7 STEPS TO GREEN BEHAVIOR: HOW TO INSPIRE BUSINESSES, SCHOOLS & HOMES

The River Stars Case Study

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If We Can Do It On a River Presumed Dead... So Can You!

Necessity on an almost impossible scale – an urban river presumed dead – gave birth to our three “River Star” programs.

The Elizabeth River in southeastern Virginia has been industrialized since before the Revolution. A tiny river, less than 25 miles counting all three branches, nonetheless she is home to the world’s largest Navy base, and the world’s largest coal exporting facilities. The nation’s oldest and largest naval shipyard sprawls for hundreds of acres along this shore. Great carrier vessels from China, Russia and other far-flung places call on this river as a leading port. Within these same 300 square miles are 500,000 residents and some 250 schools in four urban and suburban cities – Norfolk, Chesapeake, Portsmouth and Virginia Beach, VA. In fact, our “watershed” – the area that drains into the river when it rains – is about 90 % developed. Toxic contamination creates dead-zones in the river bottom and elevated cancer in fish.

The non-profit Elizabeth River Project invented River Star Businesses in 1997 because positive recognition and friendly, can-do assistance were our only hope for inspiring more than the minimum required by law in the atmosphere of that time. Our mission: To restore the river. But after 400 years of neglect, few believed this possible. Urban legend said you needed six shots if you fell in. Industry and government had polarized into angry camps over new and ever tightening environmental regulations. By contrast, we offered to make industries “stars.” Our free program promised to do most of the work, from identifying projects to finding grant funding and promoting results with the press. A tentative few tried it – and caught the excitement of “doin’ right by the river,” our jaunty slogan. Employees loved making a positive difference. Bosses saved money and risk by reducing pollution. A breakthrough moment found the president of NORSHIPCO (now BAE Norfolk Ship Repair), the largest private shipyard on the river, planting wetland grasses one Saturday with his family and other workers.

We don’t know what might be motivating you to consider ways to inspire environmental stewardship. But if we can do it on our ultra-urban river, we think the lessons we’ve learned are
bound to help you. This is a case study of the steps we have discovered work for us to inspire not only businesses, but schools and homes, to achieve meaningful, voluntary results like these:

- River Star Businesses have reduced pollution by 311 million pounds and restored or conserved 1,361 acres of urban wildlife habitat – all of it documented to be above and beyond the minimum required by law. Among the 109 businesses and government facilities participating in 2014 are Norfolk Naval Station, Norfolk Naval Shipyard, Norfolk Southern, BAE Norfolk Ship Repair and most other major facilities on the river.
- More than half the 250 public and private schools in our watershed – 150 schools – now complete hands-on projects each year to help the Elizabeth River as River Star Schools, a program started in 2004.
- River Star Homes grows daily, currently numbering 1850 families who have committed to 7 behavior changes, from scooping the dog poop to reducing fertilizer use, since 2011 when we introduced the third program in our trilogy. The program is motivating citizens to go further by providing assistance with on-the-ground projects, most notably “lawn makeovers” that are reinventing how to achieve beautiful grass through organic rather than chemical fertilizers.

For helping us refine an approach that works, the Elizabeth River Project is indebted to Doug McKenzie-Mohr, a Canadian professor known as “the father of social marketing,” or marketing to motivate behavior change. We were able to consult monthly for more than a year with Dr. McKenzie-Mohr, thanks to generous grant support from the National Fish & Wildlife Foundation. It’s important to note that we did not always agree on approaches and it took us awhile to identify the underlying reason. McKenzie-Mohr focuses on changing a few simple behaviors at a time, in fact, the simpler (more “non-divisible”) the better. Our programs begin with that, but ultimately seek a more fundamental paradigm shift. This translates as the difference between encouraging businesses to turn down their thermostats to 68 degrees (simple behavior change), and expecting businesses to incorporate pollution prevention practices into all aspects of their operations (our requirement for Model Level River Star Businesses). Different approaches apply.

The River Star idea started from necessity in difficult times. It continues to grow because, unlike the pain of fines and blame, these programs offer business owners, students, teachers and residents alike a joyful opportunity to help restore a clean river – along with carefully planned assistance to get them there.
River Star 7 Steps to Inspire Environmental Behavior Change

These steps have worked for the non-profit Elizabeth River Project to inspire voluntary environmental behavior change, whether our audience is businesses, schools or homeowners. With acknowledgment to gurus Eckl and McKenzie-Mohr, we recommend these steps for other groups considering how to recruit willing help toward a cleaner world.

1. Identify the key behaviors that will have the greatest impact to achieve your goals.
   There are thousands of things a homeowner can do to help the environment. Only a few will make a real difference to reduce the specific problems on our specific river.

2. Promote the benefits and remove the barriers for your target audience to make these behavior changes.
   If it’s too hard and there’s nothing rewarding about it, only the die-hards will bother (they would have anyway.)

3. Expect to generate a level of goodwill and openness not possible with a regulatory approach. Honor your participant’s trust.
   It’s astounding how much businesses, in particular, will do to help - once they trust you not to blame or report them. So don’t blame or report them.

4. Keep entry FREE - or your audience may dismiss your pitch as a gimmick to raise money.
   Your fundraising team will want you to charge these stars just to be in your program. They’ll run, if you do. (Charge for intensive assistance, later, but not for entry).

5. Set the bar low for entry - but give high-visibility recognition.
   Busy principals suddenly became anxious to get involved when school superintendents began expecting to see our River Star School banners by front doors.

6. Provide incentives to motivate more than entry-level effort.
   We help homeowners and businesses pay for the big, hard projects. When we ask teachers to work with us all year long, we look for stipends for them.

7. Overcome the knowledge barrier with hands-on, one-on-one advice.
   Not many people know how to take a soil test, even if you think it’s simple. Show them, even if means sending someone to their homes.
River Star Homes – A Free Yard Flag Starts a Movement

“We proudly fly our River Star Home flag in front of our house. We know that a cleaner, swimmable & fishable river is as good for the neighborhood as it is for the environment.”

- Ruth and Kevin Lane, River Star Homeowners

A royal blue flag has multiplied in yards around Norfolk, VA. You see it winter and summer, rain and shine. You see more of these flags all the time. They mean that someone in the home has committed to the “7 easy steps” of being a River Star Home (not to be confused with the seven steps outlined in this study, which are for groups trying to start similar programs, and are not necessarily easy).

“A Cleaner River Starts Here,” says each flag. They take advantage of the social marketing principle that those who make a public commitment to follow certain behaviors are more likely to do so. These flags have now been the inspiration for similar programs starting up all around our region. You now see Pearl Home flags in Virginia Beach, where oyster growing is a key behavior; River Hero flags for people on the James River, and in Norfolk, we’re told we will shortly see Lake Star and Bay Star flags for people who’ve been jealous of our flags since they are outside our service area.

The River Star Homes flag is free and the 7 steps require more awareness than effort. We send a “starter kit” to explain each one, promising invitations to “fun outdoor outings” and on-going tips as well.

The 7 steps for entry into River Star Homes:

1. “Scoop the Poop” (after your dog)
2. Protect Storm Drains
3. Help Geese Migrate (by not feeding them)
4. Don’t Flush Medicines
5. No Grease in the Sink
6. Pump Out Boat Sewage
7. Reduce Fertilizers

But we don’t stop with the flag, or the first seven steps.

In the three years since we launched River Star Homes, at a big public festival we started for that purpose in April 2011, we have succeeded in motivating hundreds of them to take arduous further steps to help the Elizabeth River Project reach our environmental goals for the Elizabeth River. More than 150 homes have installed “super barrels,” rain barrels that hold 132 gallons, dwarfing the familiar pickle barrel, and are available only from Canada. Twenty-nine homes have worked with us to plant their shorelines in thick native vegetation to reduce runoff. Seven have installed engineered “rain gardens” to absorb runoff. Most importantly, more than 150 are in some stage of implementing “lawn makeovers” to help them have great-looking lawns without chemicals. Our lawn makeovers are not free or simple. They start with an expert visiting your yard to assess problems and teach you to take a soil sample. They require three years of scientifically complex “nutrient management,” costing some homeowners thousands (we are working to reduce this cost). They are important nationally as a model for achieving one of the most difficult of behavior changes in the environmental world, reducing dependence on chemical fertilizers.

Here are some of the tools we use.

“Our home has earned my neighborhood’s yard of the month award several times, which helps to promote my use of organic and natural products. When we take good care of our home and yard, it helps others learn about practices to keep our river safe.”

- Hope McDonald, River Star Homeowner
Changing Behavior at the Homeowner Level

1. **Identify the key behaviors that will have the greatest impact to achieve your goals.**

   It seemed much harder to change the behavior of one individual at a time (there are so many of them in an urban area), compared to motivating businesses. So we did not get around to River Star Homes until much later than River Star Businesses (started in 1997 - see the next section). The impetus: A 2010 stakeholder planning team was focusing intensively on restoring the Lafayette branch of the Elizabeth. This branch is primarily residential. How else would we make a difference except one home at a time?

   We recruited a pilot group of 25 homes. Over the next year, we considered long lists of dozens of actions that would be useful and perhaps meaningful for residents in terms of environmental stewardship. But the Lafayette planning team was focusing down on bacteria and excess nutrients as the greatest cause for concern in the Lafayette. Bacteria levels were too high for swimming and nutrients caused an annual large algal bloom each summer. What could the homeowner do that would have the most impact? McKenzie-Mohr recommends analyzing behaviors based on three characteristics: 1) How *impactful* is the behavior? 2) How *probable* is it that the target audience will engage in this behavior? And 3) What level of *penetration* has the behavior already obtained with the target audience?

   We narrowed the top behaviors needed to two: Scoop the (dog) poop to reduce bacteria in the river and reduce fertilizer use to help reduce nutrients. We found statistics showing an estimated more than 24,000 dogs in the Lafayette watershed – a lot of bacteria-ridden poop if it washed into the river. The average dog in fact produces over 5 pounds a day! Meanwhile many studies document the excess use of chemical fertilizers on American lawns and its harmful effect in waterways.

   To these two top actions we added five more that were simple but meaningful for reducing bacteria and nutrients. Protect your storm drain. Help geese migrate (don’t feed them... resident populations lead to excess bacteria). Pump out your boat. Two were of special interest not only to us, as protectors of the river, but also to a key partner, Hampton Roads Sanitation District, our regional wastewater treatment authority, Don’t flush medicines – they end up in the river. Don’t put grease down the sink – it can stop up the sewer pipe and cause sewer overflows.

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2. Promote the benefits and remove the barriers for your target audience to make these behavior changes.

We owe McKenzie-Mohr for really driving this home. In order to create an effective social marketing program, he teaches, you must discover the barriers that prevent individuals from engaging in a behavior, as well as what benefits might encourage them to act. In his 2011 book, *Fostering Sustainable Behavior*, McKenzie-Mohr details four steps for uncovering barriers and benefits: 1) Literature review (which you are doing right now). 2) Observations. 3.) Focus Groups, and 4) Survey.

Each of the seven behaviors comes with its own set of benefits and barriers. In some cases, such as “reduce fertilizer use,” there are lots of studies about the benefits and barriers. It’s a matter of applying them. To learn more about the benefits and barriers of these programs, program staff observed residents at dog parks, and conducted surveys with pet owners and homeowners on their “poop scooping” and fertilization habits. Additionally, River Star Homes has an advisory panel, made up of approximately one dozen active members, who serve as a focus group and were willing to pilot the program for us and report back on what worked and what didn’t.

The Chesapeake Bay Program, a partnership of D.C. and all the states around North America’s largest estuary, has spent a lot of time studying fertilizer behavior, since it contributes to oxygen depleted dead zones around the bay. Aesthetics is the biggest barrier, the bay program says. We noticed that right away.

“But I don’t want a brown lawn,” a board member grumbled after reaching the part of our pledge about using less fertilizer.

So the River Star Homes “lawn makeover” helps the citizen achieve a truly beautiful lawn . . . by creating healthy soil through organic practices such as loosening compaction with an aerator and adding organic matter such as compost. Healthy soil means vibrant, healthy grass without the need for chemicals. But here we come upon other barriers: lack of knowledge; lack of funds.

All River Star Homes get general information about river-friendly lawn care. We work hard to find grant money for intensive assistance to overcome the barriers of knowledge and funds in targeted focus areas, right now the Lafayette and Eastern Branch stretches of the river. In these areas, our lawn makeovers look like this:

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3 For more information on our lawn makeovers, take a look at this article from the Virginia-Pilot, which provides an overview of the program: Harper, Scott. (2013, April 22). *Who can help stop river killers? Homeowners (with guidance).*
• A horticulturist contracted to Elizabeth River Project visits each lawn to assess conditions and help homeowners gather soil samples. The horticulturist analyzes soil test results and provides each homeowner with written recommendations.

• We call the participant to answer questions about their letters and offer funding assistance (so far, $150 to $500) and project management to help them implement our recommendations.

• To date, we have directed the homeowners to an organic landscape company for the more difficult elements of their lawn makeovers. But there is only one organic company in the area – and its expensive and often too heavily booked to help. So we are in the process of developing a lower cost “neighbor helping neighbor” approach. It’s requiring us to buy a truck, a compost spreader, compost – and hire more help.

3. Expect to generate a level of goodwill and openness not possible with a regulatory approach. Honor your participant’s trust.

The River Star Homes model is successful, in part, because we are not the government. Many homeowners do not want government employees on their property, identifying possible violations. Whereas a city official may ticket homeowners for mowing their wetlands, we advise them on the importance of wetland grasses and how to manage them successfully.

“I’m glad there is a program like this available...It’s nice to see a group out there with a specific goal of making our area a cleaner and better place to live.”

- Leonard LaForest, River Star Homeowner
4. **Keep entry FREE** - or your audience may dismiss your pitch as a gimmick to raise money.

Chances are, you’ve received many colorful, urgent mailings along these lines: Sign this petition to stop some terrible tragedy (and by the way, please send a check, too!) How often do you actually sign the petition? Do you believe the petition is the sender’s main point, or the request for money?

In the case of River Star Homes, what we truly most want is a signed pledge to change behavior. We tried several different versions of a pledge form when we were starting River Star Homes. If we so much as mentioned donations in the same breath, we were far more likely to be turned down. In fact, even our most ardent supporters – board members who said they loved the program – just would not sign their names to become River Star Homes when shown a commitment form that included the seemingly innocuous closing, “optional – add a donation to keep this program growing.”

Not everything about any of our River Star programs is free. We can’t afford to give away rain barrels or field trips to the Learning Barge, for instance. But we find it is important to separate fundraising and River Stars as much as possible. Once River Star Homes are signed up and happily engaged in the work, we may still ask them to become dues-paying members. We do so cautiously.

River Star Homes participate in free outdoor outings regularly to enhance camaraderie and appreciation for the river.
5. Set the bar low for entry - but give highly visible recognition.

You may be tempted to scoff at these light requirements - just “seven easy steps” – for earning entry level recognition as a River Star Home. Surely this is not enough to be meaningful, you say.

First of all, do not underestimate the power of the public commitment. McKenzie-Mohr cites a number of studies about this, relating to what he calls “Self Perception Theory.” “When individuals agree to a small request, it often alters the way they perceive themselves,” he reports (p. 47, *Fostering Sustainable Behavior*). “…When asked later to comply with a larger request... there is strong internal pressure to behave ‘consistently.’”

Executive Director Jackson describes how it works. “A blue flag now flies in my yard that indicates to my neighbors and all who pass that I am committed to picking up after my dog and reducing fertilizer use. I feel bound to go out with my poop bags now, even when it’s sleeting – the neighbors are watching - and I would never dare unload fertilizer bags in my driveway.” Our flags are a way to make an invisible commitment to restoring the river a visible. Placing a flag in the front yard makes my commitment to the 7 steps public, which reminds me to act and serves as a starting point for conversations with neighbors and social diffusion.

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**River Star Homes – Norfolk Couple Goes Above and Beyond**

For Martha Versprille and Tim Ferring, residents of Norfolk’s Colonial Place, the first 7 steps of River Star Homes are not enough to do their part. Not by a long shot. “They’re always trying to do more,” says Diana Larkin, River Star Homes Outreach Coordinator.

They’ve added not just one of our super-rain barrels, but three, and they’d like more. The couple welcomed a rain garden through our program, is moving through the steps for our lawn makeover and has earned every achievement ribbon for over-the-top efforts like ALWAYS hanging out their clothes. “They’re excited to show they’re part of the program,” says Diana.

Second, we usually need to begin simply and easily when taking on new behaviors, especially if they are voluntary. As we gain comfort and mastery, we may be willing to take on more.

During the pilot phase of River Star Homes, our advisory committee of 25 families objected to long check lists of dozens of potential environmental actions – overwhelming, they said. On the other hand, narrowing the list to just two actions did not seem meaningful enough. Ron Primm, a Norfolk icon in conventional marketing,

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helped us settle on the magic number of 7 steps to get started – most of them things within reach of every homeowner.

River Star Homes can advance in the program by taking harder steps we call Special Opportunities: We provide help and funding for rain barrels, rain gardens, lawn makeovers and shoreline plantings. We offer gold ribbon, “champion” recognition for exemplary homes (see Appendix 2), recognized once a year at an annual celebration.

6. **Provide incentives to motivate more than entry-level effort.**

Once a homeowner is signed up for the program, we provide information and advice to all of them through emails, mailings, events, and social media. For homeowners in the Lafayette branch of the Elizabeth River and now the Eastern Branch, we used funding from National Fish and Wildlife Foundation and other grantors to offset the costs for homeowners to install rain barrels, shoreline buffers, rain gardens, and lawn makeovers. While many homeowners were interested in these projects, the cost had previously been a barrier for them. By providing funding, and linking homeowners with contractors, we helped homeowners take larger steps than the might make on their own.
7. Overcome the knowledge barrier with hands-on, one-on-one advice.

Homeowners often express that they want to do the right thing but don’t know where to start. Fliers, newsletters and Facebook posts help a little bit, but there is nothing like the one-on-one visit. A relationship is formed. Questions are answered. Ideally the homeowner is handed the trowel and learns first-hand how easy it is to take a soil sample.

River Star Homeowner Chris Henry learns to take a soil sample with the guidance of Elizabeth River Project staff.

**River Star Homes – Additional Lessons Learned**

**Recognition – Homeowners are More Modest than Businesses.** Later you will read that River Star businesses like earning additional stars. They get one star for Commitment Level, two stars for Achievement Level, and three stars for Model Level. They can earn “Sustained Distinguished Performance” any year. We thought that homeowners would be the same – motivated to take on more by the lure of additional recognition. We were wrong.

Turns out, homeowners don’t mind displaying the flag as a statement of their commitment to a cleaner river. They tend to balk at adding anything to the flag to indicate special achievements. At first we offered five “achievement ribbons” they could earn. About 80 people applied for ribbons, less than 5% of all River Star Homes. Homeowners said that they didn’t like to “brag” about their achievements so publicly. We now offer only one ribbon, for exemplary “gold” achievement, and select one River Star Hall of Fame winner a year.

**Events – the Good and the Bad.** A free outdoor festival works wonders for recruiting River Star Homes, if you have the resources. Each year since we started it with the City of Norfolk in 2011, Lafayette RiverFest (lafayetteRiverFest.org) has grown – 1,500 the first year, 3,000 the third year. Each year the festival has been our biggest day of the year for signing up new homes; each year about 250 in one day. It’s also an expensive and labor intensive, requiring more than $25,000 in sponsors and year-long planning.
Regarding other people’s events where you are asked to set up a booth: Proceed with caution. Be sure the audience is on target for you, and consider the cost including manpower.

**Appropriate Technical Contractors May Be Scarce.** Finding contractors to provide our specialized services, such as installing native plants as shoreline buffers or providing organic lawn care, can be a challenge. After all, if these were mainstream practices, there would not be a need for a program in behavior change. A scarcity of qualified contractors is leading us to build in house expertise. We’ve been traveling to the Northeast where training in organic land care is more readily available, and buying equipment. A benefit is a better understanding of best practices.

**Use Vivid Messages.** We have spent a lot of time and effort preparing beautiful, “vivid, concrete and personalized” (McKenzie-Mohr’s recommendations) materials for River Star Homes. Our “Starter Kit” is professionally designed, full color and chock full of photos of actual homeowners doing their part.

**River Star Champion Home- Butterflies and Bees Love the Burch’s Yard**

Ruth and Glenn Burch, residents of the Eastern Branch of the Elizabeth, in VA Beach, have twice hosted River Star Homes’ workshops to see their 1/2-acre butterfly habitat, a sanctuary of native plants such as Carolina jessamine, taking up their entire backyard. As past president of the Virginia Butterfly Society, Ruth says River Star Homes “is all about those things near and dear to my heart!” Husband Glenn recently added beekeeping.
The owner of a shipyard looked around the crowded ballroom – more than 250 business leaders, gathered at an annual banquet to celebrate another 2 million pounds of pollution voluntarily reduced by River Star Businesses.

“Not long ago, the way that these businesses got rid of pollution was by waiting for it to rain,” so the problem would wash into the river, he observed to the Executive Director of Elizabeth River Project. “Now nobody wants to pollute the river. How did you do it?”

The goal seemed quite a stretch when we started out: Make environmental responsibility the business standard on the Elizabeth River; one of the most industrialized rivers in America. Today, we feel close to achieving it. Most major facilities on the river are River Stars, motivated to “do right by the river” by peer example, friendly assistance, public recognition, a return on the dollar – and the power of momentum.

"The 'nugget' we discovered during our 10-year relationship with the Elizabeth River Project is this - the river is resilient. One of the nastiest, most toxic areas, one that was called a hotspot and a dead zone, has recovered. This is a perfect example of what River Stars is all about. Our efforts are yielding visible, tangible, flying, swimming, and recordable results."

- Phil Stedfast of Kinder Morgan Elizabeth River Terminals at an Annual River Star Recognition Luncheon

The River Star Businesses in 2014 total 109 facilities (see Appendix – River Star Businesses). Together they have documented reducing pollution by 311 million pounds and creating or conserving 1,361 acres of wildlife habitat since the program began in 1997.

Free for any facility in the Elizabeth River watershed, River Star participation is most successful where it can make the most difference - with sites presenting large opportunities to reduce toxic pollution or restore and conserve wildlife habitat.
Elizabeth River Project helps facilities identify and carry out projects. The program manager, Pam Boatwright, visits priority sites in person, often with a technical consultant and one or more peers. She provides written recommendations, helps companies find grant money and volunteers if appropriate, researches solutions to site-specific challenges and helps the companies document results for peer review.

A River Restoration Advisory Committee, on which all “Model” or top level River Star Businesses are invited to participate along with technical advisors, provides peer review of documented results every fall and judges whether a company should be recognized at one of three recognition levels – Commitment, Achievement and Model. “Sustained Distinguished Performance” is available for companies that don’t meet advancement criteria or have already advanced to the highest level, but have documented significant new results (see Appendix for recognition criteria). Regulatory agencies review the proposed list to ensure compliance with state and regional regulations (a baseline criteria for recognition).

Area “Virginia Green”/River Star Business hotels are the site for the annual River Star Businesses Recognition Luncheon, “Saluting the Finest Environmental Stewards on the Elizabeth.” Attendance has grown from 75 in the early days to a consistent 250-275, many of them high level executives including terminal managers and commanding officers of military facilities. Beginning in 2012, the program gained further credibility with the business community when Inside Business, Hampton Roads Business Journal (monthly readership of 72,000) elected to become media sponsor. The journal publishes an 8-page color supplement with paragraphs and pictures of most River Star Businesses recognized that year. And the journal sponsors a new award, the Inside Business River Star Business Hall of Fame, recognizing one business each year that best exemplifies the program.

Enter the lobby or main halls of Virginia Port Authority, BAE Ship Repair, Elizabeth River Terminals and many other major facilities here. You will see a series of large, professionally
framed photographs of inspiring Elizabeth River life. Engraved plates tell you that these were awarded for River Star Business achievements.

**Applying the River Star Steps to Businesses**

1. **Identify the key behaviors that will have the greatest impact to achieve your goals.**

   The top needs for restoring the urban Elizabeth River: Reduce toxic contamination and restore wildlife habitat. The river is one of the three most toxic on the Chesapeake Bay and one of the most severely degraded for habitat. “Your program should focus on those behaviors that have high impact, high probability and low penetration,” says McKenzie-Mohr (p. 18, *Fostering Sustainable Behavior*). Thus toxics and habitat restoration/conservation are the cornerstone expectations of the River Star Businesses program.

   Because the nature and size of operations vary so enormously on this river – from tiny offices to huge industrial and military complexes spanning hundreds of acres – the list of targeted behaviors is not as narrow as McKenzie-Mohr generally advises. However, we do follow his research regarding which facilities we actively recruit and intensively assist. These we narrow to a relatively few facilities that meet our criteria for the highest opportunity and greatest likelihood for meaningful results (see Appendix – Spreadsheet for Ranking Priority River Star Businesses for Recruitment in 2014). Others are welcome to apply for River Star Businesses, but receive minimal staff assistance.

2. **Promote the benefits and remove the barriers for your target audience to make these behavior changes.**

   It was tough going in the beginning, no lie – the advisory committee went on days-long retreats where we exhausted ourselves, trying to figure out how to motivate businesses here to achieve meaningful environmental results. We’ve learned a lot, the hard way.
Navy personnel turned out to plant a shoreline buffer on the Lafayette River at an engineering complex. The base commander became a River Star Home.

Benefits we now successfully promote in a binder we provide on recruitment visits:

1. **Realize cost savings.** Pollution is a product you throw away. Don’t create it in the first place.
2. **Wow your customers.** “I like doing business with a green yard,” a ship captain tells a repair yard when he learns of its restoration efforts.
3. **Tap grants, volunteers, expertise.** We do a lot of the work for priority River Star Businesses. We identify potential projects, research how to do them, bring in experts and often land grant money to help pay for them. We can turn out the public, even school children, on planting day.
4. **Land publicity and awards.** We’ve mentioned the Inside Business special supplement and the big framed photos that let our community know of the accomplishments.
5. **Improve our home river for future generations.** Pam Boatwright, program manager, River Star Businesses, thinks this is the lasting motivator. Once business representatives get involved, they just enjoy making a difference. She quotes a study on what makes people happy that she heard on NPR. “It’s not money, or things, it turns out. It’s belonging to a group of people working toward a common goal.”

Making River Star Businesses “the norm” here goes a long way, for other reasons that McKenzie-Mohr describes. “We are most likely to be influenced by behavior of those we perceive to be similar to ourselves,” he writes (p. 67, *Fostering Sustainable Behavior*).

Here our peer review committee, and team of willing peer mentors, are invaluable.

Peer involvement also has helped us remove a top barrier: lack of trust. Industries by nature are skittish of people asking them about environmental practices. They are more used to being sued by environmental groups. We require our River Star Businesses to mentor each other in order to reach Model Level recognition. There is nothing like the way that the room relaxes when a fellow ship yard manager explains his positive experience of the program. We try to approach new recruitments by enlisting a current River Star to contact them, versus cold-calling. We almost never approach new recruits through direct mail attempts.
Lack of time on the part of busy facility workers is perhaps the second biggest barrier, with a corollary resistance to filling out forms. We accept the reality of this barrier and do all we can at the staff level to save the company time. Boatwright provides research and project coordination for high priority projects, where practical. “With habitat plantings, we might provide a timeline, recommendations for contractors, specify plant lists, train and supervise volunteers.” Forms exist, but Boatwright often completes a lot of the documentation for the company’s review, based on having been involved in the projects.

3. **Expect to generate a level of goodwill and openness not possible with a regulatory approach. Honor your participant’s trust.**

An infamous contamination site on the Elizabeth River, Atlantic Wood, was mired in two decades of legal battles and stacks several feet high of studies, reflecting resistance to the federal Superfund approach to enforcing a cleanup.

By contrast, 10 different industrial and government partners have voluntarily helped Elizabeth River Project clean up a similar site, Money Point on the river’s Southern Branch, as a result of the goodwill that can be generated with the River Star Businesses approach. Examples: Elizabeth River Terminals donated 17 acres of waterfront for habitat conservation at Money Point. Hess Corp. constructed a steel cut off wall, more than 1,400 feet long and as much as 40 feet deep, to prevent our off-shore cleanup area from re-contaminating. Citgo added a green roof to its office and rack loading facility. The City of Chesapeake spent more than $350,000 improving storm water controls along the industrial road at Money Point.

How did we enlist their help? We built a relationship of trust, over years. And we have honored our collaborative reputation in the community – never straying into lawsuits or public blame. On site visits, Boatwright may point out a rare practice that could prove a regulatory problem. She points it out to the company, encouraging them to fix it; not to the regulator. Just the sight of government officials generally causes trepidation, so generally we do not bring them along.
"It is with subtlety and grace that Elizabeth River Project’s mission and programs have encouraged those of us in the maritime industry to look beyond the transportation and commercial fishing services... to understand that the river is the livelihood of our industries and as a result we should serve as her stewards."

- J. Robert Bray, former Executive Director, Virginia Port Authority
The Virginian-Pilot editorial 2006

4. **Keep entry FREE** - or your audience may dismiss your pitch as a gimmick to raise money.

The fact that the program is free helps build trust and serves as a selling point. “How much will it cost?” is often the first question asked in a recruitment visit. “Company representatives have a much more difficult time saying no if participation is free,” Boatwright says. For this program, we do mention an expectation - not a requirement - that they become organizational members of Elizabeth River Project at a level commensurate with their size (organizational membership starts at $175). We drop this request, though, if there is any hint of resentment.

5. **Set the bar low for entry - but give highly visible recognition.**

We set the bar REALLY low, in 1997 when the program was brand new and we had no track record, no trust and no peers touting the benefits. We have been raising the bar gradually, as the program matured – but entry level is still relatively easy. Advancing to Achievement and Model Level is when it gets hard.

1. **Commitment Level** – represents facilities that have documented results in EITHER pollution prevention OR wildlife habitat enhancement above compliance.
2. **Achievement Level** – represents facilities that have documented results in BOTH pollution prevention AND wildlife habitat enhancement above compliance.
3. **Model Level** represents facilities that have documented exceptional pollution prevention and wildlife habitat enhancement results while mentoring others as community leaders in environmental stewardship.

In the first years, a facility only had to make a public commitment to pursue projects in order to become a Commitment Level River Star. No actual achievements were necessary. As with River Star Homes, there was a certain power in the act of commitment. Still, there were River Stars who could not seem to get started on their goals. This began to detract from facilities that were really achieving results. In 2000, the program transitioned to stronger criteria, requiring peer review of documented results...
(see Appendix 4). A recertification requirement was incorporated to verify past results after three years. The peer committee continues to strengthen expectations. For a time, Sustained Distinguished Performance was awarded for even minor new results. In 2013, with long lists of companies clogging the recognition banquet to receive this award, the committee warned that only significant new results would be recognized.

The three recognition levels allows the River Star facility to start small, with perhaps a “favorite” project, then expand efforts once the program is familiar and the facility has had the benefit of assistance from Elizabeth River Project staff and volunteers.

6. **Provide incentives to motivate more than entry-level effort.**

Tiered recognition, with the alluring potential to make it to the top and be recognized as “exemplary, three stars, Model Level,” is the greatest incentive we have found for motivating the business community. We keep the motivation going with the incentive of additional recognition available each year, even after you make it to the top level, through the Sustained Distinguished Performance and River Star Hall of Fame awards. We’ve noticed that some other voluntary business recognitions programs have faltered without this motivating element.

Funding to help with projects also provides an incentive, but a less powerful one than for homes. Unlike the homeowner, businesses cannot as easily make decisions to provide matching funds for projects if it is not otherwise budgeted.

7. **Overcome the knowledge barrier with hands-on, one-on-one advice.**

McKenzie-Mohr notes: “Personal contact is emphasized because social science research indicates that we are most likely to change our behavior in response to direct appeals from others.”

We do almost everything of importance in the River Star Businesses program through direct personal contact. Each year, with the help of the peer committee, Boatwright selects priority River Star Businesses for one-on-one assistance. The peers typically help recruit or encourage them, through personal calls or visits. Boatwright brings her technical team to each new priority site to learn the company’s challenges and opportunities first hand. Often, she stays directly involved, personally helping coordinate a project from infancy to completion. “Many River Star Businesses appreciate the ability and willingness of Elizabeth River Project staff and even other River Stars in providing advice,” she says.
River Star Businesses - Additional Lessons Learned

**Who to work with at a business:** We see the best results when we have BOTH the buy-in from the “top” decision makers, and a motivated individual on the “bottom” that is “in the trenches” to get things done. We suggest you court the support of both.

**Survey results regarding recognition luncheon:** Elizabeth River Project surveyed attendees following our 2012 and 2013 River Star Business Recognition Luncheon regarding why they attended. The top reasons: to get inspired and learn from other businesses and to help the program grow.

**A peer committee is a big help:** The River Restoration Advisory Committee (RRAC), comprised of technical experts as well as many of the Model Level participants, lends credibility to the program and provides important program feedback and support. Meetings are held at fellow River Star facilities and include a tour of the site’s environmental initiatives, at the committee’s request.
River Star Schools – Creative Incentives Include Learning Barge

“I am grateful for the program because it encourages me to teach my students that they are true stakeholders in maintaining a healthy environment.”
- Karen Bennet, teacher, Chesapeake Public Schools

At first, teachers told us they were far too busy to deal with extra lessons on the environment – overwhelmed, really, with the work of preparing urban children to pass Virginia’s sacrosanct “Standards of Learning.”

But River Star Schools has grown from the project of a handful of zealous faculty, in 2004, to more than half of all schools in our watershed – 150 schools – in 2014, through a light hand on the entry requirements, combined with unique attractions for going beyond the minimum. These attractions started with our costumed “Princess Elizabeth,” for whom the river was named in 1619, who visited classrooms with a treasure chest of teaching tools. We added Wetlands in the Classroom – a chance to grow wetland grasses and plant them at restoration sites – and offered teachers workshops on how to teach about wetlands. Today our River Star Schools can take field trips aboard our Learning Barge, a steel deck barge with a live wetland that stays booked to capacity with more than 6,000 students a year. We’ve just added field trips to a new 40-acre park, Paradise Creek Nature Park (www.paradisecreekpark.org), which we opened with the City of Portsmouth.

Back at school, students each year conduct hands-on projects ranging from oyster gardens to litter cleanups to spending all year focusing on the Elizabeth River in all grade levels. Teachers complete a simple form each spring. For recognition, they receive a plaque for Achievement Level and a large banner for Model Level (exemplary results and multi-year participation are the criteria). Schools can request certificates for students and a visit from the Princess if they like.

Children gain hands-on experience aboard the Learning Barge.
7 Steps for Achieving Environmental Behavior Change for Schools

1. Identify the key behaviors that will have the greatest impact to achieve your goals.

River Star Schools focuses on motivating hands-on projects to engage students in either wildlife habitat projects or pollution prevention projects, the same general focus areas as for businesses. But we found that with busy teachers struggling to meet learning requirements across multiple grade levels, a great range of flexibility worked best. “I tell teachers, it has to have a positive impact on the Elizabeth River and her health,” says Robin Dunbar, Deputy Director – Education, Elizabeth River Project. Beyond that, teachers are free to use their creativity to invent projects that meet their teaching needs. They learn from each other, often reporting that they studied our on-line postings of what other schools did, in order to come up with a project.

The more focused learning takes place when the class goes above-and-beyond, with one of Elizabeth River Project’s education programs.

We invented Wetlands in the Classroom, a partnership with a nearby environmental non-profit, Lynnhaven Now, to teach people a key behavior change from a young age: Don’t destroy wetlands; value them. The Elizabeth River has lost 50% of its tidal wetlands since World War II, filled in by earlier generations who feared them as mosquito infested swamps and wanted the land for houses and businesses. In 2013-14, more than 7,000 students grew wetlands or related upland plants in their classrooms with us, then planted them at our restoration sites. Students measure their plants as they grow. “They name them. They love them. They sing when they plant them,” recalls Executive Director Marjorie Mayfield Jackson. “They are unlikely ever to fill in a wetland, when they are planning their homes and businesses as adults.”

Out of the classroom and into the wetlands – students in the Elizabeth River watershed grow and plant native plants.
On board the Learning Barge, they move through six learning stations where each hands-on lesson is designed to teach a targeted behavior for improving the Elizabeth River. They test the water for bacteria at the docking site, to learn if it meets swimming standards – usually not – then play a game to practice scooping the dog poop. They test the level of Dissolved Oxygen at their site, do art projects requiring blowing bubbles to study fish and their oxygen needs. Take home message: Use less fertilizer at home, it leads to low oxygen for fish.

2. **Promote the benefits and remove the barriers for your target audience to make these behavior changes.**

“They like the hands-on component, compared to just a book,” says Dunbar, program manager, describing why teachers think that River Star Schools offers the benefit of reinforcing what they teach. In addition, Dunbar is careful to interview area school curriculum directors each year to find out the latest education challenge, then gear her Learning Barge program to meet that need as well as our mission.

Barriers for teachers included a fear of doing anything that wasn’t obviously essential to meet state standards; not knowing what activities to do, and thinking the activities would require funding (“90% don’t know how to write a grant,” says Dunbar).
Recognition banners helped overcome the fear factor. “It became not the vogue thing to not be on the list,” says Dunbar. “Superintendents started recognizing the big (River Star School) banners at the front door. Schools started calling, saying, ‘I gotta have that banner before the superintendent comes in. What do I need to do to earn that banner?’

The biggest help for overcoming a lack of ideas, and a lack of funding, has been posting what other teachers did, along with their contact information, to cross-pollinate ideas, says Dunbar. “They contact each other directly now.” They’ve also learned the many projects for which they don’t need money, from litter cleanups to promoting greener lunches.

3. **Expect to generate a level of goodwill and openness not possible with a regulatory approach. Honor the trusting relationship.**

Unlike the teacher’s daily world of meeting the requirements of VA Standards of Learning, River Star Schools involves a simple relationship, built on trust. The teacher emails 100 words about what was accomplished.

4. **Keep entry FREE - or your audience may dismiss your pitch as a gimmick to raise money.**

As with all three of our River Star programs, River Star Schools is free, including the recognition banners, plaques and certificates. We pay for them with grants and donations. Sometimes schools decide on their own to raise money for Elizabeth River Project, and that’s great! We don’t look for it. As with the other programs, we find it important not to taint the relationship with a request for money.

5. **Set the bar low for entry.**

Entering the River Star Schools program is easy. The teacher completes a form by Earth Day (April 22) each spring, describing the project in 100 words or less.

We tried a more complicated process in the beginning. You signed up in the fall and described your project then. You applied again in the spring with a detailed report. Busy teachers? Not going to happen with very many.

6. **Provide incentives to motivate more than entry-level effort.**

The Elizabeth River Project has become adept at creative, enticing education programs and successful grant writing to underwrite a majority of student costs for attending.
Dollar Tree has been a faithful sponsor for the plants, teacher workshops and buses we provide for Wetlands in the Classroom. Recently we’ve added a delightful incentive, books such as a Lorax workbook that goes home with each pre-k student, thanks to additional sponsors including Portsmouth General Hospital Foundation.

We incentivize busy teachers to spend not just a day, but all year in intensive instruction with us by providing $300 teacher stipends to entire grade levels, thanks to a large grant from NOAA’s B-Wet program. This grant also pays the bus cost to visit the Learning Barge.

“The Learning Barge is the most fun of fourth grade so far”
- Julianna, student

7. Overcome the knowledge barrier with hands-on, one-on-one advice.

We mentioned that teachers now learn from each other, one-on-one. In addition, our field trips provide individualized instruction. On the Learning Barge, each station has a deckhand educator, usually a college student or recent graduate, working with no more than 10 students to lead hands-on experiments conducted by each student. “They remember the lesson so much more vividly,” says Jackson, Executive Director.
Thank You

We hope that you will use this guide to create a voluntary environmental change in your community. For more information on the Elizabeth River Project, please visit ElizabethRiver.org or call 757-399-7487. For more information on community based social marketing, visit Doug McKenzie-Mohr’s website at cbsm.com.

Elizabeth River Project staff, 2014
Appendix 1: River Star Homes Program Brochure

The River does so much for us.

It's time to return the favor.

River Star Homes are a special group dedicated to making our rivers safe for swimming and fun. Join them now and see the difference.

River Star Homes follow 7 easy practices.

1. "GOOCHIE" FUND - after the rain, when pit waste washes into the river, let it settle before swimming or wading in the river.

2. JAVA CHORES - from grass clippings, leaves and dirt, storm drains lead to the river. Even leaves add excess nutrients that harm river life.

3. HELP GESE MIGRATE - by not feeding them. Over-populations of geese mean too much poop in the river - and unsightly swimming.

4. DON'T FLUSH MEDICINES - treatment facilities can't remove medicines from sewage. Keep them out of the river by following safe disposal methods.

5. NO GREASE IN BATH - Pouring grease down the kitchen sink can cause clogged drains, leading to sewer overflows - and raw sewage in the river.

6. PUMP OUT - food waste can cause unacceptable odors. When food waste is pumped directly into the river, it adds to unlivable conditions.

7. REDUCE FERTILIZERS - on our laws. Over-irrigated lawns lead to algae blooms that choke river life.

For residents of Virginia's Elizabeth River area only (see map on front).

The Elizabeth River Project

The Elizabeth River is one of the great urban harbors of the world. She's also home to 100,000 residents who benefit from the benefits of a healthy river. Our bold goal to make the Elizabeth River safe again for swimming and boating becomes more attainable with the help of the Elizabeth River Project.

River Star Schools - and the Learning Process

We've also recruited the volunteer generation. To date, 13 schools have completed hands-on river stewardship projects at River Star Schools. Since 2005, the Learning process has also offered students a unique experience aboard the boat, which is hosted at the school.

Now it's your turn - River Star Homes!

Join the fun! Help create a healthier river. River Star Homes is a program designed to help make that difference.

Visit www.RiverStarHomes.org for more information or call (757) 399-3987.

RiverStarHomes.org
Appendix 2: River Star Homes – Gold Ribbon Criteria

To be eligible for a gold ribbon, you must complete 5 items from each list.

<table>
<thead>
<tr>
<th>Choose 5 from this list:</th>
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<tbody>
<tr>
<td>Plant a native plant</td>
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<tr>
<td>Don’t use chemical pesticides or herbicides</td>
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<tr>
<td>Pick up litter regularly</td>
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<tr>
<td>Add a bird bath or bird house</td>
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<tr>
<td>Minimize use of your garbage disposal or remove it</td>
</tr>
<tr>
<td>Use reusable grocery bags and water bottles</td>
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<tr>
<td>Recruit a new River Star Home</td>
</tr>
<tr>
<td>Participate in a River Star Homes event</td>
</tr>
<tr>
<td>Report wildlife sightings or river conditions to our Facebook page</td>
</tr>
<tr>
<td>Raise mower blades to at least 3&quot;</td>
</tr>
<tr>
<td>Only water lawn as needed - about 1&quot; a week during growing season</td>
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<tr>
<td>Wash your car at a car wash that recycles the water instead of in your driveway</td>
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<tr>
<td>Leave grass clipping on your lawn and mulch leaves</td>
</tr>
<tr>
<td>Keep the area around your storm drain and gutters clear or leaves, grass clippings, and</td>
</tr>
<tr>
<td>other debris</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Choose 5 from this list:</th>
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</thead>
<tbody>
<tr>
<td>Replace a portion of your lawn with native plants</td>
</tr>
<tr>
<td>Plant or conserve a &quot;buffer&quot; along your shoreline</td>
</tr>
<tr>
<td>Participate in oyster monitoring or growing</td>
</tr>
<tr>
<td>Install a rain barrel</td>
</tr>
<tr>
<td>Plant a rain garden</td>
</tr>
<tr>
<td>Use an electric or push mower</td>
</tr>
<tr>
<td>At least once a week, commute by foot, bike, carpool, or mass transit</td>
</tr>
<tr>
<td>Offer your home for pictures or interviews to promote the River Star Homes Program</td>
</tr>
<tr>
<td>Get your soil tested</td>
</tr>
<tr>
<td>Compost leaves, grass clippings, and/or food waste</td>
</tr>
<tr>
<td>Recruit another River Star Home</td>
</tr>
<tr>
<td>Properly dispose of hazardous waste - CFLs, batteries, paint</td>
</tr>
<tr>
<td>Replace concrete or asphalt with pervious pavers</td>
</tr>
<tr>
<td>Redirect downspout away from pavement or sewer and toward a garden bed</td>
</tr>
</tbody>
</table>
Appendix 3 – River Star Businesses

River Star Businesses is the program of the Elizabeth River Project for organizations that are “Doin’ right by the river” with voluntary pollution prevention and wildlife habitat enhancement results.

★★★★ Model Level Business and Government Facilities ★★★★

These companies earn the Model Level designation through exceptional pollution prevention and wildlife habitat results while mentoring others as community leaders in environmental stewardship.

- EAE Systems Norfolk Ship Repair
- Chesapeake Arboretum
- Chesapeake Sheriff’s Office
- CITGO Petroleum Corp - Chesapeake
- Dominion Virginia Power, Chesapeake Energy Center
- Enviwa Port of Chesapeake
- General Dynamics NASSCO-Earl
- Hermitage Museum & Gardens
- Heiss Corp - Chesapeake Terminal
- Hoffler Creek Wildlife Foundation
- HRSD
- Hampton Roads Transit
- Kinder Morgan/Elizabeth River Terminals
- Lafayette Wetlands Partnership
- Luck Stone Gilmerton Yard
- Maersk Line, Limited
- Mitsubishi Kagaku Imaging
- Naval Medical Center, Portsmouth
- Naval Station Norfolk
- NOAA Marine Operations Center - Atlantic
- Norfolk Environmental Commission
- Norfolk Naval Shipyard
- Norfolk Planning & Community Development
- Norfolk Southern Lambert’s Point
- NRRA Grady Village & Learning Center
- Old Dominion University
- Skanska USA Civil Southeast
- Southern States Cooperative - Chesapeake
- Fertilizer Plant
- SPSA Operations
- Tidewater Community College
- US Coast Guard, Base Portsmouth
- U.S. Maritime Administration, Division of Atlantic Operations
- Virginia Port Authority
- Virginia Zoo
- Volvo Penta of the Americas
- Wheelabrator Portsmouth

★★ Achievement Level Business and Government Facilities ★★

These companies have shown significant results in both pollution prevention and wildlife habitat, relative to size and nature of organization.

- Accurate Marine Environmental
- Beach Marine Services
- Chesapeake Parks & Recreation
- Chesapeake Public Works
- Christ & Saint Luke’s Episcopal Church
- Christian Broadcasting Network
- Culpepper Landing
- General Dynamics NASSCO-Norfolk
- Great Bridge Battlefield & Waterways History Foundation
- Hampton Roads Rowing Club
- Izaak Walton League of America
- Kinder Morgan Southeast Terminals
- Knitting Mill Creek Yacht Club
- Larchmont Branch Library
- Luck Stone Berkeley Yard
- Lyon Shipyards
- Marine Hydraulics International
Achievement Level Business and Government Facilities (Con’t)

Norfolk Environmental Stormwater Management ~
Norfolk Tug Company
Ocean Marine Yacht Center
Perdue Agribusiness Chesapeake Plant ~
PETA
Portsmouth Parks, Recreation & Leisure Services
Portsmouth Public Works/Stormwater

Saint Paul’s Episcopal Church
SIMS Metal Management - Chesapeake
South Norfolk Neighborhood Watch Group Inc.’s
South Norfolk Harvest Share
Yancey Line Bunkering
Virginia Beach Environment & Sustainability Office

★ Commitment Level Business and Government Facilities ★

These companies have shown significant results in either pollution prevention or wildlife habitat enhancement.

Allied Concrete Products
Bank Street Associates
Bay Environmental
Cape Henry Audubon Society - Weyanoke Wildlife Sanctuary
Celebrate! Trees
Chesapeake Central Fleet Management
Chesapeake Environmental Improvement Council
CMA CGM (America) LLC
Colonial Pipeline
Colonna’s Shipyard
Continental Research
Doody Calls - Hampton Roads ~
East Coast Bicycles
Eastern Virginia Medical School
Ecocycling
Environmental Banc & Exchange - Chesapeake Wetlands Site
Five Points Community Farm Market
The Founders Inn & Spa
Hampton Roads Behavioral Health
Intracoastal Marine
Island Properties/Island Estates
Kinder Morgan Money Point Terminals
Lafarge North America Cement ~
Chesapeake Plant

Marine Oil Service ~
Marine Repair Services - Container Maintenance Corp.
McLean Contracting
Naval Support Activity Hampton Roads Lafayette River Annex
Norfolk Department of Utilities
Norfolk Yacht & Country Club
O’Sullivan’s Wharf
Portsmouth Boating Center
Renaissance Portsmouth Hotel & Waterfront Conference Center
Roland Park Civic League
Smartmouth Brewery
South Norfolk Jordan Bridge
Top Guard Security
Top Rack Marina
Trans Montaigne Product Services - Norfolk Complex
US Army Corps of Engineers, Norfolk District
Vulcan Norfolk Sales Yard
Vulcan Westminster Stone & Recycling Yard
Waterside & Nauticus Marinas
Waterway Recycling
West Park View Community League

~ Companies and organizations designated with a tilde are honored in 2014 for “Sustained Distinguished Performance,” signifying completion of a significant new initiative by the River Stars.

For info: Pam Boatwright | pboatwright@elizabethriver.org | 757-399-7487 | elizabethriver.org
Program/Advancement Criteria

Sustainable development marries two important themes: that environmental protection does not preclude economic development and that economic development must be ecologically viable now and in the long run. (US EPA)

★ Commitment Level – you’re halfway there.
- One star, Commitment Level recognition is recommended by peer review once the potential River Star documents significant achievements in EITHER wildlife habitat OR other environmentally responsible practices (such as pollution prevention). Achievements are clearly quantified, are achieved with meaningful employee involvement and are significant relative to the size and nature of the organization (see separate criteria for schools). Achievements are recognized only when they are clearly beyond regulatory expectations. Community outreach and education efforts should also be noted.
- Pollution prevention strategies should illustrate significant elimination or reductions. The River Star is expected to eliminate, reduce, reuse or recycle (ideally in that order) sources of pollution, which can include reducing toxins, green building techniques, stormwater runoff improvements, energy efficiency efforts, and even redevelopment of contaminated sites (see attached application). Pollution prevention principles are further described in Elizabeth River Project’s “Balancing Industry and the Environment: How to Achieve Win-Win on the Industrial Waterfront, A Guide to Sustainable Development Practices.”
- The River Star establishes a diverse habitat following principles described in the Wildlife Habitat Guide and meeting the Wildlife Habitat Enhancement Form guidelines (see attached application). Those sites with little or no opportunity for on-site enhancement are expected to adopt and maintain an off-site project.
- The organization is in consistent compliance or shows significant progress toward compliance with all environmental regulations as indicated by relevant regulatory agencies taking into account whether violations are a result of willful action or negligence or are the result of one-time accidents the company had little opportunity to prevent.

★★ Achievement Level – you’re environmentally well rounded!
- Two-star, Achievement Level recognition is recommended by peer review. Achievement Level is attained when a River Star documents significant achievements in environmentally responsible practices (such as pollution prevention) AND wildlife habitat. Achievements are clearly quantified, are achieved with meaningful employee involvement and community outreach and are significant relative to the size and nature of the organization. Achievements are recognized only when they are clearly beyond regulatory expectations. Community outreach and education efforts should also be noted.
- Pollution prevention strategies should illustrate significant elimination or reductions. The River Star is expected to eliminate, reduce, reuse or recycle (ideally in that order) sources of pollution, which can include reducing toxins, green building techniques, stormwater runoff improvements, energy efficiency efforts, and even redevelopment of contaminated sites (see attached application). Pollution prevention principles are further described in Elizabeth River Project’s “Balancing Industry and the Environment: How to Achieve Win-Win on the Industrial Waterfront, A Guide to Sustainable Development Practices.”
- The River Star establishes a diverse habitat following principles described in the Wildlife Habitat Guide and meeting the Wildlife Habitat Enhancement Form guidelines (see attached application). Those sites with little or no opportunity for on-site enhancement are expected to adopt and maintain an off-site project.
- In addition, the organization is in consistent compliance or shows significant progress toward compliance with all environmental regulations as indicated by relevant regulatory agencies taking into account whether violations are a result of willful action or negligence or are the result of one-time accidents the company had little opportunity to prevent.
★★★ Model Level – you’re the BEST!

- Three-star, Model Level recognition is awarded by peer review. Model Level is attained when a River Star achieves **such exceptional accomplishments in environmentally responsible practices (such as pollution prevention) and wildlife habitat that the River Star is recognized as a community leader in environmental stewardship.** Achievements are clearly quantified, achieved with meaningful employee involvement and are significant relative to the size and nature of the organization. Achievements are recognized only when they are clearly beyond regulatory expectations.
- Community leadership in environmental stewardship is demonstrated by innovation in resolving environmental problems; awards, media recognition and community outreach activities.
- The River Star is expected to implement a comprehensive written pollution prevention plan reflecting a thorough assessment of opportunities incorporating initiatives throughout operations that produce exemplary results in the elimination or reduction of pollution. The River Star is expected to eliminate, reduce, reuse or recycle (ideally in that order) sources of pollution, which can include reducing toxics, green building techniques, stormwater runoff improvements, energy efficiency efforts, and even redevelopment of contaminated sites (see attached application). Pollution prevention principles are further described in Elizabeth River Project’s “Balancing Industry and the Environment: How to Achieve Win-Win on the Industrial Waterfront, A Guide to Sustainable Development Practices.”
- The River Star establishes a diverse habitat following principles described in the Wildlife Habitat Guide and meeting the Wildlife Habitat Enhancement Form guidelines (see attached application) or conserves a non-cultivated natural area of native vegetation through appropriate management and stewardship to the maximum extent practical in relation to the size and nature of the organization. Those sites with little or no opportunity for wildlife habitat on-site enhancement will be expected to adopt and maintain an off-site project.
- In addition to meaningful employee involvement, the organization is a successful mentor to other participants in the program. Mentoring must be measured in respect to helping other participants advance in the River Stars Program and/or recruiting new participants in the program and guiding their success, understanding that this process involves an ongoing relationship of mutual exchange of ideas and encouragement (See Mentoring expectations).
- The River Star is in consistent compliance with all environmental regulations as indicated by the relevant regulatory agencies, taking into account whether violations are a result of willful action or negligence or of one-time accidents the company had little opportunity to prevent.

Recertification and Sustained Distinguished Performance

- All existing River Stars must document the continuance or maintenance of previously recognized efforts in environmental practices (such as pollution prevention) and/or wildlife habitat efforts to recertify participation in the program after three years. In addition to recertification, if a River Star documents significant new efforts in EITHER pollution prevention OR wildlife habitat enhancement, the facility can be considered for advancement to the next level or be recognized for Sustained Distinguished Performance. Sustained Distinguished Performance efforts should be significant relative to the size and nature of the organization.

Other complementary River Star programs

- **River Star Schools** – Schools and youth groups that complete environmental projects are eligible. (Colleges and universities are eligible under River Star Businesses.) Contact Robin Dunbar, 399-7487, rdunbar@elizabethriver.org or http://www.elizabethriver.org/#river-star-schools/cbww
- **River Star Homes** – Homeowners agree to seven easy actions like Scoop the Poop, no grease down the drain, and reduce fertilizer in order to earn a free yard flag. For more information, call 399-7487 or visit www.RiverStarHomes.org
## Spreadsheet for Ranking Priority River Star Businesses for Recruitment in 2014

<table>
<thead>
<tr>
<th>Potential River Star</th>
<th>Willingness</th>
<th>Toxics</th>
<th>Stormwater</th>
<th>Solvency</th>
<th>ERP focus</th>
<th>Education</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kinder Morgan/Allied</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>2</td>
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<td>SKW</td>
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<td>Bay Diesel</td>
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<td>3</td>
<td>1</td>
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<td>Weston</td>
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<td>1</td>
<td>1</td>
<td>3</td>
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### Criteria Legend scale 1-5 with 3 being the highest potential

- **Willingness** - Interest in the program and motivation to participate
- **Ability to reduce toxics** - Existing P2, nature of processes, many discharge permits
- **Stormwater improvement** - Effective treatment of runoff, volume of runoff
- **Habitat potential** - Available land size; land adjacent to another habitat
- **Financial solvency** - Funds available for P2 and habitat efforts
- **ERP focus area** - Grant driven, special opportunity or high priority in Master Plan
- **Educational potential** - Inspires behavioral change in the community
## Appendix 6 – River Star Schools

Congratulations! 150 schools/youth organizations are recognized as River Stars in 2012-2013 for implementing conservation, restoration and/or habitat enhancement projects. Seventy-one schools met Model Level going above and beyond and serving more than one year in the program and seventy-nine schools met Achievement Level for projects including oyster gardening, wetland plantings, litter clean-ups, recycling, water quality testing, field investigations and more.

### MODEL LEVEL

<table>
<thead>
<tr>
<th>School Name</th>
<th>Model Level</th>
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<tbody>
<tr>
<td>Atlantic Shores Christian School</td>
<td>Maury High School</td>
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<tr>
<td>Bea Hayman Clark Vessel</td>
<td>Mount Hermon Preschool</td>
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<tr>
<td>Booker T. Washington High School - NEW</td>
<td>Nansemond Suffolk Academy</td>
</tr>
<tr>
<td>Butts Road Primary</td>
<td>Nauticus Junior Scientists Club</td>
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<td>Camp E. W. Young</td>
<td>New Castle Elementary</td>
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<td>Campostella Elementary</td>
<td>Norfolk Academy</td>
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<td>Christ the King Catholic School</td>
<td>Norfolk Highlands Primary</td>
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<td>North Landing Elementary - NEW</td>
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<td>Oceanair Elementary</td>
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<td>Cub Scout Pack 421</td>
<td>Ocean Lakes Elementary</td>
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<td>Deep Creek Middle</td>
<td>Ocean View Maritime</td>
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<td>Deer Park Elementary - NEW</td>
<td>Park View Elementary</td>
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<td>ENVIROBASE Aquarius</td>
<td>Portsmouth Catholic Regional School</td>
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<td>Providence Elementary</td>
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<td>Girl Scout Council of Colonial Coast</td>
<td>St. Gregory the Great School</td>
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<td>Granby Elementary</td>
<td>St. Patrick Catholic</td>
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<td>St. Pius X School</td>
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<td>Suburban Park Elementary - NEW</td>
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<td>Tallwood High School</td>
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<td>Trinity Lutheran School</td>
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<td>Jackson Memorial Preschool - NEW</td>
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<td>Jacox Elementary School</td>
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<td>Kemps Landing Magnet School - NEW</td>
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<td>Kempsville Elementary</td>
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<td>Kempsville High School - NEW</td>
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<td>Willard Model Elementary</td>
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<td>Kingston Elementary</td>
<td>William E. Waters Middle School</td>
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<td>Larchmont Elementary</td>
<td>Woodrow Wilson High School</td>
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<tr>
<td>Lindenwood Elementary</td>
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</table>
ACHIEVEMENT LEVEL
Alanton Elementary - NEW
Arrowhead Elementary
Azalea Gardens Middle School
Bayview Elementary - NEW
Blair Middle School
Brandon Middle School
Brighton Elementary
Camp Allen Elementary - NEW
CBP's Virginia Canoe Program
Cedar Road Elementary
Chesterfield Academy
Churchland Academy
Churchland Elementary
Churchland Primary
Coleman Place Elementary
Crestwood Intermediate - NEW
Crestwood Middle School
Crossroads Elementary
Cub Scout Pack 42
Deep Creek Central - NEW
Douglass Park Elementary
Emily Spong Preschool - NEW
E.W. Chittum Elementary - NEW
Fairlawn Elementary
G.A. Treakle Elementary
Girl Scout Troop 501
Girl Scout Troop 819
Glenwood Elementary School
Granby High School
Grandy Village Learning Center
Hodges Manor Elementary
I.C. Norcom High School
Ingleside Elementary
James Hurst Elementary
James Monroe Elementary
John Tyler Elementary
Jolliff Middle School
Lafayette Winona Middle
Lake Taylor High School
Lakeview Elementary
Larrymore Elementary - NEW
Little Creek Elementary
Kempsville Middle School
Mary Calcott Elementary
Montessori Academy of Virginia
Norfolk Collegiate Middle & Upper School
Norfolk Technical Center
Northside Middle School
Norview Elementary
Norview High School
Norview Middle School
Olive Branch Elementary
Parkway Elementary
P.B. Young, Sr. Elementary
Poplar Halls Elementary
Portsmouth Christian - NEW
Rena B. Wright Primary
Richard Bowling Elementary
Rosemont Middle School
Ruffner Middle School
St. Helena Elementary
Seatack Elementary - NEW
Sewells Point Elementary
Simonsdale Elementary
Southeastern Elementary School
Southwestern Elementary School
Tanners Creek Elementary
Tarrallton Elementary - NEW
T.C.C. – Camp Osprey
Tidewater Park Elementary
Truitt Intermediate School
Victory Elementary
Virginia Aquarium
Westhaven Elementary
Western Branch High School
Willoughby Elementary
Woodstock Elementary
Young Life – Paradise Creek Nature Park
Ambassadors

Made possible by: American Honda Foundation, Chesapeake Bay Innovative Nutrient and Sediment Reduction Grant from National Fish and Wildlife Foundation, Dollar Tree Foundation, Funds generated by the sale of Chesapeake Bay license plates, NOAA B-WET, Portsmouth General Hospital Foundation and The Elizabeth River Project
Appendix 7 – River Star Schools Application

Royal Greetings!

I would like to recognize YOU and your students for what you did for the Elizabeth River this year!

Goal is to recognize ALL schools & youth organizations in the Elizabeth River’s watershed
Deadline Earth Day – April 22

Made possible by:
Did you know...
there are over 200 schools in the Elizabeth River watershed and YOUR school is one!

- The Elizabeth River Project’s goal this year is to recognize ALL schools for environmental achievements.

- Last year we recognized 150 schools for projects related to pollution prevention and/or habitat enhancement that included an education component and a positive impact on the Elizabeth River.

- We know YOU and the students worked hard and we would love to give each student a certificate and your school a plaque and banner (Banners are for Model Level).

- Your project could have taken 1 day, a week, a month or all year

Examples of projects: Water monitoring, oyster gardening, plant & wildlife identification, worm composting, recycling, field trips, science projects, eco-art, poetry, journaling, literature, clean-ups, plantings, outdoor classrooms, letters to community/legislators, , butterfly gardens, native plants, wetland activities, water/life cycle activities, seed collection, river history, Native American history, maritime history, import/export activities, watershed, storm drains, air pollution, habitats, rain gardens, migration, theatre, astronomy, navigation, tides, Earth Day activities, exhibits, environmental clubs, environmental literacy and river stewardship.

- We know each of you did something and we’d love to thank you!

- Just fill out the attached form and mail, email or fax by April 22.
The sooner the better so we can prepare awards. If you don’t plan to implement your project until after Earth Day…that’s o.k. Just explain what you plan to do.

Help us reach our goal!
WHAT IS A RIVER STAR SCHOOL?
A River Star School is a school/youth organization that implements a project in pollution prevention or habitat enhancement and has an education value that benefits the Elizabeth River or its watershed. The project can be small or large and could take one day to all year to complete. The River Star School program is based on the school year, with the expectation that most schools will commit to the program at the beginning of the school year. April 1st summaries of projects are turned into The Elizabeth River Project and reviewed by a committee. Schools are notified in May of committee decisions and awards are then mailed or delivered to schools. Schools are recognized with a plaque and students with certificates. If the school has participated in the program for more than one year and goes above and beyond, they could be recognized as a Model level school. If recognized as a Model level school a banner is awarded along with plaque and certificates.

WHO CAN BE A RIVER STAR SCHOOL?
Any school in the four Elizabeth River watershed cities of Norfolk, Portsmouth, Chesapeake, and Virginia Beach may participate or outside the watershed provided they make the connection between their project and the Elizabeth River.

BENEFITS
- Elizabeth River cleanup efforts progress
- Community recognition
- Standards of Learning objectives addressed
- Opportunity for service learning

SOME EXAMPLE OF PROJECTS: Water monitoring, oyster gardening, plant & wildlife identification, worm composting, recycling, field trips, science projects, eco-art, poetry, journaling, literature, clean-ups, plantings, letters to community/legislators, outdoor classrooms, butterfly gardens, native plants, wetland activities, water/life cycle activities, seed collection, river history, Native American history, maritime history, import/export activities, watershed, storm drains, air pollution, habitats, rain gardens, migration, theatre, astronomy, navigation, tides, Earth Day activities, exhibits, environmental clubs, environmental literacy and river stewardship.

HOW TO GET STARTED? Plan a project, implement and let us thank you.
For more information visit www.elizabethriver.org or contact Robin Dunbar, rdunbar@elizabethriver.org 757-392-7132.
What did you do for YOUR home river?

DUE Earth Day – April 22

School ____________________________________________

Address ___________________________ ZIP ____________

Teacher __________________________ Email ____________

# of students that participated ___________ Grade __________________

Phone # ________________________________

Were you trying to be recognized as a Model Level school? YES (circle)
Model level requires you have participated in the program at least 1 year already and you went above and beyond this year, you included an educational component in the classroom or mentored to another school or another grade within the school.

Some schools request 1 certificate for the school instead of each student receiving one. Do you prefer this? YES (circle)

Would you like Princess Elizabeth to present your school’s plaque at an award ceremony? YES (circle) Email date of event when you know.

In 100 words or less, describe the activity you accomplished. Most schools turn in 1 paragraph. Feel free to use the back of this sheet or attach a separate sheet.

Thank you!

Robin Dunbar,
Deputy Director - Education
The Elizabeth River Project – 475 Water Street, C103A
Portsmouth, Virginia 23704 – 757-392-7132 or fax 757-397-8377
rdunbar@elizabethriver.org