SMSWG MEETING NOTES

Wednesday September 26, 2018 12:30 pm
Kittery Town Hall Conference Room A – Rogers Road, Kittery, ME

Attendance:

Kittery: Jessa Kellogg, Dave Rich
Eliot: Jess McQuade
MTA: Aimee Mountain
Portsmouth Naval Shipyard: Jay Flagg
York: Leslie Hinz
Integrated Environmental: Kristie Rabasca
DOT: Taylor LaBrecque
YCSWCD: Whitney Baker
Eliot Resident: Mary Wicklund

Agenda

1. Introductions

2. Permit Renewal Update
   Comments from CLF, EPA and Friends of Casco Bay were addressed on Fifth Preliminary Draft by CCSWCD for DEP. K. Rabasca received an update at the ISWG meeting on 9/13/2018 and again on Monday 9/24/2018 from Robyn Saunders and Aubrey Strauss.

   DEP confirmed there is an updated 6th Draft with Newton Tedder at EPA, and they expect to get comments back within a week. Aubrey Strauss and Gregg Wood believe the effective date of the next permit will be 7/1/2019, but subsequent emails between Rhonda Poirier, K. Rabasca and Gregg indicated the permit would be effective 90 days after the signature date. Gregg clarified in an email on 10/8 that he is not sure the EPA will allow a 7/1/2019 effective date.

   Significant Changes to the permit include:

   - The 5-Year Stormwater Management Plan will be an enforceable document, require public comment and DEP approval. Major changes will require additional public comment, minor changes will require DEP approval.
   - "Second Step" Permit will be renamed "Permit Modification", will have BMPs for each MCM and any impairments.
   - There is a new IDDE requirement to assess if there are wet weather issues in Towns and conduct wet weather evaluations if necessary (Friends of Casco Bay and EPA comments)
   - There is a new IDDE requirement to conduct dry weather evaluations on outfalls once each permit term (even if we already did it in the previous permit term). This includes sampling for bacteria and field parameters (surfactants, ammonia and chlorine) regardless of visual observations.
   - Catch basin language was changed back to evaluate 20%/year and clean every other year (unless sumps > 50% full).
   - Public Education Behavior changes (see below)
   - Timelines greatly expanded because of administrative review and public comment periods.

Most people at the meeting already get announcements from Gregg Wood and the DEP when there are changes to the permit. Others who are not getting these announcements will get an email from K. Rabasca when there are Permit updates:

Whitney Baker, Jay Flagg, Mary Wicklund, and Jess McQuade.

3. General Reminders on how to operate this year (until next permit is effective)

   b. Generally complete tasks we would complete during a normal permit year in the summer and fall:

   - Public education: we will continue to follow up with surveys, conduct Facebook posts for continued awareness, attend booths and workshops only as they arise, and as we would in the summer and fall of other permit years (most public education workshops were planned for spring). In particular, we conducted a workshop on 8/27 in Arundel for AARP.
   - Jessa clarified: Towns should continue to complete the municipal awareness activities (when there are new Council/Select Board or other Board members, they should be made aware of the MS4 program, and one presentation each year should be completed).
   - IDDE: Towns should continue outfall and catch basin inspections per normal schedule, and potential illicit discharge investigations as they would any other permit year.
   - Construction/ Post Const: continue watching for sites and getting maintenance certs.
   - PPGH: Keep O&M Procedures and SWPPPS up to date, continue street sweeping, cb cleaning.

4. Next Meetings: (last Wednesday of Jan, Mar, July, Sept, Nov)

   Note we cancelled the tentative meeting for October, but Kristie Rabasca will ask Alison Moody if she can do a site walk of the Beach Garage in York and the Recycling Center in Kittery as a courtesy inspection. (Completed 10/5/2018, and changed to reflect visit to Kittery Recycling Center only – York issue resolved)
   Wednesday November 28, 2018 – Eliot Town Hall (Turkey day is 11/22)
   Wednesday January 30, 2019 – South Berwick Town Hall
   Wednesday March 27, 2019 – Berwick Town Hall Berwick Town

5. Planning for next Permit Cycle – focus on Public Education. K. Rabasca reviewed the requirements for the upcoming permit (as the language is currently drafted) with the group and provided a summary set of handouts for the group to review and comment on. Comments on individual potential public education programs have been added to the handouts and are attached to these meeting notes. General notes on the discussion are provided below.

   a. *For Stormwater Awareness*, K. Rabasca reviewed some of the findings of the Statewide Awareness Survey. The survey completed by CCSWCD showed nearly 47% of respondents correctly described what happens to stormwater at their

residence (very close to the goal of 50%), concluding that the public awareness program is a success. Comments from the SMSWG group included:

i. Concurrence that the ducky ads are getting tired and need to be updated
ii. Review of BASWG program (which included video for kids) looks fresher and could be good starting point for new awareness program.
iii. Working with a marketing firm (as BASWG did) is a good idea. **Action: KLR is obtaining the RFP and Scope of services that Bangor used to obtain their marketing firm.** (Completed 10/5/2018)
iv. There will likely be some additional participants to help in awareness programs: MEWEA and Friends of Casco Bay Nutrient Council.
v. We would like to participate in a statewide stormwater awareness program but will need to see what happens with ISWG.

b. <u>*For Behavior Change:*</u> K. Rabasca prepared handouts and large sheets showing several common behavior-change topics that we have considered, including the behavior change topic we have been working on for the past ~13 years: reduction of the use of fertilizer and pesticides (YardScaping and Lawns to Lobsters programs). K. Rabasca first briefly described how we decided to focus on this topic, then provided a summary of the results of our efforts over the past permit cycle, and finally provided a summary of findings from outfall inspections, catch basin inspections and ditch inspections that can be used to assess the need to address the other potential behavior-change topics.

i. How we selected a stormwater topic of significance in 2005: The SMSWG group conducted Neighborhood Source Assessments and Hot Spot Investigations of commercial properties in 2004 in selected areas of Berwick, South Berwick, Kittery and Eliot (York was not yet an MS4 at that time). The results of the Hot Spot Investigations showed only a few commercial properties that had observed potential impact on stormwater. The results of the Neighborhood Source Assessments showed that nearly all properties had the potential for improved landscaping on their lots, 34% had extensive grass coverage (>50% of landscaping consisted of lawn, and half of those were "highly managed turf" indicating the use of pesticides and fertilizers). This information was combined with a 2003 Maine DEP survey which indicated that the public perceived that fertilizer use, pesticide application, lack of vegetation, and soil erosion have a high potential to pollute stormwater. It is important to conduct behavior change programs around topics that the public already perceives are a problem. If the public believes something is a problem, they are much more likely to take personal action to change their behavior.

ii. To assess what people believe is a problem now, we can look to the 2018 statewide stormwater survey. During the 2018 ISWG Statewide Survey, the following information is important to us in determining what behavior change we should select:

1. *97% of people surveyed believe clean water is very important*
2. *47% of people surveyed understand what happens to stormwater that falls on their property, 48% believe it has a major impact on how clean rivers, streams and lakes are, and 49% are very willing to take*

action to reduce pollution from stormwater runoff, and 68% believe the actions they take at their residence can affect (+ or -) how clean the rivers, lakes and streams are in their community.

3. *the most common stormwater pollutants listed by people are as follows (so these are ripe for behavior change programs)*
    a. *Gas and oil*
    b. *fertilizer and pesticides*
    c. *road sand and salt*
    d. *pet waste*
    e. *trash/garbage*
    f. *dirt/sediment*

iii. *<u>Cross reference the list of items that are ripe for public education change with stormwater related issues in our communities</u>:*

1. *Most waters in our communities are Class B or Class SB and are not impaired. Attached graphic and table (updated since the meeting) show the details of a review of the 2016 Integrated Water Quality Monitoring and Assessment Report.*
2. *Top negative water quality issue is : bacteria impairments (fresh water and estuarine) for all communities. There are also eel grass issues for Eliot and Kittery (estuarine, no known source) and a very small part of Adams Brook in S. Berwick is listed for "non-point source" issues in an agricultural area. K. Rabasca added water quality information for each community to the individual topic sheets after the meeting. For example, for pet waste and septic systems, K. Rabasca added the water bodies and towns that have bacteria issues or impairments (an updated list of impairments is attached to these meeting notes). K. Rabasca also added in information from the Piscataqua Region Estuary Partnership (PREP) "2018 State of the Estuary" report.*
3. *K. Rabasca also added to the topic sheets, the information we have from inspections (ditch, outfall and catch basin) and anecdotal information. K. Rabasca had handed this information out in table format in the meeting – and it showed that yard waste was noted in ditches in Kittery and York and also in catch basins in York, and in a few outfall locations in York, Berwick, Eliot and Kittery. General litter is an issue in Berwick, Kittery and York. J. Kellogg noted that the ditch information on litter is skewed because she picks up the litter when she is doing the inspections, so she does not make a note of it (because it has been removed).*

iv. *Post Meeting NOTE: Kathy Hoppe of the DEP provided comments on the information presented in the draft meeting notes. K. Rabasca has incorporated her suggestions and thoughts in the attached documents.*

SMSWG Pollution Type observed during PY5 Inspects

Town	Total # catch basins		Pet Waste	Yard Waste	Litter	Notes
Berwick	191		0	0	0	
South Berwick	380		NT	NT	NT	Just a check for "Oil/grease", but will do next year
Eliot	185		0	0	0	
Kittery	855		0	0	0	Just a check for "Pollution"
York	631		NT	6	NT	

Town	Total # Outfalls	Pollution Type	Yard Waste	Litter	Other
Berwick	10		1	3	
South Berwick	84		0	0	0
Eliot	22		1	1	0
Kittery	101		2	0	
York	84		1	1	

Town	feet ditch	# segments of ditch	Pet Waste	Yard Waste	Litter	
Berwick	20790	183	NT	1	1	
South Berwick	3264	21	NT	0	0	
Eliot	25913		NT	0	0	
Kittery	63888	331	NT	15	3	
York		266	NT	10	8	

NT = Not tracked

Impaired Waters in Southern Maine Stormwater Working Group Communities

Water Quality Designation	Eliot 2016 Final 303d List	Berwick 2016 Final TMDL	South Berwick 2016 Final TMDL	Kittery 2016 Final 303d List	York 2016 Final 303d List
Permit number	MER041004	MER041003	MER041014	MER041013	MER041029
NOI area (sq miles)	4.7	3.4	4.4	6.4	8.5
All waters within Urbanized Area (classifications are shown in parentheses)	Piscataqua River Estuary (SB/SC), Sturgeon Creek (B), Spinney Creek (SB), Stacey Creek (B), Great Creek (B), Adlington Creek (B), Shorey's Brook (B)	Ferguson Brook (B), Worster Brook (B), Salmon Falls River (B above Rt 9, C below Rt 9), Coffin Brook (B), Driscoll Brook (B)	Shoreys Brook (B), Quamphegan Brook (B), Lord Brook (B), Piscataqua River Estuary (SB/SC), Great Works River (B), Driscoll Brook (B), Salmon Falls River (C), Lovers Brook (B)	Piscataqua River Estuary (SC), Spruce Creek (SB), Chauncey Creek (SB), Barters Creek (SB), (all are SB north of Rt 103 and SC south of Rt 103), Libby Brook (B)	York River (B) and Harbor (SB), Barrells Millpond (SB), Cape Neddick River and Harbor (SB), Little River (SB), Dolly Gordon Brook (B), Bridges Swamp, Cefalo Swamp, Blaisdell Pond (GPA), Bragdon Island (SB), Johnson Brook (B), Southside Brook (B), Bass Cove Creek (B), North Basin (SB), Prebble Brook (B/SB), and Bridges Ice Pond (historical GPA)

Impaired Waters in Southern Maine Stormwater Working Group Communities

Water Quality Designation	Eliot 2016 Final 303d List	Berwick 2016 Final TMDL	South Berwick 2016 Final TMDL	Kittery 2016 Final 303d List	York 2016 Final 303d List
4-A TMDL complete: Salmon Falls River TMDL DO, Phosphorus, CBOD, Ammonia and Piscataqua River for DO (1999)	812-1 Piscataqua River Estuary for DO only (DMR Area 1)	630R01 Salmon Falls River	630R01 Salmon Falls River	Not part of TMDL	Not part of TMDL
Bacteria TMDL (2009) - but DEP is planning a major update to include more marine waters.	812-1 Piscataqua River Estuary (DMR Area 1)	No Waters Listed (but may include 630R01 Salmon Falls River)	812-1 Salmon Falls River (and may include 630R01 Salmon Falls River)	812-1 Piscataqua River Estuary (DMR Area 1), Spruce Creek, Barters Creek, Chauncey Creek (DMR Area 2A) (and Atlantic Ocean at Sea Point Road DRM Area 3 is outside UA)	York River, York Harbor, Barrells Millpond (DMR Area 3, and SB) Little River at Atlantic Ocean (SB), and Cape Neddick River (DMR Area 4)
Impervious Cover TMDL (2012)	No Waters Listed	No Waters Listed	No Waters Listed	No Waters Listed	No Waters Listed
Non-Point Source TMDL (2015)	No Waters Listed	ME0106000304_625R01 Adams Brook Benthic Macroinv. Assess. (Outside UA)	ME0106000304_625R01 Adams Brook Benthic Macroinv. Assess. (very small portion in SB)	No Waters Listed	No Waters Listed

Impaired Waters in Southern Maine Stormwater Working Group Communities

Water Quality Designation	Eliot 2016 Final 303d List	Berwick 2016 Final TMDL	South Berwick 2016 Final TMDL	Kittery 2016 Final 303d List	York 2016 Final 303d List
303d list as Category 5A - impaired and needs TMDL (not otherwise listed below)	812-2 Piscataqua River for Marine Life Use Support Low priority (Eel grass area exent and density decreases - sources unknown.)	No Waters Listed	No Waters Listed	812-2 Piscataqua River and 812-3 Portsmouth Harbor for Marine Life Use Support Low priority (Eel grass area exent and density decreases - sources unknown.	No Waters Listed
Category 5-B-1(a) Needs TMDL - impaired for bacteria only	No Waters Listed	No Waters Listed	No Waters Listed	826 Sisters Point	826 Sisters Point (DMR Area 3) East Point (DMR Area 4), and Bald Cliff (DMR 5)
Category 5-D Legacy Pollutants TMDL but low priority (no active load)	No Waters Listed	ME0106000305_630R Salmon Falls River main stem from Route 9 to tidewater for PCBs and Dioxin in fish tissue	ME0106000305_630R Salmon Falls River main stem from Route 9 to tidewater for PCBs and Dioxin in fish tissue	No Waters Listed	No Waters Listed
Lakes Most at Risk (Chpt 502)	York Pond (Outside UA)	Murdock Pond (Hatfield, Outside UA)	Knights Pond (Outside UA) Warren Pond (outside UA)	No Waters Listed	Boulter Pond (outside UA) Chases Pond (outside UA) Scituate Pond (outside UA)
Urban Impaired Streams (Chpt 502)	No Waters Listed	No Waters Listed	No Waters Listed	No Waters Listed	No Waters Listed

Impaired Waters in Southern Maine Stormwater Working Group Communities

Water Quality Designation	Eliot 2016 Final 303d List	Berwick 2016 Final TMDL	South Berwick 2016 Final TMDL	Kittery 2016 Final 303d List	York 2016 Final 303d List
CLF Petition (2013)	No Waters Listed	Salmon Falls River	Salmon Falls River	No Waters Listed	No Waters Listed
Overboard Discharges (ODBs)	Riverview (Permit 883) and Marshwood (Permit 2417)	None on list	None on list	2 separate Residences (Permit numbers 7605 and 2975 both to Chauncey Creek)	None in UA (3 are north of UA)

Permit Year 1 – Develop an Outreach Program

(Baseline Evaluation – for "stormwater issue of significance")

Permit Years 2-5

Raise Awareness

(impart information that is new or not well understood)

To General Public

Using 3 Tools

To 1 other Target Audience

Using 3 Tools

Change Behavior

(Promote and reinforce desirable behaviors designed to reduce stormwater pollution)

Target Audience A (Years 2-5)

Using 3 Tools

OR

Target Audience A (Years 2-3)

Target Audience B (Years 4-5)

Public Participation – Event such as , storm drain stenciling, stream clean-up, household hazardous waste collection day, volunteer monitoring, neighborhood educational events, conservation commission outreach program, Urban Impaired Stream outreach program, or adopt a storm drain or local stream program

Permit Year 5 –

Evaluate overall effectiveness of the outreach program

Behavior Change Issue or Problem: **Pet waste**

Discussion of potential to change public's behavior on this issue:

Is this an issue? - Yes

- All towns except Berwick (York, S. Berwick Eliot and Kittery) have waters impaired for bacteria and are listed under the 2009 Statewide Bacteria TMDL document. Berwick does have Salmon Falls River which is also impaired for Bacteria, but is not yet listed in the Bacteria TMDL. The Bacteria TMDL is scheduled to be revised to include the Salmon Falls River. Waters are: Salmon Falls River (DEP segments 812-1 and 630R01) impaired for e-coli, Piscataqua River Estuary (DMR Area 1), Chauncey Creek (DMR Area 2A), York River, York Harbor, Little River (DMR Areas 2 and 3) and Cape Neddick River (DMR Area 4), Little River (DMR Area 5A) are all impaired for fecal coliform.
- Towns anecdotally confirmed people not picking up pet waste is an issue in Kittery, Berwick and York. Kittery and York also have some additional data showing where people are not picking up their pet waste. York – Agamenticus area GPS on postcard handed out when pets get licenses; and Kittery in Emery Park (photo of flagged "deposits")
- Summary of outfall, ditch and catch basin inspections for Permit Year 5 (2017/2018) show no specific pet waste issues, but pet waste is not specifically tracked for any outfall or ditch inspections, nor for York or South Berwick catch basin inspections.
- Piscataqua Region Estuaries Partnership (PREP) State of the Estuary report (2/2018) states bacteria (as an environmental indicator of the state of the Estuary) is improving (but still an issue).
- Bacteria TMDL lists pet waste as a non-point source issue, and suggests public education to help correct
- PREP 2018 report identifies bacteria is still a threat, and some portion is due to pet waste (wet weather contributions)but is not specific as to how much, and there are no specific action recommendations for pet waste.

Does the public perceive it to be an issue (if so, it would be ripe for public education behavior change)? Yes and No

- The 2018 Statewide survey by ISWG listed Pet waste as one of the potential sources of water quality pollution.
- But the Statewide survey by ISWG also identified that 61% of people already pick up pet waste, and only 5% do not (did not apply to remaining 34%)

Messaging:

DEP suggests segmenting audience into “those who walk in public and don’t scoop” and “those who don’t walk in public” (home pet waste contributions, or those who leave it in an out of the way place), then research the “why” more to ensure a proper message is being sent.

Other examples:
Scoop the Poop
Pick it up It’s your Doodie
Protect Kittery Waters Tips for Pet Waste Brochure
York post card
Maine Healthy Beaches has beach brochure

Target Audience:

Dog owners
Cat owners?

Tools to impart message (3 minimum):

Stenciling
Doggie bags in parks/beaches with trash cans
Doggie bag dispenser clips
Post cards with notices (use York handouts)
Adopt a storm drain

Potential for Public Participation:

Pet waste clean up days
Eliot Dog Dayz

Potential for Awareness Messaging also:

Yes with stenciling

Evaluation Method (Permit Year 5) –

Could use catch basin observations and call-in complaints as evaluation methods. (all years)
Could hire interns to canvass areas for pre and post issues

NEXT STEPs to MOVE THIS FORWARD:

-research the “why” of pet waste (surveys, articles, etc), and select target audience

Develop SMSWG-specific baseline of information for PY1 and message

Behavior Change Issue or Problem: Litter

Discussion of potential to change public's behavior on this issue:

Is this an issue? – Yes

- Water Quality: There are no impairments for litter in Maine (there are in California and other states).
- PREP: there are no data or goals related to litter.
- For York, Kittery: Maine Coastal Program Beach Clean ups, for Berwick and South Berwick Roadside and parks cleanups. Eliot and York Blue Ocean Society Clean ups. Cape Neddick Beach is listed as "currently available for adoption" on the Blue Ocean Society web page.
- Maine Coastal Program has beach clean up in the fall each year (third Saturday in September). https://www.maine.gov/dmr/mcp/planning/coastweek/map.htm Cleanup data gets transferred to the Ocean Conservancy for their reports, but KLR requested Maine-specific data.
- The Ocean Conservancy 2018 report (on 2017 clean ups around the world) shows top 10 items collected are: cigarette butts, food wrappers, plastic beverage bottles, plastic bottle caps, plastic grocery bags, other plastic bags, straws/stirrers, plastic takeout containers, plastic lids, foam takeout containers.
- Blue Ocean Society report on 2017 cleanups: Eliot collected 7 pounds of waste and had 7 cleanups, York had 12 cleanups and collected 325 pounds of waste. Top 10 items collected: cigarette butts, bottle caps, rope, plastic bags, metal beverage cans, plastic bottles, Styrofoam cups, straws, traps/pots/floats/buoys, straps. Local Maine partners include: Berwick Academy, York Middle school. http://www.blueoceansociety.org/beachcleanup/
- Summary of outfall, ditch and catch basin inspections for Permit Year 5 (2017/2018) show litter issues are moderate, but Kittery and York identified that small letter issues are addressed during ditch inspections, so they are not always noted on the forms.
- PREP does not list

Does the public perceive it to be an issue (if so, it would be ripe for public education behavior change)? Yes

- The 2018 Statewide survey by ISWG listed trash/garbage as one of the potential sources of water quality pollution.
- DEP agrees we all know it is wrong to litter (except cigarette butts would need more research)need to identify the barrier to littering, in order to develop the message.

Messaging:

Ocean Conservancy message: Building a Clean Swell
Work off of Think Blue Maine?

Target Audience:
Park and Beach users

Tools to impart message (3 min.):
Stenciling
Adopt a storm drain
Adopt a beach

Use Artist Asia Scudder to create art from waste collected
Enhance Beach/Park/Roadside Cleanups
https://cfpub.epa.gov/npstbx/files/SmithJones1.mp3 Don't Trash Fresno Radio Ad
https://cfpub.epa.gov/npstbx/files/CA_poolinvasion.mp3 Don't trash where you swim

Potential for Public Participation
York Kittery and Eliot Beach Cleanups
Berwick and South Berwick RoadSide Cleanups
Asia Scudder to do Art projects with Litter

Potential for Awareness Messaging also
Website and Facebook

Evaluation Method (Permit Year 5)
Photo contests
Strangest litter found contests
Total quantity of litter pickup and removal

NEXT STEPs to MOVE THIS FORWARD:
-research the "why"

Behavior Change Issue or Problem: Erosion

Discussion of potential to change public's behavior on this issue:

Is this an issue? – Yes

Maine DEP and local rules to prevent erosion are in place because erosion is a water quality issue.

- Shoreland Zoning requirements to use certified contractors are in place
- State Rules to control sediment on sites that disturb one or more acres
- Local ordinances require sediment control on smaller sites.
- Maine DEP Contractor Certification program in place, uses updated manual (2015 Field Guide for Contractors and 2016 Guide for Engineers/Designers)
- Code enforcement officers frequently issue NOVs and stop work orders for erosion issues.

Piscataqua Region Estuaries Partnership (PREP) State of the Estuary report (2/2018) states total suspended solids (as an environmental indicator) indicates deterioration of the state of the estuary.

Does the public perceive it to be an issue (if so, it would be ripe for public education behavior change)? Yes

- The 2018 Statewide survey by ISWG listed soil/sediment as one of the potential sources of water quality pollution.

Messaging:

Need to develop

Target Audience:

Contractors
Homeowners
Landscapers

Tools to impart message (3 min.):

Rain Garden Workshops
York Program for small sites (with each building permit, handout, signature required stating they will conform)
Educational Brochures
Existing Field Guide by DEP (2015)

Potential for Public Participation

Workshops

Potential for Awareness Messaging also

Some potential

Evaluation Method (Permit Year 5)

Track NOVs/ stop work orders
certified contractors in each Town (from DEP?)

Behavior Change Issue or Problem: Fertilizer or Pesticides

Discussion of potential to change public's behavior on this issue:

Is this an issue? – Yes

Water Quality –Research shows excess nutrients have depleted beneficial eel grass. Piscataqua River Estuary impaired for eel grass deficit.

Piscataqua Region Estuaries Partnership (PREP) State of the Estuary report (2/2018) states toxic contaminants (as an environmental indicator of the state of the Estuary) are improving (but still an issue).

Does the public perceive it to be an issue (if so, it would be ripe for public education behavior change)? Yes

- The 2018 Statewide survey by ISWG listed fertilizer and pesticide as one of the potential sources of water quality pollution.

Additional Notes:
It was very difficult to get the general public to attend workshops. Over 5 years, SMSWG held 19 workshops with a total of 299 attendees. ISWG held 23 workshops with a total of 269 people. The final evaluations of the program showed that most of the attendees who completed surveys did adopt a new behavior described in the program (36% of SMSWG attendees surveyed reduced their fertilizer or pesticide use). ISWG reached additional people by holding training sessions for Home Depot employees and then had informational booths set up to inform shoppers about their program.

Messaging:

Prior SMSWG/ISWG: 6 easy steps for a safe and healthy lawn. Or York: How to have a beautiful lawn without harming the ocean.

Target Audience:

Landscapers
Lawn care providers
Commercial property owners

Consider passing ordinance and doing education of Planning Board and Select Board/Councils?

Tools to impart message (3 min.):

https://cfpub.epa.gov/npstbx/files/tappfert.mp3
Raingardens https://cfpub.epa.gov/npstbx/files/tappraingarden.mp3
https://tappwater.org/media/videos.cfm see the trees video

Potential for Public Participation
Nominal unless we do public workshops.

Potential for Awareness Messaging also
Possible on social media

Evaluation Method (Permit Year 5)
If ordinances, would be if we passed ordinance, we were effective.

Behavior Change Issue or Problem: Failed Septic Systems

Discussion of potential to change public's behavior on this issue:

Is this an issue? – Yes

Salmon Falls River is impaired for e-coli, Piscataqua River Estuary (DMR Area 1), Chauncey Creek (DMR Area 2), York River, York Harbor, Little River (DMR Area 3) and Cape Neddick River (DMR Area 4) are all impaired for bacteria and will be part of Bacteria TMDL when it is re-issued (date TBD).

Piscataqua Region Estuaries Partnership (PREP) State of the Estuary report (2/2018) states bacteria (as an environmental indicator of the state of the Estuary) is improving (but still an issue).

Does the public perceive it to be an issue (if so, it would be ripe for public education behavior change)? Yes

We discussed the "septic socials" that were part of the initial Spruce Creek work in Kittery which met with limited success. But all agreed it is an issue in their Towns. York has a pumping ordinance that could be a model. Kittery tried to get this passed a few years ago, but it failed.

During our septic system assessments, we obtained the following information on septic systems in the urbanized areas of each town. It shows the Towns do not have information on a lot of the systems – presumably because the systems are so old, the records were never registered with Town hall:

	Berwick	**South Berwick**	**Eliot**	**Kittery**	**York**
# Parcels in Urbanized Area	766	1539	1768	2849	4915
# parcels on sanitary sewer	272	868	558	1407	3364
# parcels with "new" septic systems	25	73	451	213	314
# parcels with 20-year old septic systems	48	123	214	211	405
# parcels with no information on septic system age and/or design (likely aged systems)	421	475	545	1018	832

Messaging:

Poorly functioning septic systems can harm water quality and be costly to repair when they fail.

Target Audience:

Homeowners with septic systems
Real estate agents
New homeowners in town

Tools to impart message (3 min.):

Welcome packet to new homeowners
Develop real estate training program and brochures
https://tappwater.org/media/videos.cfm

Potential for Public Participation

Nominal – spruce creek socials were not hugely successful

Potential for Awareness Messaging also

Good potential

Evaluation Method (Permit Year 5)

Check number of permits for new systems/number of connections to sanitary sewer
Improved record keeping

Behavior Change Issue or Problem: SALT

Discussion of potential to change public's behavior on this issue:

Is this an issue? – Yes

- Eliot and South Berwick have had salted groundwater wells.
- BASWG wrote a guidance manual for commercial/municipal salt application with Maine DOT to promote more responsible salt application.

Does the public perceive it to be an issue (if so, it would be ripe for public education behavior change)? Yes

- The 2018 Statewide survey by ISWG listed Road Sand/Salt as one of the potential sources of water quality pollution.

Messaging:

Reduce salt use

Target Audience:

Commercial Properties
Landscape/Management firms that apply salt.

Tools to impart message (3 min.):

Program like NH Snow Pro (would need state support?)

Potential for Public Participation

Workshops for applicators

Potential for Awareness Messaging also

Pretty good – would need to inform public of reduced salt areas

Evaluation Method (Permit Year 5)

contractors in program?