

September 10, 2020

**Memorandum #2020-108**

**TO: askHRgreen.org: Fats, Oils and Grease Subcommittee**

**BY: Katie Cullipher, Principal Environmental Education Planner**

**RE: askHRgreen.org: Fats, Oils and Grease Subcommittee Meeting – Tuesday, September 15, 2020**

The next meeting of the askHRgreen.org Fats, Oils and Grease Subcommittee will be held on **Tuesday, September 15, 2020 at 9:30 a.m.**

Pursuant to the declared state of emergency in the Commonwealth of Virginia in response to the COVID-19 pandemic and to protect the public health and safety of the Subcommittee members, staff, and the general public, the askHRgreen.org Fats, Oils and Grease Subcommittee meeting will be held electronically via Zoom. Participants can join the meeting using the following credentials:

To join by computer:

<https://us02web.zoom.us/j/82435019319?pwd=TitqSlJZN0lNcGU5QVBpVU5wOEEdKUT09>

-or-

To join by phone: 1-929-205-6099

Meeting ID: 824 3501 9319

Passcode: 809324

In the event you are unable to attend, please let us know. Comments and suggestions based on this agenda package are welcome. The agenda for the meeting is as follows:

**1. Meeting Summary**

The meeting summary for August is attached for your review and information.

Attachment 1

**Action:** Approve the meeting summary.

**2. Events**

The current listing of outreach events is as follows:

9/12	Go Green Market	Yorktown
9/17-9/20	Isle of Wight County Fair	Windsor
10/3	Virginia Beach Master Gardeners Fall Gardening Festival*	Virginia Beach
10/3	Arlo's Shed Radio Promotion	Chesapeake
10/8-10/11	Suffolk Peanut Festival	Suffolk
10/10	Lynnhaven River Now Fall Festival*	Virginia Beach
10/10	Litter & Recycling Expo	James City County
10/16-10/18	Poquoson Seafood Festival	Poquoson
11/10	Sensible Seafood Fest - Rescheduled	Virginia Beach
3/27-3/28	2021 Daffodil Festival	Gloucester
6/19	RiverFest	TBD

*\*Need volunteers for this event.*

**Action:** Based on discussion.

### 3. FY21 Campaigns

HRPDC staff will provide an update on the media campaign planning process for the “Grease Grinch” and “What Not to Flush” promotions.

**Action:** Based on discussion

### 4. Printing & Promotional Materials

Committee members should make arrangements to pick up their sludge judges and extensions as needed. The following materials have also arrived and are available for pickup as needed: “What Not to Flush” magnets/magnet boards and FOG coloring books.

**Action:** Based on discussion.

### 5. FOG Regional Program

The Committee will discuss the initial round of proposed changes from IW Consulting Service, LLC for the following: Hampton Roads Model FOG Ordinance, Regional Technical Standards for GCD Sizing, and MOA between VDHCD and VDEQ. A follow-up meeting has been scheduled with Ken Loucks to discuss these documents at 10:00 AM on Monday, September 21, 2020.

Attachment 5A, 5B, 5C

**Action:** Based on discussion.

### 6. GCD Enforcement MOA Update

Committee members should provide any updates on local approvals of the GCD Enforcement MOA. As of the date of this agenda, signed MOAs have been received from Hampton, Smithfield, Isle of Wight, Poquoson, and Suffolk.

**Action:** Based on discussion.

### 7. Roundtable & Public Comments

Committee members should share any information or discuss any current issues with their FOG programs.

**Action:** Based on discussion.

## **8. Staff Reports**

*Budget* – The current FY21 budget is attached for review.

*FY20 askHRgreen Annual Report* – The final draft of the annual report is attached for review.

*A virtual askHRgreen All Hands meeting* is scheduled for September 17<sup>th</sup> at 10:00 AM.

Attachment 8A, 8B

**Action:** Based on discussion.

**Next Meeting** is scheduled for Tuesday, September 15, 2020.

**askHRgreen.org Fats, Oils, and Grease Education Subcommittee Meeting**  
**Tuesday, August 18, 2020**  
**Zoom video conferencing or conference call**

Pursuant to the declared state of emergency in the Commonwealth of Virginia in response to the COVID-19 pandemic and to protect the public health and safety of the Subcommittee members, staff, and the general public, the askHRgreen.org Fats, Oils, and Grease Education Subcommittee meeting was held electronically via Zoom. These electronic meetings are required to complete essential business on behalf of the region. A recording of the meeting is available on the website.

**Attendance:**

Chad Krejcarek, PQ	Amanda Albright, HRSD
Amy Zieman, YK	Lindsay Dierks, NO
Catherine Filipowski, CH	<b>Alan</b>
Brent Werlein, VB	Daniel McCarty, VB
Jerry Hoddinott, CH	Katie Cullipher, HRPDC
Lacie Weaver, HRSD	Rebekah Eastep, HRPDC
Chelsey Daughtrey, SM	

The meeting summary was as follows:

**1. Meeting Summary**

The Subcommittee reviewed and approved the July meeting summary.

**Action:** Meeting summary approved.

**2. Events**

The current list of events is as follows:

9/12	Go Green Market	Yorktown
<del>9/17-9/20</del>	<del>Isle of Wight County Fair</del>	<del>Windsor</del>
10/3	Virginia Beach Master Gardeners Fall Gardening Festival*	Virginia Beach
10/3	Arlo's Shed Radio Promotion	Chesapeake
<del>10/8-10/11</del>	<del>Suffolk Peanut Festival</del>	<del>Suffolk</del>
10/10	Lynnhaven River Now Fall Festival*	Virginia Beach
10/16-10/18	Poquoson Seafood Festival	Poquoson
11/10	Sensible Seafood Fest - Rescheduled	Virginia Beach
3/27-3/28	2021 Daffodil Festival	Gloucester
6/19	RiverFest	TBD

- Yorktown Go Green Market is still scheduled to proceed in September.

**Action:** None.

### **3. FY21 Campaigns**

The FY21 media/campaign planning document for all askHRgreen.org Committees was provided for review. FOG Committee campaigns include the “Grease Grinch” and “What Not to Flush” creative campaigns, using existing creative assets.

- Grease Grinch scheduled 11.23 - 12.06 - The Committee would like to spread the campaign throughout November/December. The radio may be a shorter campaign with a digital campaign running throughout.  
<https://www.youtube.com/watch?v=nPmTSIbDJxc>
- What Not to Flush scheduled for February - dates for campaign are flexible but can be bumped up to respond to any increases in SSO.  
[https://www.youtube.com/watch?v=mYAlBqe\\_XVg](https://www.youtube.com/watch?v=mYAlBqe_XVg)

**Action:** Detailed media plans will be available for review at the September meeting.

### **4. Printing & Promotional Items**

The following items were ordered and are available for pickup. Committee members are encouraged to coordinate a pickup date/time with HRPDC staff.

- Dip Stick Pro sludge judges and six-foot extensions
- What Not to Flush magnet game (boards and game magnets)
- No grease sign stickers
- FOG coloring books - HRPDC staff will check on the digital version of the coloring books. The digital copy will be made available to the Committee via email and add to the askHRgreen.org website.

Remaining promotional item budget will go to support technical consulting services from Ken Loucks. Additional promotional items can be purchased if needed through the Committee’s carryover budget.

**Action:** Committee members should make arrangements to pickup promotional items from HRPDC.

### **5. Commercial Outreach**

The Committee has reviewed the HGI Cleaning Guide via email and submitted edits. The main change was for sizing to 25 gpm. HRPDC staff will finalize changes to HGI Cleaning Guide next week.

**Action:** HRPDC staff will finalize the HGI Cleaning Guide.

## **6. FOG Program & MOA Update**

Updates to MOA adoption should be tracked in the Google spreadsheet and signed copies should be kept on file with HRPDC. HRPDC staff will continue to follow up with Directors of Utilities on the status of MOA adoption at their monthly meetings.

- York County has signed the MOA but HRPDC still needs a copy to keep on file.

Technical consulting services from Ken Loucks were approved by the HRPDC Finance staff as a sole source provider for procurement purposes. The contract can be awarded on August 24. HRPDC staff have sent out a poll to coordinate a date and time for a launch meeting between Committee members and Ken Loucks. All localities are encouraged to participate.

**Action:** The Committee is encouraged to respond to request for scheduling launch meeting with Ken Loucks.

## **7. Roundtable & Public Comment**

- HRSD -
  - HRSD is hiring for a pretreatment position.
  - HGI sludge judge purchased through Raven Environmental. A discount will be offered for purchases of 10 or more if others are interested in a regional purchase.
  - Simplifying process for finding new regulated facilities (small communities or Hampton Roads surcharge/permit locations) by documenting how new sewer connections are handled v. a new location inside an existing facility. Localities are encouraged to communicate new locations to HRSD and HRSD will do the same for locality inspectors. January/July HRSD will plan to send updated list of regulated facilities for locality reference.
  - Virtual tour of SWIFT facility to continue engagement during social distancing
  - Continued focus on providing outreach and educational resources for schools and teachers during virtual learning
- Directors of Utilities Committee discussed FOG inspection fees at their monthly meeting. The Committee would like to document the fee schedule for each locality. Gloucester does have an inspection fee up front and interested in reinspection fees used in other localities.
- Chesapeake - distributing information packets to continue education efforts
- Norfolk - some inspections restarting but still working from home

- Virginia Beach - 75 percent failure rate mostly attributed to administrative issues including yellow grease log maintenance, certified employees, GCD cleaning logs, etc. New software allows haulers to upload GCD logs directly to tracking software. MOA does not need to go to council for approval so signed MOA should come from the Director's Office soon.

**Action:** HRSD will provide details on HGI sludge judge to interested localities.

## **8. Staff Reports**

*Budget* - The Committee reviewed the FY21 budget. Promotional items budget is fairly exhausted but carryover funds are available should needs arise. Directors of Utilities are reviewing the Committee budget for FY22 which has no increase from FY21.

*Annual report* - HRPDC staff sent Annual Report content for review. Final report will be available by the end of August. HRPDC staff will be scheduling a webinar All Hands Meeting to go through the annual report information, plans for FY21 and provide an opportunity for discussion among all four Committees. A Doodle poll will be sent by HRPDC staff to coordinate a date/time that works for the greatest number of people.

Great American Cleanup - Rescheduled from March due to COVID-19. The Recycling & Beautification Committee is encouraging mall group cleanups throughout the region on September 18-19.

**Action:** HRPDC staff will send Doodle poll for scheduling an All Hands meeting in September and finalize Annual Report by the end of August.

The next Committee meeting is scheduled for September 15, 2020.

# Hampton Roads Regional Technical Standards

## Sizing of Grease Control Devices

---

An element of the Special Order of Consent is the use of the Management, Operations, and Maintenance (MOM) program to reduce Sanitary Sewer Overflows (SSOs). Within the MOM program is the Fats Oils and Grease (FOG) component. FOG has been shown to be a significant source of SSO occurrence, and the reduction of FOG in a sanitary sewer system has typically resulted in a corresponding reduction of sewer blockages and SSOs.

The reduction of FOG in a system can be accomplished by the use of Best Management Practices (BMPs) for kitchens and by the use of Grease Control Devices (GCDs) in Food Service Establishments (FSEs). GCDs have been required in FSEs by plumbing codes since the 1940s, however, there has not been a satisfactory method for determining the size of the grease control device. Similarly, the cleaning frequency of the device has not been established other than by rules of thumb such as the commonly used 25% rule, i.e., when the combined depth of grease and solids within the tank, floating and settled, reaches 25% of the total liquid depth, the tank should be cleaned. Obviously, the tank size is important, with a smaller tank becoming a candidate for more frequent cleaning than a larger tank in the same situation. Given the lack of guidance on tank sizing, the purpose of this document is to establish a methodology that when used produces a reasonably-sized tank, consistent with other methods, and one that can produce duplicable results throughout the region.

### Fixture Requirements

Unless otherwise approved by the HRSD, all fixtures, equipment, and drain lines located in the food preparation, alcohol service, clean-up and food service areas of an FSE/property shall be connected to a grease interceptor. Fixtures required to connect to a grease interceptor shall include but are not limited to pot sinks, pre-rinse sinks, hand sinks, prep sinks, dishwashers, soup kettles, braising pans, wok ranges, mop sinks, floor sinks, floor drains, and wastewater generated from exhaust fan hood cleaning operations.

**Food waste disposers/garbage grinders (FWD) are prohibited.**

### Gravity Grease Interceptors (GGI)

Unless otherwise approved, GGIs shall not be installed. When approved for installation (see Appendix B: Alternate Grease Interceptor Approval Request Form), GGIs shall be made from materials that are compatible with a pH of 3. GGIs made from materials that are subject to corrosion such as concrete or steel, shall be lined or coated with a durable material approved by the City that is compatible with a pH of 3 and that cannot be easily penetrated, scraped away or removed. Acid Resistant Enamel (A.R.E) coatings are not acceptable.

The required capacity of gravity grease interceptors in total liquid volume, shall be determined by multiplying the peak drain flow into the interceptor in gallons per minute by a retention time of 30 minutes using pipe diameter and a one-minute drainage period.

## Automatic Grease Removal Units (AGRU)

When approved for installation (see Appendix B: Alternate Grease Interceptor Approval Request Form), AGRUs must be designed and tested in accordance with ASME A112.14.4 and/or CSA B481.5. Sizing shall be in accordance with Hydromechanical Grease Interceptor Sizing Step 1: Size by Flow Rate. Step 2: Size by Grease Production shall not apply to AGRUs.

## Sizing and Selecting Hydromechanical Grease Interceptors (HGI)

The following two-step sizing methodology for hydromechanical grease interceptors regardless whether the unit will be installed indoors or outdoors shall apply:

### *Step 1: Size by Flow Rate*

The minimum flow rate for a passive HGI may be calculated by either using pipe diameter or fixture volume using either a one-minute or two-minute drainage period. Use a one-minute drainage period when the interceptor is installed within 20 feet of directly connected fixtures and/or has indirectly connected fixtures. When the interceptor will be installed exterior to the building beyond 20 feet of the connected fixtures use a two-minute drainage period.

#### Fixture Volume Sizing

Use the following formula for sizing fixtures by volume with a 75% fill factor:

$$\left[ \frac{L \times W \times H}{231} \right] \times 0.75 = \text{Fixture Capacity Gallons}$$

Fixture Capacity Gallons x 1 = one-minute drainage period (GPM)

Fixture Capacity Gallons x 0.5 = two-minute drainage period (GPM)

Example: three-compartment sink with each compartment being 18 x 24 x 12 inches

$18 \times 24 \times 12 = 5184$  cubic inches (in<sup>3</sup>)

$5184 / 231 = 22.44$  fixture capacity gallons

$22.44 \times 3 = 67.3$  total fixture capacity gallons (three bowls)

$67.3 \times 0.75 = 50.4$  total fixture capacity after loading factor (75%)

$50.4 \times 1 = 50$  GPM one-minute drainage period /  $50.4 \times 0.5 = 25$  GPM two-minute drainage period

To determine the minimum required flow rate for the HGI, calculate the capacity of each fixture that will be connected and add the volumes together and use the appropriate drainage period. An appropriate HGI must be certified to meet the minimum flow rate as calculated. Multiple HGIs may be used separately or combined to meet the flow rate requirement.

It is advisable to use a one-minute drainage period when the HGI will be installed in the kitchen area near the fixtures being serviced. It is essential to use a one-minute drainage period when indirectly connected fixtures are connected to the grease interceptor. A two-minute retention time

assumes only directly connected fixtures are routed to the interceptor. A two-minute drainage period will negatively affect the total time for draining fixtures and is often a complaint of owners.

Pipe Diameter Sizing

When the final configuration of kitchen fixtures in an establishment is unknown or to allow for the addition of fixtures in the future, the minimum interceptor volume may be determined by the diameter of the drainage pipe leading from the establishment according to Table 1:

Table 1

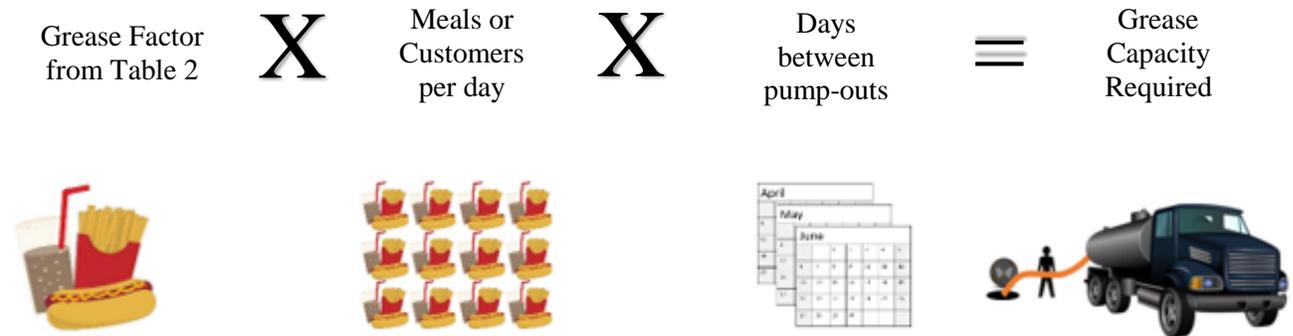
Pipe Size (inches)	Full-Pipe Flow (GPM) <sup>1</sup>	One-minute drainage period (GPM)	Two-minute drainage period (GPM)
2	20	20	10
3	60	75	35
4	125	125	75
5	230	250	125
6	375	400	200

1. 1/4 inch per foot based on Manning's formula with friction factor N = 0.012

When using pipe diameter sizing and the interceptor is installed inside the kitchen near the fixtures being serviced, it is advisable to use a one-minute drainage period to ensure the drainage time is not a nuisance. When installed in the kitchen near the fixtures being serviced and there is an indirectly connected fixture it is essential to use a one-minute drainage period. When installed exterior to the building, where the developed length of piping can be quite long, a two-minute drainage period will provide a satisfactory result in drainage times.

*Step 2: Calculate Grease Capacity*

Once the minimum flow rate has been established in Step 1, calculate the minimum grease storage capacity for the HGI required for the desired pump-out frequency as follows:



To determine the correct grease factor, using Table 2, select the menu type (1 through 30), then the correct column (A through D) for whether there is a fryer and whether the establishment uses disposable or washable plates, glasses, knives, forks and spoons (flatware).

Table 2

Type	Menu	Grease Factor →	without Fryer without flatware	without fryer with flatware	with fryer without flatware	with fryer with flatware
			A	B	C	D
1	Bakery		0.025	0.0325	0.035	0.0455
2	Bar and Grille		0.005	0.0065	0.025	0.0325
3	Barbeque		0.025	0.0325	0.035	0.0455
4	Breakfast Bar - Hotel		0.005	0.0065	0.025	0.0325
5	Buffet		0.035	0.0455	0.058	0.075
6	Burger and fries, fast food		0.025	0.0325	0.035	0.0455
7	Cafeteria		0.025	0.0325	0.035	0.0455
8	Caterer		0.005	0.0065	0.025	0.0325
9	Chinese		0.035	0.0455	0.058	0.075
10	Coffee shop		0.025	0.0325	0.035	0.0455
11	Convenience Store		0.005	0.0065	0.025	0.0325
12	Deep fried Chicken / seafood		0.035	0.0455	0.058	0.075
13	Deli		0.005	0.0065	0.025	0.0325
14	Family Restaurant		0.005	0.0065	0.025	0.0325
15	Frozen Yogurt		0.005	0.0065	0.025	0.0325
16	Greek		0.005	0.0065	0.025	0.0325
17	Grocery Bakery		0.005	0.0065	0.025	0.0325
18	Grocery Deli		0.025	0.0325	0.035	0.0455
19	Grocery Meat Department		0.025	0.0325	0.035	0.0455
20	Ice Cream		0.025	0.0325	0.035	0.0455
21	Indian		0.005	0.0065	0.025	0.0325
22	Italian		0.025	0.0325	0.035	0.0455
23	Mexican, fast food		0.025	0.0325	0.035	0.0455
24	Mexican, full fare		0.035	0.0455	0.058	0.075
25	Pizza		0.025	0.0325	0.035	0.0455
26	Religious Institution		0.005	0.0065	0.025	0.0325
27	Sandwich shop		0.005	0.0065	0.025	0.0325
28	Snack Bar		0.005	0.0065	0.025	0.0325
29	Steak and seafood		0.035	0.0455	0.058	0.075
30	Sushi		0.005	0.0065	0.025	0.0325

Example: Fast food burgers and fries, with fryer, with disposable flatware, serving 300 meals per day

Grease factor from Table 2: 6C = 0.035 pounds per meal

Meals per day = 300

Days between pump-outs\* = 90

Grease storage capacity required is  $0.035 \times 300 \times 90 = 945$  pounds

\*FSEs that are not open every day, may calculate the number of days actually open in a 90-day period and use that to calculate the total amount of grease capacity required.

The correctly sized and selected grease interceptor will have the minimum flow rate determined in Step 1 and the minimum grease storage capacity calculated in Step 2. When approved by HRSD, multiple grease interceptors may be installed to satisfy the minimum flow rate requirement, the minimum grease storage capacity, or both.

Approved grease interceptors must be certified by ASME A112.14.3 and or CSA B481. A valid test report must be submitted to HRSD for review that includes the incremental test results. No grease interceptor without validated efficiency and grease storage capacity will be approved. Only validated grease storage capacities may be used for sizing and selecting grease interceptors in accordance with this document.

Grease Control Devices must be submitted for approval by submitting a Grease Interceptor Sizing and Selection Worksheet (Appendix A) along with a specification sheet of the grease interceptor being submitted for approval.

When project conditions may not allow for a hydromechanical grease interceptor, the Alternate Grease Interceptor Approval Request (Appendix B) must be submitted for consideration.

Unless otherwise approved by HRSD, grease interceptors shall be maintained by a certified professional Grease Hauler. Food service establishments that want to clean out their own interceptors must submit the Appendix C: Alternate Maintenance Approval Request Form and upon approval shall comply with all of the requirements contained therein.

## Appendix A: Grease Interceptor Sizing and Selection Worksheet

1.  Interior Installation       Exterior Installation
2. Are there indirectly connected fixtures routed to the HGI?       Yes  No
3. Will the HGI be installed within 20 feet of the fixtures?       Yes  No

Note: for interior installations, if the answer to either question 2 or 3 is YES, use a one-minute drainage period, otherwise use a two-minute drainage period. For exterior installations use a two-minute drainage period.

### **Step 1: Calculate Flow Rate**

1. Total Fixture Volume: \_\_\_\_\_ Flow Rate GPM (one or two-minute): \_\_\_\_\_, OR
2. Pipe Diameter (Table 1): \_\_\_\_\_ Flow Rate GPM (one or two-minute): \_\_\_\_\_

### **Step 2: Calculate Grease Capacity**

1. Grease Factor (Table 2): \_\_\_\_\_
2. Average meals per day = \_\_\_\_\_

Grease Storage Capacity Calculation	Daily*	90 days
Grease Produced (lbs)		

\*multiply average meals per day times the number of days open per period times the grease factor for grease produced per period

**Note: The correctly sized and selected HGI(s) will have the minimum required flow rate determined in Step 1 and the minimum calculated grease storage capacity determined in Step 2.**

3. Make and model of the HGI selected: \_\_\_\_\_
4. Is the material of construction compatible with a pH of 3?       Yes  No
5. If the answer to number 4 is “no”, what material is the tank lined or coated with\*:  
\_\_\_\_\_

\*must provide evidence that the liner or coating is compatible with a pH of 3 and that it cannot be easily penetrated, scraped off or removed. Acid Resistant Enamel Coatings (A.R.E) are not allowed.

6. Flow rate (GPM): \_\_\_\_\_ Validated grease capacity\* (lbs): \_\_\_\_\_

\*Grease capacity must be validated by a certified test report complete with incremental test data.

Please submit the completed Grease Interceptor Sizing and Selection Worksheet to HRSD for approval along with a specification sheet for the device being submitted for approval.

Applicant Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Company: \_\_\_\_\_ Email: \_\_\_\_\_

Name of Establishment: \_\_\_\_\_

Signature of Applicant: \_\_\_\_\_ Date: \_\_\_\_\_

## Appendix B: Alternate Grease Interceptor Approval Request

### Gravity Grease Interceptor (GGI)

1. Peak flow rate for connected fixtures (Worksheet, Page 1): \_\_\_\_\_
2. Size of GGI\* (gallons): \_\_\_\_\_  
\*multiply peak flow rate of connected fixtures times 30 minutes
3. What material is the GGI made from? \_\_\_\_\_
4. Is the material compatible with a pH of 3?  Yes  No
5. If the answer to number 4 is “no”, what material is the tank lined or coated with\*:

\_\_\_\_\_

\*must provide evidence that the liner or coating is compatible with a pH of 3 and that it cannot be easily penetrated, scraped off or removed. Acid Resistant Coatings (A.R.E) are not allowed.

Reason for request: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Automatic Grease Removal Unit (AGRU)

1. Describe the fixtures to be connected: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. Total Fixture Volume (Table 5): \_\_\_\_\_ Flow Rate GPM (one minute): \_\_\_\_\_
3. Make and Model of the AGRU proposed: \_\_\_\_\_

Reason for request: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Please submit the completed Grease Interceptor Sizing and Selection Worksheet to the Utility for approval along with any other required documents.

Applicant Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Company: \_\_\_\_\_ Email: \_\_\_\_\_

Name of Establishment: \_\_\_\_\_

Signature of Applicant: \_\_\_\_\_ Date: \_\_\_\_\_

## Appendix C: Alternate Maintenance Approval Request

Self-cleaning by the owner and/or operator of an establishment is not allowed unless approved by the City. Only hydromechanical grease interceptors (HGI) with a liquid volume of less than 100 gallons may be considered for self-cleaning. When approved, the owner and/or operator of an establishment shall comply with the following requirements for maintenance on a weekly basis, at minimum, or more often as necessary as required by the City:

- Remove cover(s)
- Remove all fats, oils, and grease (FOG), solids, food debris, and wastewater
- Scrub and spray off all internal surfaces from the build-up of FOG or other residual materials
- Place all removed materials in garbage bag or other sealable container (not glass) along with an absorbent material (i.e. kitty litter) and dispose of in trash receptacle
- Inspect all internal components, replace anything missing or broken and ensure flow control device is installed
- Refill with fresh water
- Replace cover(s)
- Enter the required information on the maintenance log

At least once per quarter, the grease interceptor(s) shall be cleaned by a scavenger waste hauler, documented by a manifest, reported in the maintenance log, and all records maintained for the previous three (2) years.

Make and model of HGI: \_\_\_\_\_

Flow Rate: \_\_\_\_\_ Grease Storage Capacity: \_\_\_\_\_

Grease Factor (Table 2): \_\_\_\_\_ Average Meals per day: \_\_\_\_\_

Grease Produced per day\*: \_\_\_\_\_ Cleaning frequency\*\*: \_\_\_\_\_ days

\*multiply Grease Factor times Average Meals per day

\*\*Divide HGI grease storage capacity by Grease Produced per day

Reason for request: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Please submit the completed Grease Interceptor Sizing and Selection Worksheet to the Utility for approval along with any other required documents.

Applicant Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Company: \_\_\_\_\_ Email: \_\_\_\_\_

Name of Establishment: \_\_\_\_\_

Signature of Applicant: \_\_\_\_\_ Date: \_\_\_\_\_

1 **HAMPTON ROADS FOG MODEL ORDINANCE**  
2

3 **FATS, OILS, AND GREASE (FOG)**  
4

5 **SECTION 1. PURPOSE AND APPLICABILITY**

- 6 i. The purpose of this Division is to aid in preventing the introduction and accumulation of  
7 fats, oils, and grease into the **City/County/Town's** sanitary sewer system that may  
8 contribute to sanitary sewer blockages and obstructions. Food service establishments,  
9 grease haulers and other industrial or commercial establishments generating or collecting  
10 wastewater containing fats, oils, and grease are subject to this Division. This Division  
11 regulates such users by requiring that grease control devices and other approved strategies  
12 be installed, implemented and maintained in accordance with the provisions of this  
13 Division and other applicable requirements of the **City/County/Town of \_\_\_\_\_**.
- 14 ii. The provisions of this Division shall apply to all food service establishments within the  
15 **City/County/Town of \_\_\_\_\_** and to all grease haulers providing service to any such food  
16 service establishment.

17 **SECTION 2. DEFINITIONS**  
18

19 *Brown Grease* shall mean floatable fats, oils, grease and settled solids produced during food  
20 preparation that are recovered from grease control devices.  
21

22 *Enforcement Response Plan* shall mean a system that sets forth the process and procedures for  
23 enforcement of this section by the **City/County/Town of \_\_\_\_\_**.  
24

25 *Fats, Oils, and Grease (FOG)* shall mean material, either liquid or solid, composed of fats, oils or  
26 grease from animal or vegetable sources. Examples of FOG include, but are not limited to, kitchen  
27 cooking grease, vegetable oil, bacon grease and organic polar compounds derived from animal  
28 and/or plant sources that contain multiple carbon triglyceride molecules. These substances are  
29 detectable and measurable using analytical test procedures established in the United States Code of  
30 Federal Regulations at 40 CFR Part 136, as may be amended from time to time. FOG may be  
31 referred to herein as "grease" or "greases".  
32

33 *Food Service Establishment (FSE)* shall mean any commercial, industrial, institutional, or food  
34 processing facility discharging kitchen or food preparation wastewaters including, but not limited  
35 to, restaurants, commercial kitchens, caterers, motels, hotels, cafeterias, correctional facilities,  
36 prisons or jails, cafeterias, care institutions, hospitals, schools, bars and churches. Any  
37 establishment engaged in preparing, serving or otherwise making food available for consumption  
38 by the public shall be included. Such establishments use one or more of the following preparation  
39 activities: cooking by frying (all methods), baking (all methods), grilling, sautéing, rotisserie  
40 cooking, broiling, boiling, blanching, roasting, toasting, or poaching. Also included are infrared  
41 heating, searing, barbecuing, and other food preparation activity that produces a hot, non-drinkable  
42 food product in or on a receptacle that requires washing.  
43

44 *Grease Control Device (GCD)* shall mean a device used to collect, contain, or remove food waste  
45 and grease from the wastewater while allowing the remaining wastewater to be discharged to the  
46 City/County/Town's sanitary sewer system by gravity. Devices include hydromechanical grease  
47 interceptors, ~~grease traps~~, automatic grease removal devices or other devices approved by the  
48 Director of Public Utilities.

49 *Gravity Grease Interceptor (GGI)* shall mean a plumbing appurtenance of not less than 500  
50 gallons (1893 L) capacity that are installed in the sanitary drainage system to intercept free-  
51 floating fats, oils and grease from waste water discharge. Separation is accomplished by gravity  
52 during a retention time of not less than 30 minutes. Unless otherwise approved, GGIs shall not be  
53 installed.

Formatted: Font: Not Italic

54  
55  
56 *Grease Hauler* shall mean a contractor who collects the contents of a grease interceptor or trap and  
57 transports it to an approved recycling or disposal facility. A grease hauler may also provide other  
58 services related to grease interceptor maintenance for a FSE.

59  
60 ~~*Grease Interceptor* shall mean a structure or device, usually located underground and outside a~~  
61 ~~FSE, designed to collect, separate and contain food waste and grease while allowing the~~  
62 ~~wastewater to be discharged to the City/County/Town's sanitary sewer system by gravity.~~

63  
64 *Grease Removal Device (GRD)* shall mean an active, automatic device that separates and removes  
65 FOG from effluent discharge and that cleans itself of accumulated FOG at least once every twenty-  
66 four hours utilizing electromechanical apparatus. Unless otherwise approved, GRDs shall not be  
67 installed.

68  
69 ~~*Grease Trap* shall mean a device typically located indoors and under the sink or in the floor,~~  
70 ~~designed for separating and containing grease prior to the wastewater exiting the trap and entering~~  
71 ~~the sanitary sewer system. Such devices are typically passive (gravity fed) and compact with~~  
72 ~~removable baffles.~~

73  
74 *Hydromechanical Grease Interceptor (HGI)* shall mean a plumbing appurtenance that are installed  
75 in the sanitary drainage system to intercept free floating fats, oils and grease from waste water  
76 discharge. Continuous separation is accomplished by air entrainment, buoyancy, interior baffling  
77 in combination or separately, and one of the following:

Formatted: Font: Italic

- 78 (1) Units directly connected, with an external flow control, with an air intake (vent)  
79 (2) Units directly connected, with an external flow control, without an air intake (vent)  
80 (3) Units directly connected, without an external flow control, with or without internal flow  
81 control  
82 (4) Units indirectly connected, without an external flow control, with or without internal flow  
83 control

Formatted: Left

84  
85 *Renderable FOG Container* shall mean a closed, leak-proof container for the collection and  
86 storage of yellow grease.

87  
88 *Yellow Grease* shall mean FOG used in food preparation that have not been in contact or  
89 contaminated with other sources such as water, wastewater or solid waste. An example of yellow

Formatted: Left, Numbered + Level: 1 + Numbering Style: 1, 2, 3, ... + Start at: 1 + Alignment: Left + Aligned at: 0" + Indent at: 0.25"

90 grease is fryer oil, which can be recycled into products such as animal feed, cosmetics and  
91 alternative fuel. Yellow grease is also referred to as renderable FOG.

92  
93  
94 **SECTION 3. REGISTRATION REQUIREMENTS**

95 All FSEs shall be required to register their establishment and GCDs with the FOG discharge  
96 management department. Registrations shall be on forms provided by the Department of Public  
97 Utilities to ensure that the establishment understands its compliance responsibilities, that their such  
98 devices GCDs are properly sized and maintained, as well as to facilitate inspection in accordance  
99 with the requirements established by the Department of Public Utilities.

100 a) Registration of FSEs with the FOG discharge management department is required before a  
101 business license will be issued.

102 ~~a)b)~~ Existing FSEs shall register all GCDs within ninety (90) days of the adoption of this  
103 ordinance. New establishments shall register when setting up their water and sewer service  
104 or prior to obtaining a certificate of occupancy.

105 ~~b)c)~~ All grease haulers, owners, or employees servicing GCDs for FSEs within the  
106 City/County/Town shall be required to obtain a certification to service GCDs from the  
107 Hampton Roads FOG regionally-approved training program provided by the HRPDC.

108 ~~e)d)~~ All grease haulers shall comply with the requirements of the Hampton Roads Regional  
109 Pumper Management Program and obtain the required permits, certifications and or  
110 approvals from the facility in which waste will be disposed of. Grease haulers discharging to  
111 a Hampton Roads Sanitation District (HRSD) treatment plant shall be approved through the  
112 HRSD Indirect Wastewater Discharge Permit.

113 ~~e)e)~~ FSEs shall have a current employee who has successfully completed the Hampton Roads  
114 FOG regionally-approved Best Management Practices training program provided by the  
115 HRPDC.

116 **SECTION 4. DISCHARGE LIMITS**

117  
118 No person shall discharge or cause to be discharged from any FSE any wastewater with  
119 FOG in concentrations or quantities that will damage the sewers or sanitary sewer system, as  
120 determined by Section 301 D. of the Hampton Roads Sanitation District's Industrial Wastewater  
121 Discharge Regulations.

122  
123 **SECTION 5. GREASE CONTROL DEVICES**

124 i. *Requirements.* All FSEs shall have a GCD(s) meeting all applicable requirements for  
125 testing and certification of ~~the International Plumbing Code or its successors~~ ASME  
126 A112.14.3, ASME A112.14.4, or CSA B481. The GCD(s) shall be designed in  
127 accordance with the Hampton Roads Regional ~~Grease Control Device Design Standards~~  
128 Technical Standard for Grease Control Devices.

Formatted: Highlight

129 1) *New Establishments* – Except as provided in subdivision (a) (2), FSEs shall be  
130 required to install, operate, and maintain a GCD in compliance with the  
131 requirements contained in this Division Section. GCDs shall be installed and  
132 registered prior to the issuance of a certificate of occupancy.

**Commented [KL1]:** I don't like the use of the term Division used like this. Section is preferred.

133 2) *Existing Establishments* – Existing FSEs in operation as of the effective date of  
134 this Division Ordinance shall be allowed to operate and maintain their existing  
135 GCDs, provided such GCDs are in proper operating condition and not found to be  
136 contributing FOG in quantities sufficient to cause line stoppages or to necessitate  
137 increased maintenance of the sanitary sewer system. If its GCD is determined to  
138 be contributing FOG in quantities sufficient to cause line stoppages or to  
139 necessitate increased maintenance of the sanitary sewer system, an existing FSE  
140 shall comply with the requirements of this Section. Existing FSEs that are  
141 renovated or expanded shall install a GCD meeting the requirements of this  
142 Division Section. GCDs shall be installed, inspected and registered as a condition  
143 of final approval of such renovation or expansion.

**Commented [KL2]:** I don't like the use of the term Division used like this. Ordinance is preferred.

144 3) *Retrofit* - Any existing FSE may be required to install or upgrade a GCD if such  
145 FSE is contributing FOG to the sanitary sewer system, as determined by the  
146 locality and HRSD. Such devices shall be registered with the locality within 30  
147 days of installation and shall comply with the requirements of this Section.

**Commented [KL3]:** I don't like the use of the term Division used like this. Section is preferred.

148 ii. *Installation of Grease Control Devices*

149 1) GCDs shall be installed by a plumber licensed in the Commonwealth of Virginia.  
150 Every GCD shall be installed and connected so that it may be readily accessible  
151 for inspection, cleaning, and removal of the intercepted food waste and grease at  
152 any time. Installation shall be in compliance with the International Plumbing  
153 Code, the Hampton Roads Regional Technical Standard for Grease Control  
154 Devices, and the manufacturer's instructions.

155 2) GCD covers shall meet the following load rating requirements:

- 156 i. Indoor, foot traffic only, minimum 300 pounds
- 157 ii. Indoor, pallet jack or fork lift traffic, minimum 2000 pounds
- 158 iii. Outdoor, non-vehicular traffic, minimum 2000 pounds
- 159 iv. Outdoor, vehicular traffic, minimum AASHTO M306 H20/HS20

**Formatted:** Indent: Left: 1.05", No bullets or numbering

160 3) GCD's shall have their manhole covers secured at all times with bolts, or locking  
161 mechanisms, or shall be of sufficient weight to prevent unauthorized access, or  
162 shall have a safety apparatus secured in place under the cover to prevent  
163 accidental entry if the cover is not secured in place.

**Formatted**

**Formatted:** Indent: Left: 1.05", No bullets or numbering

**Formatted:** List Bullet 3, Left, Numbered + Level: 2 +  
Numbering Style: 1, 2, 3, ... + Start at: 1 + Alignment: Left +  
Aligned at: 0.85" + Tab after: 1.1" + Indent at: 1.1"

**Commented [KL4]:** There have been several instances in the last few years of children falling into outdoor grease interceptors and we need to put in language to prevent or significantly reduce the opportunities for that to happen.

166 iii. *Maintenance of Grease Control Devices*

167 1) All GCDs shall be maintained at the owner's expense. Maintenance shall include  
168 the complete removal of all contents, including floating material, wastewater and

169 settled solids. Decanting or discharging of removed waste back into the grease  
170 interceptor or private sewer line or into any portion of the City/County/Town's or  
171 HRSD's sanitary sewer system is prohibited. Unless otherwise approved, GCDs  
172 shall be maintained by a Grease Hauler that is certified by the Hampton Roads  
173 FOG regionally-approved training program provided by the HRPDC

174 2) Gravity Grease Interceptors shall be pumped out completely when the total  
175 accumulation of FOG, including floating solids and settled solids, reaches twenty-  
176 five percent (25%) of the overall liquid volume. At no time shall a GICD be  
177 cleaned less frequently than once every three (3) months ~~unless allowed by the~~  
178 ~~Director of Public Utilities for good cause shown. Approval will be granted on a~~  
179 ~~case by case basis upon submittal of a request by the FSE, documenting reasons~~  
180 ~~for the proposed frequency variance.~~

**Commented [KL5]:** The biology of any grease interceptor grows increasingly hostile to collection and treatment systems over time. 90 days should be the maximum allowable interval between cleanings, regardless of the

181 3) ~~Grease traps and Grease Removal Devices~~ shall be opened, inspected and  
182 completely cleaned of food solids and FOG a minimum of once per week, ~~unless~~  
183 ~~allowed by the Director of Public Utilities for good cause shown. Approval will~~  
184 ~~be granted on a case by case basis upon submittal of a request by the FSE~~  
185 ~~documenting reasons for the proposed frequency variance.~~ In no event shall the  
186 content of food solids and FOG exceed twenty-five percent (25%) of the overall  
187 liquid depth of the device.

**Commented [KL6]:** GRDs are not properly maintained on a routine basis. Allowing them to be maintained less often than once per week will invite bypass and non-compliance.

188 4) Hydromechanical Grease Interceptors shall be cleaned before their maximum  
189 capacity is reached as established by the manufacturer in accordance with third  
190 party validated test reports. The maintenance frequency shall be determined in  
191 accordance with the sizing and selection requirements for HGIs in the Hampton  
192 Roads Regional Technical Standard for Grease Control Devices. At no time shall  
193 a HGI be cleaned less frequently than once every three (3) months.

194 4)5) The Director of Public Utilities may establish a more frequent cleaning  
195 schedule if the FSE is found to be contributing FOG in quantities sufficient to  
196 cause line stoppages or to necessitate increased maintenance of the sanitary sewer  
197 system.

**Formatted:** Bullets and Numbering

198 iv. *Use of Additives*

199 The use of additives by FSEs including, but not limited to, products that contain  
200 solvents, emulsifiers, surfactants, caustics, acids, enzymes or bacteria are prohibited  
201 for use as grease management control; provided, however, that additives may be  
202 used to clean the FSE drain lines so long as the usage of such additives will not  
203 cause FOG to be discharged from the grease control device to the sanitary sewer  
204 system. The use of additives shall not be substituted for the maintenance  
205 procedures required by this Section.

206 v. *Waste Disposal*

~~1) Waste removed from a grease trap shall be disposed of in the solid waste disposal system or by a grease hauler certified by the Hampton Roads Planning District Commission.~~

2)1) Waste removed from a ~~Grease Control Device interceptor~~ shall be disposed of at a facility permitted to receive such wastes. No materials removed from interceptors shall be returned to any grease interceptor, private sewer line or into any portion of the City/County/Town's or HRSD's sanitary sewer system

2)2) FSEs shall dispose of yellow grease in a renderable FOG container, where contents will not be discharged to the environment. Yellow grease shall not be poured or discharged into the City/County/Town's or HRSD's sanitary sewer system. Renderable FOG containers shall be labeled with the following information:

- 2)j. Name of company supplying the container(s)
- 2)ii. Phone number of company supplying the container(s)
- 2)iii. Name of the FSE where the container has been placed

vi. Inspection of Grease Control Devices

The Director of Public Utilities or his designee shall have the right of entry into any FSE, during reasonable hours, for the purpose of making inspections, observation, measurements, sampling, testing or records review of the sanitary sewer system and GCDs installed in such building or premise to ensure that the FSE is in compliance with this ~~Division~~Section. The owner or occupant may accompany the Director or his designee. Operational changes, maintenance and repairs required by the Director or his designee shall be implemented as noted in the written notice received by the FSE.

vii. Record Keeping

- 1) FSEs shall retain and make available for inspection and copying records of all cleaning and maintenance for the previous three (3) years for all GCDs. Cleaning and maintenance records shall include, at a minimum, the dates of cleaning/maintenance records, the names and business addresses of the company or person performing each cleaning/maintenance and the volume of waste removed in each cleaning. Such records shall be kept on site and shall be made immediately available to any employee of the Department of Public Utilities upon request.
- 2) FSEs shall retain and make available for inspection and copying records of yellow grease disposal for the previous three (3) years. Yellow grease disposal logs shall include, at a minimum, the dates of disposal, name and business address of the company or person performing the disposal and the volume of yellow grease removed in each cleaning. Such records shall be kept on site and shall be made immediately available to any employee of Department of Public Utilities upon request.

**Commented [KL7]:** Edits to the ordinance are removing references to "traps" throughout. All grease interceptors, regardless of type should have their contents disposed of at a facility permitted to receive such waste and NOT to landfill. The new Greasezilla system the HRSD is putting in, is just such a place.

**Formatted:** Bullets and Numbering

**Formatted:** Indent: Left: 1.5", Hanging: 0.25", Numbered + Level: 1 + Numbering Style: i, ii, iii, ... + Start at: 1 + Alignment: Right + Aligned at: 0.1" + Tab after: 0.6" + Indent at: 0.6"

**Commented [KL8]:** Section is the appropriate term.

**Formatted:** Bullets and Numbering

246 **SECTION 6. GREASE HAULER REQUIREMENTS**

- 247 i. Any person collecting, pumping or hauling waste from GCDs located within the  
248 municipal boundaries of the City/County/Town shall be certified by the Hampton Roads  
249 FOG regionally-approved training program provided by the HRPDC, and shall comply  
250 with the requirements of the Hampton Roads Pumper Management Program.
- 251 ii. The grease hauler shall notify the locality within twenty-four (24) hours of any incident  
252 required to be reported to the Virginia Department of Environmental Quality.
- 253 iii. Grease haulers shall retain and make available for inspection and copying, all records  
254 related to grease interceptor pumping and waste disposal from businesses located in the  
255 City/County/Town's wastewater service area. Records shall include waste manifests that,  
256 at a minimum, include time, date and volume of waste removed from the device and the  
257 time, date, volume and destination of the waste disposed. These records shall remain  
258 available for a period of at least three (3) years. The City/County/Town may require  
259 additional record keeping and reporting, as necessary, to ensure compliance with the  
260 terms of this Division.

Formatted: Highlight

Formatted: Highlight

261 **SECTION 7. FEES**

- 262 i. Fees provided for in this Division are separate and distinct from all other fees chargeable  
263 by the City/County/Town. Fees applicable to this Division are as follows:
  - 264 1) FSE registration fees shall be in the amount of \_\_\_\_\_ and shall be  
265 payable at the time of submittal of the registration
  - 266 2) FSE inspection and re-inspection fees shall be in the amount of \_\_\_\_\_  
267 and shall be due upon invoice by the City/County/Town. Such fees may be added  
268 to the FSE's public service bill.

269 **SECTION 8. COMPLIANCE**

- 270 A. The City/County/Town may require existing FSEs to modify or repair any noncompliant  
271 GCD and appurtenances as noted in the written notice received by the FSE.

Formatted: Highlight

272 **SECTION 10. VIOLATIONS & PENALTIES**

- 275 a) Any person who, intentionally or otherwise, commits any of the acts prohibited by this  
276 ordinance shall be liable to the City/County/Town for all costs of containment, cleanup, abatement,  
277 removal and disposal of any substance unlawfully discharged into the sanitary sewer system, as  
278 well as the costs of any damages or regulatory fines, that are proximately caused by such  
279 violations.
- 280 b) Any person who, intentionally or otherwise, commits any of the acts prohibited by this  
281 Division shall be subject to a fine in an amount not to exceed one thousand dollars (\$1,000.00) per

Formatted: Highlight

282 violation. The court assessing such fines may, at its discretion, order such fines to be paid into the  
283 treasury of the **City/County/Town** for the purpose of abating, preventing or mitigating  
284 environmental pollution.

Formatted: Highlight

285 c) Enforcement will be in accordance with the associated Enforcement Response Plan  
286 (NOTE: Some jurisdictions may want to incorporate the ERP into the ordinance while others may  
287 adopt the ERP administratively). The **City/County/Town** may revoke the FSEs business license,  
288 withhold reissuance of a business license, or terminate water and/or sewer services for continuing  
289 violations of this ~~Division~~Ordinance.

Formatted: Highlight

290 d) In addition to any other remedy for the violation of this Division, the **Director** may bring  
291 legal action to enjoin the continuing violation of this ordinance, and the existence of any other  
292 remedy, at law or in equity, shall be no defense to any such action.

293 e) The remedies set forth in this section are cumulative, not exclusive; and it may not be a  
294 defense to any action, civil or criminal, that one (1) or more of the remedies set forth herein has  
295 been sought or granted.

296 **SECTION 11 EFFECTIVE DATE**

297 This Division shall become effective on \_\_\_\_\_.

## MEMORANDUM OF AGREEMENT

Virginia Department of Housing and Community Development  
and  
Virginia Department of Environmental Quality

In accordance with § 10.1-1186 and § 36-139 of the Code of Virginia, the Virginia Department of Housing and Community Development ("DHCD") and the Virginia Department of Environmental Quality ("DEQ") on this day, [month day], [yyyy], agree to coordinate jurisdictional responsibilities of the *Virginia Uniform Statewide Building Code* (13 VAC 5-63, the "Code"), the *Sewage Collection and Treatment Regulations* (9 VAC 25-790, the "SCAT Regulations") and the *Water Reclamation and Reuse Regulation* (9 VAC 25-740, the "WR&R Regulation").

The parties agree as follows:

### **1. Codes and Regulations**

- A. Adoption and promulgation of the Code is the responsibility of DHCD;
- B. Enforcement of the Code is the responsibility of the local building department; and
- C. Adoption, promulgation, administration and enforcement of the SCAT Regulations and the WR&R Regulation is the responsibility of DEQ.

### **2. Sewage Collection, Treatment and Handling Equipment and Equipment for Water Reclamation and Reclaimed Water Distribution and Storage**

- A. DEQ is charged with issuing construction and operation certificates for municipal sewage collection systems and treatment works and water reclamation systems, including satellite reclamation systems. Whenever components of sewage collection systems and/or treatment works, or water reclamation systems, reclaimed water distribution systems or reclaimed water storage that involve the production or management of reclaimed water prior to "ready-for-reuse," as defined in 4(A) of this agreement, are located in a building or similar structure, the SCAT Regulations and/or the WR&R Regulation, as determined by DEQ, shall apply to the design, construction, operation and maintenance of all such components, and the Code shall apply to the building or structure and all of its incidental utilities (e.g., heating, electrical, house plumbing, etc.).
- B. No county, city, town or employee thereof, shall issue a permit (building permit) for a building designed for human occupancy without first obtaining the prior notification from DEQ that safe, adequate and proper sewage treatment is, or will be made available to such building. DEQ shall notify the local building official when a permit and certificates to construct and operate have been issued to a sewage treatment works or pump station in

accordance with the SCAT Regulations. It is noted that the Virginia Department of Health is responsible for issuing construction and operation permits for sewage treatment systems of single family homes.

### **3. Building Sewers**

- A. Where the wastewater from the building or structure flows by gravity to the building sewer, which is or will be connected to a public or private gravity sewer, the jurisdiction of the Code shall apply to the building drain, building sewer, and all other appurtenances up to the point of connection to the public or private gravity sewer.

Exception: Grease Control Devices installed at commercial food service establishments shall be subject to the requirements of the SCAT Regulations.

- B. Where the wastewater from a building or structure is pumped to a public or private gravity sewer (regardless of its location inside or outside of a building) and
- 1) the total daily flow is less than 2,000 gallons per day, the jurisdiction of the Code shall apply.
  - 2) the total daily flow is greater than or equal to 2,000 gallons per day, the jurisdiction of the SCAT Regulations shall apply.
- C. Where the wastewater from a building or structure is pumped to a pressurized force main, the jurisdiction of the SCAT Regulations shall apply.
- D. Where the wastewater from a building or structure is transferred via a vacuum system to a public or private sewer system, the jurisdiction of the SCAT Regulations shall apply.

### **4. Distribution Piping and Storage Tanks for Reclaimed Water Ready-for-Reuse**

- A. For the purposes of this agreement, reclaimed water ready-for-reuse is reclaimed water that has received the required treatment and meets appropriate standards for the intended reuses of that water in accordance with the WR&R Regulation and is available for reuse(s) by an end user either downstream of a connection to centralized reclaimed water service or at sites under the ownership or management of the end user where the end user is also the generator and/or distributor of the reclaimed water reused on site.
- B. Where distribution piping and/or storage tanks for reclaimed water ready-for-reuse are located outside of a building or buildings and are used to deliver the reclaimed water for reuse in a building or buildings, the Code shall apply to such piping and/or storage tanks on the same lot as the building or buildings.

- C. Where distribution piping and/or storage tanks for reclaimed water ready-for-reuse are used for purposes other than to deliver reclaimed water for reuse in a building or buildings, the WR&R Regulation shall apply to such distribution piping and/or storage tanks.
- D. Where distribution piping and/or storage tanks for reclaimed water ready-for-reuse are located inside a building and are used to deliver or distribute the reclaimed water for reuse in that building or for reuse in another building on the same lot, the Code shall apply to such distribution piping and/or storage tanks.
- E. The WR&R Regulation may also be applicable through service agreements or contracts between the end user and the provider of reclaimed water.

**5. General Agreements**

- A. It is the intention of both DHCD and DEQ to cooperate with each other in resolving any technical conflicts between the SCAT Regulations, the WR&R Regulation and the Code and in developing and implementing operational procedures to ensure and promote a constructive working relationship between local building officials, DHCD and DEQ.
- B. When practical, the Code will include a clear reference to the jurisdiction of the SCAT Regulations and the WR&R Regulation and these regulations, in turn, will include clear references to the jurisdiction of the Code.
- C. Appropriate amendments, additions, or deletions will be made to the SCAT Regulations, the WR&R Regulation and the Code, when practical, to ensure that there is no jurisdictional conflict between the regulations and the Code.
- D. Except in matters of imminent danger to public health or safety, whenever conflicts or disagreements arise between the two agencies or their staff, all appropriate regulatory procedures will be exhausted prior to any judicial action.
- E. This Agreement may be amended or terminated by mutual consent of the parties.

The undersigned agree to the Conditions of this Agreement.

---

[Name, Title]  
 Department of Housing and Community  
 Development

---

[Name, Title]  
 Department of Environmental Quality



# ANNUAL REPORT

FISCAL YEAR 2019-2020



EE20-01

**HAMPTON ROADS PLANNING DISTRICT COMMISSION**

**CHESAPEAKE**

Steven Best  
Robert Geis  
Debbie Ritter  
Ella Ward  
Christopher Price

**FRANKLIN**

Frank Rabil  
Amanda Jarratt

**GLOUCESTER COUNTY**

Phillip Bazzani  
Brent Fedors

**HAMPTON**

Steve Brown  
Donnie Tuck  
Mary Bunting

**ISLE OF WIGHT COUNTY**

William McCarty  
Randy Keaton, Treasurer

**JAMES CITY COUNTY**

Michael Hipple, Chair  
Scott Stevens

**NEWPORT NEWS**

David Jenkins  
McKinley Price  
Cynthia Rohlf

**NORFOLK**

Kenneth Alexander  
Courtney Doyle  
Mamie Johnson  
Andria McClellan, Vice-Chair  
Larry Filer

**POQUOSON**

Eugene Hunt  
Randall Wheeler

**PORTSMOUTH**

John Rowe  
Lydia Pettis Patton

**SMITHFIELD**

Carter Williams  
Michael Stallings

**SOUTHAMPTON COUNTY**

William Gillette  
Michael Johnson

**SUFFOLK**

Leroy Bennett  
Patrick Roberts

**SURRY COUNTY**

Robert Elliott  
Melissa Rollins

**VIRGINIA BEACH**

Robert Dyer  
Barbara Henley  
Louis Jones  
Guy Tower  
Rosemary Wilson  
Sabrina Wooten  
Patrick Duhaney

**WILLIAMSBURG**

Vacant  
Andrew Trivette

**YORK COUNTY**

Sheila Noll  
Neil Morgan

Robert A. Crum, Jr., Executive Director / Secretary

**PROJECT STAFF**

W. Keith Cannady	Deputy Executive Director
Shernita L. Bethea	Housing and Human Services Administrator
Katie R. Cullipher	Principal Environmental Education Planner
Greg C. Grootendorst	Chief Economist
Whitney S. Katchmark	Principal Water Resources Engineer
Kendall L. Miller	Administrator, Office of Community Affairs and Civil Rights
John A. Sadler	Emergency Management Administrator
Krista Lauro	Administrative Assistant II
Cynthia A. Mulkey	Administrative Assistant II
Christopher W. Vaigueur	Assistant General Services Manager

## Report Documentation

**TITLE:**

askHRgreen.org Annual Report for Fiscal Year 2019-2020

**REPORT DATE**

September 2020

**GRANT/SPONSORING AGENCY**

Local Funds

**AUTHORS:**

Katie Cullipher  
Rebekah Eastep

**ORGANIZATION NAME,****ADDRESS AND TELEPHONE**

Hampton Roads Planning District Commission  
723 Woodlake Drive  
Chesapeake, Virginia 23320  
(757) 420-8300  
[www.hrpdcva.gov](http://www.hrpdcva.gov)

**ABSTRACT**

The Hampton Roads Planning District Commission (HRPDC) is one of 21 Planning District Commissions in the Commonwealth of Virginia and is a regional organization representing the 17 local governments of the Hampton Roads area. This report provides an overview of the askHRgreen.org regional public outreach program and campaign results for fiscal year 2019-2020. It also provides an overview of the individual initiatives and results from each of the four askHRgreen.org environmental education committees: Recycling and Beautification, Stormwater Education, Water Awareness, and Fats, Oils & Grease Education.

**ACKNOWLEDGEMENTS**

This report was prepared by the HRPDC staff in cooperation with the member localities. Preparation of this report was included in the HRPDC Work Program for Fiscal Year 2020, approved by the Commission in May 2019.

## About askHRgreen.org

---

Launched in 2011, askHRgreen.org is more than just a robust website; it is an award-winning comprehensive public outreach initiative. The program combines traditional and social media with grassroots outreach efforts to not only educate, but inspire residents of Hampton Roads to make changes that have a positive impact on the environment. By combining local expertise and taking advantage of economies of scale, the askHRgreen.org program is able to help local jurisdictions fulfill requirements of MS4 permits, groundwater withdrawal permits, and state consent orders to reduce sanitary sewer overflows. For citizens, it has become a “one-stop shop” to find answers, resources, and inspiration for a cleaner, greener Hampton Roads. From earth-friendly landscaping ideas and pointers for keeping local waterways clean to recycling tips and simple steps to make local living easy on the environment, all you have to do is askHRgreen.org.

Financial support for askHRgreen.org is made possible by the following member localities and agencies: the cities of Chesapeake, Franklin, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach and Williamsburg; the counties of Gloucester, Isle of Wight, James City, Southampton, Surry and York; the town of Smithfield and HRSD. Members of local staff and HRSD comprise four askHRgreen.org committees who meet monthly to develop and implement the regional program.

***Recycling and Beautification Committee*** - A coalition of local government staff members from across Hampton Roads who are working together to share ideas and pool resources for various education programs tailored towards community beautification, litter prevention, waste reduction, and recycling education. This group has been working cooperatively since 1981.

***Fats, Oils, and Grease (FOG) Education Committee*** - A coalition of local government staff members working together with HRSD to protect wastewater infrastructure, reduce sanitary sewer overflows, and improve local water quality. The Committee shares both technical resources and educational strategies to prevent improper disposal of fats, oils, and grease. This cooperative effort has been underway since 2007 when 13 of the region's localities and

*HRSD entered into the Regional Special Order by Consent with the Virginia Department of Environmental Quality.*

***Water Awareness Committee*** - Regional public utilities staff members who work together to educate citizens about aging infrastructure, the value of tap water, and the importance of water conservation. This cooperative effort to promote the vital role water plays in the quality of life of Hampton Roads and the need to conserve it assists localities in meeting requirements of various locality goals as well as water supply and ground water permit education requirements.

***Stormwater Education Committee*** - A cooperative partnership of the region's seventeen member cities and counties which has served as a formal adjunct to the required public information component of the Virginia Pollution Discharge Elimination System Permits (VPDES) for Phase I and Phase II Municipal Separate Storm Sewer Systems (MS4) since 1997. Local government staff members work together to share ideas and pool resources for various education programs tailored to stormwater pollution prevention.

### **A message about COVID-19**

Like nearly every other operation around the globe, our askHRgreen.org public outreach program felt the impacts of the COVID-19 pandemic in FY20. Special events were cancelled, planned promotions were put on hold, and we shifted our focus to virtual outreach as much as possible. As people stayed home, waste reduction and responsible disposal practices became a major theme in communications. Public interest in gardening and landscaping surged. The pomp and circumstance that would have surrounded the 50th anniversary of Earth Day in April was replaced with “Fifty Ways to Celebrate Earth Day While Social Distancing.” And as schools shut down and remote learning began, askHRgreen.org published weekly virtual lesson plans to keep students at all levels engaged in environmental education principles. Despite the challenges, our regional team members continued to work together to find new, innovative ways to encourage the citizens of Hampton Roads to implement green practices in their daily lives...even in these most uncertain times.

# HIGHLIGHTS

fourteen million *opportunities* to see or hear about askHRgreen.org 

 73,379 visitors to askHRgreen.org

19 *community events* with over 86,000 people in attendance 

## BAY STAR PROGRAMS

 3,383 homes

 50 businesses

 8,096 students impacted by \$10,073 in environmental education mini grants

awarded 33 *pet waste disposal stations* impacting in neighborhoods across the region 

 Launched interactive *recycling lookup tool*

\$8,000 *grant funds* received for special projects



@askHRgreen  
2,730



@HRgreen  
1,686



@askHRgreen  
389



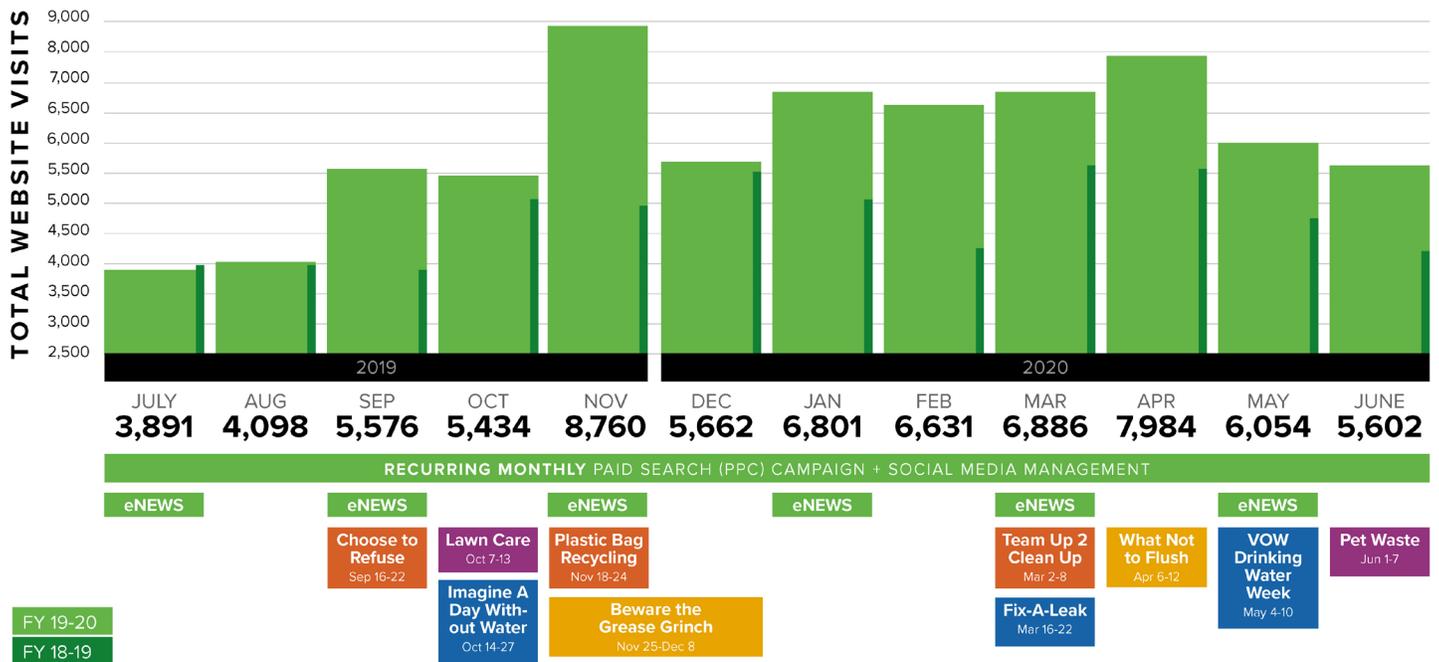
eNews Subscribers  
6,537

# 2019-2020 Media Calendar

COMMITTEE	CAMPAIGN	MEDIA	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE
R&B	Choose to Refuse	R, O, S												
STORMWATER	Lawn Care	PV, R, O, S												
WATER AWARENESS	Imagine A Day Without Water	PV, R, O, S												
R&B	Plastic Bags	PV, R, O, S												
FOG	Grease Grinch	PV, R, O, S												
R&B	Team Up 2 Clean Up	R, S												
WATER AWARENESS	Fix-A-Leak	PV, R, O, S												
FOG	What Not To Flush	PV, R, O, S												
WATER AWARENESS	Drinking Water Week	AT, PV, R, O, S												
STORMWATER	Pet Waste	AT, PV, R, O, S												
ALL	askHRgreen.org Newsletters	E												
ALL	Public Relations													
ALL	Social Media Management													
ALL	Search Engine Marketing													
ALL	askHRgreen.org Blog Articles													

MEDIA KEY / **AT** = Advanced TV **PV** = Preroll Video **R** = Radio **P** = Print **O** = Online **S** = Social Media **E** = Email **OD** = Outdoor

## Promotions & Website Traffic



## Website Analytics

The askHRgreen.org website continues to be the cornerstone of our outreach efforts where campaign news and events are featured prominently and content is delivered seamlessly to users on all types of devices. In FY20, we saw a 25% increase in website traffic over FY19

and a 36% increase in webpage views – up to over 117,000. The majority of web traffic continues to be new visitors, demonstrating the growing awareness and effectiveness of our outreach efforts.

	2019-20	2018-19	2017-18	2016-17	2015-16	2014-15
Visits	<b>73,379</b>	58,893	55,735	58,113	52,530	58,279
Unique Visitors	<b>63,146</b>	49,816	45,661	46,282	42,539	46,994
Pageviews	<b>117,463</b>	86,538	93,589	92,681	93,177	103,228
Pages per Visit	<b>1.60</b>	1.47	1.68	1.59	1.77	1.77
Average Visit Duration	<b>1:02</b>	1:03	1:27	1:12	1:32	1:26
Bounce Rate	<b>79%</b>	81%	77%	79%	75%	75%
% New Visits	<b>86%</b>	84%	81%	80%	80%	80%
Mobile Devices	<b>58%</b>	57%	54%	53%	40%	39%
Desktop Devices	<b>42%</b>	43%	46%	47%	60%	61%

**AVERAGE  
322 PAGES  
VIEWED/DAY**

We achieved a **25% increase in traffic over FY18-19, and have the highest number of pageviews ever!** The majority of traffic continues to be new visitors, demonstrating the growing awareness of our efforts.

## Top Website Traffic Sources & Pages Visited

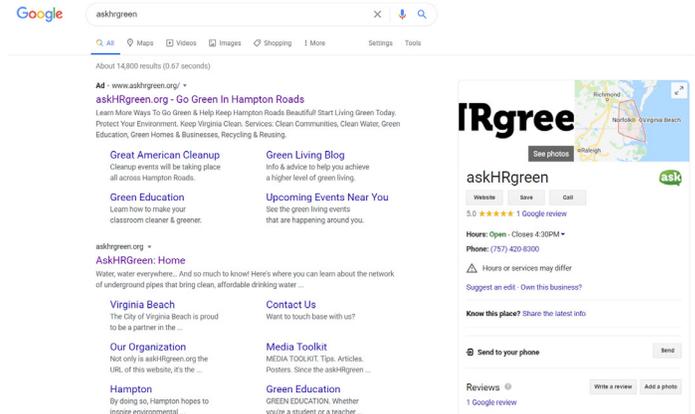
- 36.45%** Google Organic Search
- 25.59%** Direct **+3%**
- 22.77%** Paid
- 15.87%** Pay-Per-Click (SEM)
- 6.9%** Digital Ads (Media Campaigns)
- 4.56%** Facebook
- 1.24%** Bing
- 1.04%** PilotOnline.com

### TOP TWENTY VISITED PAGES

- 9,877 [Home](#) **+4% pageviews**
- 5,945 Good to Know/Do: [Recycling Lookup Brand New Tool!](#)
- 3,830 [Events](#) **+17% pageviews**
- 3,739 Blog Article: [Disposable/Flushable diaper liners](#) **+11% pageviews**
- 2,779 Good to Know/Do: [Electronics Recycling](#) **+15% pageviews**
- 2,054 Good to Know/Do: [Recycling Lookup - Virginia Beach](#)
- 2,032 Good to Know/Do: [Lawn & Garden Best Practices](#) **+86%**
- 1,868 Good to Know/Do: [Battery Disposal](#) **+23% pageviews**
- 1,762 [Blog](#) **+75% pageviews**
- 1,708 Campaign: [Choose to Refuse Single-Use Plastics](#) **★ +55% pageviews**
- 1,537 Programs: [Great American Cleanup](#) **+10% pageviews**
- 1,523 Good to Know/Do: [Plant Native Plants](#) **+39% pageviews**
- 1,499 Blog Article: [50 Ways to Celebrate Earth Day](#)
- 1,291 Knowledge Center: [Recycling/Reusing](#)
- 1,271 Good to Know/Do: [Recycling at Home](#)
- 1,225 Good to Know/Do: [Plastic Bag Recycling](#)
- 1,224 Programs: [Bay Star Homes](#)
- 1,176 Good to Know/Do: [Fat-Free Drains](#)

## Search Engine Marketing

The askHRgreen.org Search Engine Marketing (SEM) program employs Google pay-per-click advertising to increase traffic to the website. By bidding on select keywords and phrases, our ads direct search traffic to relevant content on the askHRgreen.org website. In FY20, we had more than 340,000 Google search impressions – up 63% over FY19. Those searches drove over 12,000 clicks to relevant content on the askHRgreen.org website. Our electronics disposal and recycling topics routinely lead the campaign in terms of impressions and clicks, but in FY20, we saw a substantial spike in search traffic for lawncare-related keywords - 62,000 ad impressions in that category between March and June. The stay-at-home orders in place during that time may have contributed to the increase. See appendix A for the full SEM campaign report for FY20.



## Search Engine Marketing Results

	2019-20	2018-19	2017-18	2016-17	
Impressions	<b>342,690</b>	210,695	169,140	107,920	<b>+63%</b>
Clicks	<b>12,449</b>	11,087	7,330	4,226	<b>+12%</b>
Click Thru Rate (CTR)	<b>3.63%</b>	5.26%	4.33%	3.92%	

## Top 10 Keyword Ad Groups

	Impressions	Clicks	Impression Share	Click Thru Rate
Electronics Disposal	25,719	2,516	75%	9.78%
Recycling At Home	40,245	1,540	61%	3.83%
Native Plants	38,189	1,246	35%	3.26%
Lawn Care	67,630	1,012	55%	1.50%
Battery Disposal	12,353	1,006	69%	8.14%
Reduce Reuse Recycle	13,040	904	81%	6.93%
TMDL	12,800	680	62%	5.31%
AskHRGreen General	3,198	563	81%	17.60%
Medication Disposal	6,322	541	79%	8.56%
Plastic Bag Recycling	5,675	361	62%	6.36%

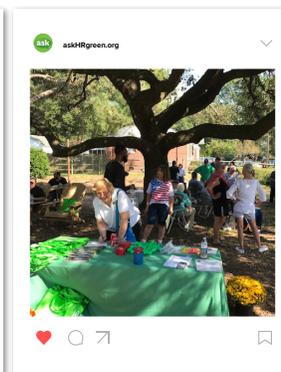
# Community Outreach

## Events

AskHRgreen.org is invited to attend a multitude of community events each year. These events serve as a vital opportunity for our regional committee members to interact with residents and visitors to Hampton Roads. The events span a variety of themes from eco-events to employee appreciation days, regional fairs, concerts, and more. Although some events have an environmental focus, many others appeal to the general public and allow interaction with new audiences who may be learning about eco-friendly behaviors for the very first time. The recently updated askHRgreen.org mobile outreach and education trailer is an important engagement tool for these events. Volunteers staff the trailer at special events and distribute a variety of resources from informational brochures and rack cards to reusable shopping bags, stainless steel straws, rain gauges, and a variety of other eco-themed promotional items. In addition, attendance at these events puts askHRgreen.org messages in front of large audiences.

In FY20, we had the opportunity to interact with more than 86,000 event goers across the Hampton Roads region. Due to COVID-19, our spring and early summer events were cancelled, but we look forward to more outreach events once these types of large gatherings can resume.

2019-2020 Community Events			Estimated Attendance
8/9	TGIF Summer Concert Series	Suffolk	3,000
9/7	Go Green Expo	Newport News	1,100
9/12	Isle of Wight County Fair	Windsor	35,170
9/14	Community Engagement Event @ VB Sportsplex	Virginia Beach	4,000
9/19	Third Thursdays Live at City Center	Newport News	150
9/28	Bow Creek Block Party	Virginia Beach	130
9/28	Roland Park Civic League Fall Cookout	Norfolk	70
10/3	CNU Farmer's Market	Newport News	100
10/10 -	Peanut Festival	Suffolk	25,000
10/10	CNU Farmer's Market	Newport News	50
10/12	Lynnhaven River Now Fall Festival	Virginia Beach	3,000
10/12	Great Bridge High School Craft Show	Chesapeake	500
10/24	Public Works Fall Picnic	Virginia Beach	520
11/12	Anthem Eco Fair	Virginia Beach	150
11/14	Anthem Eco Fair	Norfolk	250
1/13 - 1/16	Mid Atlantic Horticulture Short Course & Home Gardener Day	Norfolk	762
1/25	Jam'n Jamz	Norfolk	500
1/28 - 1/29	Newport News Shipbuilding Health and Safety Expo	Newport News	4,076
3/7 - 3/8	Mid Atlantic Home & Outdoor Living Show	Virginia Beach	8,125
4/4 - 4/5	<i>Daffodil Festival</i>	<i>Gloucester</i>	<i>Cancelled</i>
4/11	<i>Go Green Market</i>	<i>Yorktown</i>	<i>Cancelled</i>
4/18	<i>Virginia Living Museum Earth Day Festival</i>	<i>Newport News</i>	<i>Cancelled</i>
4/21	<i>TCC Cares Earth Day</i>	<i>Chesapeake</i>	<i>Cancelled</i>
4/22	<i>Poquoson Earth Day</i>	<i>Poquoson</i>	<i>Cancelled</i>
4/22	<i>Great Bridge High School Earth Day</i>	<i>Chesapeake</i>	<i>Cancelled</i>
4/22	<i>NSA Hampton Roads Headquarters Earth Day event</i>	<i>Norfolk</i>	<i>Cancelled</i>
4/23	<i>NSA Portsmouth Earth Day Event</i>	<i>Portsmouth</i>	<i>Cancelled</i>
4/25	<i>Paradise Creek Earth &amp; Arbor Day</i>	<i>Portsmouth</i>	<i>Cancelled</i>
4/25	<i>12th Annual Community Empowerment Fair</i>	<i>Newport News</i>	<i>Cancelled</i>
4/25	<i>Spring Fling</i>	<i>Hampton</i>	<i>Cancelled</i>



## Bay Star Homes

FY20 was the fourth year of operation for the Bay Star Homes program. This community-based recognition program encourages residents to avoid environmentally-harmful behaviors in their home and be proactive about using voluntary stormwater management practices such as rain barrels, rain gardens, and downspout disconnects on their private property. Residents pledge to do at least eight environmentally-friendly practices as part of the program. Pledges include stormwater best practices as well as other desirable behaviors such as waste reduction, water conservation and energy reduction. In FY20, the total number of participating households for the Bay Star Homes program rose to 3,383, an increase of 279 new households over the previous year.

Bay Star Homes Registrants	
City/County	Number
Chesapeake	149
Franklin	13
Gloucester	19
Hampton	119
Isle of Wight	9
James City	12
Newport News	229
Norfolk	2301
Poquoson	17
Portsmouth	39
Smithfield	13
Southampton	4
Suffolk	139
Surry	3
Virginia Beach	236
Williamsburg	8
York	72
<b>Total</b>	<b>3,383</b>



## Great American Cleanup

For a second year, the askHRgreen.org Recycling & Beautification Committee worked together to clean up and beautify Hampton Roads through the Great American Cleanup (GAC). A part of the committee's "Team Up 2 Clean Up" initiative, GAC engages the public and business community to get involved in beautification projects throughout the region. For FY20, Friday, March 27 and Saturday, March 28 were designated as the regional GAC dates. Over 350 volunteers, including businesses and military commands, signed up to participate in a variety of events during the two-day initiative. Planned projects included neighborhood cleanups, sprucing up local parks, removing litter from roads and waterways, mulching and weeding community gardens, and planting new gardens and trees.

The regional effort caught the attention of state and national partners including Keep Virginia Beautiful, Keep America Beautiful, and the Earth Day Network. The GAC events paired well as a kick off to Earth Month in April 2020, leading to the celebration of the 50th Earth Day on April 22. Unfortunately, in the week leading up to the events, coronavirus began to spread across the United States and stay-at-home orders forced the cancellation of all planned activities. The committee hopes to reschedule the cleanup initiative for September 18-19, 2020 as litter pickup becomes increasingly important due to the growing amount of litter from personal protective equipment (PPE) and hand sanitizing supplies.



## Imagine a Day Without Water

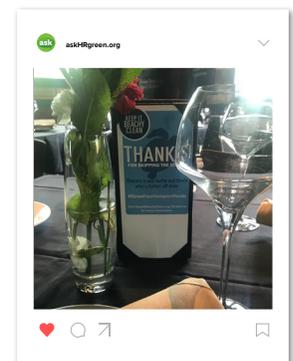
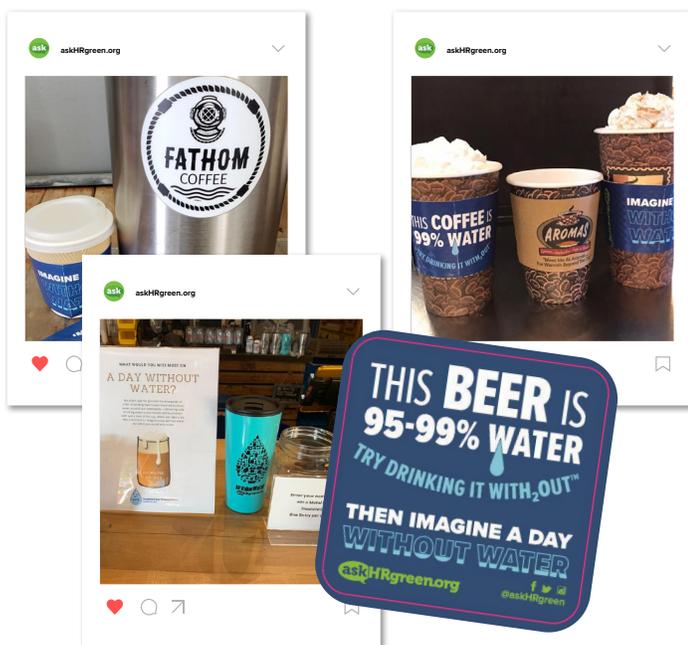
Municipal water services are vital for quality of life in Hampton Roads. Both residents and businesses rely on a consistent supply of tap water to power their days. Breweries and coffee shops are particularly dependent on clean, reliable tap water to brew their custom crafted beverages. For a second year, the askHRgreen.org Water Awareness Committee engaged these natural advocates for clean water as part of a national advocacy and awareness promotion, Imagine a Day Without Water, that addresses the importance of maintaining our water and wastewater systems. Partnering breweries and coffee shops were given branded coffee sleeves or coasters to distribute to customers. The coffee sleeves and coasters convey the message that coffee and beer are 95-99 percent water and neither would be possible without tap water.

In total, the campaign engaged 25 breweries and coffee shops through this campaign. The coffee sleeves and coasters were distributed starting on October 23, 2019, the national recognition day for Imagine a Day Without Water, and continued while supplies lasted. The campaign also included a strong organic social media campaign with partnering businesses. All partners were offered a special #ValueWater tumbler to raffle off to customers or social media followers. The added giveaway component, new in FY20, increased the reach of the campaign through social media and resulted in positive co-branding opportunities

with coffee shops and breweries seen as trusted local brands that often have a dedicated following.

## Straw-Free September

Following up on the success and popularity of Straw-Free Earth Day in April 2019, the askHRgreen.org Recycling & Beautification Committee continued to recruit restaurants to go straw-free in FY20. In a special partnership with Keep It Beachy Clean and Clean Virginia Waterways, the committee encouraged restaurants to be a part of “Straw-free September Days” and supply customers with straws only upon request during the month-long promotion. The initiative was coordinated in support of the International Coastal Cleanup, which happens annually in September. Participating restaurants received a supply of paper straws to provide to customers who requested a straw during the promotion, as well as branded window clings, menu cards, table tents, and educational placemats. All of the materials reinforced the “skip the straw” waste reduction message. Twenty restaurants across seven localities participated in the Straw-Free September Days initiative. While the 2019 Earth Day initiative focused solely on a specific straw-free weekend, FY20 promotional efforts shifted the focus to encouraging a lasting change to restaurant policy. Some restaurant partners have indicated that participating in the straw-free campaigns has led to permanent change in their policy towards providing straws to guests.



## Environmental Education Lesson Plans

In response to coronavirus safety protocols, public schools throughout Hampton Roads closed for in-person learning in late March. Public schools and parents scrambled to continue education via a virtual platform but few were prepared to operate in a completely online environment. In order to assist teachers and parents in need of content for daily lesson plans, askHRgreen.org crafted nine weeks of environmentally-themed lesson plans for elementary and middle school students. While not targeted at specific Virginia Standards of Learning (SOLs), the lesson plans covered topics such as the water cycle, watersheds, wastewater treatment, Earth Day, waste reduction, drinking water, marine debris, biodiversity and healthy habitats, and sustainable living. Many SOL-based activities were pulled from the previously published Green Learning Guides created by askHRgreen.org for third and sixth grade students. The lessons were well received by teachers and parents in need of new ways to keep their young learners engaged during this detour from a formal education atmosphere.



GREEN EDUCATION • HAMPTON ROADS • MAY 26, 2020 • REBEKAH EASTEP  
**Your Environmental Impact: Lessons for a Sustainable Future**  
 Nine weeks ago Hampton Roads parents began to navigate the realities of distance learning for K-12 students due to coronavirus. askHRgreen.org ...  
[READ ARTICLE](#)



GREEN EDUCATION • HAMPTON ROADS • MAY 18, 2020 • REBEKAH EASTEP  
**Biodiversity, Habitats and Humanity**  
 Over the last eight weeks, we've helped Hampton Roads students connect with a variety of important environmental topics through our we ...  
[READ ARTICLE](#)



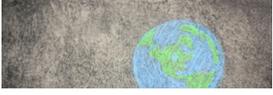
GREEN EDUCATION • HAMPTON ROADS • MAY 11, 2020 • REBEKAH EASTEP  
**Big Ocean, Big Mess: Marine Debris Lessons for Kids**  
 It was the turtle seen around the world. In 2015, marine conservation biologist Christine Figgenger posted a now viral video of an olive rid ...  
[READ ARTICLE](#)



GREEN EDUCATION • HAMPTON ROADS • MAY 4, 2020 • REBEKAH EASTEP  
**Tap Into This Week's Environmental Lesson Plan**  
 It's Drinking Water Week and askHRgreen.org is focused on all things tap water. Did you know that without tap water social distancing ...  
[READ ARTICLE](#)



GREEN EDUCATION • HAMPTON ROADS • APR 27, 2020 • REBEKAH EASTEP  
**Simple Waste Reduction Lesson Plan**  
 Ok, parents. How are we doing? We're five weeks in to this homeschooling adventure and hope everyone is starting to fall into routine ...  
[READ ARTICLE](#)



GREEN EDUCATION • HAMPTON ROADS • APR 20, 2020 • REBEKAH EASTEP  
**Celebrate Earth Day 50 with Simple Lesson Plans**  
 Today we kick off our Earth Day 50 celebration with week four of our environmental lesson plans! The first Earth Day in 1970 mobilized mill ...  
[READ ARTICLE](#)

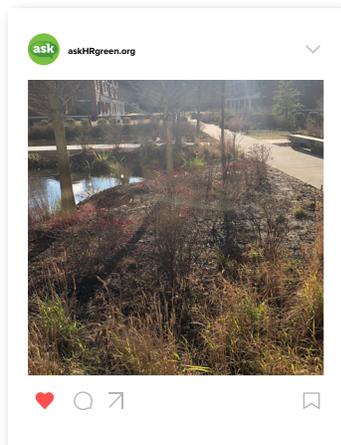
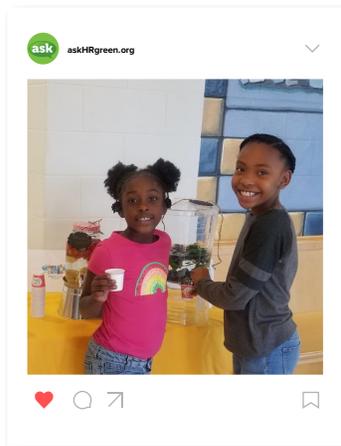
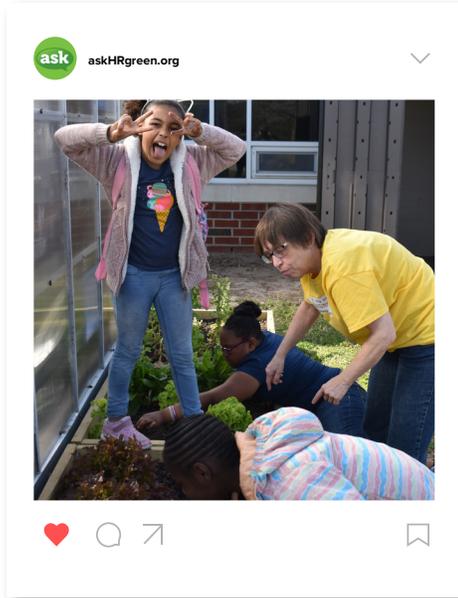


GREEN EDUCATION • HAMPTON ROADS • HRSD • APR 13, 2020 • REBEKAH EASTEP  
**Easy Environmental Lesson Plans: Wastewater Treatment**  
 We continue to bring you a weekly easy-to-use environmental lesson plan for parents to use as part of their homeschooling plan. Each of our ...  
[READ ARTICLE](#)

## Environmental Education Mini Grant Program

Supporting environmental education in the classroom continues to be a priority of askHRgreen.org. The Mini Grant program offers all Hampton Roads teachers (K-12), youth leaders, or organizations working with youth mini grants of up to \$500 to provide funding for environmentally-themed projects. Providing educators with the funding necessary to bring to life environmental subjects has proven successful over the years but particularly in FY20. For the first time since the mini grant program was consolidated into a single, streamlined askHRgreen program, the entire \$10,000 budget was exhausted in one fiscal year. In all, the program supported 21 projects and awarded \$10,073 in grant funding. The funded projects reached nearly 8,100 students across Hampton Roads. While funded in FY20, many projects will be implemented in FY21 due to the early school closures caused by coronavirus. Examples of projects funded this fiscal year include pollinator gardens and habitat, meaningful watershed experiences, tap water tastings, native tree plantings, and support for in-school waste reduction programs such as composting and recycling.

# Environmental Education Mini Grant Projects

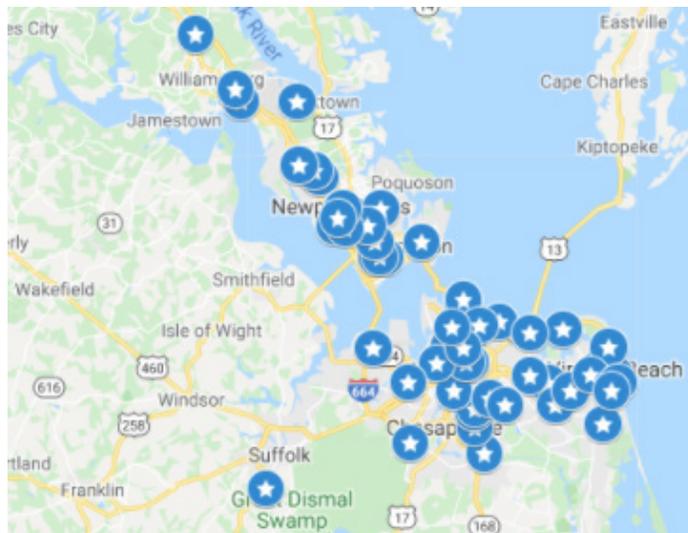


Project	Students	Project Description	School/Organization	City/County	Grant
Old Donation Eco-bus	1,500	This project will help fund a grease filtration system for Old Donation School's EcoBus (a functioning mobile sustainability classroom constructed from a decommissioned VBCPS school bus).	Old Donation School	Virginia Beach	\$500
Pollinator Garden for Girl Scouts	1	This project will help fund construction and planting of a garden to offer sanctuary, food, and water to native pollinators at the Norfolk Fitness and Wellness Center.	Girl Scout Council of the Colonial Coast Troop 176	Norfolk	\$413
Healthy Food, Healthy Life	530	This was Newtown Elementary School's fifth year in developing a vibrant learning garden for students to use as a real-world learning experience.	Newtown Elementary School	Virginia Beach	\$500
Get to Know Your Watershed	60	This project provided Green Run High School students a meaningful watershed educational experience through the Chesapeake Bay Foundation's boat field trip.	Green Run High School	Virginia Beach	\$440
Bee-utiful Learning Experiences	260	This project provided a new Bee Colony for Old Donation School.	Old Donation School	Virginia Beach	\$500
Drink More Water!	500	This project provided reusable water bottles and water tastings for Newtown Elementary School students.	Newtown Elementary School	Virginia Beach	\$500
Water for Caretakers and Children	500	The project provided an ecologically sensitive method of drinking water for children and caretakers by providing drinking water stations, a handwashing station, and paper cups for composting.	James River Elementary	Williamsburg	\$495
Vesting Up for Deeper Understanding	130	This project will fund youth life vests and dip nets for Old Donation School students to participate in an oyster restoration action project.	Old Donation School	Virginia Beach	\$450
Green Girls!	350	This project helped Girl Scout Council of the Colonial Coast Troop 1019 reinstate John G. Cary school's recycling program.	GSCCC Troop 1019	Hampton	\$260
Recycle for Change	900	This project will help establish four recycling bins in the Tabb High School Cafeteria and one recycling bin outside in the Tabb High School Sports Fields.	Tabb High School	Yorktown	\$500
Native Tree Project	84	This project provided funds for 100 native Eastern redbud bare-root seedlings, plastic nursery pots, and potting soil for Norfolk Academy.	Norfolk Academy	Norfolk	\$500
Green Readers – Kindergarten & Third Grade	1,900	This project provided a take-home book to every kindergarten and third grade student at 11 schools and volunteer guest reading in classrooms.	Norfolk Environmental Commission	Norfolk	\$1,000
Marlin Meadows	100	This project funded a Marlins Go Green environmental program on the Virginia Wesleyan University campus to incorporate a new sustainable garden on campus.	Virginia Wesleyan Uni-versity	Virginia Beach	\$500
The Bee Byway	2	This project will help establish a pollinator corridor called The Bee Byway through an unfragmented section of Newport News.	The Ruling Robot Falcons	Newport News	\$315
Hoffler Creek Polli-nator Program for Kids	25	This project funded the purchase of seeds, compost, and clay powder for each child to produce "seed bombs" (one egg carton of balls of compost, clay, and native wildflower seeds) for tossing at Hoffler Creek Wildlife Preserve to establish a pollinator garden.	Hoffler Creek Wildlife Foundation	Portsmouth	\$200
An Elizabeth River Project – Resilient River School	249	This project will help fund an ERP new Resilient River Star School program with Victory Elementary to green their schoolyard with over 100 native trees and 500 native water-tolerant plants to create new habitat and address frequent flooding.	Elizabeth River Project	Portsmouth	\$1000
Adopt-A-Pot	25	This project will restore the existing flower pots on the City of Hampton's main streets with pollinator-friendly plants.	Partnership for a New Phoebus	Hampton	\$500
Community Garden and Recycling Program	15	This project will restore Academy for Discovery at Lakewood's community garden to productivity and aesthetic standards as well as provide public awareness for recycling at the school.	Academy for Discovery at Lakewood	Norfolk	\$500
Composting Know-How	100	This project will provide signage for Williamsburg Community Grower's new three-part composting bin system that will educate community members regarding the three R's, how and why to compost, and how to properly use the composting system.	Williamsburg Community Growers	Lightfoot	\$500
Native Pollinator Habitat Stewardship	865	This project will provide native and pollinator plants to the Spratley Gifted Center's large schoolyard habitat.	Spratley Gifted Center	Hampton	\$500
<b>8,096</b>					<b>\$10,073</b>

## Business Outreach

### Bay Star Business Program

Since 2018, the askHRgreen.org Stormwater Education Committee has engaged local businesses committed to protecting the environment through the Bay Star Business Program. To become part of the free, pledge-based program, business owners sign up online by committing to environmental practices such as conserving water, recycling, cleaning up and preventing litter, properly maintaining company vehicles, organizing a community cleanup, and more. Participation in the program lets Hampton Roads consumers know a business is committed to implementing environmentally-friendly practices in their day-to-day operations. Most action items are also no- or low-cost changes which can help a business run more efficiently while conserving natural resources. Participating businesses receive a welcome packet filled with business-centric information from askHRgreen.org and Bay Star Business window clings to display in their office or on company vehicles. Bay Star Business Partners are also recognized through the askHRgreen.org website and social media accounts. The increased exposure is an incentive for participating and an easy way to thank businesses for doing their part to protect local environmental quality. In FY20, the Bay Star Business program added 15 new partners for a total of 50 diverse participants including multi-family housing developments, landscapers, industrial and professional service providers, plumbers, restaurants, and retail establishments



### Fats, Oils, and Grease (FOG) Commercial Training and Certification Program

The regional FOG training and certification program is designed to educate local food service workers and grease haulers on how to prevent sanitary sewer backups caused by improper handling and disposal of fats, oils, and grease. FOG certification requirements vary by locality, and the free certification program is available to anyone through the HRFOG.com website.

Various updates and enhancements were made to HRFOG.com during FY20. The website was converted to a responsive design site, ensuring a user-friendly experience for visitors on any type of device: mobile, tablet, or desktop. In addition, the grease hauler and food service worker training programs and certification tests were updated to reflect modern changes in local FOG program administration and industry best practices.

In FY20, the FOG Education committee updated the Grease Control Device Enforcement Memorandum of Agreement (MOA) between HRSD and participating localities. The updated MOA was approved by the regional Directors of Utilities Committee and several localities have formally adopted it. Due to COVID-19, the adoption process was delayed in some municipalities but it is anticipated that all MOAs will be completed in the coming year.

In January, the FOG Education Committee hosted a full-day training course through Ken Loucks' Interceptor Whisperer FOG Institute Training Program. Registration for the training was open to utility employees across Hampton Roads as well as the general public and those



who attended received a comprehensive education in commercial grease interceptors: how they work, product standards, how they are regulated through the plumbing code, and how to properly size, select, and maintain them.

## Illicit Discharge Rack Cards

Certain industries have a greater potential to discharge harmful waste into the stormwater system and local waterways through the course of their work. The askHRgreen.org Stormwater Education Committee continued to distribute industry-specific rack cards for the following high priority industries: lawn care and landscaping, automotive services (such as car dealers, repair shops, and fleet maintenance), and animal services (including animal boarding facilities, animal shelters, pet groomers, and veterinary offices). Each rack card addresses potential sources of pollution and provides industry best practices to prevent illicit discharges.

**WORKING TOGETHER FOR CLEAN, HEALTHY WATERWAYS**

**GOOD TO KNOW**  
How we maintain vehicles plays an important role in keeping local waterways clean.

- Outside operations and maintenance activities can contaminate stormwater runoff.
- Motor oil, anti-freeze, gasoline, and brake fluid contain toxic chemicals and metals that pollute local waterways.
- Wash water contains detergent, dirt, and other pollutants that harm the environment and are illegal to discharge.

**The Source of Stormwater Pollution**

- Vehicle leaks.
- Washing vehicles on paved surfaces.
- Improper chemical storage.
- Waste from grinding, painting, coating, sanding, or parts cleaning.

**The Impact of Stormwater Pollution**

- Chemicals and metals contaminate local waterways making them unsafe for swimming.
- Contaminated wash water clouds waterways harming aquatic life.

**Following best management practices protects our waterways.**

**WORKING TOGETHER FOR CLEAN, HEALTHY WATERWAYS**

**GOOD TO KNOW**  
Lawn care, landscaping, and pest control practices can impact water quality.

When it rains, soil, mulch, leaves, grass clippings, fertilizers, pesticides, and herbicides flow across yards and paved areas, winding their way through streets and storm drains before entering our local waterways.

**The Causes**

- Poorly positioned sprinklers waste water and increase the flow of pollutants into storm drains.
- Leaves, grass clippings, and tree coverings that are swept or blown into the street can clog storm drains and pollute our waterways.
- Fertilizers, pesticides, and herbicides that wash off lawns and landscaped areas contaminate waterbodies.

**The Impact**

- Yard waste encourages algal blooms to form, robbing the water of oxygen.
- Lawn chemicals harm fish and other aquatic life.
- Streets flood easily when storm drains are clogged with yard waste.

**Following best management practices protects our waterways.**

**WORKING TOGETHER FOR CLEAN, HEALTHY WATERWAYS**

**WHAT TO KNOW**  
Grooming, and other pet care activities like cleaning products and waste materials if not disposed of properly, can pollute waterways and harm the public.

**The Water Flows**

City sewer and stormwater systems are separate designed to manage water in different ways. The sewer system carries wastewater to a treatment plant. The stormwater system carries rain and city to local waterways, picking up dirt, debris, pet poop, etc. along its path.

**Source of Stormwater Pollution**

Waste is not fertilizer. It is filled with harmful germs and bacteria that, if not disposed of properly, can harm people, pets, and wildlife. Cleaning products (even those labeled "pet safe") can be toxic to aquatic life or other solids in wash water can cause clogs in the sanitary sewer system.

**The Impact of Stormwater Pollution**

Cleaning products and pet waste contaminate local waterways, making them unsafe. They also harm and shellfish harvesting areas close.

**Following best management practices protects our waterways.**

a communication strategy to reach building owners and operators with this important information. As a result, a detailed fact sheet, step-by-step instructional infographic, and how-to video were developed and distributed to media outlets and posted on local and regional websites. Because the group works together on other regional communication initiatives, we were able to coordinate this outreach effort and get that vital information disseminated in a timely fashion as businesses prepared to welcome back employees and customers.

**1 FLUSH THE COLD WATER**

**Reopening a closed building or facility?**

**Don't forget to flush the water pipes.**

When your building goes unused, the water in your pipes may become stagnant.

**Before you reopen, be**

- Remove and clean** the filters, screens and aerators from all faucets. Then turn on the **cold water** fully for every faucet in the facility.
- Start on the **lowest floor**, then move to the next highest floor, etc.
- All cold water outlets should be flowing at the **same time** during flushing.
- Flush toilets and urinals **two or three times each**. Don't forget to **flush kitchen sprayers and drinking fountains**.
- Empty the ice** from all ice-makers, then make and **discard two additional batches** of ice.

**COLD WATER**

**LEAVE RUNNING 30 MINUTES**

**FLUSH THE HOT WATER**

Flush for **at least 30 minutes** (longer for bigger buildings), turn off the faucets and outlets in the order as you opened them.

Flush the **hot water** and open all hot water outlets in the **same way** as you opened the cold water outlets.

Flush the **hot water** for **45 minutes** to ensure that all the water heater is flushed out.

Flush the **hot water** outlets in the **same order** as you opened them.

Hampton Roads business owners and operators seeking additional guidance should contact their local water utility department or visit [hrpdeva.gov/buildingflushing](http://hrpdeva.gov/buildingflushing)

**NOTE** Water heaters should be set to **at least 120 degrees** to prevent microorganisms from growing.

## Events

Each year, askHRgreen.org participates in a variety of corporate and industry events across the region. In FY20, askHRgreen.org volunteers had a presence at corporate events for Huntington Ingalls/Newport News Shipbuilding, Anthem, professional landscapers at the Mid-Atlantic Horticulture Association Short Course, and municipal employee events. Additionally, askHRgreen.org engaged businesses through promotions such as Imagine a Day Without Water and Straw-Free September Days. Recognizing restaurants, breweries, and coffee shops as important partners for communicating the value of tap water and waste reduction continued to be a key strategy in FY20.

## COVID-19 Water Quality Outreach

When local businesses that closed due to COVID-19 began preparing to reopen, stagnant water was a concern for building plumbing systems. The Water Awareness Committee worked together with the region's utility directors and the Virginia Department of Health to develop proper flushing guidelines and coordinate

## 2019-20 Promotional Campaigns

### Waste Reduction

With turbulent recycling markets and changing municipal recycling contracts, the priority of the Recycling & Beautification Committee has increasingly focused on waste reduction. While recycling continues to be an important message, the waste reduction message helps residents decrease their waste contribution no matter the state of recycling. The committee's message for residents is that we should all choose to reduce our waste production first before focusing on what can and cannot be recycled.

**Paid Media.** A one-week radio and digital media campaign ran from September 16-22. The "Choose to Refuse" campaign focuses on single use plastics including bottled water, straws, utensils, take out containers, and plastic bags. Through this outreach, residents are urged to refuse disposable products and choose reusable alternatives. The campaign included radio, digital display ads and retargeting, native content ads, and social media. Throughout the year, specific waste reduction messages were also included in the Google SEM campaign, driving traffic to the askHRgreen.org website from relevant keyword searches.

**Outreach Materials.** In support of the waste reduction message, the committee purchased reusable bags and distributed portable cutlery sets and reusable stainless steel straws at outreach events. All items provide a practical alternative to help residents reduce their use of single use disposable plastics.

**Public Relations.** Public relations efforts supported the waste reduction message through a variety of media channels including news releases, print coverage (Suffolk News Herald), and articles in the askHRgreen.org newsletter.

**Social Media.** We engaged with the community via Facebook, Twitter, and Instagram. Outreach included sharing waste reduction tips, upcycling projects, and stories about the negative environmental impacts of plastics and our throw away culture. The paid social media and digital campaign was the one of the highest performing in FY20, achieving 1,810 clicks.

SEPTEMBER 16 - 22, 2019 ONE WEEK

### Waste Reduction / Choose to Refuse



### Plastic Bag Recycling

The plastic bag is Public Enemy No. 1 to materials recovery facilities in Hampton Roads and nationwide. When tossed in with comingled recyclables, they get caught in machines, increasing processing time and harming equipment while posing a danger to employees tasked with removing them. In order to combat this nuisance contaminating the recycling stream, the Recycling & Beautification Committee launched a new plastic bag recycling campaign in the fall of FY20. The message for residents is that thin plastic bags and wraps can be recycled, just not in curbside recycling bins. They must be returned to local stores for collection and processing.

**Paid Media.** A one-week radio and digital media campaign ran from November 18-24 and included radio, digital display ads and retargeting, native content ads, social media, and pre-roll video ads. Plastic bag recycling messages were also included in the Google SEM campaign, driving traffic to the askHRgreen.org website from relevant keyword searches.

**Public Relations.** Public relations efforts supported the plastic bag recycling message through interviews and articles in the askHRgreen.org newsletter.

**Social Media.** We engaged with the community via Facebook, Twitter, and Instagram by sharing plastic bag recycling tips and videos.

NOVEMBER 18 - 24, 2019 ONE WEEK  
**Back To Basics / Plastic Bags** NEW



## Litter Prevention

Litter is a main focal area for the Recycling & Beautification Committee. In FY20, we once again partnered with Keep Virginia Beautiful to host the national kickoff of the Great American Cleanup. While the region-wide cleanup events planned for March 27-28 had to be cancelled due to the coronavirus, we're looking to mobilize individuals, families, and small groups in the fall of 2020 to host their own cleanup events in their neighborhoods and communities while safely practicing social distancing. The "Team Up 2 Clean Up" campaign was promoted in the following ways:

**Paid Media.** A one-week media campaign ran from March 2-8 on radio and social media. The purpose of the campaign was to educate residents about local litter problems and recruit volunteers to take action by joining the local cleanup events planned for the Great American Cleanup National Kickoff in Hampton Roads. Throughout the year, specific litter prevention messages were included in our Google SEM campaign, driving traffic to the askHRgreen.org website from relevant keyword searches.

**Outreach Materials.** Through the Virginia Litter Prevention and Recycling Competitive Grant, the committee received \$5,000 to procure supplies needed to create 70 litter kits to distribute between 12 participating localities. Each litter kit includes one bucket, four litter grabbers, four safety vests, eight trash bags, 10 latex gloves, and one "Team Up 2 Clean Up" promotional

decal. The local litter control coordinators developed litter kit lending programs unique to their jurisdictions. Some simply hosted the lending program through their own litter control offices while others engaged various public-facing organizations including public libraries, community centers, and recreation centers to expand program access. The litter kit lending programs are a great way to encourage local cleanups by providing volunteers with the tools and resources to host their own.

**Public Relations.** Public relations outreach about litter prevention and cleanups was conducted via news releases and articles in the askHRgreen.org newsletter.

**Social Media.** We engaged with the community via Facebook, Twitter, and Instagram. Outreach topics included the negative impacts of litter, advertising cleanup opportunities, and reporting the results of local litter cleanups. The influx of masks and other personal protective equipment (PPE) ending up as litter in parking lots and sidewalks was a particularly hot topic on social media in the spring and early summer.

MARCH 2-8, 2020 ONE WEEK

## Great American Cleanup / Team Up 2 Clean Up



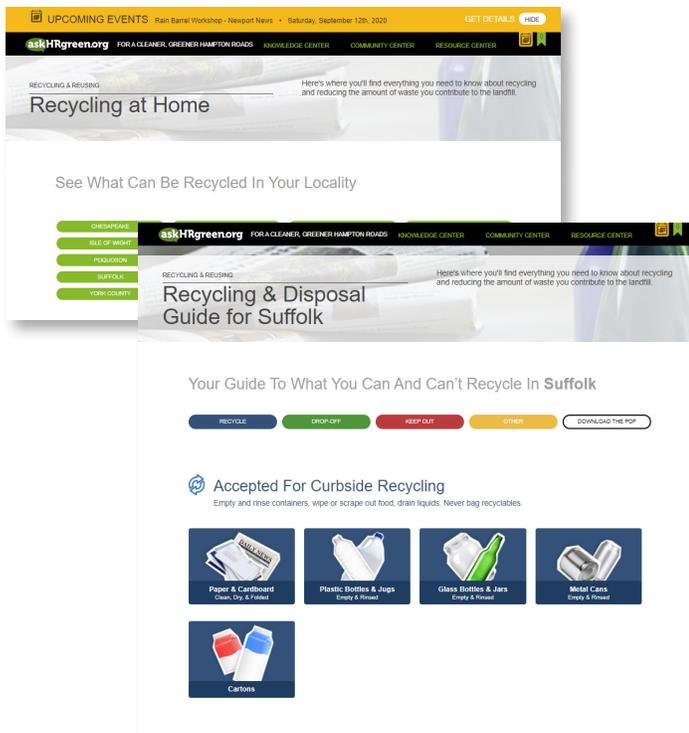
## Residential Recycling Practices

For many, household recycling has become a habit, albeit a good one. If there is a number on the bottom of that yogurt cup or take-out container, many haphazardly toss it into the recycling bin hoping that it will get recycled. That good habit of "wishful recycling" creates a lot of contamination in the recycling stream. To combat that, the Recycling & Beautification Committee launched

a new recycling and disposal guide in preparation for America Recycles Day, November 15, 2019. The new online tool, available at [www.askHRgreen.org/recycle](http://www.askHRgreen.org/recycle), connects residents with easy-to-understand visuals of what can and cannot go in the curbside recycling bin, according to individual locality guidelines. It also features helpful information about items residents can drop off at convenience centers, as well as specialty curbside services offered by some localities such as bulk waste pickup and yard waste composting. The recycling tool is easy to use and even includes a downloadable one-page guide residents can print and display in their homes.

**Public Relations.** A press release was distributed in November announcing the new tool available on the [askHRgreen.org](http://askHRgreen.org) website. It was featured in the Sunday, November 17, edition of the *Virginian-Pilot* and also in the [askHRgreen.org](http://askHRgreen.org) newsletter.

**Social Media.** We engaged with the community via Facebook, Twitter, and Instagram. Outreach included sharing news about the new recycling lookup tool, answering recycling questions, and promoting local recycling information and collection events.



## Suffolk Your Guide to What You Can and Can't Recycle

### Accepted for Curbside Recycling

Empty and rinse containers, wipe or scrape out food, drain liquids. Never bag recyclables.



### These Recyclables Can be Dropped Off



### Keep These Out of the Recycling Container



### Other Disposal Options



Find more detailed information and other locality-specific resources at [askHRgreen.org/recycling/suffolk](http://askHRgreen.org/recycling/suffolk)

[askHRgreen.org](http://askHRgreen.org)

## Fats, Oils & Grease (FOG) Disposal

The FOG Committee focuses each year on helping residents and local restaurants understand the sources of FOG (fats, oils, and grease) and best management practices that should be followed in order to keep this waste from contributing to sewer blockages and backups. This focal area was addressed with the following strategies:

**Paid Media.** The "Grease Grinch" campaign ran online for two weeks from November 25 – December 8. Ads included radio, digital display ads and retargeting, native content, social media, video pre-roll, and digital streaming TV. Throughout the year, specific FOG messages were included in the Google SEM campaign, driving traffic to the [askHRgreen.org](http://askHRgreen.org) website from relevant keyword searches.

**Outreach Materials.** The FOG Committee continued to distribute relevant promotional items including sink strainers, grease can lids, sponges, spatulas, and more.

**Public Relations.** Public relations supported public education and outreach through a variety of media channels including news releases, print coverage (The Virginian-Pilot Flavor Section), and multiple articles in the askHRgreen.org newsletter.

**Social Media.** We engaged with the community via Facebook, Twitter, and Instagram. Outreach topics included the negative impacts of improper grease disposal, fatbergs, canning the grease, and the importance of maintaining infrastructure.

NOVEMBER 25 - DECEMBER 8, 2019 TWO WEEKS  
**Grease Grinch**



## What Not to Flush

The FOG Committee continues to educate the public about proper flushing etiquette and the harmful side effects of flushing personal hygiene products, wipes, dental floss, cotton swabs, and more.

**Paid Media.** The committee created a new “What Not To Flush” media campaign that ran from April 6-12. The video shows a variety of commonly flushed items that should go in the trash, not down the toilet and reminds residents to only flush toilet paper along with their personal business. The engaging new video features colorful graphics and engaging audio to encourage people to do the right thing. The one-week media campaign included radio, digital display ads and retargeting, native content, social media, video pre-roll, and digital streaming TV ads. Throughout the year, specific what not to flush messages were included in the Google SEM campaign, driving traffic

to the askHRgreen.org website from relevant keyword searches.

**Outreach Materials.** The FOG Committee continued to distribute washcloths, toilet stress squeezers, and “what not to flush” stickers in support of the message. In addition, the committee developed a “flush it or not” magnet game to be used as an engagement tool for future school visits and public events.

**Public Relations.** Public relations supported the what not to flush message through a variety of media channels including news releases, local TV news coverage (WVEC article), and the askHRgreen.org newsletter.

**Social Media.** We engaged with the community via Facebook, Twitter, and Instagram. Outreach topics included the damaging side effects of flushing trash, photos showing clogs due to wipes and rags, proper medication disposal, and the myth of flushable wipes. With the increased use of disinfecting wipes due to health and safety concerns regarding COVID-19, proper disposal of wipes became an important topic to promote via all of our outreach channels.

APRIL 6-12, 2020 ONE WEEK  
**What Not To Flush** NEW CREATIVE



## Communicating the Value of Water

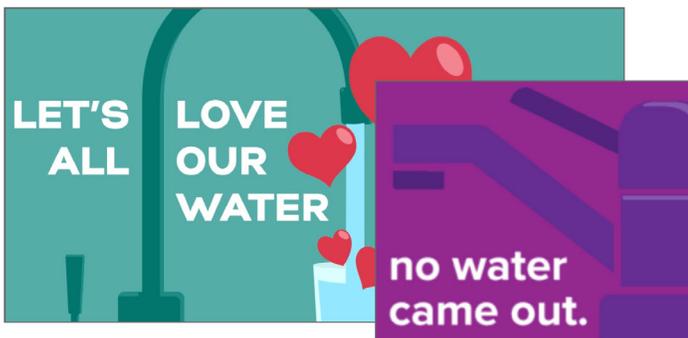
Water is the foundation of our community. From handwashing, a practice made exceptionally important during the COVID-19 pandemic, to cooking, and cleaning, water drives our quality of life in Hampton Roads. It’s also vital for our economy, fire protection, and the continued fight against the spread of illness. The Water Awareness Committee continued to focus on communicating the vital role water plays in our lives in the following ways:

**Paid Media.** The Water Awareness Committee conducted two media campaigns during FY20 that leveraged national water awareness initiatives as an opportunity for local outreach.

*Imagine a Day Without Water.* Celebrated each October, Imagine a Day Without Water is a national outreach campaign designed to highlight all the ways we use water each day. A two-week media campaign ran from October 14-27 featuring radio, static and retargeted digital display ads, native content ads, social media, and video pre-roll. The campaign utilized new creative for both radio and video assets. The creative theme included a rhyming poem with vibrant video animation highlighting all the things we'd miss on a day without water. The paid media campaign was supported by grassroots outreach through the partnership with local breweries and coffee shops with branded coasters and coffee sleeves distributed on October 23.

OCTOBER 14-27, 2019 TWO WEEKS

### **Imagine a Day Without Water** NEW CREATIVE



*Drinking Water Week.* A one-week media campaign ran from May 4-10 as part of the national Drinking Water Week awareness campaign from American Water Works Association. The campaign included radio, static and retargeted digital display ads, social media, video pre-roll, and digital advanced TV. The campaign utilized an existing radio ad that covered “the honest truth about public water systems” while the video component featured interviews asking Hampton Roads residents what water meant to them. The digital display ads drove home the important role water infrastructure plays in hygiene, business, health care, and fire protection.

MAY 4-10, 2020 ONE WEEK

### **Drinking Water Week**



**Outreach Materials.** The committee continued to distribute a variety of promotional items including reusable water bottles, mood pencils, sponges, toothbrushes, and more. Hydro flasks were a particularly engaging outreach tool this year as popular giveaway items for social media contests.

**Public Relations.** Public relations exposure came from features on various media channels including news releases, print coverage (Williamsburg-Yorktown Daily, Southside Daily, Hampton Newport News Daily, The Virginia Gazette), interviews with local radio and TV shows, and articles in the askHRgreen.org newsletter. Of particular note, the Imagine a Day Without Water campaign was featured on WTKR’s Coast Live program and in the Inside Business publication.

**Social Media.** We engaged with the community via Facebook, Twitter, and Instagram. The askHRgreen.org social media branding campaign promoted multiple value of water messages in support of both Drinking Water Week and Imagine a Day Without Water. Partnerships with local coffee shops and breweries got the value of water message in front of new and diverse audiences on social media. The hydro flask giveaways also drove engagement on social media.

### **Water Conservation**

The Water Awareness Committee continued to raise awareness about conserving water in Hampton Roads. Central topics for this focal area include fixing leaks,

installing low flow WaterSense plumbing fixtures, and indoor/outdoor water conservation tips.

MARCH 16-22, 2020 ONE WEEK

## Fix-A-Leak



**Paid Media.** As part of Fix-a-Leak Week, a nationwide campaign from EPA, a one-week radio and online media campaign ran from March 16-22. The campaign used existing creative including a “man on the street” video about water waste and how to find and fix a leaking toilet. The radio creative captured the similar tone of a “man on the street” interview parodying the sounds of household leaks. The campaign included radio, static and retargeted digital display ads, social media, and video pre-roll. Throughout the year, specific water conservation messages were also covered in our Google SEM campaign, driving traffic to the askHRgreen.org website from relevant keyword searches.

**Outreach Materials.** The Water Awareness Committee distributed numerous promotional items to help residents conserve water including rain gauges, shower timers, toilet leak detection dye tabs, seed bookmarks, and hose nozzles.

**Public Relations.** Conservation messages were weaved into public relations through news releases, print coverage, interviews with local radio and TV shows, and articles in the askHRgreen.org newsletter. Of particular note, the topic of native plants was a popular one, featured in multiple media interviews.

**Social Media.** We engaged with the community via Facebook, Twitter, and Instagram. The askHRgreen.

org social media branding campaign covered water conservation topics ranging from rain barrels to fixing leaks to household usage tips.

## Storm Drains & Illicit Discharges

The Stormwater Education Committee continues to educate the public about storm drains: what they are, where they go, and how they can contribute to local water pollution. The popular “only rain down the drain” message was incorporated into a variety of outreach campaigns during FY20 as the best management practices for storm drains overlap with other committee focal areas.

**Paid Media.** Throughout the year, storm drain topics were included in our Google SEM campaign, driving traffic to the askHRgreen.org website from relevant keyword searches.

**Outreach Materials.** The committee added a new resource for the management of wild geese to its comprehensive library of informational brochures and rack cards addressing best management practices. askHRgreen.org also continued to promote the storm drain marking program.



**Public Relations.** Public relations supported this focal area through news releases, print articles, interviews with local radio and TV shows, and features in the askHRgreen.org newsletter. Two planned public relations efforts were delayed due to COVID-19. First, the committee planned to launch a series of sidewalk decals to promote the message “Every Day We Love the Bay, Only Rain Down the Drain” in conjunction with the Chesapeake Bay Foundation’s Clean the Bay Day litter cleanup in June 2020. That effort has been rescheduled for June 2021. Similarly, the committee has coordinated with 38 car washes on a “Thank You for Washing Wisely” campaign. The campaign recognizes the value of washing cars at commercial establishments with runoff capture instead of at home on paved surfaces. Originally planned for late spring, this campaign has been rescheduled to August 2020.



**Social Media.** We engaged with the community via Facebook, Twitter, and Instagram. Outreach included awareness of local water quality problems and a diverse variety of best management practices. The askHRgreen.org social media branding campaign was responsible for the majority of creative to support social media outreach.

**Chesapeake Bay Restoration Fund Grant (CBRF).** The committee was awarded grant funds to host four rain barrel workshops in FY20. The first two workshops were held in October 2019 in Newport News and Chesapeake. Spring workshops were scheduled for April 2020 in Hampton and Suffolk, however, COVID-19 stay-at-home orders forced a postponement. Once reopening guidelines were announced, the workshops were reimagined with



safety in mind. The Hampton workshop was split into two smaller events to maintain social distancing among participants. The Suffolk workshop was transitioned to a “take and make” curbside pickup where residents safely picked up their rain barrel and assembly kit from the City of Suffolk and assembled the rain barrels in their own home with the help of instructional tools. All four workshops were popular, sold-out events. The modest \$20 registration fee is a strong incentive for residents to participate. Thanks to this grant from CBRF, 60 affordable rain barrels are now helping to improve water quality in Hampton Roads.

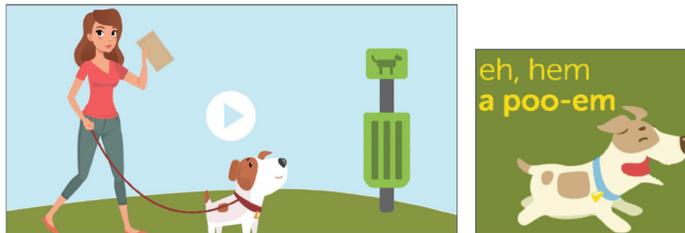
## Pet Waste Disposal

In FY20, the Stormwater Education Committee continued to raise awareness about the importance of scooping the poop and the harmful impacts of bacteria-laden waste on local water quality.

**Paid Media.** The committee ran a one-week media campaign from June 1-7. The campaign used existing creative featuring a whimsical “poo-em” about cleaning up after your pet and the harmful impacts of pet waste on local water quality. The campaign included radio, static and retargeted digital display ads, social media, video pre-roll, and advanced TV. Throughout the year, pet waste and “scoop the poop” messages were also included in our Google SEM campaign, driving traffic

JUNE 1-7, 2020 ONE WEEK

**Pet Waste**



to the askHRgreen.org website from relevant keyword searches.

**Outreach Materials.** The committee purchased 5,000 dog waste bag holders to distribute at community events. The dog waste bag holders accompany scoop the poop rack cards with helpful information for residents.

**Public Relations.** The pet waste message was promoted in news releases, print articles, interviews with local radio and TV shows, and features in the askHRgreen.org newsletter.

**Social Media.** Social media is an important tool for sharing the “scoop the poop” message, and we utilized Facebook, Twitter, and Instagram in our outreach efforts. The public was encouraged to sign the scoop the poop pledge which resulted in 20 new pledges in just one week. Some who completed the pledge also included their pet’s name, a picture and their favorite place to walk. These pictures and details were used to extend the social media campaign through additional posts thanking residents who took the pledge and spotlighting their furry friends. The askHRgreen.org social media branding campaign was responsible for the majority of pet waste outreach on social media in FY20.

**Pet Waste Station Grant Program.** Since 2013, the askHRgreen.org Pet Waste Station Grant Program has made it easy for communities across Hampton Roads to add pet waste stations to their streets and common areas. Geared toward neighborhood associations, community groups, and property management companies, the regional program offers communities an opportunity to receive a free pet waste station to install and maintain in their neighborhoods. Approved applicants are responsible for installing the station, emptying the trash regularly,

and replacing the bags as needed. The neighborhood is also tasked with spreading the word about the location of the new pet waste station, the negative impact of pet waste on local water quality, and encouraging its use among dog-walking neighbors. Since the launch of the program, more than 382 pet waste stations have been awarded and installed across the region. Of those, 33 were awarded and installed during FY20.



New Pet Waste Stations in FY20	
Chesapeake	2
Hampton	1
James City	2
Newport News	6
Norfolk	2
Portsmouth	3
Suffolk	3
Virginia Beach	13
York	1
	<b>33</b>

Total Pet Waste Stations Awarded FY14 to FY20	
Chesapeake	41
Franklin/Southampton	8
Gloucester	5
Hampton	32
Isle of Wight	6
James City	32
Newport News	78
Norfolk	15
Poquoson	5
Portsmouth	21
Smithfield	8
Suffolk	36
Virginia Beach	70
Williamsburg	5
York	20
	<b>382</b>

## Lawn Care & Fertilizer

**Paid Media.** After several years of reusing existing creative for lawn care campaigns, the committee invested in a new chalkboard art-inspired video and rhyming radio campaign. The creative highlights important best management practices including mulch mowing grass and fallen leaves, soil testing, composting, and keeping storm drains clear of yard waste and debris. The creative also highlights the negative impacts on aquatic life and marine habitat when best practices aren't followed. The new campaign creative was used in a one-week media campaign which ran from October 7-13. The campaign included radio, static and retargeted digital display ads, social media, and video pre-roll. Throughout the year, lawn care, native plants, fertilizing, and soil testing topics were included in our Google SEM campaign, driving traffic to the askHRgreen.org website from relevant keyword searches.

OCTOBER 7-13, 2019 ONE WEEK

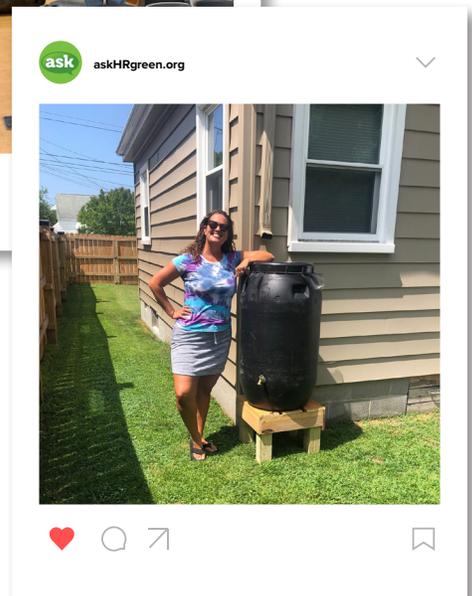
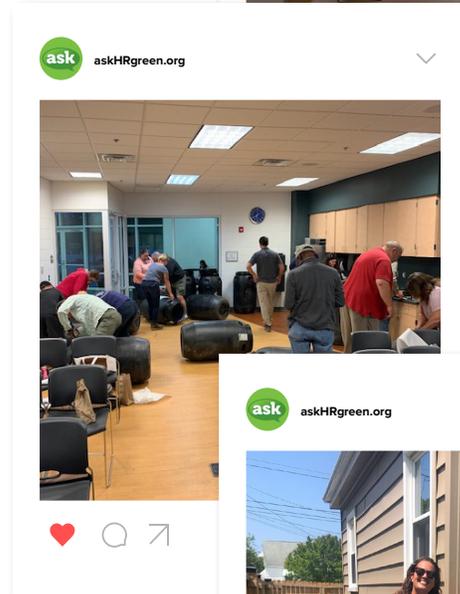
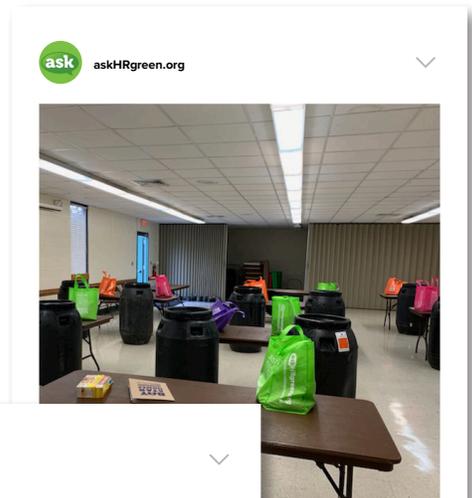
**Lawn Care** NEW CREATIVE



**Outreach Materials.** The committee distributes many brochures related to lawn care and fertilizer application including best management practices and how to take a soil test. Free soil test kits and native black-eyed Susan seed packets are made available to residents during public outreach events. The committee also conducts outreach to landscaping and lawn care professionals with a rack card specifically designed for more commercial applications.

**Public Relations.** Fertilizer and lawn care best management practices are commonly included in various public relations strategies throughout the year including news releases, print articles, interviews with local TV and radio stations, and features in the askHRgreen.org newsletter.

**Social Media.** Facebook, Twitter, and Instagram were utilized for sharing fertilizing and lawn care best management practices. Social media was also critical for promoting the four grant-funded rain barrel workshops held in FY20. The majority of lawn care and fertilizer messages shared through social media in FY20 were a part of the askHRgreen.org social media branding campaign.



# 2019-2020 Media Campaign Results

**SEPTEMBER 16-22 “Choose to Refuse: Waste Reduction”**  
Radio, digital display ads, native content ads, social media

Impressions: 473,586  
Clicks/Actions: 1,810

**BUDGET: \$6,670 | VALUE: \$13,538 | CPM: \$14.09**  
**ROI: 2.03:1**

**OCTOBER 14-27 “Imagine a Day Without Water”**  
Radio, digital display ads, native content ads, social media, preroll video

Impressions: 1,155,106  
Video Views: 27,013  
Clicks/Actions: 1,956

**BUDGET: \$16,731 | VALUE: \$27,005 | CPM: \$14.48**  
**ROI: 1.58:1**

**NOVEMBER 25 - DECEMBER 8 “Grease Grinch”**  
Radio, digital display ads, native content ads, social media, video preroll, advanced TV

Impressions: 1,773,160  
Video Views: 62,705  
Clicks/Actions: 1,166

**BUDGET: \$16,670 | VALUE: \$23,993 | CPM: \$9.40**  
**ROI: 1.44:1**

**MARCH 16-22 “Fix-a-Leak”**  
Radio, digital display ads, native content ads, social media, preroll video

Impressions: 1,337,483  
Video Views: 29,191  
Clicks/Actions: 1,735

**BUDGET: \$12,821 | VALUE: \$27,217 | CPM: \$9.59**  
**ROI: 2.12:1**

**MAY 4-10 “Drinking Water Week/Value of Water”**  
Radio, digital display ads, native content ads, social media, preroll video, advanced TV

Impressions: 1,377,444  
Video Views: 54,204  
Clicks/Actions: 1,056

**BUDGET: \$12,822 | VALUE: \$19,504 | CPM: \$9.31**  
**ROI: 1.52:1**

**OCTOBER 7-13 “Storm Drains & Lawn Care”**  
Radio, digital display ads, native content ads, social media, video preroll

Impressions: 737,850  
Video Views: 33,140  
Clicks/Actions: 1,552

**BUDGET: \$12,333 | VALUE: \$18,704 | CPM: \$16.72**  
**ROI: 1.52:1**

**NOVEMBER 18-24 “Plastic Bag Recycling”**  
Radio, digital display ads, native content ads, social media, preroll video

Impressions: 596,910  
Video Views: 22,032  
Clicks/Actions: 790

**BUDGET: \$10,580 | VALUE: \$14,623 | CPM: \$17.72**  
**ROI: 1.38:1**

**MARCH 2-8 “Great American Cleanup/Team Up 2 Clean Up”**  
Radio, social media

Impressions: 616,290  
Clicks/Actions: 883

**BUDGET: \$6,670 | VALUE: \$12,373 | CPM: \$10.82**  
**ROI: 1.86:1**

**APRIL 6-12 “What Not To Flush”**  
Radio, digital display ads, native content ads, social media, video preroll, advanced TV

Impressions: 991,576  
Video Views: 42,997  
Clicks/Actions: 2,427

**BUDGET: \$14,832 | VALUE: \$21,515 | CPM: \$14.96**  
**ROI: 1.45:1**

**JUNE 1-7 “Pet Waste Disposal”**  
Radio, digital display ads, native content ads, social media, video preroll and FEP TV

Impressions: 830,246  
Video Views: 23,809  
Clicks/Actions: 1,394

**BUDGET: \$8,420 | VALUE: \$12,819 | CPM: \$10.14**  
**ROI: 1.52:1**

# 2019-2020 askHRgreen.org Public Relations Value

Date	Media Outlet	Topic	Length	Circ./Imp	PR Value
Wednesday, October 23, 2019	WTKR-TV Coast Live	Imagine a day without water interview with Katie Cullipher and Mallory Rugg	4:45 minutes	6,000	\$2,295.00
Thursday, Sept. 19, 2020	Suffolk News-Herald	Restaurants support straw-free September	10 column inches	10,431	\$981.00
Monday, November 4, 2019	Inside Business	Try to imagine our modern lives without water experts column	30 column inches	9,000	\$7,740.00
Sunday, November 17, 2019	The Virginian-Pilot	Confused about what to recycle in Hampton Roads? This regional guide will help	36 column inches	328,434	\$23,250.00
Wednesday, November 27, 2019	The Virginian-Pilot, Flavor Section	Grease is the word, from the bird. Have you heard that you can recycle it?	36 column inches	279,187	\$17,755.00
Wednesday, Dec. 18, 2019	WCTV-48 City of Chesapeake	Green holiday gift ideas	1:10 minutes	1,500	\$600.00
Wednesday, Dec. 18, 2019	WHRV-FM "HearSay"	In the Garden interview with Katie Cullipher	5:00 minutes	11,000	\$3,750.00
Friday, Dec. 27, 2019	WTKR-TV	How to "treecycle" your natural Christmas tree in Hampton Roads	Online report	12,000	\$1,050.00
Monday, Dec. 30, 2019	WVEC-TV Online Report	What to do with your Christmas tree after the holidays	Online report	12,000	\$1,050.00
Saturday, Jan. 4, 2020	Williamsburg-York County Daily	Tree can be fire hazard, Here's how to get rid of it.	Online report	12,000	\$1,050.00
Sunday, Jan. 26, 2020	WVEC-TV Coastal Connections	Five ways to wipe out waste interview with Katie Cullipher	5:00 minutes	3,600	\$1,125.00
Wednesday, April 8, 2020	WCTV-48 City of Chesapeake	Native plants interview with Katie Cullipher	1:00 minute	1,500	\$600.00
Friday, April 10, 2020	WCTV-48 City of Chesapeake	What's flushable video	2:45 minutes	1,500	\$600.00
Wednesday, April 22, 2020	WTKR-TV Coast Live	Earth Day interview with Katie Cullipher	4:30 minutes	36,000	\$2,295.00
Wednesday, April 22, 2020	The Virginian-Pilot	Earth Day tips for the virus crisis	18 column inches	279,187	\$8,766.00
Wednesday, April 22, 2020	The Daily Press	Earth Day tips for the virus crisis	18 column inches	95,782	\$1,785.00
Wednesday, April 22, 2020	RVA/VCU magazine	Virginians spending 50th anniversary of Earth Day at home interview with Katie Cullipher	Online report	58,000	\$5,295.00
Saturday, May 9, 2020	The Virginian-Pilot, Home + Living	askHRgreen.org launches homeschool program	30 column inches	279,187	\$14,610.00
Wednesday, May 13, 2020	WVEC-TV	Public Utilities see items other than TP flushed down sewage system	Mentions ask in online report	12,000	\$1,050.00
				<b>1,448,308</b>	<b>\$95,647</b>

Total circulation or audience 1,448,308

Total articles and interviews 19

Total budget \$6,986

Total publicity value \$95,647

Return on Investment (ROI) 13.7:1

**Suffolk News-Herald** Since 1873  95°



Chesapeake Weekly, Green Gifts

Grease is the word, from the bird, have you heard you can trash with feeling?

By THE VIRGINIAN-PILOT THE VIRGINIAN-PILOT | NOV 27, 2019 AT 11:04 AM

## Public Utilities seeing items other than toilet paper flushed down sewer system in Gloucester County

Public Utilities encourages residents to not flush items such as newspapers, paper towels, hygiene products, diapers, wipes or other trash into the system.



**SQUARESPACE**  
ONLINE STORE DESIGNED FOR ENTREPRENEURS  
START YOUR FREE TRIAL TODAY

LATEST FOOD & DRINK

FOOD & DRINK COLUMNISTS |



SECTIONS **The Virginian-Pilot** [Subscribers: Get our App for Unlimited, Anywhere Access](#)

COLUMN COLUMNS & GUEST COMMENTARY OPINION & COMMENTARY

## Katie Cullipher & Rebekah Eastep: Earth Day tips for the virus crisis

By KATIE CULLIPHER and REBEKAH EASTEP FOR THE VIRGINIAN-PILOT | APR 22, 2020

Our Earth has experienced heart-breaking loss of life over the past few weeks spread across the globe at a seemingly unstoppable pace. As inhabitants of this planet, we have been doing our part to slow the march by washing our hands, keeping a safe distance from others.

We're anxious and yearning, frustrated and tired — not exactly in the mood for the anniversary of Earth Day today. And while [askHRgreen.org](http://askHRgreen.org) and the program won't be marking this golden year with the fervor and passion of yore, there are still things we can do on Earth Day — and every day — to take care of our planet:

- Conserve water by turning off the faucet while you are singing "Happy Birthday" to your hands.
- Keep up with your recycling efforts; this service hasn't stopped.
- Be conscientious of what you flush down the toilet; so-called "flushable" wipes and facial tissue are not flushable.
- Plant a victory garden. Like Americans who weathered World War II, planting vegetables, fruits and herbs to help provide food for their families is a therapeutic experience of working in a garden.
- Enjoy a "lights off" hour in the evening. Dine by candlelight and turn off electronics when not in use.
- If you're ordering a meal in, say "no thanks" to plastic utensils, straws, and condiments.
- Declutter your home and set aside the good stuff for donation.
- Reserve a quiet corner of your yard and let nature do its thing (and you can enjoy it).
- And finally, for this Earth Day especially, take a moment to be present with your favorite outdoor spot.

FEEDBACK

## This regional guide will offer local recycling tips for confused residents

Hampton Roads officials launch illustrated plan

By KATHERINE HAFNER Staff writer

You don't want to be a "wishful recycler." Drawing the ire of the industry, these people throw just about anything into the blue bin, hoping for the best. But at least a fifth of everything that goes in is likely getting tossed and can have serious contaminating effects on other recyclable items or jam up machinery at your local recovery facility.

That's why the Hampton Roads Planning District Commission and AskHRGreen.org, a regional education initiative, just launched an illustrated online recycling and disposal guide in cooperation with 17 Hampton Roads localities, from Virginia Beach to Smithfield to Gloucester and James City County.

"Contamination has always been a hot topic in our recycling education efforts. What you can recycle at work in one city may or may not be the same as what you can recycle at home in a different city," Katie Cullipher, environmental education planner for the commission, said in an email.

"The goal of our new tool is to provide a reliable resource for recycling and disposal information to help citizens improve the quality of recycling in Hampton Roads," Cullipher said the



Sorters sift through recycling as it passes by on a conveyor belt, pulling out items that cannot be recycled or will damage the machinery at TFC Recycling in Chesapeake.

groups have been working on the guide for over a year, pausing briefly as some member localities — such as Norfolk — worked out their recycling contracts.

It's especially important, she added, in a military community with people constantly moving "from other parts of the country where their curbside recycling programs may look really different from ours."

The short answer for what you should be recycling is paper, bottles and cans. Not anything with food waste — ahem, pizza boxes — or plastic wrapping and bags. But each city is a bit different.

You can click on your city on the new guide and check out which items are a no-go, as well as what can be dropped off or picked up by specialty curbside services such as yard waste composting. Regional leaders also urge you to reduce waste in the first place, as well as reuse materials.

You can access the new site at [askhrgreen.org/gtk-gtd/recycling-lookup](http://askhrgreen.org/gtk-gtd/recycling-lookup).

The issue of wishful recycling has been made more urgent in the wake of China's crackdown on contamination. The recycling industry has been struggling to recover after the country stopped accepting most of our recycling early last year.

"With recycling programs across the nation struggling to turn a profit, improving the content of our curbside recycling bins is more important than ever," Cullipher said. It's "the perfect time to bring attention to the important issue of recycling contamination and what each of us can do to recycle right."

Katherine Hafner, 757-222-5208, [katherine.hafner@pilotonline.com](mailto:katherine.hafner@pilotonline.com)

## *Combined Media Results*

---

PAID ADVERTISING WEEKS	52 consecutive
TOTAL MEDIA IMPRESSIONS	14,771,843
TOTAL VIDEO VIEWS	295,091
TOTAL CLICKS	32,596
TOTAL PROMOTIONAL CAMPAIGN BUDGET	\$176,735
TOTAL MEDIA ADDED VALUE	\$72,742
TOTAL MEDIA EXPOSURE VALUE	\$338,138
COST PER THOUSAND IMPRESSIONS	\$11.96
RETURN ON INVESTMENT (ROI)	1.91:1

**askhrgreen.org**  
Published by Later (?) · June 25 · 🌐

If you've dedicated more time to your garden 🌱 during this pandemic, you might want to know how to make your own compost to keep it healthy. This rich, organic material, added to your soil to help plants grow, is made up of food scraps and yard waste. (It's a double win in that you keep all that out of the landfill!)

The secret? Equal amounts of "browns" and "greens," mixed with a little water. Browns include dead leaves, branches, and twigs, while greens include grass clippings... [See More](#)



**askHRgreen.org**

**askhrgreen.org**  
Published by Rebekah Jones Eastep (?) · June 11 · 🌐

Willow and her human, Karen, always play it safe. That's why they've pledged to cleanup bacteria-filled pet waste! Will you pledge to scoop the poop and keep our communities poo-free? <https://askhrgreen.org/campaign/pet-waste/> #ScoopThePoop



**askhrgreen.org**  
Published by Later (?) · June 11 · 🌐

It's a safe bet to say that you're probably staying home more than you used to. And, well, since it's June in Hampton Roads, you're probably getting outside and doing more in your yard. 🌱🍷

While you're doing all that beautifying, please keep grass 🌱 clippings, loose leaves 🍃 and yard waste out of the street. Not only will your neighbors appreciate it, so will our stormwater system, when all that debris gets washed or blown into the storm drains, it causes flooding. Not to ment... [See More](#)



**askHRgreen.org**

**askhrgreen.org**  
Published by Later (?) · May 21 · 🌐

👉 These days, there's a new kind of litter: Pandemic litter. 🍷

And by that, we mean the used masks, gloves and wipes that have been tossed to the ground, littering parking lots, grocery store entrances and other public spaces.

Sure, these are strange times. Everyone's working hard to protect themselves and their families. And that's good.... [See More](#)



**askHRgreen.org**

**askhrgreen.org**  
Published by Later (?) · May 29 · 🌐

What would happen if you turned on the water faucet in your home, and no water came out? Well...

There'd be no showers, no scrubbing, no flushing. No rinsing of hands, no every-tooth brushing.... [See More](#)



**askHRgreen.org**

**askhrgreen.org**  
Published by Rebekah Jones Eastep (?) · May 11 · 🌐

It was the turtle seen around the world. In 2015, marine conservation biologist Christine Figgenger posted a now viral video of an olive ridley sea turtle with a nearly five inch straw lodged in its nostril and changed the world. This week's easy environmental lesson plan covers the issue of litter and marine debris from land to sea, discussing the negative environmental impacts and the simple ways we can all make a difference.

Get the resources: <https://askhrgreen.org/big-oc...> [See More](#)



**askhrgreen.org**  
Published by Rebekah Jones Eastep (?) · May 3 · 🌐

This week we celebrate Drinking Water Week 🌊 Now more than ever, we are keenly aware of the value of this most precious resource and its support of public health. Preventing the spread of COVID-19 depends on handwashing and social distancing, two things made possible in part by tap water and the region's water systems. 🍷👍

So let's raise a glass of refreshing tap water to all the water professionals behind the scenes who bring us this life-sustaining service. 🍷👍

Learn mor... [See More](#)



**askHRgreen.org**

**askhrgreen.org**  
Published by Rebekah Jones Eastep (?) · June 24 · 🌐

We're so proud of our local government partners and their sustainability programs. Small changes DO make a difference. Way to lead by example! #GoGreen



**askHRgreen.org**

WYDAILY.COM  
Here's how localities are maintaining sustainable practices and saving taxpayer dollars | Williamsburg Yorktown Daily

**askhrgreen.org**  
Published by Rebekah Jones Eastep (?) · April 13 · 🌐

Toilet paper shortages and homeschooling come together in this week's very timely easy-to-use environmental lesson plan.

Do your kids know where the water goes when the toilet is flushed? Students this week will discover the mystery behind the "flush" and just why it's so important to flush only TP and your "personal" contributions. 🍷👍👍

Virginia Beach Public Utilities Newport News Waterworks Norfolk Environmental Commission Keep Norfolk Beautiful Keep Suffolk Beautiful Glouc... [See More](#)



**ASKHRGREEN.ORG**  
Easy Environmental Lesson Plans: Wastewater Treatment - AskHRGreen

## Terms

---

### **added value**

Earned but unpaid advertising value.

### **ad group**

In Search Engine Marketing (SEM), an ad group contains one or more ads which target a shared set of keywords.

### **average position**

A ranking system that determines where your search engine marketing ad will display on a web search results page (i.e. top of page v. bottom of page).

### **bounce rate**

The percentage of visitors who enter the site and “bounce” (leave the site) rather than continue viewing other pages within the same site.

### **click through rate (CTR)**

A way of measuring online advertising. The CTR of an advertisement is defined as the number of clicks on an ad divided by its impressions, expressed as a percentage.

### **cost-per-click (CPC)**

The cost associated with a person clicking on a display ad in search engine marketing.

### **exposure value**

The combination of advertising cost, added value, and public relations value.

### **frequency**

The number of times an individual (among the target audience) is exposed to the message.

### **impressions**

The number of times an advertisement or public relations placement can be seen or heard by an audience.

### **public relations value**

The equivalent advertising cost of a public relations article, interview, internet placement, etc. times three. Because a public relations placement has a higher value with an audience than advertising, it is assigned a higher value.

### **reach**

The number or percentage of people within the target audience who are exposed to an advertising message at least once over a specific period of time.

### **search engine marketing (SEM)**

The process of attracting traffic to a website from search engine results pages on a pay-per-click basis.

### **search engine marketing (SEO)**

The process of improving the quality of a website so that it appears higher in natural (“organic”) search results.

### **unique visitors (users)**

The number of people who visit a website within a specific period of time. If they visit more than one time within the period, their initial visit as well as their subsequent visits are counted as sessions. A user may have one session or multiple sessions.

Search Engine & Online Marketing Results  
July 2019- Jun 2020



July 1, 2019 - June 30, 2020				
Annual Campaign Totals	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
	342,690	12,449	51%	3.63%

July 1, 2018 - June 30, 2019	210,695	11,087		5.26%
------------------------------	---------	--------	--	-------

Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	25,719	2,516	75%	9.78%
Recycling At Home	40,245	1,540	61%	3.83%
Native Plants	38,189	1,246	35%	3.26%
Lawn Care	67,630	1,012	55%	1.50%
Battery Disposal	12,353	1,006	69%	8.14%
Reduce Reuse Recycle	13,040	904	81%	6.93%
TMDL	12,800	680	62%	5.31%
AskHRGreen General	3,198	563	81%	17.60%
Medication Disposal	6,322	541	79%	8.56%
Plastic Bag Recycling	5,675	361	62%	6.36%

July 1, 2019 - July 31, 2019				
Total Monthly Campaign	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
	18,365	1,089	69%	5.93%

July 1, 2018 - July 31, 2018	18,091	920		5.09%
------------------------------	--------	-----	--	-------

Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	2,702	208	75%	7.70%
Reduce Reuse Recycle	2,249	145	80%	6.45%
Native Plants	1,861	111	49%	5.96%
Battery Disposal	1,063	110	83%	10.35%
Recycling At Home	2,242	101	69%	4.50%
Great American Cleanup	1,221	70	58%	5.73%
TMDL	1,177	66	73%	5.61%
Medication Disposal	629	61	77%	9.70%
Tap Water	853	38	73%	4.45%
Plastic Bag Recycling	572	34	74%	5.94%

August 1, 2019 - August 31, 2019				
Total Monthly Campaign	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
	17,329	1,050	68%	6.06%

Aug 1, 2018 - Aug 31, 2018	19,586	933		4.76%
----------------------------	--------	-----	--	-------

Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	2,467	225	76%	9.12%
Reduce Reuse Recycle	2,273	160	81%	7.04%
Recycling At Home	2,160	99	72%	4.58%
Battery Disposal	1,102	91	84%	8.26%
Native Plants	1,982	83	48%	4.19%
Medication Disposal	663	56	76%	8.45%
TMDL	936	52	76%	5.56%
Great American Cleanup	921	50	50%	5.43%
AskHRGreen General	238	47	79%	19.75%
Plastic Bag Recycling	478	44	73%	9.21%

September 1, 2019 - September 30, 2019				
Total Monthly Campaign	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
	16,777	1,055	66%	6.29%

Sept 1, 2018 - Sept 30, 2018	15,484	764		4.93%
------------------------------	--------	-----	--	-------

Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	2,230	233	73%	10.45%
Reduce Reuse Recycle	2,327	154	80%	6.62%
Recycling At Home	2,127	109	69%	5.12%
Battery Disposal	1,022	99	77%	9.69%
Native Plants	1,994	83	42%	4.16%
TMDL	767	72	84%	9.39%
AskHRGreen General	379	56	87%	14.78%
Medication Disposal	601	44	74%	7.32%
Great American Cleanup	911	38	53%	4.17%
Plastic Bag Recycling	394	30	71%	7.61%

October 1, 2019 - October 31, 2019				
Total Monthly Campaign	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
	17,037	993	69%	5.83%

Oct 1, 2018 - Oct 31, 2018	15,463	875		5.66%
----------------------------	--------	-----	--	-------

Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	1,847	160	73%	8.66%
Reduce Reuse Recycle	2,249	140	83%	6.23%
Recycling At Home	2,322	114	70%	4.91%
Native Plants	2,065	103	49%	4.99%
Medication Disposal	1,011	75	84%	7.42%
Battery Disposal	836	70	78%	8.37%
AskHRGreen General	343	58	82%	16.91%
TMDL	700	43	83%	6.14%
Tap Water	512	36	75%	7.03%
Great American Cleanup	664	32	52%	4.82%

November 1, 2019 - November 30, 2019				
Total Monthly Campaign	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
	14,451	1,066	69%	7.38%

Nov 1, 2018 - Nov 30, 2018	17,312	848		4.90%
----------------------------	--------	-----	--	-------

Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	1,954	207	74%	10.59%
Recycling At Home	2,561	164	71%	6.40%
AskHRGreen General	449	141	93%	31.40%
Reduce Reuse Recycle	1,463	114	85%	7.79%
Battery Disposal	835	82	81%	9.82%
Native Plants	1,345	57	47%	4.24%
TMDL	751	57	78%	7.59%
Medication Disposal	512	48	82%	9.38%
Tap Water	715	33	81%	4.62%
Plastic Bag Recycling	382	31	75%	8.12%

December 1, 2019 - December 31, 2019				
Total Monthly Campaign	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
	9,608	691	73%	7.19%

Dec 1, 2018 - Dec 31, 2018	15,457	793		5.13%
----------------------------	--------	-----	--	-------

Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	1,671	155	75%	9.28%
Recycling At Home	2,268	129	72%	5.69%
Battery Disposal	678	65	82%	9.59%
TMDL	563	60	87%	10.66%
Reduce Reuse Recycle	486	55	93%	11.32%
Native Plants	777	39	44%	5.02%
Tap Water	453	32	87%	7.06%
AskHRGreen General	194	32	87%	16.49%
Medication Disposal	344	24	81%	6.98%
Plastic Bag Recycling	297	22	78%	7.41%

January 1, 2020 - January 31, 2020		PPC Clicks	Impression Share	Click Thru Rate
Total Monthly Campaign	PPC Impressions			
	13,563	946	70%	6.97%

Jan 1, 2019 - Jan 31, 2019	16,956	944		5.57%
----------------------------	--------	-----	--	-------

Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	2,213	228	73%	10.30%
Recycling At Home	3,176	175	71%	5.51%
Battery Disposal	840	91	82%	10.83%
TMDL	738	80	90%	10.84%
Reduce Reuse Recycle	755	65	93%	8.61%
Native Plants	1,472	56	44%	3.80%
Medication Disposal	454	46	84%	10.13%
AskHRGreen General	185	40	88%	21.62%
Great American Cleanup	526	35	60%	6.65%
Tap Water	472	23	77%	4.87%

February 1, 2020 - February 29, 2020		PPC Clicks	Impression Share	Click Thru Rate
Total Monthly Campaign	PPC Impressions			
	17,526	994	54%	5.67%

Feb 1, 2019 - Feb 28, 2019	16,931	902		5.33%
----------------------------	--------	-----	--	-------

Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	2,122	230	74%	10.84%
Recycling At Home	2,942	139	58%	4.72%
Native Plants	2,870	122	36%	4.25%
Battery Disposal	919	88	74%	9.58%
AskHRGreen General	246	65	82%	26.42%
Medication Disposal	496	57	78%	11.49%
TMDL	639	48	72%	7.51%
Plastic Bag Recycling	416	35	65%	8.41%
Reduce Reuse Recycle	502	34	69%	6.77%
Great American Cleanup	483	33	51%	6.83%

March 1, 2020 - March 31, 2020		PPC Clicks	Impression Share	Click Thru Rate
Total Monthly Campaign	PPC Impressions			
	51,856	1,013	37%	1.95%

March 1, 2019 - March 31, 2019	17,931	962		5.37%
--------------------------------	--------	-----	--	-------

Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	1,904	166	74%	8.72%
Native Plants	5,401	159	35%	2.94%
Lawn Care	10,119	123	58%	1.22%
Recycling At Home	4,723	116	55%	2.46%
TMDL	1,423	61	50%	4.29%
Battery Disposal	1,211	60	40%	4.95%
Fertilizer Tips	2,494	56	66%	2.25%
Reduce Reuse Recycle	736	37	59%	5.03%
AskHRGreen General	311	35	81%	11.25%
Medication Disposal	387	32	76%	8.27%

April 1, 2020 - April 30, 2020		PPC Clicks	Impression Share	Click Thru Rate
Total Monthly Campaign	PPC Impressions			
	53,932	1,081	36%	2.00%

April 1, 2019 -April 30, 2019	20,219	1,099		5.44%
-------------------------------	--------	-------	--	-------

Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	1,941	206	75%	8.72%
Native Plants	7,807	187	26%	2.94%
Recycling At Home	5,338	136	56%	1.22%
Lawn Care	13,539	124	42%	2.46%
Battery Disposal	1,278	78	49%	4.29%
Rain Barrels	3,044	57	29%	4.95%
Medication Disposal	419	44	75%	2.25%
TMDL	1,712	41	35%	5.03%
Fertilizer Tips	2,873	37	55%	11.25%
AskHRGreen General	328	31	67%	8.27%

May 1, 2020 - May 31, 2020				
Total Monthly Campaign	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
	52,544	1,226	45%	2.33%

May 1, 2019 -May 31, 2019	19,481	976		5.01%
---------------------------	--------	-----	--	-------

Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Lawn Care	15,837	262	60%	1.65%
Electronics Disposal	2,165	217	78%	10.02%
Native Plants	6,803	183	29%	2.69%
Recycling At Home	4,671	130	54%	2.78%
Battery Disposal	1,109	85	61%	7.66%
TMDL	1,839	64	46%	3.48%
Soil Testing	1,215	52	54%	4.28%
Rain Barrels	2,665	39	33%	1.46%
Plastic Bag Recycling	508	33	48%	6.50%
Fertilizer Tips	2,636	28	61%	1.06%

June 1, 2020 - June 30, 2020				
Total Monthly Campaign	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
	59,702	1,245	47%	2.09%

June 1, 2019 -June 30, 2019	17,784	1,107		6.22%
-----------------------------	--------	-------	--	-------

Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Lawn Care	22,846	396	59%	1.73%
Electronics Disposal	2,503	281	77%	11.23%
Recycling At Home	5,715	128	48%	2.24%
Battery Disposal	1,460	87	58%	5.96%
Native Plants	3,812	63	34%	1.65%
Soil Testing	1,013	53	63%	5.23%
Plastic Bag Recycling	524	38	66%	7.25%
TMDL	1,555	36	52%	2.32%
Medication Disposal	370	32	87%	8.65%
Rain Barrels	1,520	24	35%	1.58%