Public Outreach – Process and Case Study

Doug Beisch, Principal

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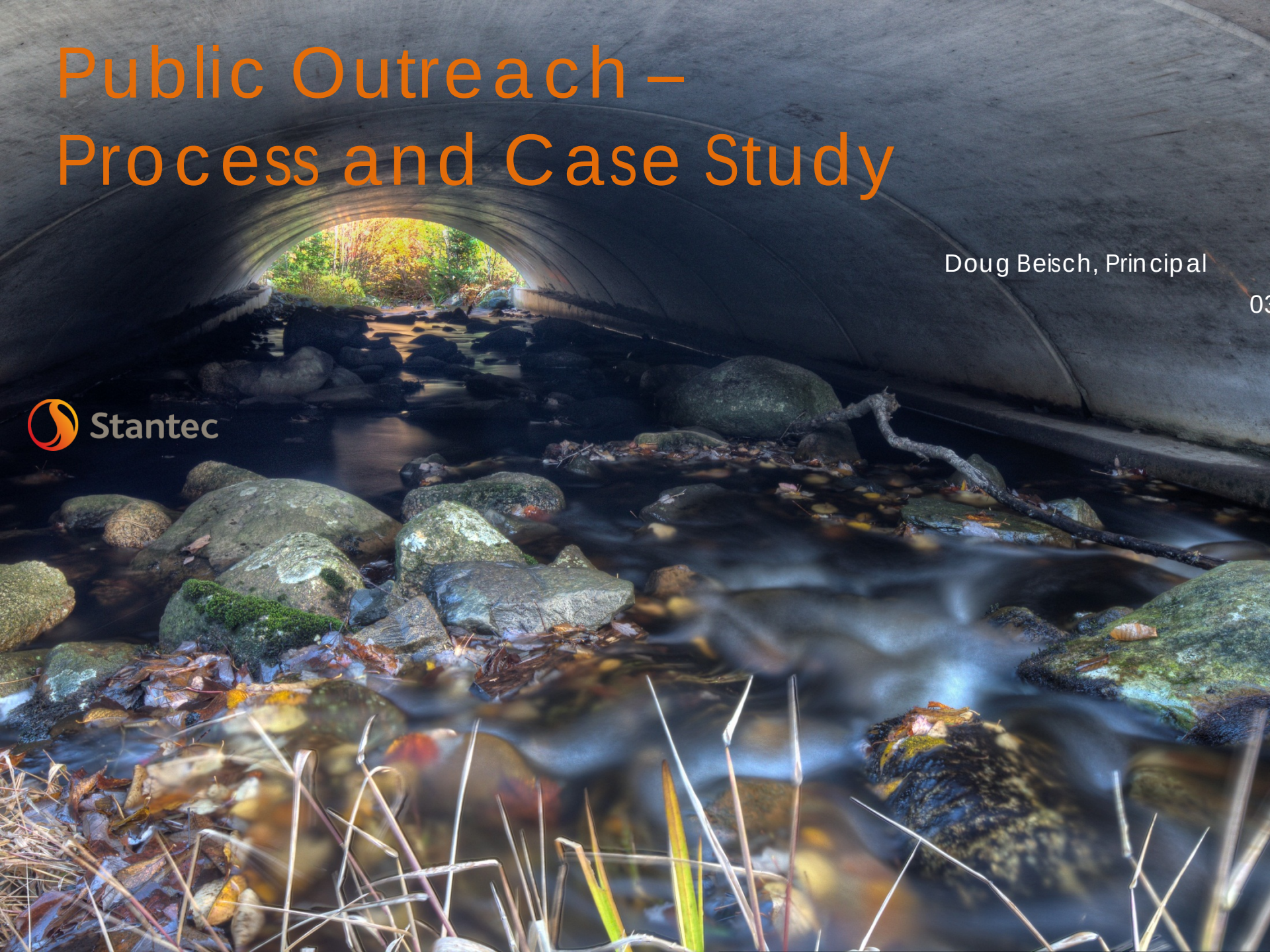


Agenda

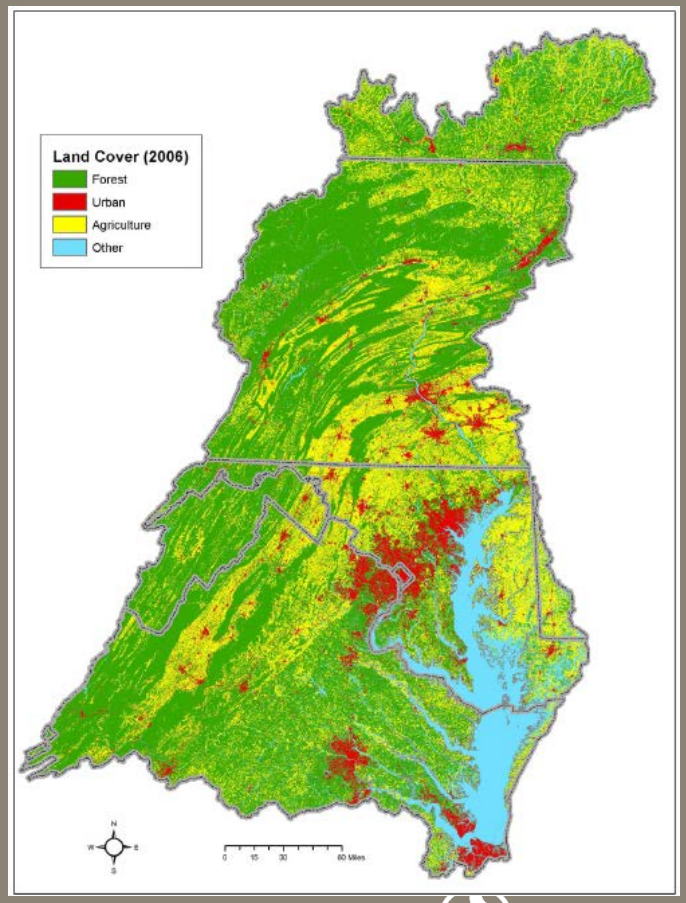
1. Introduction
2. Roadmap for Outreach Planning
3. The Process
4. Future Improvements
5. Q & A

1 Introduction

Chesapeake Bay Foundation

CHESAPEAKE BAY FOUNDATION
Saving a National Treasure

- New MS4 permits, new stormwater demands
- Provide support to MS4 permittees
- Provide limited technical assistance



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Virginia's Phase II MS4 General Permit

- Effective 7/1/13
- Schedule of tasks within GP to be completed within 12 months of permit coverage
- Public Education Outreach Plan

Table 1: Schedule of MS4 Program Plan Updates Required in this Permit		
Program Update Requirement	Permit Reference	Update Completed By
Public Education Outreach Plan (Minimum Control Measure 1 – Public Education and Outreach on Stormwater Impacts)	Section II B 1	12 months after permit coverage
Illicit Discharge Procedures - (Minimum Control Measure 3 – Illicit Discharge Detection and Elimination)	Section II B 3	
Individual Residential Lot Special Criteria (Minimum Control Measure 5 – Post-Construction Stormwater Management in New Development and Development on Prior Developed Lands)	Section II B 5 c (1) (d)	
Operator-Owned Stormwater Management Inspection Procedures (Minimum Control Measure 5 – Post-Construction Stormwater Management in New Development and Development on Prior Developed Lands)	Section II B 5	
Identification of Locations Requiring SWPPPs (Minimum Control Measure 6 – Pollution Prevention/Good Housekeeping for Municipal Operations)	Section II B 6 b	
Nutrient Management Plan (NMP) Locations - (Minimum Control Measure 6 – Pollution Prevention/Good Housekeeping for Municipal Operations)	Section II B 6 c (1) (a)	
Training Schedule and Program - (Minimum Control Measure 6 – Pollution Prevention/Good Housekeeping for Municipal Operations)	Section II B 6	

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Virginia's Phase II MS4 General Permit

- Schedule of tasks to be completed within 24 – 60 month period
- Chesapeake Bay Special Conditions pursuant to Section IC.
- Annual Reporting Requirements in Section I.C.4

Updated TMDL Action Plans (TMDLs approved before July of 2008) – (Special Conditions for Approved Total Maximum Daily Loads (TMDL) Other Than Chesapeake Bay)	Section I B	24 months after permit coverage
Chesapeake Bay TMDL Action Plan – (Special Condition for Chesapeake Bay TMDL)	Section I C	
Stormwater Management Progressive Compliance and Enforcement – (Minimum Control Measure 4 - Construction Site Stormwater Runoff Control)	Section II B 5	
Daily Good Housekeeping Procedures (Minimum Control Measure 6 – Pollution Prevention/Good Housekeeping for Municipal Operations)	Section II B 6 a	
Other TMDL Action Plans for applicable TMDLs approved between July 2008 and June 2013 - (Special Conditions for Approved Total Maximum Daily Loads (TMDL) Other Than Chesapeake Bay)	Section I B	36 months after permit coverage
Outfall Map Completed - (Minimum Control Measure 3 – Illicit Discharge Detection and Elimination) – Applicable to new boundaries identified as "urbanized" areas in the 2010 Decennial Census	Section II B 3 a (3)	48 months after permit coverage
SWPPP Implementation - (Minimum Control Measure 6 – Pollution Prevention/Good Housekeeping for Municipal Operations)	Section II B 6 b (3)	
NMP Implementation - (Minimum Control Measure 6 – Pollution Prevention/Good Housekeeping for Municipal Operations)	Section II B 6 c (1) (b)	60 months after permit coverage
*Updates should be submitted with the appropriate annual report.		

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City of Lynchburg

Lynchburg staff leading MS4 permit are busy! Many unique challenges including CSO and MS4 Permit Objectives and local TMDLS (Bacterial Impairments at the James River)

Strong desire to use to most current outreach approaches including **digital media and social networking**, to create an identity for the City's stormwater quality programs and effect better outreach.

Needed a roadmap in preparation for and in coordination with new outreach program staff.

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Goals

- Satisfy **MS4 Public Outreach Objectives**
- Utilize **Social Marketing** Where Feasible
- Maintain Consistency with **City Branding**
- Develop a **targeted outreach** programs

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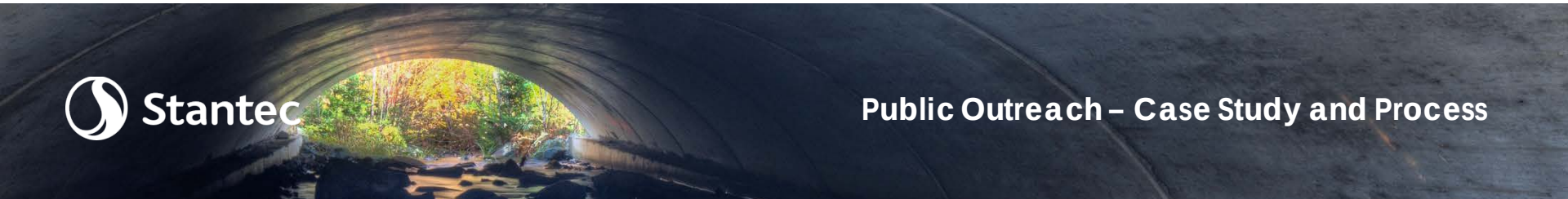
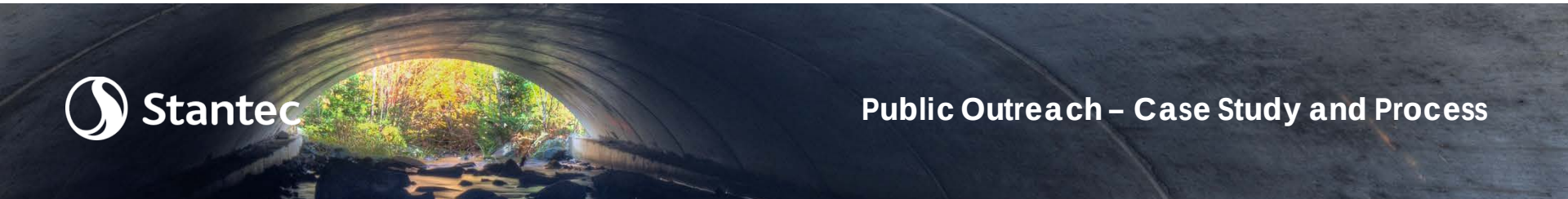
Public Outreach Requirements

- b. The public education and outreach program should be designed with consideration of the following goals:
  - (1) Increasing target audience knowledge about the steps that can be taken to reduce stormwater pollution, **placing priority on reducing impacts to impaired waters and other local water pollution concerns**;
  - (2) Increasing target audience knowledge of **hazards associated with illegal discharges and improper disposal of waste**, including pertinent legal implications; and
  - (3) Implementing a diverse program with strategies that are **targeted towards audiences most likely to have significant stormwater impacts**.



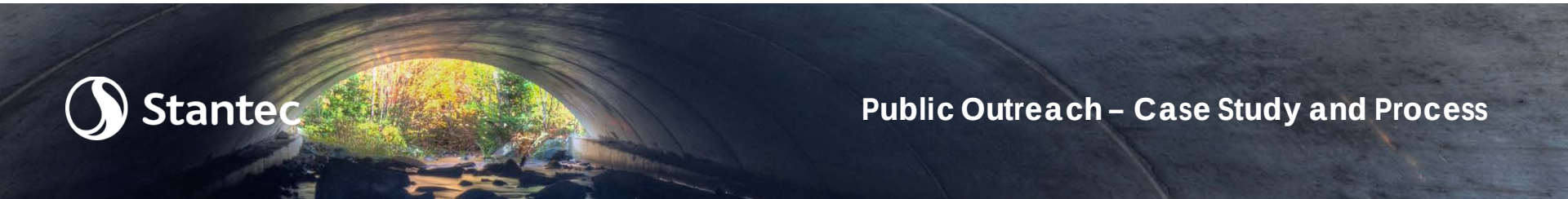
Public Outreach Requirements

- c. The updated program shall be designed to:
  - **(1) Identify, at a minimum, three high-priority water quality issues**, [that contribute to] the discharge of stormwater and a rationale for the selection of the three high-priority water quality issues;
  - **(2)** Identify and **estimate the population size of the target audience** or audiences who is most likely to have significant impacts for each high-priority water quality issue;
  - **(3) Develop relevant message or messages** and associated educational and outreach materials for message distribution to the selected target audiences while considering the viewpoints and concerns of the target audiences including minorities, disadvantaged audiences, and minors;

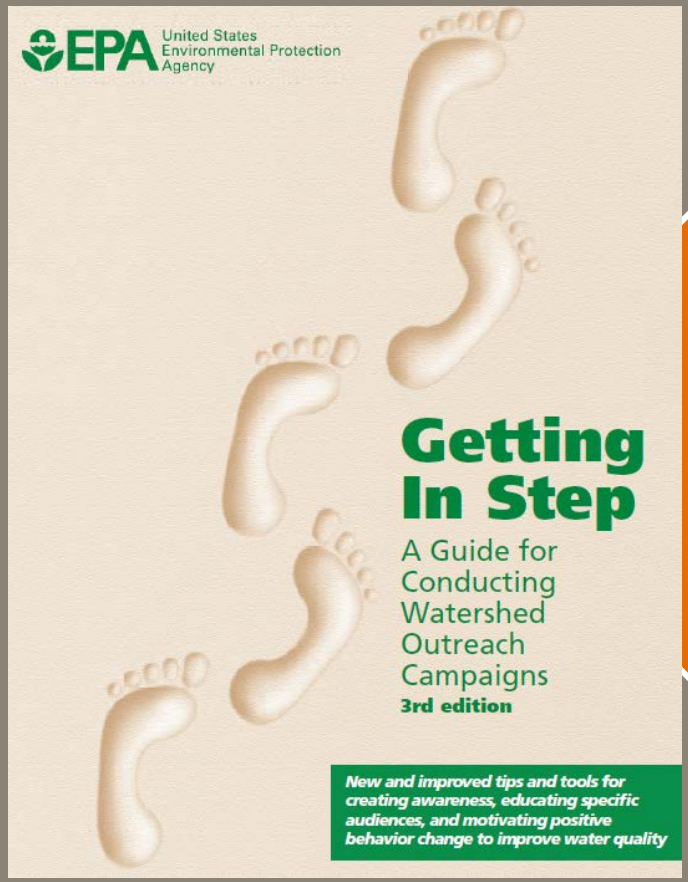


Public Outreach Requirements

- c. (continued)
  - **(4) Provide for public participation** during public education and outreach program development;
  - **(5)** Annually conduct sufficient education and outreach activities **designed to reach an equivalent 20% of each high-priority issue target audience.** It shall not be considered noncompliance for failure to reach 20% of the target audience. However, it shall be a compliance issue if insufficient effort is made to annually reach a minimum of 20% of the target audience; and
  - **(6) Provide for the adjustment of target audiences** and messages including educational materials and delivery mechanisms to reach target audiences in order to address any observed weaknesses or shortcomings.



2 Roadmap for Outreach Planning



Getting in Step

A Guide for Conducting Watershed Outreach Programs

USEPA

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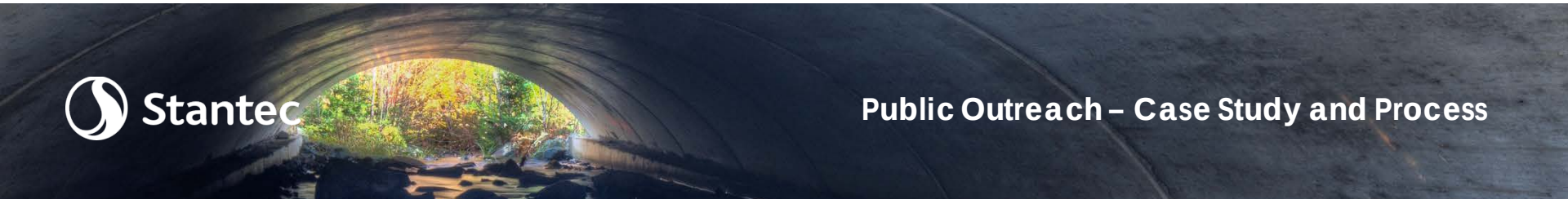
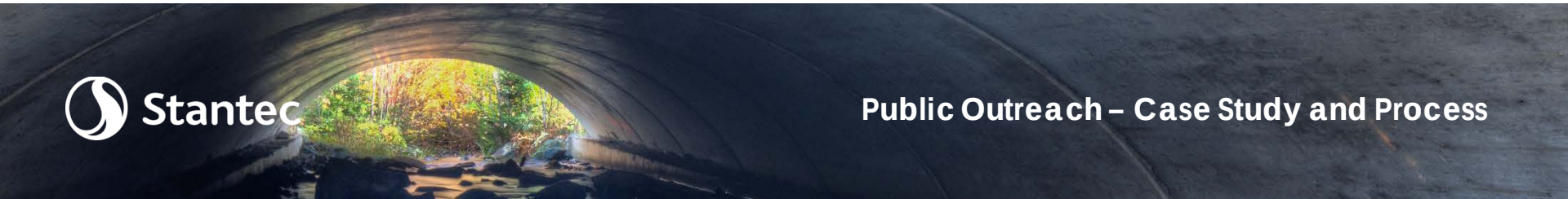
Getting in Step

- Step by Step Process
  - Define the Driving Forces, Goals, and Objectives
  - Identify and Analyze The Target Audience
  - Create the Message
  - Package the Message
  - Distribute the Message
  - Evaluate the Outreach Campaign

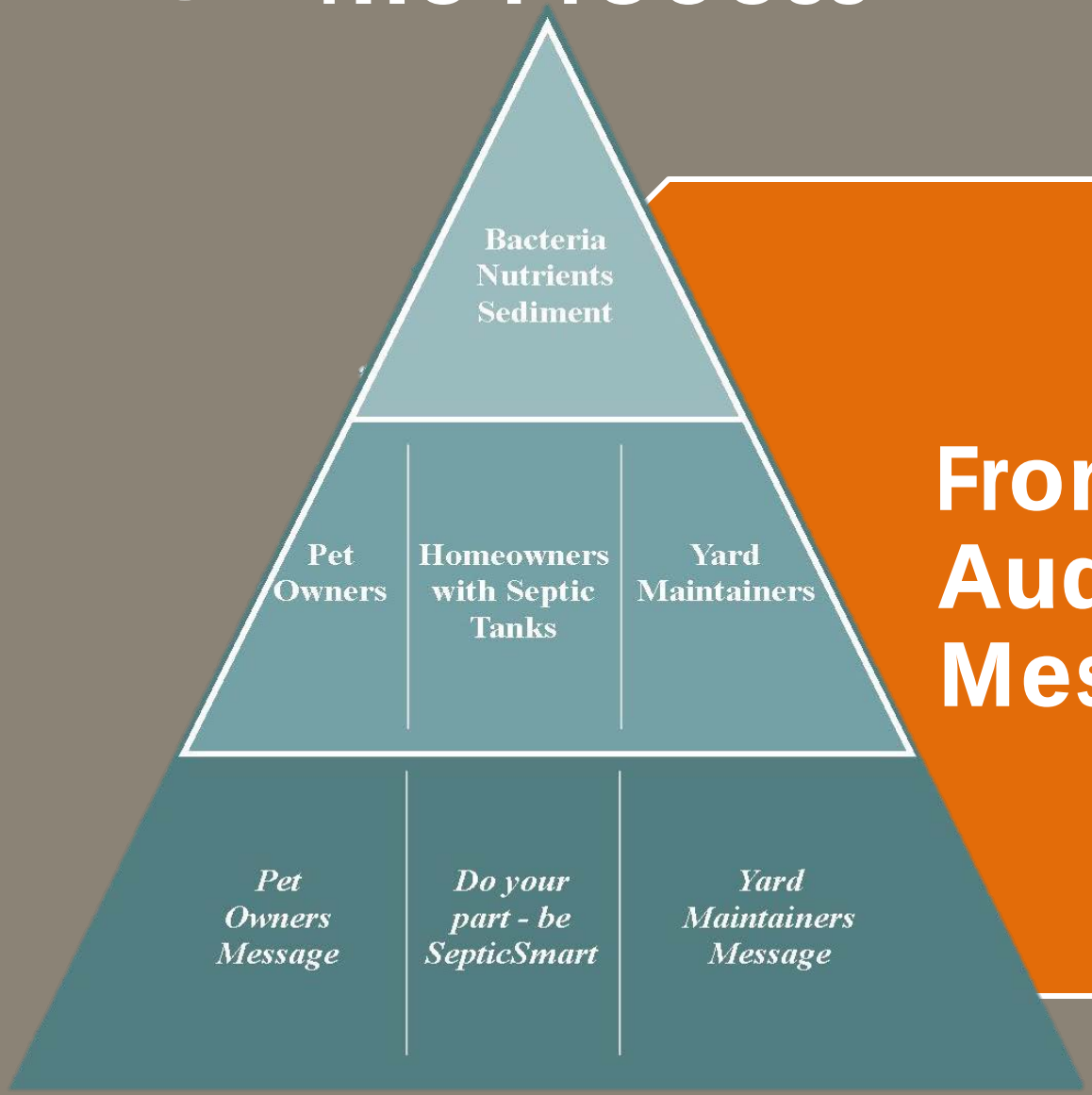


"A **goal** without a **plan** is just a wish."

— Antoine de Saint-Exupéry



3 The Process



From Issues….to Audiences…..to Messages

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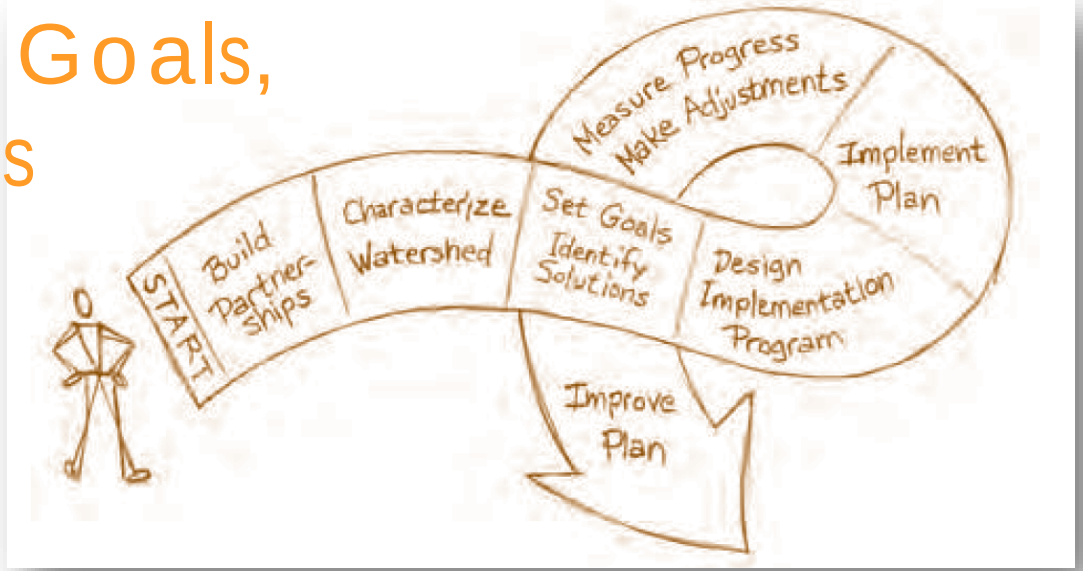
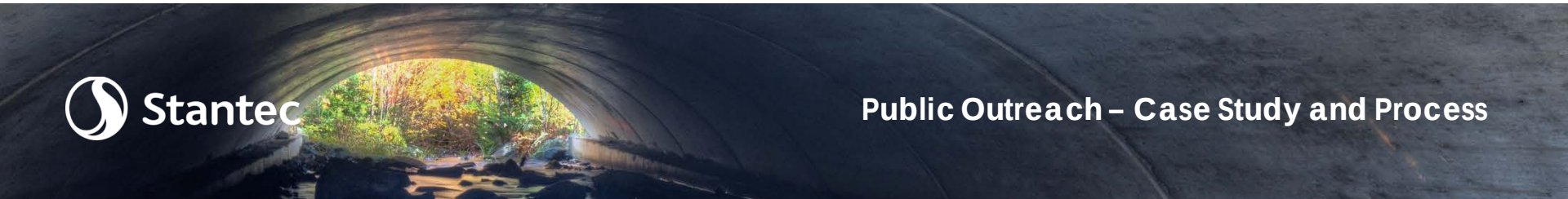
Getting in Step

- Step 1 – Define Driving Forces, Goals, and Objectives
  - Driving Forces
  - Goals
  - Objectives
  - Setting up the Evaluation Process



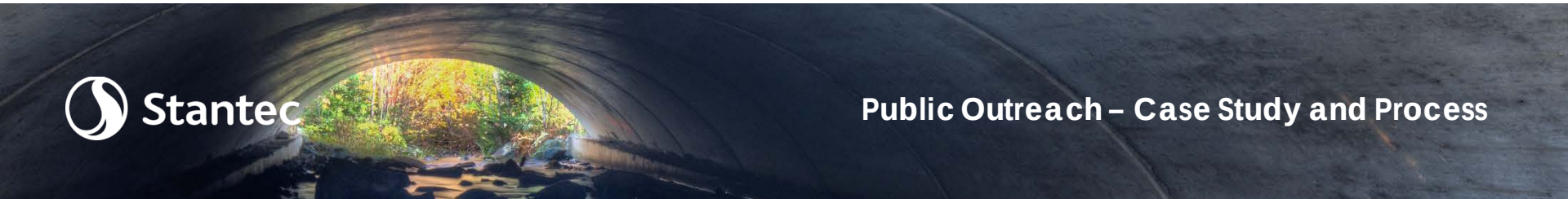
Step 1 – Driving Forces, Goals, and Objectives

- Driving Forces and Goals
  - Chesapeake Bay TMDL
  - CSO Permit
  - Local Bacterial TMDL
  - MS4 Permit



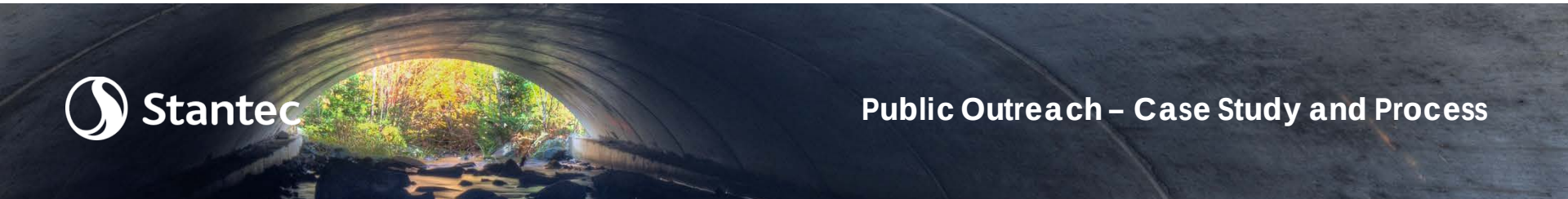
Step 1 - Driving Forces, Goals, and Objectives

- Lynchburg Strategy/Objectives
  - public education and outreach plan that can be used to satisfy the City's MS4 Permit requirements
  - create a lasting social marketing brad to illicit voluntary behavior change



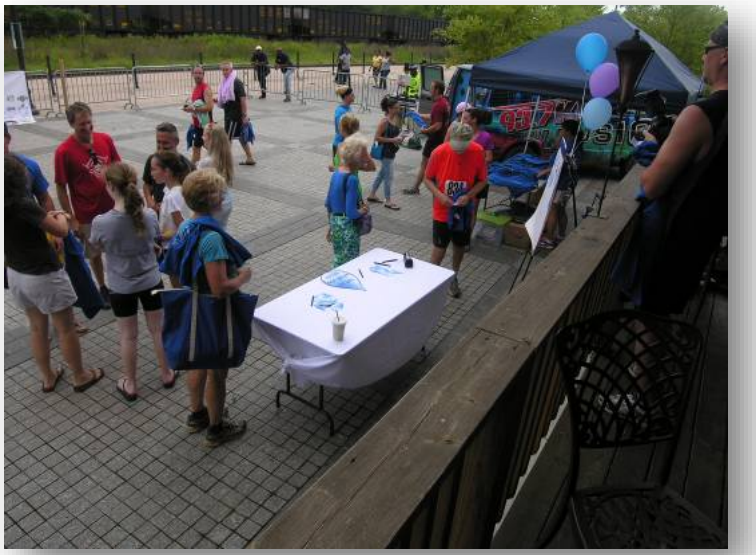
Getting in Step

- Step 2 – Identify and Analyze the Target Audience
  - Public Involvement
  - Pollutants and Stormwater Issues of Concern
  - Water Quality Issues
  - Target Audiences



Step 2 – Target Audience

- Public Involvement
  - Citizens were asked to weigh-in on:
    - the importance of clean water in receiving bodies
    - sources of contamination to waters in the Lynchburg area
    - what each of us can do to help



Step 2 – Target Audience

Step 2 – Target Audience

- Public Involvement

Why is it important to have clean water in our streams?	What can make the water dirty?	What can you do to help?
Clean drinking water and swimming	Pollution	Stop polluting
A little thing called LIFE	Industrial run-off	Volunteer. What do you need?
To keep fish alive	Cars	Ride bikes
Preserve fish, flora, and humans	Run-off, pollution from roads	Green infrastructure in hilly Lynchburg
Enjoy using the rivers	Debris, run-off	Don't litter
Health	Poor environmentalism	Not have poor environmentalism
To have clean drinking water	Litter / Sewage	Purify

Step 2 – Target Audience

- Pollutants and Stormwater Issues of Concern
  - Bacteria
  - Nutrients
  - Sediment
  - Volume of Run-off
  - Regulations
  - Flooding
  - Trash
  - Automobiles
  - Wastewater and Agricultural Discharges

Weighting table for watershed pollutants of concerns based on resident response

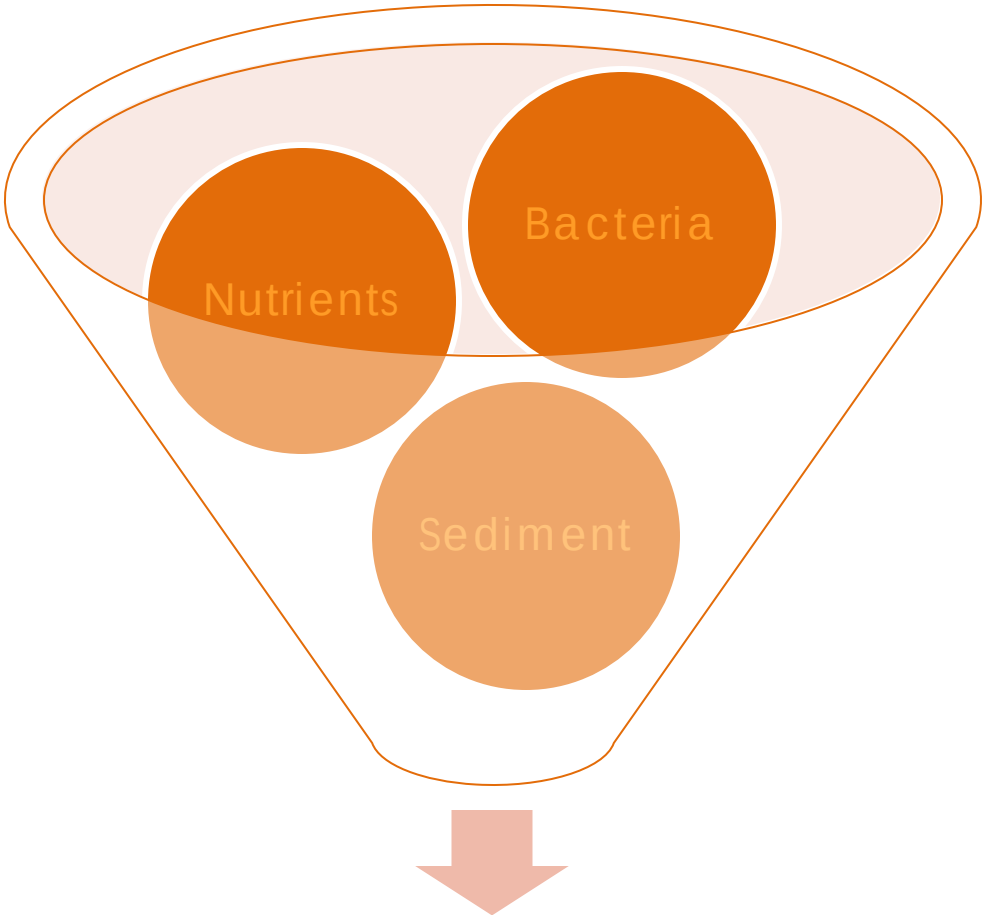
	Weight	Bacteria (1-10)	Phosphorus (1-10)	Nitrogen (1-10)	Sediment (1-10)	Runoff Volume ** (1-10)	Stormwater Regulations ** (1-10)	Flooding (1-10)	Trash (1-10)	Automobiles (1-10)	Wastewater Discharges * (1-10)	Agricultural Discharges (1-10)
Relates to other requirements of the MS4 permit	**44**											
Chesapeake Bay TMDL	15		10	10	10	8	8					
Local TMDL(s)	5	10									8	8
MCM1 - Public Education	4		3		3	3	5		5	5	5	5
MCM2 - Public Involvement	4							5	5			
MCM3 - IDDE	4	8	5	5					5		8	
MCM4 - Construction	4				8		8					
MCM5 - Post-Construction	4		8		8	8	8	8				
MCM6 - Good Housekeeping	4								8	8	8	
Relates to requirements of other City initiatives	**18**											
CSO Long Term Control Plan	12	8	5	5		10		8			8	
Comprehensive Planning	6	3	3	3	3			5		5		5
Relates to programs that the City may implement	**8**											
Rain Barrel	2				5	8		5				
Storm Drain Marking	2								5	5		
Litter Clean-Up Activities	2								5			
Pet Wast Programs	2	8	4	4								2
Public perceives this to be a significant parameter	**15**	6	6	6	4	7	4	1	9	2	8	6
Parameter can be significantly reduced through outreach	**15**	5	2	2	5	4			7	2	5	4
Total	100	**37**	**42**	**37**	**38**	**47**	**26**	**21**	**36**	**15**	**41**	**24**

* Wastewater Discharges, in most cases, are addressed through separate permitting processes.

** These issues are holistic in nature and address most pollutants throughout the watershed.

Step 2 – Target Audience

- Water Quality Issues



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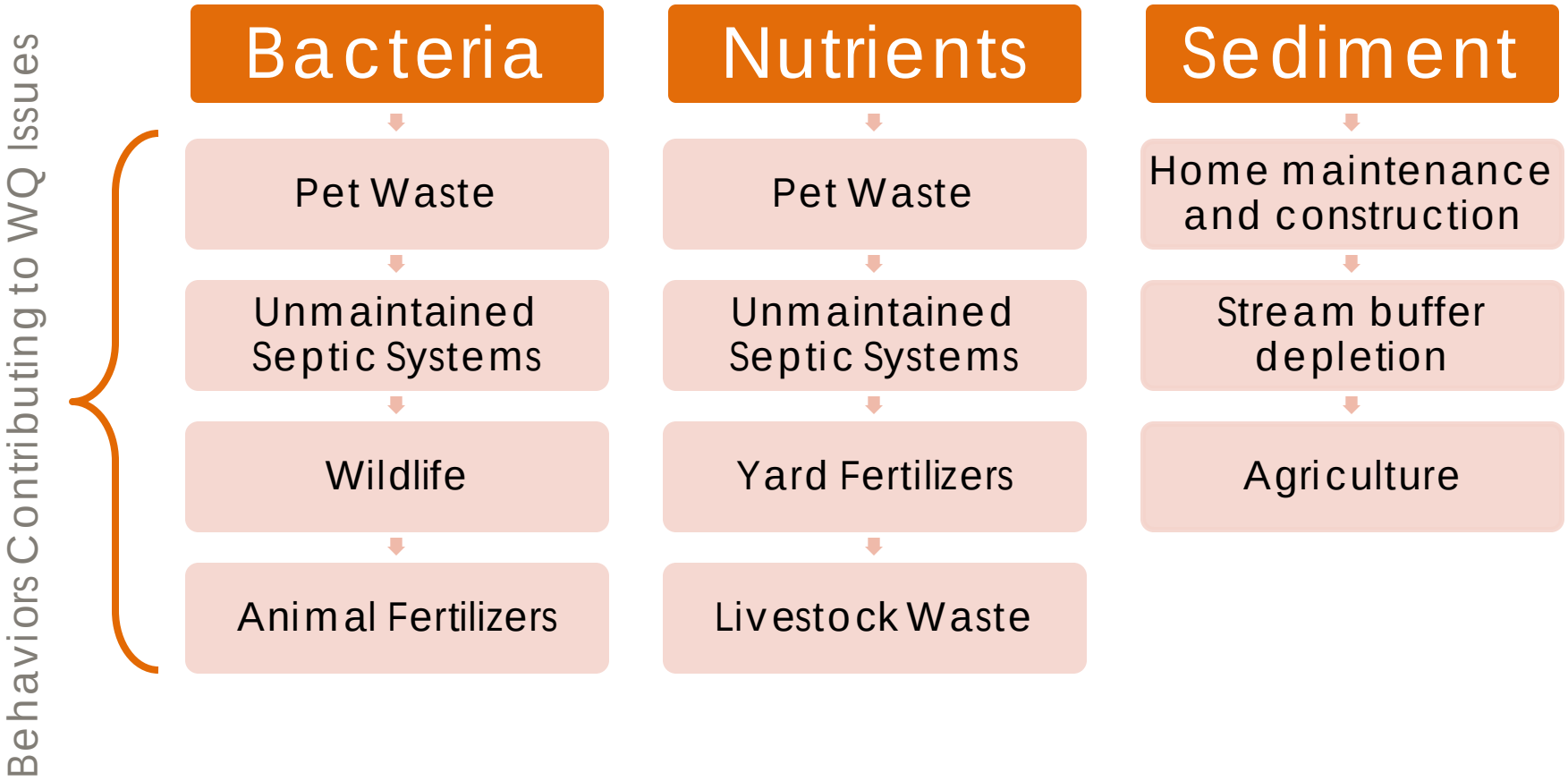

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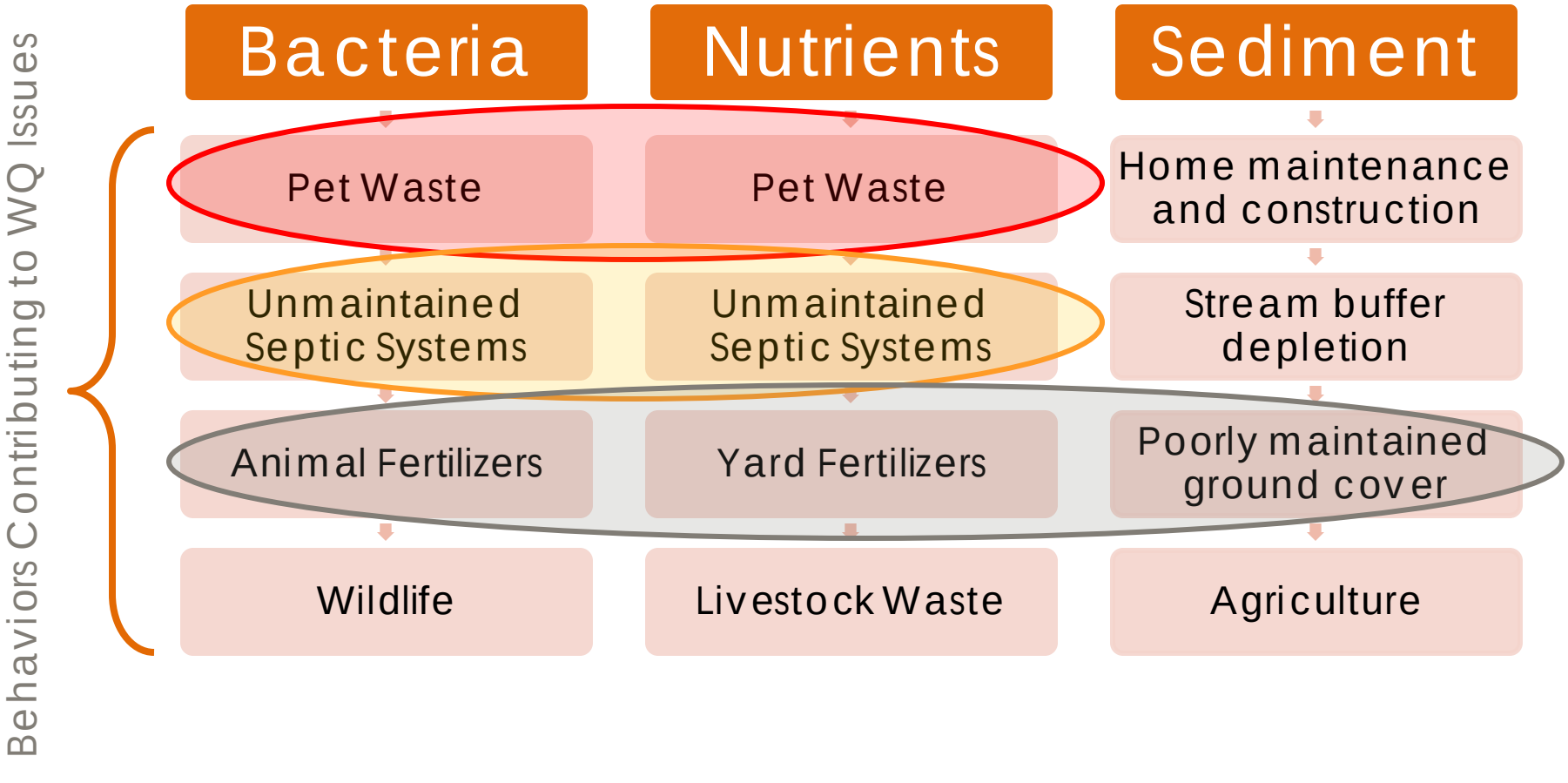
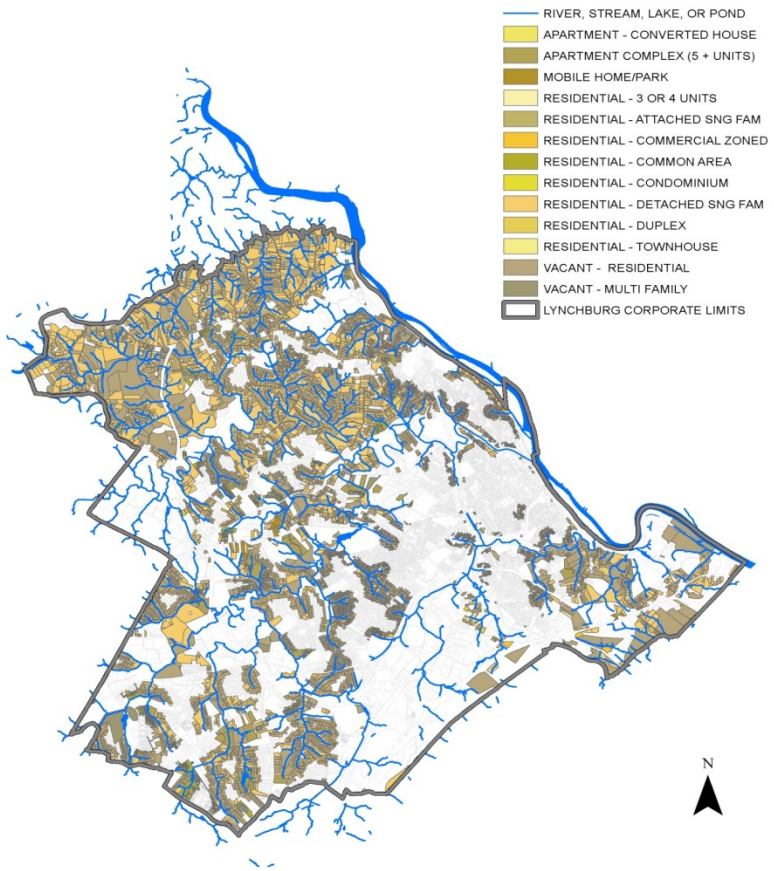


Step 2 – Target Audience

- Target Audiences
  - Pet Owners
  - Yard Maintainers
  - Home Owners with Septic Systems

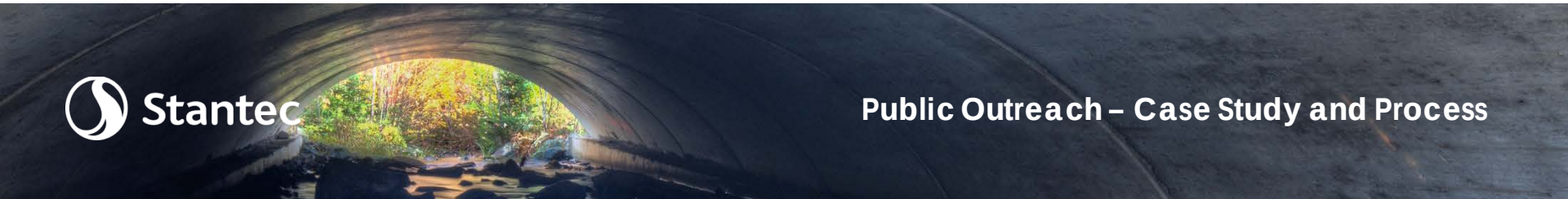
Step 2 – Target Audience

- Target Audiences
  - Spatial Analysis
  - Proximity to Streams and Storm Inlets
  - Residential Parcels
  - Septic vs Sewered



Getting in Step

- Step 3 – Create the Message
  - What Behaviors to Focus On
  - Crafting the Message
  - Branding and Delivery Methods

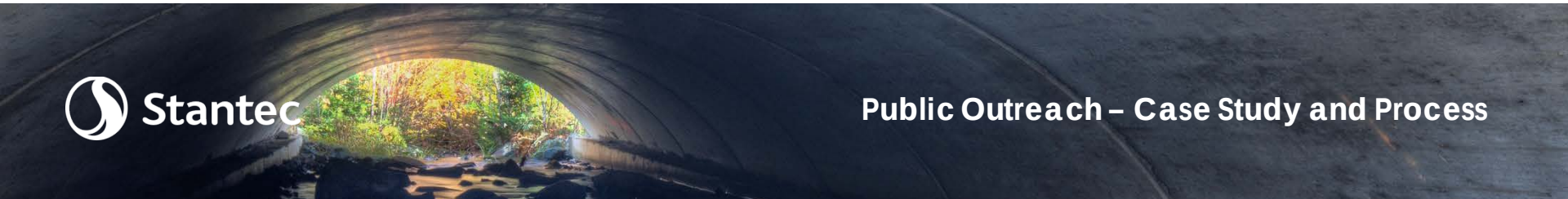


Step 3 – Crafting the Message

- Crafting the Message

  Craft your message to:

  - elicit a response from the identified target audience.
  - be concise, specific, and directly tied to behavior change.
  - be compatible with use in action items such as social media, print, newsletters.



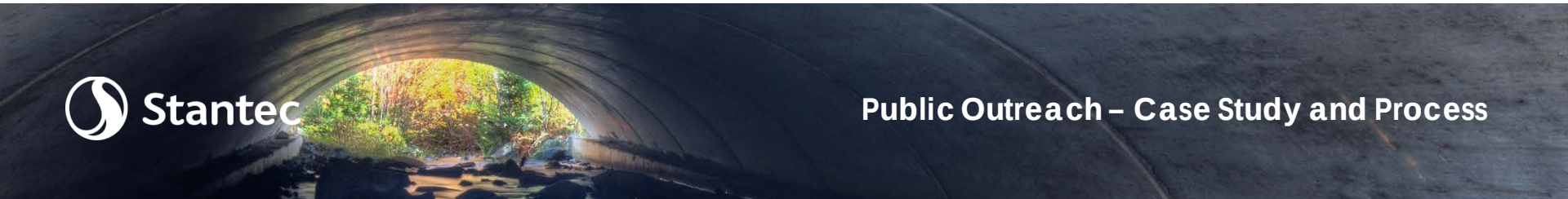
Step 3 – Crafting the Message

- Behavior Change Focused

Water Quality Issue Being Addressed	Audience	Behavior to Change
Bacteria/ Nutrients	Pet Owners	Pick-up and properly dispose of pet waste
Bacteria/ Nutrients	Homeowners with Septic Tanks	Maintain "healthy" tanks and fields: Pump tanks regularly to prevent overflow, utilize less water via stopping leaks or water efficient appliances/faucets
Nutrients/ Sediment	Yard Maintainers	Use fertilizer smarter, use erosion and sediment controls

Step 3 – Crafting the Message

Audience	Proposed Messages
Pet Owners	*We've all stepped in it… but we don't have to. Save the James and scoop the poop!* *You'd only do it for your best friend… Love the James and scoop the poop!* *Your Choice: pick up the poop or drink it? Save the water and scoop the poop!* *Clean water. Clean yards. Clean shoes. Scoop the poop!*



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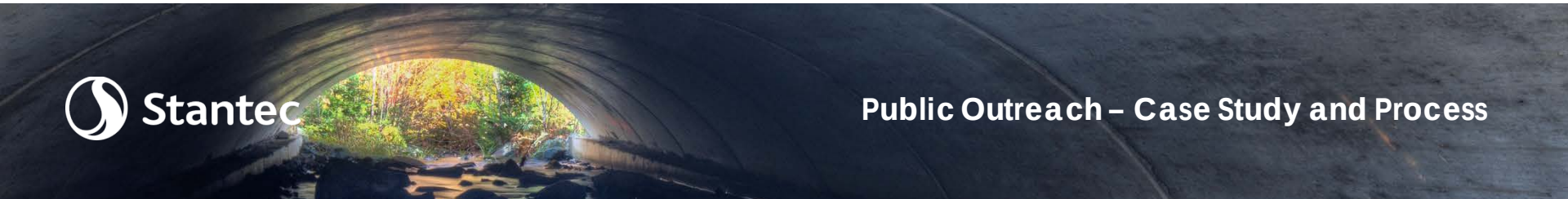
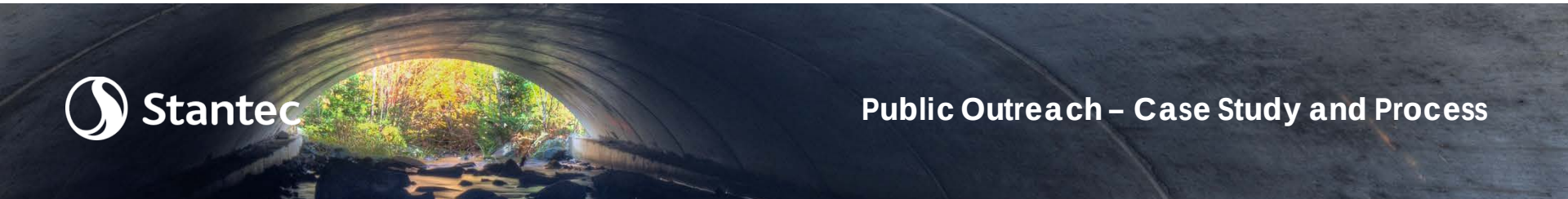


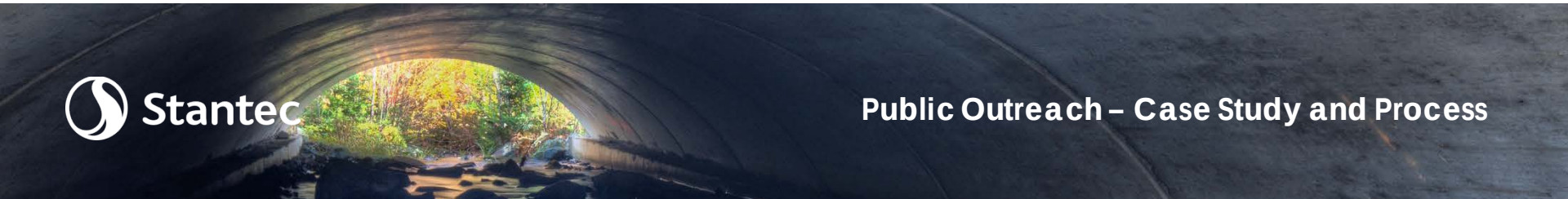
Step 3 – Crafting the Message

AUDIENCE	PROPOSED MESSAGES
Homeowners with Septic Tanks	*Do your part – be SepticSmart* Utilize EPA's established outreach campaign message to reach homeowners with septic tanks. http://water.epa.gov/infrastructure/septic/local-outreach-toolkit.cfm



Step 3 – Crafting the Message

Audience	Proposed Messages
Yard Maintainers	*Turning green? Learn more about how fertilizer feeds the algae and kills the fish.* *Don't pour your money in the river – Fertilize smart.*

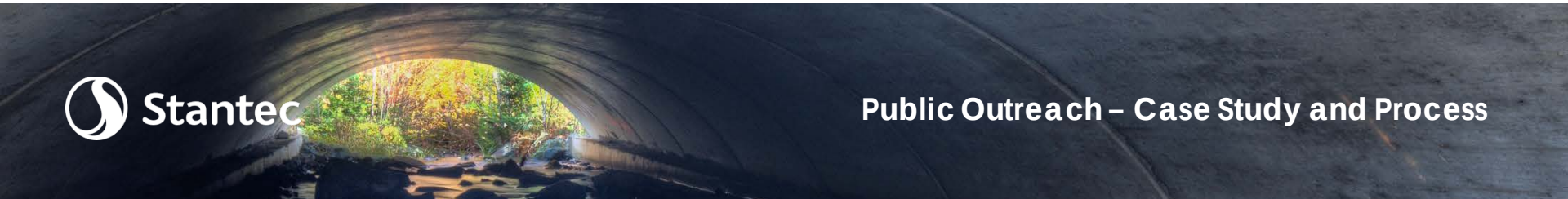


Step 3 – Crafting the Message

Audience	Proposed Messages
Yard Maintainers	*Turning green? Learn more about how fertilizer feeds the algae and kills the fish.*
	Don't pour your money in the river – Fertilize smart.

Step 3 – Crafting the Message

- Branding and Delivery Methods



Step 3 – Crafting the Message

- Branding and Delivery Methods

Message	Proposed Branding Opportunities
Clean water. Clean yards. Clean shoes. Scoop the poop!	 *"Sickly the Fish" - a grumpy character that complains about the water quality and his health. The fish would be a caricature of a carp fish which is native to the James River.*  *"Grover the Dog" – complains about stepping in his friend excrement, getting sick from drinking the river water, etc. The dog would be a caricature of a famously "grouchy" looking breed like boxer, pug, or bulldog.*

Step 3 – Crafting the Message

- Branding and Delivery Methods

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Step 3 – Crafting the Message

- Branding and Delivery Methods

Branding	Proposed Delivery Methods
Grover the Dog	*Social Media* *T-shirts* *Promotional Material* *Signs in parks, dog-parks, popular trails* *Printed Material (flyers/brochures, poster, door hangers, inserts in water bills)* *Educational Materials (Water Quality Fun book for kids)* *City Website* *Lynchburg TV* *City Source Newsletter*

Step 3 – Crafting the Message

- Branding and Delivery Methods

Message	Proposed Branding Opportunities
Do your part – be SepticSmart	*Utilize EPA Branding*

Proposed Delivery Methods
Door hangers *Mailer to audience* *City Website* *Lynchburg TV* *City Source Newsletter*

Step 3 – Crafting the Message

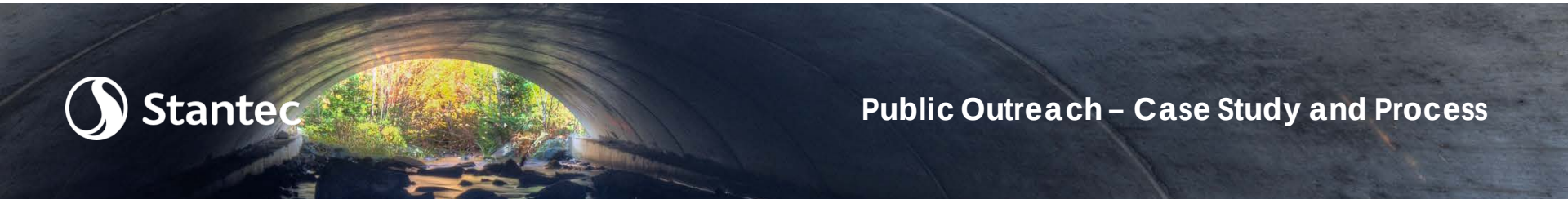
- Branding and Delivery Methods

Message	Proposed Branding Opportunities
Don't pour your money in the river – Fertilize smart.	*Grover the Dog* *For consistency and increased exposure, the same character from the Pet Waste Message could be used here. The character's narrative would change to address issues concerning the water quality and how it affects the character.*

Proposed Delivery Methods
Delivery methods mirror those for Pet Waste.

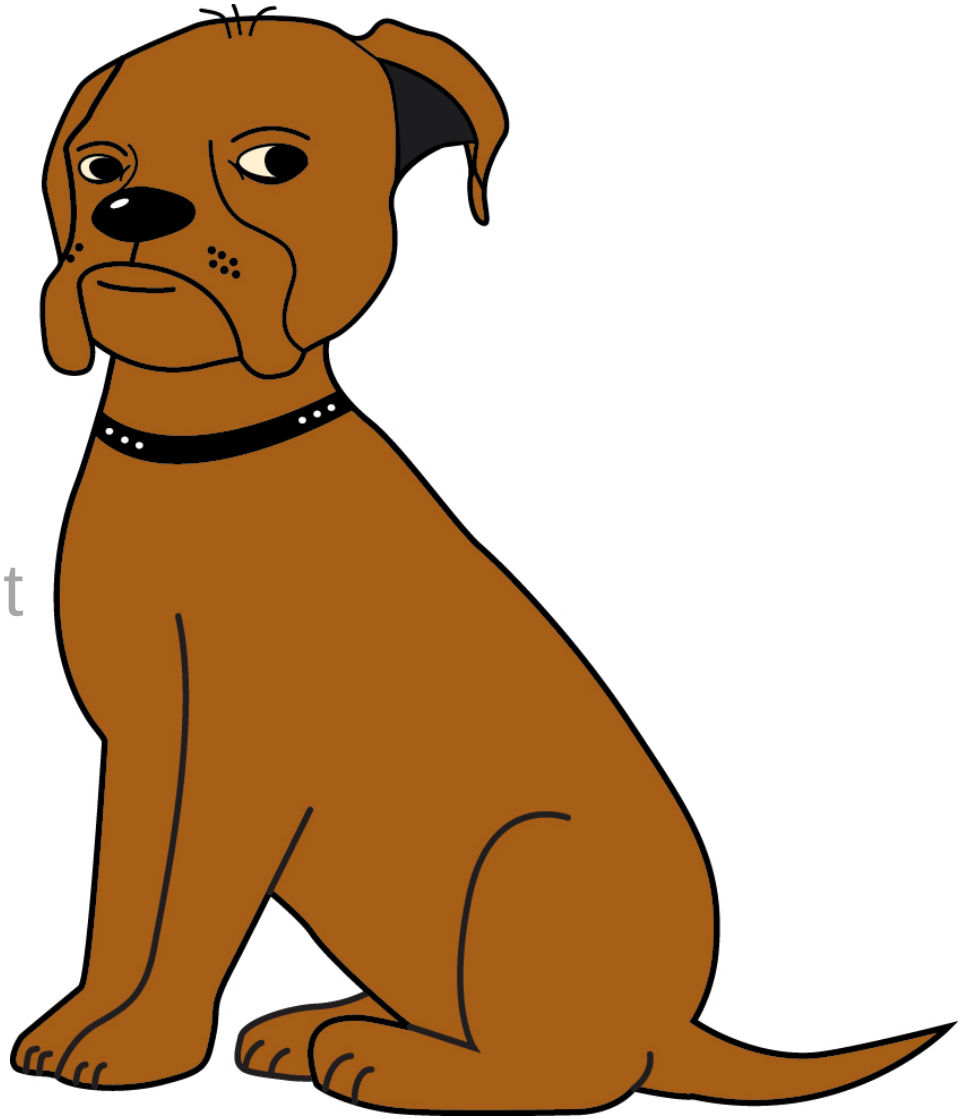
Getting in Step

- Step 4 – Package the Message
  - Printed Material
  - Educational Materials
  - Take the Pledge
  - Social Media
  - Promotional Material



Step 4 – Package the Message

- Grover the Dog
  - Distinct
  - Versatile/ Adaptable
  - Appeals to Target Audiences



Step 4 – Package the Message

- Grover the Dog in the Logos

Step 4 – Package the Message

- Printed Material
  - Focused on tri-folds for their MULTI-PURPOSE use:
    - Direct Mail
    - Handouts
    - Bill Inserts

Don't pour your money in the river...fertilize smart!

For more information reach us at
434-485-RAIN (7246) or
stormwater@lynchburgva.gov

Department of WATER RESOURCES

City of Lynchburg
900 Church Street
Lynchburg, Virginia 24504

Department of WATER RESOURCES

Don't pour your money in the river.

Grover the Dog says...

I hate wasting money on fertilizer when you could be buying bacon. Let's face it, a nice patch of grass can really be a dog's best friend, but so many lawns are over fertilized and polluting the water.

So, here's how it works... Fertilizer contains three nutrients: nitrogen, phosphorus, and potassium. While these nutrients are needed by plants to grow and survive, too much is ending up in our local waterways via stormwater run-off. When there is too much nitrogen and phosphorous in a waterway, it fuels the growth of algal blooms. Algal blooms are dense clusters of algae that block sunlight from other organisms. When alga from the bloom dies, the decay process consumes dissolved oxygen in the water, which is needed by fish, blue crabs, and other organisms for survival. It also smells bad and looks gross!

Stop fertilizing in the spring... It just encourages leaf growth at the expense of root development. It also feeds weeds and can lead to disease and insect problems. In addition, you will have to mow the lawn more frequently.

Think you'll forget? Try adding this sticker to your calendar.

Fertilize Smart.

Here are other great ideas to try to improve my mood about water and the general state of grass:

Test your soil... Sure, I can tell you just by sniffing it if you need more nitrogen, but I have the refined sinuses of a canine... get help because you need it.

Plant more plants... I want some more targets (mwaaahahahahaha) and they play a critical role in managing stormwater run-off. Their intricate root structure stabilizes soil and absorbs pollutants that would otherwise go into the storm drain and directly into waterways.

Scoop the poop... Personally, I've never stepped in it, but I have the reflexes of a ninja. I've seen so many humans do it and I have to laugh as they try to scrape it off their shoe before they get in the car or walk in their house. It's another reason I hate pet waste. Who has time to deal with a grumpy owner and their dirty shoes? If I'm going to be forced to fetch their slippers, they better be clean slippers.

Help us keep our water, yards, and shoes clean by Scooping the Poop!

To learn more, visit
www.lynchburgva.gov/
stormwater-management
or call 434-485-RAIN (7246)

Department of WATER RESOURCES
City of Lynchburg
900 Church Street
Lynchburg, Virginia 24504

City of Lynchburg
Virginia

Remember, when we go on the lawn, it doesn't just go on the lawn.

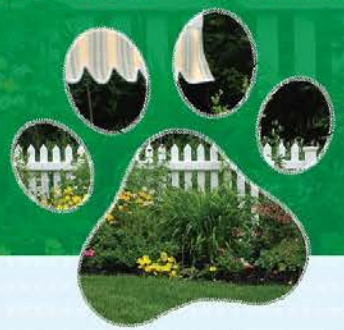
Clean Water.

Grover the Dog says...

So, here is how it works. You take a dog — like me — out for a walk and I poop on the grass or the street. My poop contains bacteria and viruses, and now its a health risk to people and other pets. When it rains or storms, the poop is carried with surface water into storm drains or ditches, and eventually enters our streams, rivers, and lakes where people may come into contact with it.

We play in these waters, and drink it also. If you think picking up dog poop is unpleasant, try drinking it.

Clean Yards.



I, too, have yard standards. Who needs all of the trouble that dog poop left in the yard can bring?

Did you know...?
One pound of dog poop can contain 10,000,000,000 fecal coliform bacteria.

Eww!

Yeah, it also:

- Increases loading of nitrogen and phosphorus that can lead to increased weed and algal growth in the river
- Increases organic matter that can reduce oxygen levels for fish and other aquatic animals, when it decays
- Increases loading of bacteria and pathogens that can make people and other pets sick

Eww. Eww. Eww...and double Eww!

Clean Shoes.

I've never stepped in it, but I have the reflexes of a ninja. I've seen humans do it, and I have to laugh as they try to scrape it off their shoes. It's another reason pet waste is gross. Who has time to deal with a grumpy owner and their dirty shoes? If I'm going to be forced to fetch their slippers, they had better be clean slippers!

How can you get rid of pet waste and help keep our waters clean?

Here are some options:

- **SCOOP** it up and flush it down the toilet. That's best because then your community sewage treatment plant or your septic system treats the pet waste.
- **SEAL** the waste in a plastic bag and throw it in the garbage.
- **BURY** small quantities in several location in your yard, away from vegetable gardens, where it can decompose slowly. Dig a hole 12 inches deep, deposit up to four inches of waste, and cover it with at least eight inches of soil.

Scoop the Poop.

Did you know?

Common household leaks can add hundreds of extra gallons of water every day, stressing your septic system.

Don't Strain Your Drain!

Overloading your septic system with water is a leading cause of failure.

Save water and support your septic system's health. For the long-term care of your system, have your septic tank inspected and pumped out by a licensed septic tank contractor as needed (on average every three to five years).

Know your part, be SepticSmart!
Learn more at www.epa.gov/septicsmart

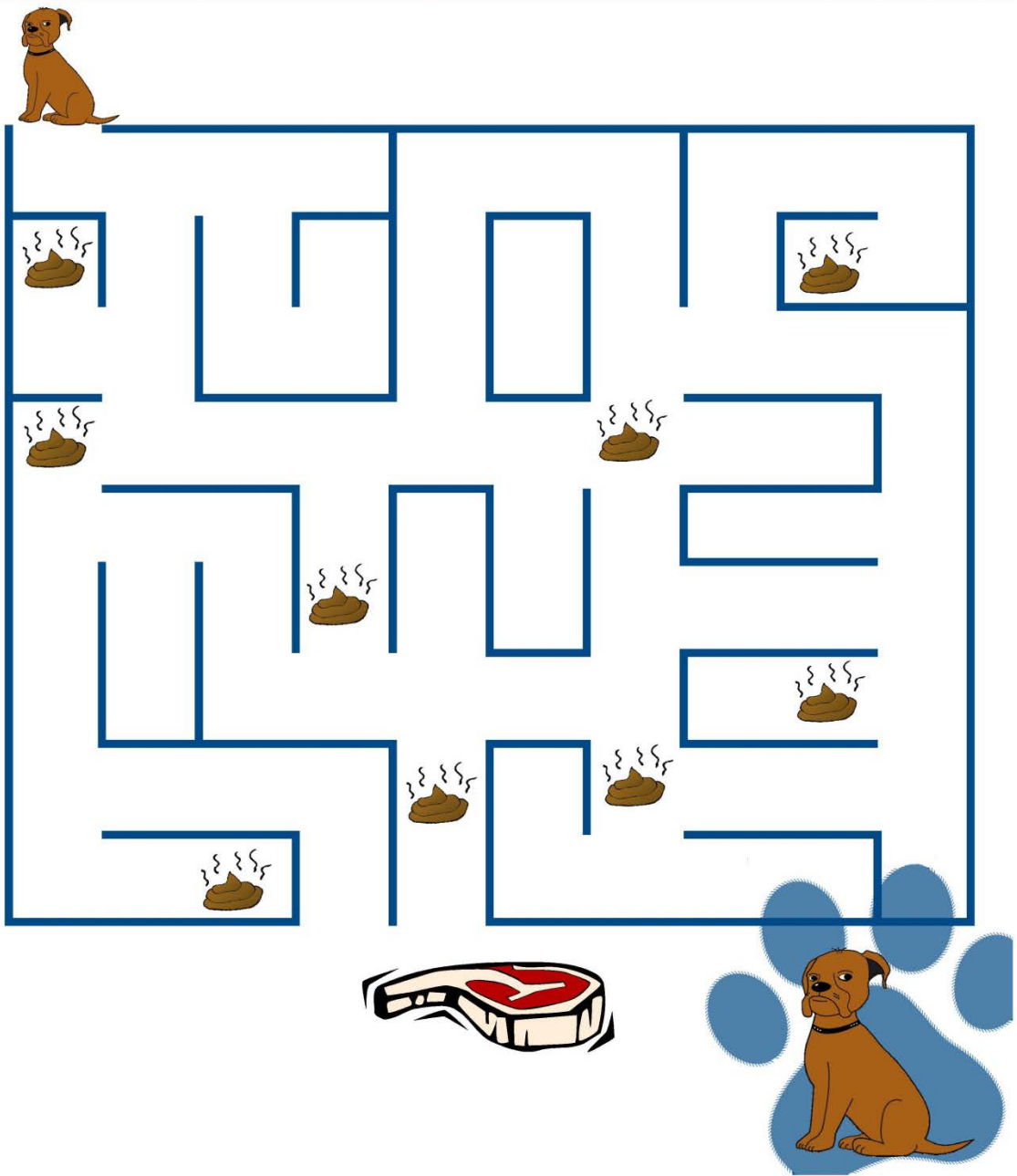
Contact your local Health Department for more information on servicing septic systems in your area.

EPA-832-E-12-001
September 2012

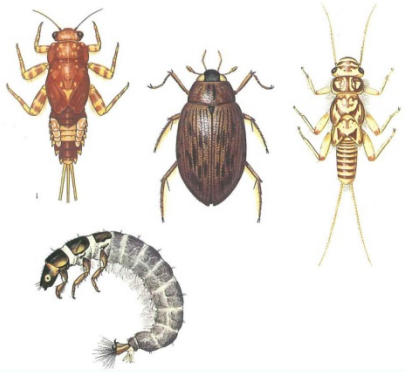
Step 4 – Package the Message

- Educational Materials
  - Water Quality Fun Book

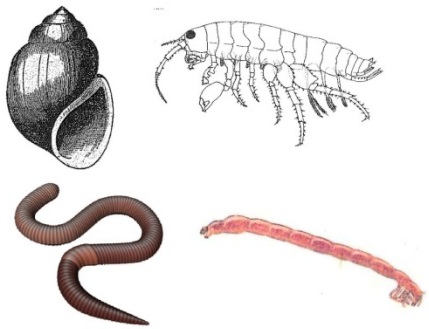
Help Grover find his way to a treat and avoid poo-llutants:



Bugs that indicate Good Water Quality

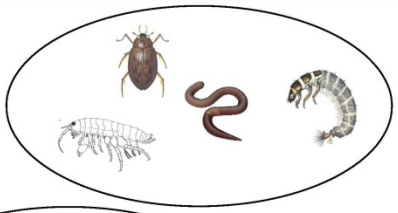


Bugs that indicate Poor Water Quality

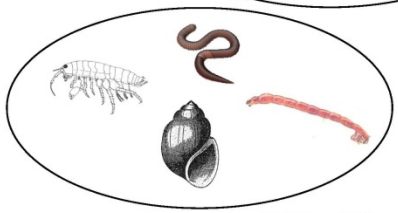


Draw a line from the "Water Grade" to the group of bugs you would find at that level.

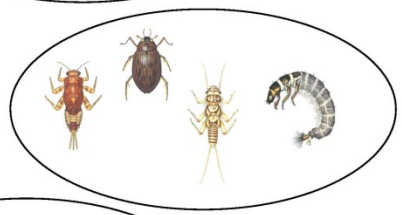
Very Good (A+)



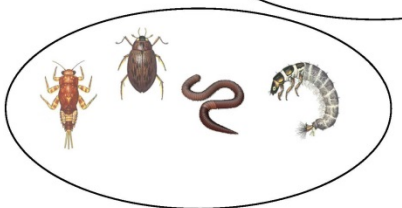
Good (B)



Poor (C-)

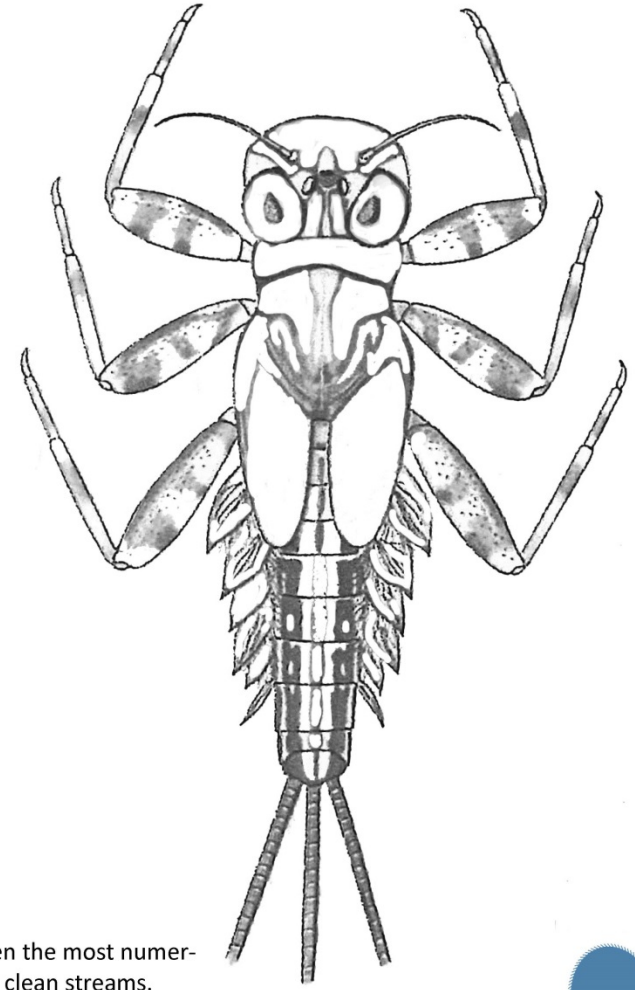


Very Poor (F)



Heptageniidae

Flat Head Mayfly



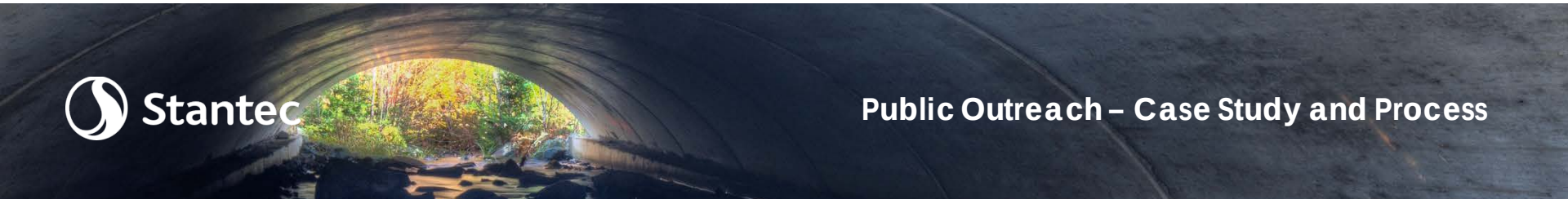
Mayflies

Mayfly nymphs are often the most numerous organisms found in clean streams. They are sensitive to most types of pollution, including low dissolved oxygen, chlorine, ammonia, metals, pesticides, and acidity. Most mayflies are found clinging to the undersides of rocks.

source: Aquatic Entomology: by Arwin Provonsha

Step 4 – Package the Message

- Take the Pledge
  - Pledgees feel more **committed** to the cause and **obligated**
  - Pledgees more likely to change their behavior permanently.
  - Gather contact information for future outreach
    - Designed for follow-up three to six months after pledge is made – Thank you is powerful!



TAKE THE PLEDGE

The fight to end poo-llution starts with you.
Make the commitment to scoop the poop today.

Pet waste left on sidewalks and in yards is responsible for the death of thousands of fish and shellfish each year. Plus it stinks and it can make you sick.

I PLEDGE TO:

- Protect fish, water, and people by never leaving pet waste on the ground.
- Be a good neighbor by picking up pet waste and disposing of it properly so that people don't step in it.

Signature: _____

Date: _____

Name: _____

Address: _____

City, State, Zip: _____

Department of WATER RESOURCES
THE CITY OF LYNCHBURG

Clean Water. Clean Yards. Clean Shoes.

Scoop the Poop!

Thank You

Name of Pledgee,

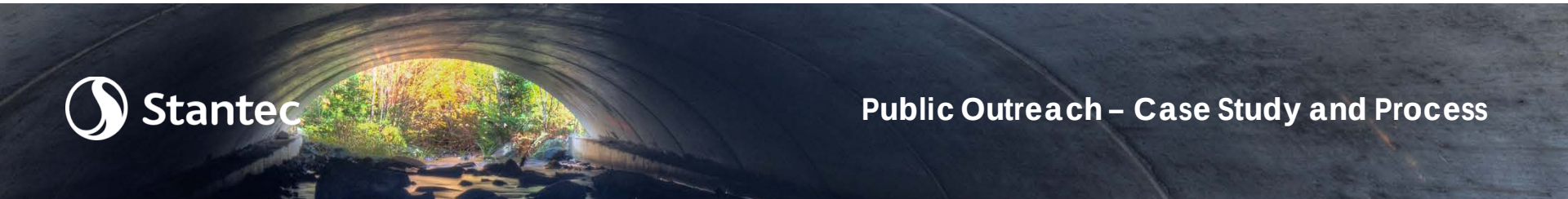
Thanks for joining the fight to stop poo-llution. You've heard me say it before, and I'll say it again–pet waste makes me grouchy! Keep scooping so we can have clean water, clean yards, and clean shoes.

I've included my best work on the awful subject of pet waste for you to look over. Yeah, it has surprisingly helpful information.

- Grover

Step 4 – Package the Message

- Social Media
  - **Utilize Existing Social Media Accounts**
  - **Voice:** Post from the perspective of Grover
  - **Frequency:** 2-3 times each week. Keep in mind that content should be fun, timely, and interesting. If you are struggling to develop content, then err on the side of posting less so that you don't lose relevancy.
  - **Ideas for Content:**
    - Follow the calendar for community events and make relevant posts. For example – If you have an upcoming rain barrel event or litter pick-up post a message on Facebook.
    - Use photoshop to insert Grover into photos with snarky comments. For example: *You proved me wrong… I couldn't be more disappointed* (with photo of person not picking up pet waste or a photo of someone spreading lawn fertilizer in the spring)

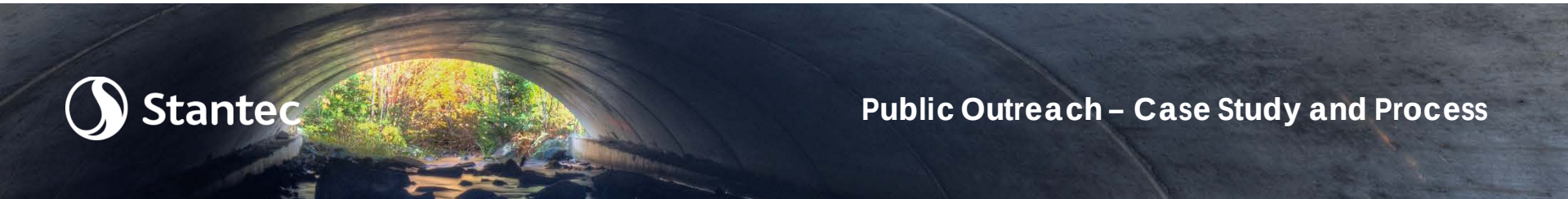


Step 4 – Package the Message

- Promotional Material
  - Functional design

Getting in Step

- Step 5 – Distribute the Message
  - Identify the most **cost-effective** and relative way to reach the required audience.
    - For the City this was by mail since the audience was identified geographically.
  - Don't forget about **FREE** options



4 Future Improvements

Getting in Step

- Step 6 – Evaluate the Outreach Campaign

Department of WATER RESOURCES

MS4 Public Outreach

		Example: Trifold Mailer	Example: Trifold Mailer	Example: Trifold Mailer	City Website WR Page Traffic	Insert Each Outreach Throughout the Year	Estimated Size of Audience	Total Amount Reached	Percent of Target Audience Reached
	Date	05/19/14	6/19/2014	7/19/2014	Jun-14				
Audience Reached	Pet Owners	250	0	0			1,000	250	25%
	Yard Maintainers	0	1,000	0			5,000	1,000	20%
	Septic Tank Owners	0	0	200			1,000	200	20%
	Unknown				1000		76,504	1,000	1%
Notes (feedback from audience, perceived effectiveness, etc)									
Cost									

Step 6 – Evaluation and Adaptation

- Improved Data
- Budgets
- Audience Response
- Implementation

Evaluation Metrics

- Benchmarks for Success
  - Permit Condition
  - Budgets
  - Prioritization
  - Effectiveness
  - Popularity of Program

5 Questions and Answers

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757-810-2687

Stantec