**MS4 Permit Minimum Control Measure #1: Education and Outreach – Part I**

Meeting Requirements for Residents and Businesses or Institutions Audiences for Water Quality Limited Waters (Impaired for Phos and Nit) and TMDL Requirements (Bacteria and Phos) - 3 messages per year

1. **Message 1: Fertilizer – P and N Impaired (this set draws heavily from existing materials available through UNH Cooperative Extension (CE) and NH Sea Grant (NHSG) primarily for Do-It-Yourselfers)**

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| **Year** | **Objective** | **NROC Activities** | **MS4 Activities** | **Measurement** | **Desired impact** |
| **1** | ◾ Residents learn to leave grass clippings after mowing. | ◾ Design messages and messaging for transfer station signs  ◾ Create and assemble promo materials for this action - (rulers, etc.) with messaging and URL  ◾ Create entries with links for SSC blog | ◾ Purchase and place sign(s) at transfer station  ◾ Distribute promotional materials with a link leading to SSC blog | *(measures “reach”)*  ◾ # of promotional materials distributed  ◾ # of hits to blog | More residents (esp. those who would ordinarily remove clippings and bring them to transfer station) leave them on the lawn after mowing as a source of slow release nutrients. In addition, residents know associated mowing practices – mow high, no more than 1/3 blade, etc. |
| **2** | ◾ Residents adopt good turf cultural practices (sans fertilizer) including testing their soil in order to have a snapshot of soil condition before taking further steps. | ◾ Repackage info piece of WQFriendly recommendations for practices regardless of fertilizer use,  ◾ Draft a press release with a link to soil test info for MS4s to promote  ◾ Track # of soil tests through soils lab UNHCE | ◾ Distribute info materials or press release  ◾ Pay for first #? soil tests | *(measures change in soil test submissions relative to historic averages for that town, possibly attributed to promotion)*  ◾ increase in # of soil tests submitted to Extension soil lab by town/city residents. | More residents submit soil samples for testing in order to have site specific guidance on what to do (or not do) to improve their soil’s ability to grow grass. Soil test information, like soil phosphorus levels, potassium levels, pH and organic material, for example, should influence a consumer’s choice of lawn care products based on what is needed or not needed. |
| **3** | ◾ Residents that are going to apply fertilizer identify how much should be applied, when, what kind, etc. BEFORE applying | ◾ Repackage WQfriendly recommendations for applying fert  ◾ Create and assemble promo materials (gauge, clip, tape) related to fertilizing and distribute to participating municipalities  ◾ Draft a press release about promo effort  ◾ Develop a pledge sheet that munis can use to promote a new behavior and track who took promo materials for follow up  ◾ Develop a survey munis can use to track if any new practices were adopted as a result of town promotions. | ◾ Promote recommendations through press release with URL  ◾ Distribute promo and info materials at at least one event/year (with ConsComm or DPW assistance) | *(measures reach)*  ◾ # of hits to webpage  *(measure intent to adopt a new practice)*  ◾ # of names on pledge sheets  *(Measure self-reported adoption of a new practice through follow up survey)*  ◾ # of respondents indicating they had adopted a “new” practice as a result of town campaign | Residents who apply fertilizer apply according to WQFriendly recommendation re: amount, timing, product, irrigation, etc. |
| **4** | ◾ Lawn care enthusiasts and opinion leaders increase their lawn care skills based on WQFriendly practices. | ◾ Update Healthy Lawns Clean Water skills clinic.  ◾ work with SSC Outreach to promote and conduct two regional clinics | ◾ Promote and host two regional clinics | *(measure reach)*  ◾ # of participants  *(measure intent to adopt)*  ◾ Survey participants intent to adopt “new” practices | Lawn care enthusiasts and opinion leaders increase in knowledge and skill related to WQ Friendly practices and help to shift norms around lawn care attitudes and behaviors in their communities. |
| **OR** | ◾ Landscapers understand Landscaping to protect Water Quality practices | ◾ Notify MS4s in area of future UNH CE/Soak up the Rain/Sea Grant Landscaping for Water Quality 2 day trainings. Help promote. | ◾ Host and/or promote 2 day training to local landscapers. Check UNH CE website for list of landscapers who attended | ◾ # of local landscapers attending training. | Landscapers adopt and promote more water quality friendly landscaping practices |
| **5** | ◾ Redo any of above |  |  |  | <http://www.stormwaterandme.org/index.asp> |

1. **Message 2: Pet Waste – P and N Impaired and Bacteria or P TMDL (this set draws from the “Inside Scoop: How to Conduct a Pet Waste Outreach Campaign – NHDES) (RB=Research-based)**

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| **Year** | **Objective** | **NROC Activities** | **MS4 Activities** | **Measurement** | **Desired Impact** |
| **1** | ◾ (RB) Determine base line # of poop piles at a known site  ◾ News readers **OR** water or tax bill recipients learn about pet waste issue  ◾ **OR** event attendees learn about pet waste issue. | ◾ (RB) Develop assessment protocol and share with MS4s  ◾ Draft webpage or blog to link to  ◾ Draft information article and bill insert with link to webpage or blog  ◾ Package existing templates of tags and other materials from “The Inside Scoop” NHDES program. | ◾ (RB) Conduct assessment in spring – work with local animal control officer if there is one.  ◾ Release article **OR** mail municipal bill insert  ◾ Provide hand-outs and dog bones with pet waste tags about issues | ◾ (RB) Re-assess # of poop piles. Yes/no results  ◾ Count articles printed (maybe include readership?) **OR** count bills mailed  ◾ Count website or blog hits  ◾ Track bones distributed and/or sign pledge | Dog owners or walkers increase knowledge about amount of potential pet waste from area dogs could get into the water and the impacts from bacteria and increased nutrients to water quality. |
| **2** | ◾ Dog license applicant & renewals learn about pet waste issue | ◾ Prep materials for MS4 agents to distribute at town/city halls **OR** local veterinarians | ◾ Distribute materials | ◾ How many dog owners received materials  ◾ Count website or blog hits | Dog owners increase knowledge about amount of potential pet waste from area dogs could get into the water and the impacts from bacteria and increased nutrients to water quality. |
| **3** | ◾ Residents learn about pet waste ordinance & fines (if any) | ◾ Provide MS4s with templates & guidance on ordinance & signage placement | ◾ Develop signage & locate in key places (based on yr. 1 assessment or new problem spot) | ◾ Redo poop pile assessment from yr. 1. | Dog owners or walkers increase knowledge about financial incentives to pick up pet waste and pick up and dispose pet waste properly. |
| **4** | ◾ Dog owners sign pledge to pick-up pet waste 90% of the time | ◾ Provide pledge sheet & training to clerks **OR** local veterinarians  ◾ Provide raffle suggestions for pledges | ◾ Support clerks to gather pledges | ◾ # of pledges | Dog owners or walkers pick up and dispose pet waste properly and create norms around responsible pet waste behavior. |
| **5** | ◾ Provide bag dispensers and collection cans at dog parks or frequented dog walking areas **OR** Redo any of above | ◾ Provide info on where to get materials and how to track. | ◾ ID hot spots or need and buy, install, and maintain equipment. | ◾ # installed and amount collected in cans. | Dog walkers or dog park users collect and dispose of pet waste properly. |

**Message 3: Leaf and Yard Waste – P and N Impaired (RB=Research-based)**

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| **Year** | **Objective** | **NROC Activities** | **MS4 Activities** | **Measurement** | **Desired Impact** |
| **1** | ◾ (RB) Determine base line # tons of yard waste at transfer station **OR** note any problem dumping areas near waterbodies.  ◾ News readers **OR** water or tax bill recipients learn about dumping yard waste and water quality issues. | ◾ (RB) Develop assessment protocol and share with MS4s  ◾ Draft webpage to link to  ◾ Draft information article and bill insert with link to webpage or blog | ◾ (RB) Conduct assessment in fall for first year base-line  ◾ Release article **OR** mail municipal bill insert | *(measures “reach”)*  ◾ Count articles printed (maybe include readership?) **OR** count bills mailed  ◾ Count website or blog hits | Residents increase knowledge about WQ impacts from yard waste dumping near or in waterbodies (increased nutrients, habitat loss, etc.) and how to dispose of yard waste properly, i.e., composting or bringing to transfer station. |
| **2** | ◾ More residents use transfer station for leaf and yard waste disposal. | ◾ Design messages and messaging for transfer station signs | ◾ Purchase and place sign(s) at transfer station | ◾ Change in tonnage of leaf and yard waste at transfer station | More residents use the transfer station to dispose of leaf and yard waste resulting in decrease of leaf and yard waste dumping near or in waterbodies. |
| **3** | ◾ More residents compost leaf and yard waste at home and away from waterbodies | ◾ Draft and post blog/website informational content to link to  ◾ Draft a press release with a link to blog/website **OR** use as a mailer insert **OR** other method or event to promote composting and proper use of compost.  ◾ **OR** host composting workshop with local garden club or UNH CE Master Gardeners  ◾ OR host compost bin sale (Use NRRA or other vendor) | ◾ Release article **OR** mail municipal bill insert  ◾ Provide information about Master Gardener workshop (if this exists)  ◾ Provide SOP where to buy compost bins and how to advertise (city of Nashua did this) | *(measures “reach”)*  ◾ Count articles printed (maybe include readership?) **OR** count bills mailed  ◾ # of workshop attendees  *(measures “impact”)*  ◾ Change in tonnage of leaf and yard waste at transfer station  ◾ Count number of bins sold | More residents understand the benefits to backyard composting and using compost PROPERLY and how to make and or buy and use a backyard compost bin. |
| **4** | ◾ Residents abutting waterbodies understand regulations or impacts regarding dumping of leaf and yard waste near or in waterbodies. | ◾ Draft targeted mailing template for waterbody abutters.  ◾ Draft signage text and SOP for posting near frequent dumping locations | ◾ Create waterbody abutter mailing list, edit mailing template, and mail notice  ◾ Purchase and place signs at dumping incident locations | *(measures “reach”)*  ◾ # of mailers and signs (if used)  *(measures “impact”)*  ◾ decrease in # of dumping incidents | Incidents of leaf and yard waste dumping near or in waterbodies are reduced. |
| **5** | ◾ Redo any of above? |  |  |  |  |

**CT NEMO** [**http://www.ct.gov/deep/cwp/view.asp?A=2718&Q=325364**](http://www.ct.gov/deep/cwp/view.asp?A=2718&Q=325364)

1. **Septic Systems – P Impaired and Bacteria or P TMDL (RB=Research-based)**

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| **Year** | **Objective** | **NROC Activities** | **MS4 Activities** | **Measurement** | **Desired Impact** |
| **1** | ◾ (RB) Determine baseline of septic system inspection requests  ◾ News readers **O**R water or tax bill recipients learn about septic system maintenance, cost savings, and water quality issues | ◾ (RB) Develop SOP for identifying method to track septic system pump outs (using change in WW Tx plant tonnage from haulers) or septic system inspection requests.  ◾ Use EPA “Septic Smart” information to help draft webpage to link to  ◾ Draft information article and bill insert with link to webpage or blog **OR** use EPA SepticSmart flyer with local information on sticker on back  ◾ | ◾ Follow SOP and start tracking spread sheet  ◾ Release article **OR** mail municipal bill insert and provide at local venues. | ◾ Track tonnage hauled to WW Tx plant or # of calls for pumpouts and inspections.  *(measures “reach”)*  ◾ Count articles printed (maybe include readership?) **OR** count bills mailed  ◾ Count website or blog hits | Residents increase knowledge about septic system maintenance and water quality impacts. Increased # of pumpouts and inspections recorded by industry |
| **2** | ◾ Local cable access and on-line viewers see NHDES septic system videos | ◾ Coordinate with SNHPC on inserting questions after video. Provide videos and SOP on using them | ◾ Post on local cable access  ◾ Track viewings | *(measures “reach”)*  ◾ # of viewers recorded | Residents increase knowledge about septic system maintenance and water quality impacts. Increased # of pumpouts and inspections recorded by industry |
| **3** | ◾ Residents attend septic system care workshop | ◾ Identify potential workshop presenters and draft agenda | ◾ Promote and host workshop. Could include incentive of several free inspections or pumpouts | ◾ # of attendees  ◾ # sign-up for free inspections or pumpouts if offered | Residents increase knowledge about septic system maintenance and water quality impacts. Increased # of pumpouts and inspections recorded by industry |
| **4** | ◾ Redo any of above? | ◾ |  |  |  |
| **5** | ◾ Redo any of above? |  |  |  |  |