

Niantic River Watershed Resident Focus Group

**Results of the focus group with nine local residents
held on Thursday, September 7, 2017,
for the Long Island Sound Study**



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Background

- The Long Island Sound Study, a partnership program of the University of Connecticut, the Niantic River Watershed Committee, The Nature Conservancy, and the New England Interstate Water Pollution Control Commission (“LISS”) is looking to develop a community-based social marketing campaign that will successfully engage local residents in lawn and garden practices to help achieve cleaner water in the neighboring waters, as well as Long Island Sound.

Objectives

- Provide NEIWPCC with specific insight and recommendations relative to the best ways to engage homeowners in behaviors that will reduce the amount of nutrient-rich fertilizer applied to their gardens and lawns.
- Identify the barriers that discourage homeowners from engaging in environmentally friendly practices to protect and restore the health of area waterways.
- Uncover the most effective messages to influence homeowners' behavior and ensure measurable reductions in the quantity of nutrients discharged in the Niantic River Estuary.

Methodology

- Niantic and Waterford, CT, homeowners living within 200 meters of the Niantic River or Niantic Bay and owning a lawn were recruited to participate in a discussion for the New England Interstate Water Pollution Control Commission. Prospects were told “We’re simply trying to understand how residents of the Niantic River watershed feel about reducing the amount of nitrogen entering the watershed” and offered a \$100 honorarium to participate in a 90-minute group discussion.
- Soft quotas were established for residence, fertilizer application and gender. 14 qualified individuals were recruited so that we would have 9 people at the event.
 - One person cancelled due to Hurricane IRMA and needing to travel to Florida to secure property
 - One person cancelled due to a class
 - One person not confirmed because they wanted to bring daughter

	Niantic	Waterford	Total
No fertilizer applied	1	1	2
Fertilizer applied 1-2 times/yr by homeowner	0	1	1
Fertilizer applied 3+ times/yr by homeowner	1	1	2
Fertilizer applied 1-2 times/yr by professional	0	1	1
Fertilizer applied 3+ times/yr by professional	2	1	3
	4	5	9

Methodology

- A 90-minute discussion guide was developed collaboratively with members of the LISS (see Appendix for a copy).
- The group discussion was held at the University of Connecticut's Marine Center, in Groton, CT, from 7 pm to 8:30 pm. The room was courtesy of Dr. Jamie Vaudrey, a member of the LISS.



Key Findings

1. Three statements were liked more than the others:

- Cutting fertilizer application in half costs less and is healthier for people, pets and Niantic River and Bay.
- Clippings are natural nutrients. Return them to the lawn and reduce fertilizer.
- UConn turf scientists have learned that limiting fertilizer application to around Mother's Day in the spring and no later than Labor Day in the fall is healthier for lawns, drinking water, swimming and boating.

Most participants were surprised to learn that fertilizer application could be cut down to twice annually , avoiding the hotter summer months.

- ## 2. Only barriers to changing how lawn was cared for are professional service providers (for whom it is a potential conflict of interest to change) and equating less fertilizer use to improved health of the Niantic River (and Bay) was a paradigm shift.
- ## 3. While no one felt that reducing fertilizer use was a motivating factor or an economic issue, everyone agreed that anything that could assist the Niantic River and Bay was worth pursuing.

Key Findings (cont.)

4. The man in shorts fertilizing the bay was the group's favorite image since it directly shows the impact of fertilizing lawns on the River and Bay. The green applied by the fertilizer was thought to be particularly powerful.
5. Helping the eelgrass and scallop fishery would be motivating factors to change how their lawn was treated for everyone in the group.
6. Education was by far the most important motivator for the group. Tie lawn care directly to damage to the environment (More natural lawn care = less environmental danger). All agreed that local workshops (with various community organizations) would be the best way to educate homeowners about the benefits of reducing fertilizer use, increasing mowing heights to 3 inches, and using lawn clippings to replace fertilizer use during the summer months. Such workshops would best be led by turf scientists (or environmental scientists).



Participant backgrounds

- Gerry P: Has lived in Niantic for many years, is proud of his lawn (which uses Zoysia , recommended by a friend from Texas) and applies fertilizer himself three times a year.
- Walt D: Has lived in Waterford only 10 months, lawn very important to him, and does not use fertilizer.
- Walt C: Has lived in Waterford many years, like his lawn and for the last two years has had a professional service that uses fertilizer three or four times times per year.
- Nancy Ha: Has lived in the area her entire life; now lives on a small Niantic property. Hired a professional lawn service to get rid of the crab grass that hurts her toes (she fertilize three or four times a year).
- Steve S: Has lived in Waterford for many years, enjoys his lawn and cares for it himself; applies fertilizer three times a year.
- Peter G: Has lived in Waterford many years and is proud of his lawn; recently installed a water sprinkler system that has dramatically improved his lawn's appearance. He has a professional service that applies fertilizer twice a year.
- David R: Has lived in Waterford several years. Likes his lawn and cares for it himself. Purchases fertilizer at Home Depot or Lowes and applies it twice a year.
- Carolyn L: Recently moved into husband's Niantic family home; dislikes lawn and would cover it in cement if not for her husband. Noted that due to crabgrass, town denied a Certificate of Occupancy ("CO") until they seeded lawn; now use a professional service to fertilize three times a year.
- Nancy He: Long-time Niantic resident for whom the lawn is not particularly important. She doesn't fertilize her lawn.



Detailed findings

- Current lawn care
- New findings
 - Statements
 - Benefits and barriers
 - Willingness to change lawn care
- Further exploration of potential benefits
- Response to images
- Scallops fishery
- Motivations to change lawn care practices
- Addendum



Current lawn care

- **Cut grass height:** Everyone in the group believed they were mowing their grass to be three inches tall. Those who said why stated that it was better for the grass itself and that it provided natural shading in hot weather.
- **Leaving clippings on lawn:** About a third left clipping on the lawn to help fertilize the lawn naturally. Those that didn't leave clippings were concerned about appearance and the possibility of mold.
- **Fertilizer:** Fertilizer application frequency varied (see prior notes on individual participants), with most applying it in the spring, summer and fall; those who use professional services do so because of the recommendations of the professionals, while those who apply it themselves do it based on the recommendations of the fertilizer product companies.
- **Weed herbicides:** Those using fertilizer also use weed herbicides and believe it is mixed in with the fertilizer in varying degree based on the season.

New findings: Statements

Initially, four statements were reviewed, followed by the last three. The seven statements are presented here in the preferred order:

- 4. Cutting fertilizer application in half costs less and is healthier for people, pets and Niantic River and Bay.**
 - Group much preferred this sentence over the first three presented. It's succinct. Yet one person commented that both this statement and #3 don't say that it's better for your lawn to do so.
- 1. Clippings are natural nutrients. Return them to the lawn and reduce fertilizer.**
 - The group as whole liked this statement; it's clear and to the point.
- 5. UConn turf scientists have learned that limiting fertilizer application to around Mother's Day in the spring and no later than Labor Day in the fall is healthier for lawns, drinking water, swimming and boating.**
 - Group liked this sentence but some thought the inclusion of boating was extraneous; most were surprised to learn that fertilizer application could be cut down to twice annually and avoiding the hotter summer months.

New findings: Statements (cont.)

- 6. UConn turf scientists recommend that if you apply fertilizer it should be timed for around Labor Day for the best results to your lawn and to protect Niantic River and Bay.**
 - Group also liked this sentence but thought that it contradicted in some way the earlier statement regarding how many times to apply fertilizer. Also some noted that in earlier statement it was “no later than Labor Day” and in this statement it was “around Labor Day.”
- 2. Most people in the Niantic River Watershed don't use fertilizer because their lawn doesn't need it and it's healthier.**
 - Group objected to word “most” and suggested “some” (not “many”).
- 3. Most people cut their grass about 3 inches high because it uses less water and is healthier for people, pets and Niantic River and Bay.**
 - Group objected to the word “because” and noted that there were actually two independent thoughts as the reason (less water and healthier lawns).

Introduction of new findings: Statements (cont.)

- 7. If you apply weed control or pesticides, it should be done without added fertilizer. It's less expensive and healthier for lawns, water and people.**
 - Group didn't know what to make of this statement since all those who used professional services (and at least one of the self-apppliers) believed that the fertilizer products they have used do, indeed, combine fertilizer, pesticides and herbicides.

New findings: Benefits and barriers

- The group was asked to list the benefits described in these statements. Then participants were asked to identify any barriers to changing their lawn care.

BENEFITS	BARRIERS
Nutrients = clippings	None
3" natural fertilizer	None
Less expensive & healthier environment	Professional services
Less fertilizer = better river	Mind/paradigm shift

- Importantly, the group felt that there were no barriers to either using clippings as replacement nutrients for lawn fertilizer, or increasing the mowing height to 3".
- The group felt that professional service companies would be a barrier to changing the ways and timing of fertilizer applications since it would not be to the companies' benefit.
- Perhaps most interestingly, however, was the recognition that equating less fertilizer use to improved health of the Niantic River and Bay was a mind or paradigm shift.

New findings: Willingness to change lawn care

- Other than Walt D and Nancy He (who don't fertilize at all), everyone in the group seemed willing (and motivated) to change the way they cared for their lawns. Nancy Ha made one of the most interesting comments at this point in the discussion:

“I know I pollute but I haven't really thought that what I was doing would really make a difference to the environment. I know I should do things differently, but I just haven't.”
- Peter G asked about possibly using time-released fertilizer for his lawn.
- Walt C said at the end of the session that he planned to fire his provider the next day:

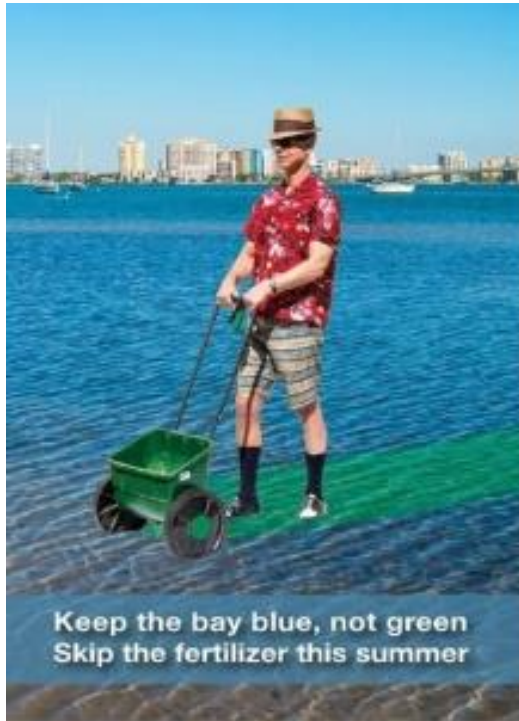
“I've used them for several years and to tell the truth I really haven't seen any difference in the lawn.”



Further exploration of potential benefits

- Conserving water
 - When asked specifically about conserving water as a possible benefit to reducing fertilizer use or using 3” as a threshold for cutting grass, the group, other than perhaps Peter G (who installed a watering system but wasn’t aware how much it was costing him), didn’t think conserving water was a compelling benefit. When reminded, however, that it was a benefit to the environment to use less drinking water for lawn care, participants agreed that it could, indeed, be a benefit.
- Saving money by reducing fertilizer use
 - No one felt that fertilizer use was an economic issue; they felt that it was a few hundred dollars a year, and therefore not a big deal.
- Benefitting Niantic River and Bay
 - The group felt that a “healthier environment” covered the Niantic River and Bay, but all agreed that anything that could assist the Niantic River and Bay was worth pursuing.

Response to images



This was the group's favorite image since it directly shows the impact of fertilizing lawns on the River and Bay. The green applied by the fertilizer was thought to be particularly powerful. Nancy Ha said that her brother-in-law looked exactly like the guy in the image. There was general agreement to the statement, "Humor is always good."

Response to images (cont.)



The group liked both of these lawn signs, especially the warning one, which they thought was larger than the normal “pesticides applied” signage, and showed the danger to humans.



Response to images (cont.)



The group liked both of these images in that they clearly showed the danger to the fisheries but they both needed text to link the closures to lawn care practices.



Response to images (cont.)



The group liked this image; some missed the pun on “Kiss my Grass.”

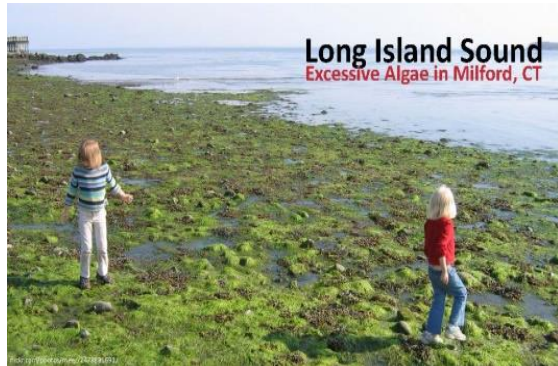
Response to images (cont.)



The group felt that these were both nice images but that the message wasn't clear in either.



Response to images (cont.)



Group felt that it wasn't possible to distinguish between low tide and too much algae.

Response to images (cont.)



The group felt that each of the marine life images were confusing. They weren't clear whether the image showed a healthy or sick organism, and therefore didn't find them either motivating or compelling.



Scallops fishery



Long Island Sound at the mouth of the Niantic River, is famed for its beautiful beaches, yacht basin, and Niantic River scallops, an epicure's delight!

- About half of the group knew that Niantic scallops had formerly been very popular, and among those who were familiar, almost no one knew that the loss of the eel grass habitat was partly responsible for the decimation of the scallops industry; they thought it had only been due to disease. Nancy He mentioned she thought it was due to the same factors as the Long Island Sound lobster die off.
- Helping the eel grass and scallop fishery would be motivating factors to change how their lawn was treated for everyone in the group.
 - They felt that both eel grass habitat and bringing back the scallops fishery were a tangible way of promoting the need for a healthier River and Bay. This was especially true for scallops when it was learned that the scallops, like oysters, help to for clean the water in which they live.

Motivations to change lawn care practices

- **Education** was by far the most important motivator for the group. All thought the focus group session was an excellent example of how to educate the population of concerned citizens.
- **More natural lawn care = less environmental danger**
 - Tie lawn care directly to damage to the environment
 - FL campaign image showing a homeowner fertilizing the water was an excellent example of how to do this.
- **Shock impact (dead fish)** – Another image that potentially could tie fertilizer use to negatively affecting the fish pollution in the River and Bay.
- **Penalties** – Several group members agreed that assessing fines for fertilizer use more than x times for those living near the river would be an effective way to motivate the citizenry.
- **Associations (Consumer/Resident/Cooperatives/Community/Beach)**
 - All participants agreed that educating the community using local groups would be the most effective means of getting the word out.

Local workshops

- All agreed that local workshops would be the best way to educate homeowners about the benefits of reducing fertilizer use, increasing mowing heights to 3 inches, and using lawn clippings to replace fertilizer use during the summer months.
- Such workshops would best be led by turf scientists or environmental scientists. Staff from environmental groups, cooperative extensions and watershed committees would be less desirable for leading such workshops, and local neighbors who have already adopted the practices would be the least desirable source of workshop leaders.

Addendum

- At the conclusion of the group, after the project's sponsors had been announced, the moderator felt that the positive energy was so strong that he invited the committee to come into the room and meet the participants. After each member of the committee introduced themselves, several participants asked several thoughtful questions.
- It was clear from the 10-15 minutes of this Q&A that all of the participants felt privileged to be helping the committee in their work, and all seemed motivated to change the way they cared for their lawns. As an example, Peter G asked whether an educational flyer could be made available as an insert to be placed in the Waterford sewer bills, which he is responsible for sending out.

Recommendations



Recommendations

- Everyone participating in the focus group felt energized by the session, which they regarded as educational. LISS should consider developing educational workshops with local associations among the communities along the Niantic River and Bay – led by respected turf and water quality scientists – to inform the relevant population that actions they can take with their lawns will positively affect the water quality in the watershed.
- Additionally, LISS should consider creating and distributing:
 - Posters and (possibly billing inserts) that show how fertilizing lawns ends up fertilizing the waterways (FL campaign)
 - Lawn signs for those who use fertilizer that shows the dangers to humans
 - Posters or flyers that show how reduced oxygen in the water leads to massive fish kills
- Finally, group participants felt that fines should be levied on homeowners with lawns living near the River or Bay who over fertilize their lawns, or fertilize at the wrong times of year. This idea should be tested quantitatively and explored with local municipalities, but is a very interesting idea.

Appendix



Appendix: Recruiting screener



Focus Group Screener

Identifying barriers to implementing environmentally-friendly lawn and garden care practices

Residents close to the Niantic River watershed – see accompanying map of homes within 200 meters of the Niantic River and homes that are “Near River.” All participants must have a lawn that requires maintenance.

Five Target Participant Types:

- Those who don't apply fertilizer at all (2-3 participants)
- Those who apply fertilizer 1-2 times a year themselves (2-3 participants)
- Those who apply fertilizer 3+ times a year themselves (2-3 participants)
- Those who hire others to apply fertilizer 1-2 times a year (2-3 participants)
- Those who hire others to apply fertilizer 3+ times a year (2-3 participants)

Respondent Sample Size: Recruit 10-12 qualified participants. Aim for a 50/50 gender split.

Recruiting Guide:

INITIAL CONTACT:

Hello!

My name is _____ and I'm calling from Beresford Research, a Connecticut-based company, and we're conducting a study for the New England Interstate Water Pollution Control Commission (NEIWPCC) of Stamford, CT. This is NOT a sales call! We're simply trying to understand how residents of the Niantic River watershed feel about reducing the amount of nitrogen entering the watershed.

Is this _____ located at _____?



ONCE TRANSFERRED OR CONNECTED TO SOMEONE:

Do you have a lawn on your property requiring maintenance?

IF YES:

1. Would you possibly be available for a focus group discussion with other members of the Niantic watershed to discuss ways of reducing the nitrogen level in the Niantic ~~gpp~~? The meeting will be held on Thursday, September 7th, at the University of Connecticut's Marine Center, in Groton, CT, from 7 o'clock to 8:30 pm.
 - a. Yes
 - b. No – [end call and thank them for their time]
 - c. Uncertain – Would it help to know that we will be paying each participant an honorarium of \$100.
2. Are you familiar with focus group research?
 - a. Yes
 - b. No – Let me provide you a brief introduction. Focus groups are a research tool to learn what individuals think about a specific topic. Groups are usually 8-10 participants and a moderator who leads the discussion. Often the groups are recorded for further study, and often are held in a room with a one-way mirror so that sponsors of the research can watch the group as it moves from topic to topic. This focus group is taking place at the University of Connecticut's Marine Center, so there won't be a one-way mirror; instead, there will be a stationary TV camera that both records the session and sends a feed to an adjoining room where the sponsors of the research will be watching the group live. Focus groups are anonymous, so only your first names will be used.
3. Are you familiar with Marine Center? The address is 1080 ~~Shippaugus~~ Road, Groton, CT 06340
 - a. Yes
 - b. No – Would you like me to send you driving instructions? [if yes, get email address]
4. There will be free parking provided, and you will receive a \$100 honorarium at the end of the 90-minute discussion. Light refreshments will also be served. We look forward to meeting you on September 7th. Please arrive a few minutes early so we can get you registered and seated before the 7pm start time.

IF NO: Thank them and end call.

Record Name, gender and fertilizer application type of participants here:

- Name: _____
- Gender: _____
- Fertilizer application: ___ times/yr by Homeowner / Hire person (circle one)

Appendix: Discussion guide



Niantic Focus Group Discussion Guide

Aug. 22, 2017

Utilize photos as available and necessary to stimulate discussion.

Materials: Flip chart, pads, markers, pens, pencils, Post-it notes.

I. Introduction (10 mins.)

- ✓ Introduce the group topic: understanding how people make decisions about their lawn care and receptiveness to making changes to protect water quality.
 - Explain recording and "Virtual two way mirror" for research team.
 - All responses anonymous and not disclosed to anyone beyond research team.
 - The sponsor of the study is a non profit partnership of concerned organizations who wish to remain anonymous until the end of the focus group.
- ✓ Review House rules (pre-written on flip chart)
 - No wrong answers
 - Only one person should speak at a time
 - Turn cell phones/mobile devices off
- ✓ Name, background, where live
 - How long lived in area
 - Types of lawn(s) and who provides cares for it
 - Importance of lawn

II. Current lawn care (10 mins.)

We'd like to spend a few minutes discussing choices you've made about lawn care: how tall your grass is after cutting, does anyone leave grass clippings on the lawn, and how much fertilizer and weed herbicides are used.

- **Cut grass height:** How many inches is your lawn after mowing? Why do you mow that height?
- **Leaving clippings on lawn:** Do you ever leave lawn clippings? Why or why not?
- **Fertilizer:** How often is your lawn fertilized, in what seasons, and how much is applied? Why do you apply fertilizer with this frequency?
- **Weed herbicides:** Who uses them and how often? Why?

III. Introduce new findings about how changes in lawn care provide benefits (20 mins.)

I'd like to share some statements with you about reducing fertilizer use, leaving lawns taller and leaving grass clipping on the ground provide various benefits to both homeowners and the environment. After hearing them, please share your thoughts and reactions as it pertains to the way you may care for your lawns in the future.

- Clippings are natural nutrients. Return them to the lawn and reduce fertilizer.
- Most people in the Niantic River Watershed don't use fertilizer because their lawn doesn't need it and it's healthier.
- Most people cut their grass about 3 inches high because it uses less water and is healthier for people, pets and Niantic River and Bay.
- Cutting fertilizer application in half costs less and is healthier for people, pets and Niantic River and Bay.



- UConn turf scientists have learned that limiting fertilizer application to around Mother's Day in the spring and no later than Labor Day in the fall is healthier for lawns, drinking water, swimming and boating.
- UConn turf scientists recommend that if you apply fertilizer it should be timed for around Labor Day for the best results to your lawn and to protect Niantic River and Bay.
- If you apply weed control or pesticides, it should be done without added fertilizer. It's less expensive and healthier for lawns, water and people.

(a) Which of these messages resonate most strongly with you? Why?

- ✓ List benefits cited on flip chart

(b) Are there any reasons for not changing the way your lawn is currently cared for?

- ✓ List barriers cited on flip chart

(c) How willing are you to change the ways you care for your lawn?

IV. Further exploration of potential benefits (10 mins.)

Let's go back to the benefits cited earlier for changing the ways the lawns are cared for.

- What are your thoughts about conserving water (if not mentioned earlier)?
- What are your thoughts about saving money by reducing fertilizer and pesticides (if not mentioned earlier)?
- What are your thoughts about benefits to the Niantic River and Bay?

V. Response to images (10 mins.)

I'm now going to show you some images, and I'd like to hear your thoughts on them.

- Which of these images are most compelling? Why?
- Ask about ecological health, recreation, eelgrass health, scallop fishery, boating, swimming and fishing as benefits if not mentioned.

VI. Scallops fishery (5 mins.)

Did you know that Niantic had been known for its scallops, a species that has largely been lost due to disease and loss of eelgrass habitat (a result of excess nutrients). Compared to other bays today, Niantic's eelgrass abundance is pretty good, but it is poor compared to historic abundance, particularly in the Niantic River (as opposed to Niantic Bay).

- ✓ Who knew about the historic popularity of the Niantic scallops?
- ✓ Would helping the eelgrass and scallop fishery be a motivating factor to change how your lawn was treated? Why?

VII. Conclusion (15 mins.)

In closing, I'd like to share with you the sponsor of this study and return to the central issue for this study. The focus group is being conducted for the Long Island Sound Study, a partnership program of local, state, and federal agencies, universities, community and environmental organizations, and businesses and trade associations dedicated to restoring and protecting Long Island Sound. For this project, LIS partners include the University of Connecticut, the Niantic River Watershed Committee, The Nature Conservancy, and the New England Interstate Water Pollution Control Commission.

What would most motivate you to change the way you have traditionally cared for your lawn in order to improve the health of the watershed in which you live?

- ✓ List top motivators on flip chart

Appendix: Discussion guide (cont.)

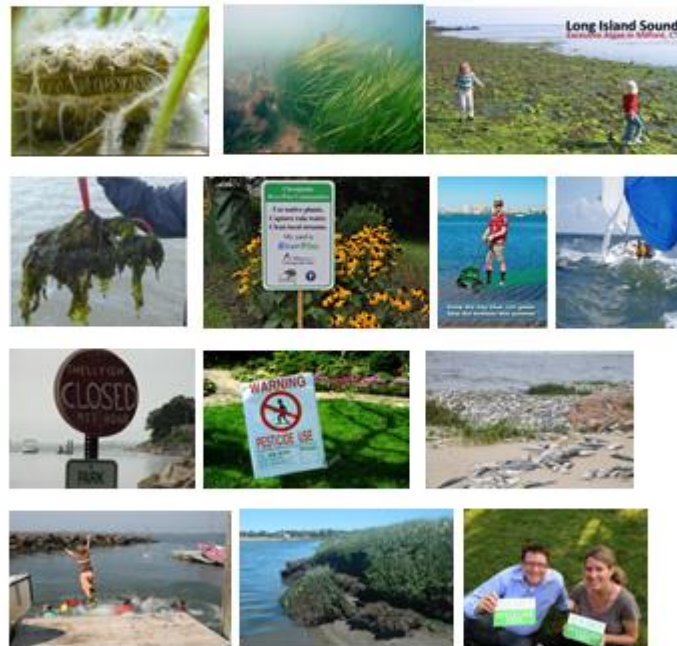


If local workshops were held to teach homeowners' best practices, who would you want to teach them?

- Prompts if not provided:
 - Local neighbors who have already adopted the practices
 - Turf scientists
 - Staff from environmental groups, cooperative extensions and watershed committees.

Thank you.

Images to show group:



Flip charts from focus groups

BENEFITS / BARRIERS

Nutrients = Clippings
~~MIND SHIFT~~
3" natural fertilizer

Prof. Services
Less expensive & healthier
envi.

Less fertilizer = better River

*Mind Shift
Paradigm*

TOP MOTIVATORS

EDUCATION

More natural lawn care =
less envi. damage

Shock impact (dead fish)

~~Taxes~~ / Penalties

CONSUMER / RESIDENT
COOPERATIVES / ASSOC.

BEACH ASSOC.

