription is complete, the audio recording will be deleted.

It is hoped that this information will assist us to better understand how people feel about coastal lawns that do and do not have salt marsh on their edges. Your responses will be kept confidential and no data will be released or used with your identification attached.

Your participation in the research is voluntary. You may choose not to answer any or all questions, and you may stop at any time. We will not be able to pay you for the time you volunteer while being in this study. There is no penalty for not taking part in this research study.

Please call Mary-Margaret McKinney at [REDACTED] for any research related questions or the University & Medical Center Institutional Review Board (UMCIRB) at 252 744 2914 for questions about your rights as a research participant. Do you consent to participate in this study as described above?

- ☐ Yes
- ☐ No

Great! Thank you for participating. Let's begin.

Carteret County Specific Questions

Are you a Carteret County resident at least part of the year?

- ☐ Yes, Carteret County is my primary residence.
 - ☐ Yes, I live in Carteret County sometimes but I live elsewhere the majority of the year.
 - ☐ No, I do not live in Carteret County.
-

Do you own or rent the place in Carteret County where you reside?

- ☐ Own
 - ☐ Rent
 - ☐ Other
-

Is at least one of the properties in Carteret County that you own or rent a waterfront property that does not border the ocean?

- ☐ Yes
 - ☐ No
-

When you visit Carteret County do you typically spend the night?

- ☐ Yes
 - ☐ No
-

When you spend the night, what type of accommodation do you typically stay in?

- ☐ Single-family home
 - ☐ Multi-family home (duplex, apartment, condominium)
 - ☐ RV
 - ☐ Hotel/motel
 - ☐ Other
-

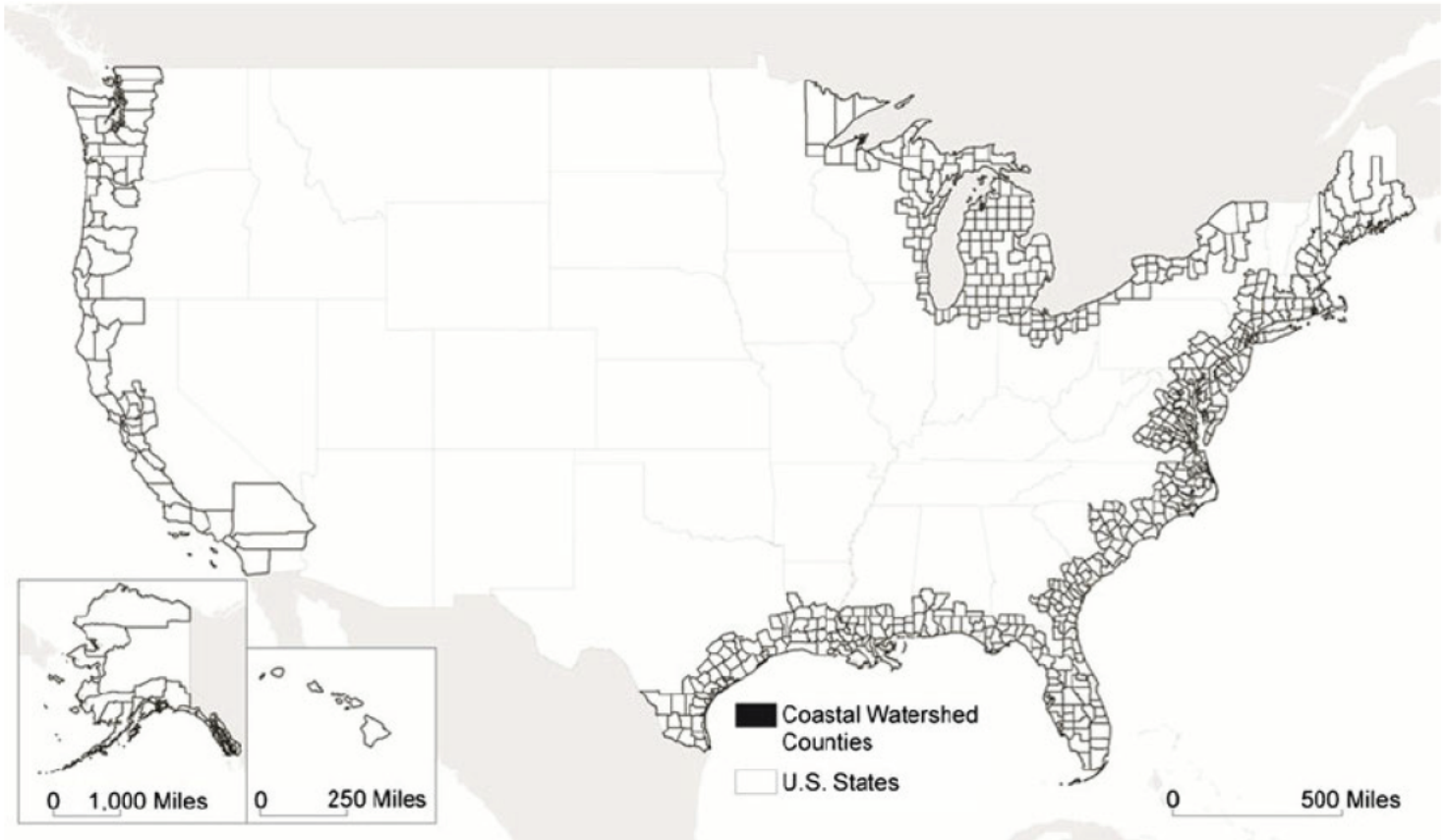
Is the place you reside in Carteret County a

- ☐ Single-family home
- ☐ Multi-family dwelling (duplex, apartment, condominium)

- ☐ RV
 - ☐ Boat
 - ☐ Other
-

Coastal Questions

For the following question(s), "coastal" areas are located in one of the outlined counties below.



Do you live most of the year in a coastal area as designated on the map above?

- ☐ Yes
 - ☐ No
-

What portion of your life have you lived in Carteret County or another place designated as a coastal area on the map above?

- ☐ Never
- ☐ Less than 1/4 of my life

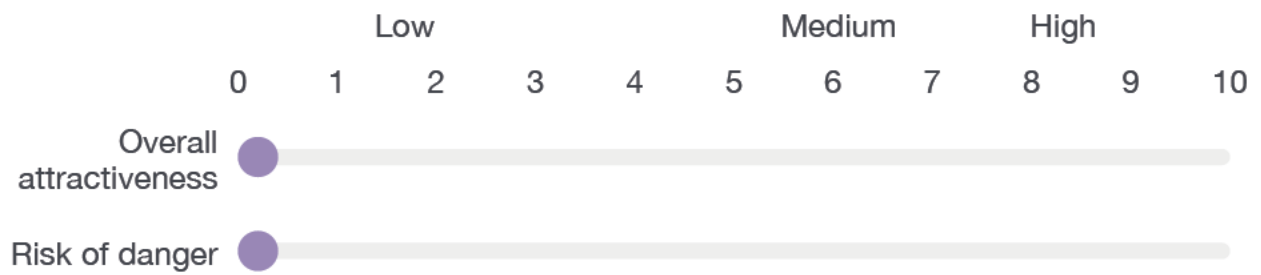
- ☐ 1/4 to 1/2 of my life
 - ☐ More than 1/2 of my life but not all of my life
 - ☐ All of my life
-

Photo Questionnaire - Marshes

For the next 2 questions, please tell us your feelings about the landscapes pictured by moving the sliders from 0 to 10. A score of 0 is the lowest score you can give and a score of 10 is the highest score you can give.



Please rate this natural salt marsh from 0 to 10.



Please rate this natural salt marsh from 0 to 10.

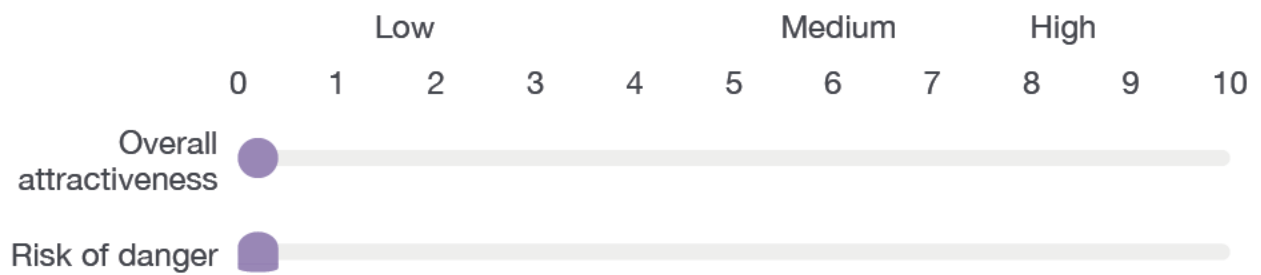
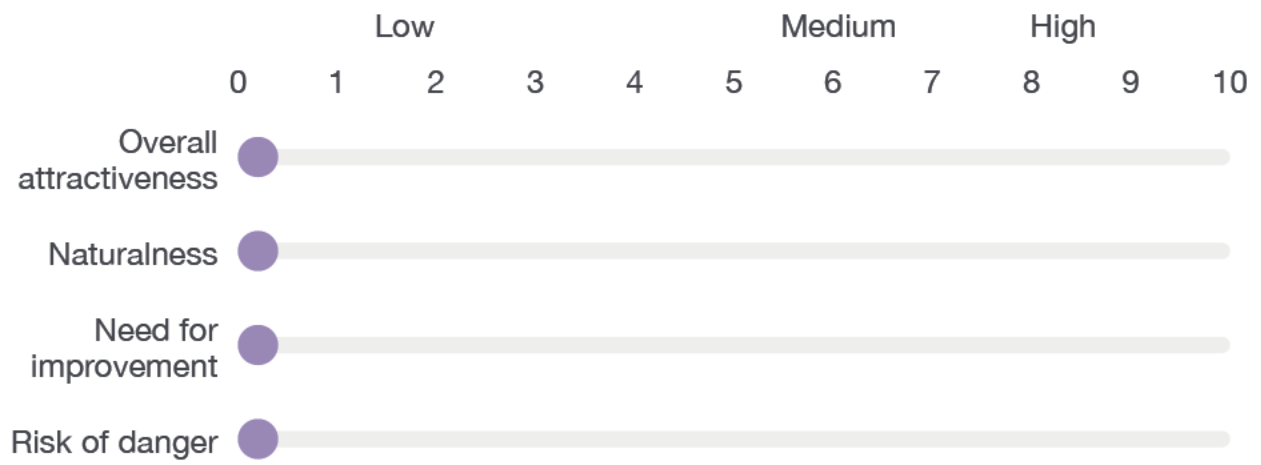


Photo Questionnaire - Lawns

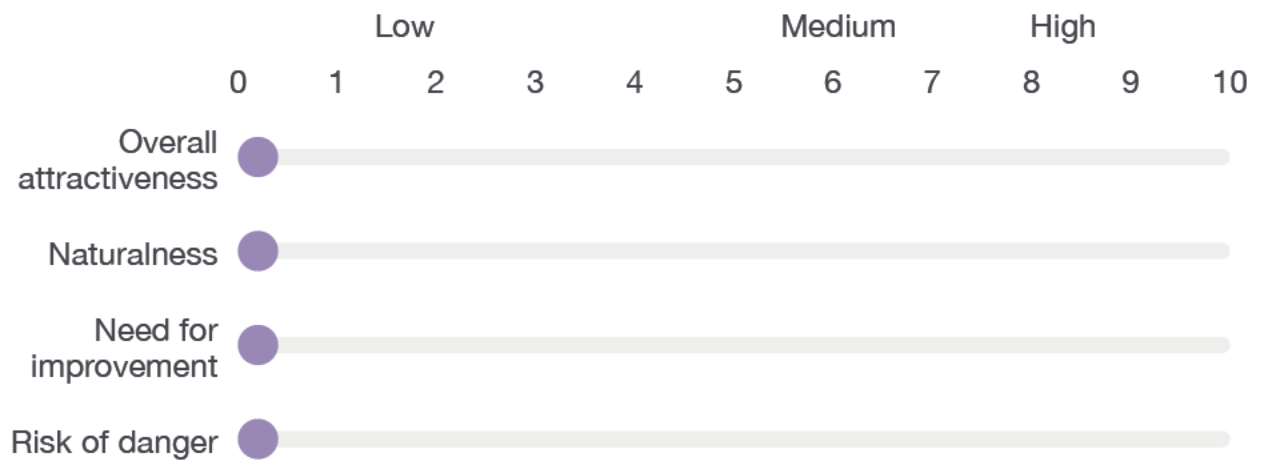
For the next 4 questions, please tell us your feelings about the residential lawns pictured by moving the sliders from 0 to 10. A score of 0 is the lowest score you can give and a score of 10 is the highest score you can give.



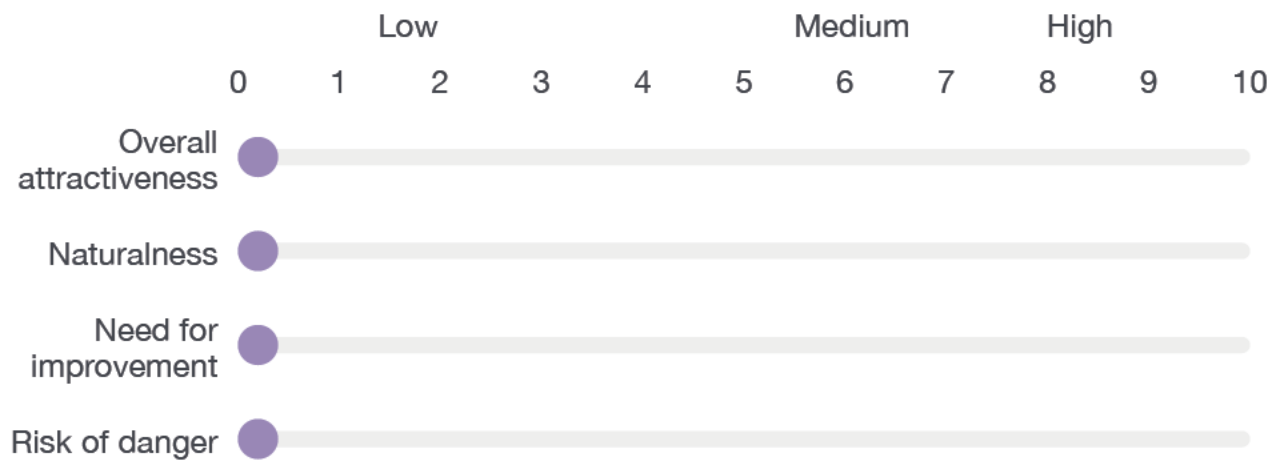
Please rate the lawn up to the water's edge in this picture from 0 to 10.



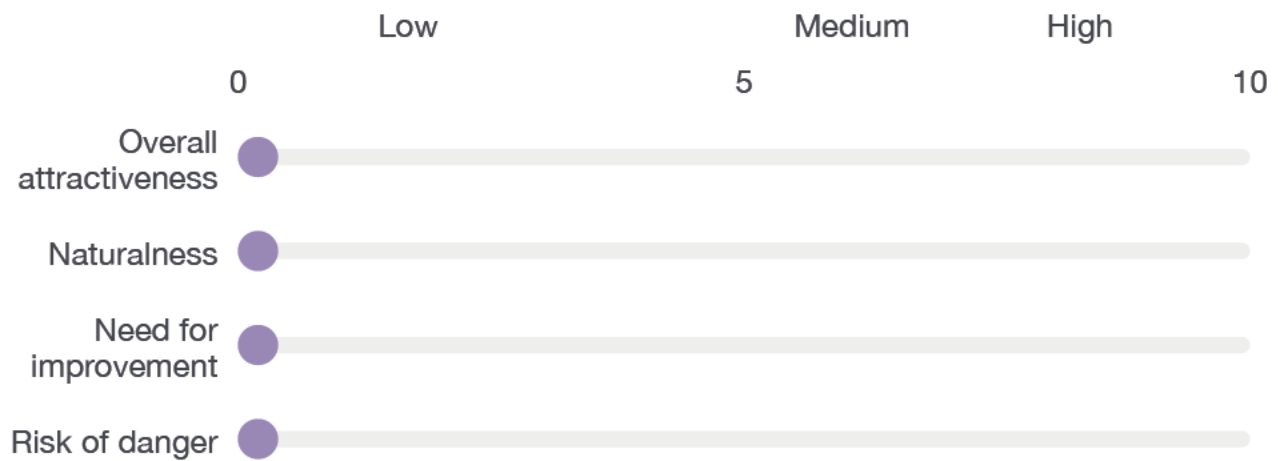
Please rate the lawn up to the water's edge in this picture from 0 to 10.



Please rate the lawn up to the water's edge in this picture from 0 to 10.



Please rate the lawn up to the water's edge in this picture from 0 to 10.



New Ecological Paradigm Questions

The next 15 statements are about the relationship between humans and the environment. For each one, please indicate whether you STRONGLY AGREE, MILDLY AGREE, ARE UNSURE/NEUTRAL, MILDLY DISAGREE OR STRONGLY DISAGREE

We are approaching the limit of the number of people the earth can support.

- ☐ Strongly Agree
- ☐ Mildly Agree
- ☐ Not Sure/Neutral
- ☐ Mildly Disagree
- ☐ Strongly Disagree

Humans have the right to modify the natural environment to suit their needs.

- ☐ Strongly Agree
- ☐ Mildly Agree
- ☐ Not Sure/Neutral
- ☐ Mildly Disagree
- ☐ Strongly Disagree

When humans interfere with nature it often produces disastrous consequences.

- ☐ Strongly Agree
- ☐ Mildly Agree

- ☐ Not Sure/Neutral
 - ☐ Mildly Disagree
 - ☐ Strongly Disagree
-

Human ingenuity will insure that we do not make the earth unlivable.

- ☐ Strongly Agree
 - ☐ Mildly Agree
 - ☐ Not Sure/Neutral
 - ☐ Mildly Disagree
 - ☐ Strongly Disagree
-

Humans are severely abusing the environment.

- ☐ Strongly Agree
 - ☐ Mildly Agree
 - ☐ Not Sure/Neutral
 - ☐ Mildly Disagree
 - ☐ Strongly Disagree
-

The earth has plenty of natural resources if we just learn how to develop them.

- ☐ Strongly Agree
 - ☐ Mildly Agree
 - ☐ Not Sure/Neutral
 - ☐ Mildly Disagree
 - ☐ Strongly Disagree
-

Plants and animals have as much right as humans to exist.

- ☐ Strongly Agree
- ☐ Mildly Agree
- ☐ Not Sure/Neutral
- ☐ Mildly Disagree
- ☐ Strongly Disagree

The balance of nature is strong enough to cope with the impacts of modern industrial nations.

- ☐ Strongly Agree
 - ☐ Mildly Agree
 - ☐ Not Sure/Neutral
 - ☐ Mildly Disagree
 - ☐ Strongly Disagree
-

Despite our special abilities humans are still subject to the laws of nature.

- ☐ Strongly Agree
 - ☐ Mildly Agree
 - ☐ Not Sure/Neutral
 - ☐ Mildly Disagree
 - ☐ Strongly Disagree
-

The so called "ecological crisis" facing humankind has been greatly exaggerated.

- ☐ Strongly Agree
 - ☐ Mildly Agree
 - ☐ Not Sure/Neutral
 - ☐ Mildly Disagree
 - ☐ Strongly Disagree
-

The earth is like a spaceship with very limited room and resources.

- ☐ Strongly Agree
 - ☐ Mildly Agree
 - ☐ Not Sure/Neutral
 - ☐ Mildly Disagree
 - ☐ Strongly Disagree
-

Humans were meant to rule over the rest of nature.

- ☐ Strongly Agree
 - ☐ Mildly Agree
 - ☐ Not Sure/Neutral
 - ☐ Mildly Disagree
 - ☐ Strongly Disagree
-

The balance of nature is very delicate and easily upset

- ☐ Strongly Agree
 - ☐ Mildly Agree
 - ☐ Not Sure/Neutral
 - ☐ Mildly Disagree
 - ☐ Strongly Disagree
-

Humans will eventually learn enough about how nature works to be able to control it

- ☐ Strongly Agree
 - ☐ Mildly Agree
 - ☐ Not Sure/Neutral
 - ☐ Mildly Disagree
 - ☐ Strongly Disagree
-

If things continue on their present course, we will soon experience a major ecological catastrophe

- ☐ Strongly Agree
 - ☐ Mildly Agree
 - ☐ Not Sure/Neutral
 - ☐ Mildly Disagree
 - ☐ Strongly Disagree
-

Lastly, we would like to ask you several general demographic questions:

How old are you?

- ☐ Under 18
 - ☐ 18-24 years old
 - ☐ 25-34 years old
 - ☐ 35-44 years old
 - ☐ 45-54 years old
 - ☐ 55-64 years old
 - ☐ 65+ years old
-

Do you have children or grandchildren under the age of 16?

- ☐ Yes
 - ☐ No
 - ☐ Prefer not to say
-

Choose one or more races that you consider yourself to be

- ☐ White or Caucasian
 - ☐ Black or African American
 - ☐ American Indian/Native American or Alaska Native
 - ☐ Asian
 - ☐ Native Hawaiian or Other Pacific Islander
 - ☐ Other
 - ☐ Prefer not to say
-

What was your total household income before taxes during the past 12 months?

- ☐ Less than \$25,000
- ☐ \$25,000-\$49,999
- ☐ \$50,000-\$74,999
- ☐ \$75,000-\$99,999

- ☐ \$100,000 \$149,999
- ☐ \$150,000 or more
- ☐ Prefer not to say

How do you describe yourself?

- ☐ Male
- ☐ Female
- ☐ Non-binary / third gender
- ☐ Prefer to self-describe
- ☐ Prefer not to say

What is the highest level of education you have completed?

- ☐ Some high school or less
- ☐ High school diploma or GED
- ☐ Some college, but no degree
- ☐ Associates or technical degree
- ☐ Bachelor's degree
- ☐ Graduate or professional degree (MA, MS, MBA, PhD, JD, MD, DDS etc)
- ☐ Prefer not to say

Willingness to participate in follow-up interview

Would you be willing to be contacted for a short interview regarding your survey responses? If yes, please provide your contact information below.

Preferred First Name	
Best Phone Number	
Best Email	