Of the 124 attendees, 61 returned a completed survey, giving a 49% response rate. Overall the participants of the workshop felt that the material presented was relevant to their work and would be useful for them. They also indicated that the exercises were generally useful, that they planned to share the information with others, and that they are better prepared to use the new standards. Many respondents offered thoughtful and insightful comments about the workshops as well as about the manual in general.

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly Disagree</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Strongly Agree</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. This workshop was relevant and practical for my work.</td>
<td>4.9%</td>
<td>6.6%</td>
<td>9.8%</td>
<td>50.8%</td>
<td>27.9%</td>
<td>4.02</td>
</tr>
<tr>
<td>5. I will be able to use what I learned in this workshop.</td>
<td>3.3%</td>
<td>8.2%</td>
<td>6.6%</td>
<td>57.4%</td>
<td>24.6%</td>
<td>3.98</td>
</tr>
<tr>
<td>6. The exercises were useful.</td>
<td>1.6%</td>
<td>8.2%</td>
<td>21.3%</td>
<td>52.5%</td>
<td>16.4%</td>
<td>3.78</td>
</tr>
<tr>
<td>7. I plan to share the information I learned with others.</td>
<td>1.6%</td>
<td>4.9%</td>
<td>14.8%</td>
<td>62.3%</td>
<td>16.4%</td>
<td>3.80</td>
</tr>
<tr>
<td>8. I feel better prepared to use the new standards.</td>
<td>3.3%</td>
<td>6.6%</td>
<td>18.0%</td>
<td>54.1%</td>
<td>18.0%</td>
<td>3.85</td>
</tr>
</tbody>
</table>

9. What was the most useful part of the program?

There were a few main responses that were common among all the attendees regardless of profession. Many attendees made note that the design examples and case studies were particularly helpful. Engineers commonly mentioned that the design examples were useful, and usually they added that the calculations were helpful. For non-engineering professions design examples were noted as being very useful, without mention of calculations. Among many participants, the Q&A session and discussion between attendees was mentioned as being particularly helpful. It was also commonly mentioned that the first presenter and David Vallee’s presentations were very good. There were 2-3 mentions of the discussion about the March 2010 flooding. This question was left blank 11 times.

Actual Responses:
- Speaker from Northeast River Forecast
- David Vallee presentation was interesting and great introduction to the presentations
• Good Presenters!
• Overall, Good Program
• Design Examples and Case study. *Having slides available online is very helpful
• ? The Calculations seemed helpful
• Design Calculations
• Design Examples; Hydrocad example; Lunch provided was great!
• Review of Design example and how to use equations
• BMP Design Critical Element was very useful
• Specific Design Examples
• Design Examples
• Section on QPA REQ/Credit
• Reviewing performance criteria exemptions QPA credit restrictions
• Specific Design examples were helpful
• Design examples
• I enjoyed the discussions about 2010 flooding
• Sample Designs
• Q+A Regulatory Update
• Became familiar with standards and structures
• Design Examples and sample calculations; I also liked the presentation on March floods; updates to permitting process.
• Going over examples in detail
• Q&A
• The questions posed by attendees
• Question and answer
• Design Examples
• Review of Computations
• The design examples were useful, especially those re(?) the Redevelopment clarifications w/ info some addition in previous area.
• Smart Growth Strategies
• Examples being given (case studies)
• Q&A
• Review of Reaper Brook Subdivision
• Design Examples and the use of hydro CAD examples for the design elements
• Examples
• Presentation on water quality, Pretreatment and storage.
• More familiarity w/ manual
• Design examples; calculation examples and explanation; networking/discussing new regs w/ municipal offices and other peers.
• I really enjoyed the first presentation
• Discussion/examples
• Overview and examples of BMP design
• Step by step process/ review understanding design process
• BMP Design
• Redevelopment Examples
• David Vallee’s presentation was very interesting and informative, nice addition
• Design examples
• Design examples
• Layout of manual and overview of design criteria
• Going through examples
• Demos, examples, 1st session after lunch- lunch was a nice treat please have mayo and mustard separately, not on foods
• Discussion of design applications to specific construction examples

10. What was the least useful part of the program?
For this question there were very few answers that were common among all participants of differing professions. It was mention 5 times that the example of the residential subdivision case study was irrelevant, and 3 of those 5 were DOT or government employees. 5 people also had trouble with the engineering calculations. 2 were municipal engineers 2 were private sector employees and one was a government employee. Overall the attendees seemed to agree that the explanations were confusing and one non-engineer participant was more interested in what the equations mean practically than how to use the numbers. 3 people mentioned that they would have preferred if the examples done during the seminar were not the exact ones in the manual. 2 people thought that the BMP design section was done too quickly, and about 6 people overall mentioned that the whole seminar or a specific part was done too quickly. 2 mentioned that they wanted to have handouts or to have been informed to print handouts before the seminar. Only 3 people thought that the information was too repetitive from previous seminars, all were engineers. Overall DOT employees especially and some municipal and government employees mentioned that most of the information irrelevant to their job, and that the seminar was geared towards engineers. 7 people said that nothing or n/a was their least favorite part, and 5 of them were engineers. 21 people left this answer blank.

Actual Responses:
• Way too much info for municipal attendees.
• None really
• This topic was not so relevant to my job (civil engineer DOT)
• Overview of regs- already addressed @ first two days
• The Hydro CAD calcs were hard to see Difficult to see where some project input was coming from
• The calculation examples were gone over too quickly and more time should be spent on them as part of the lectures. The afternoon was better.
• You should consider going over examples not considered in the manual
• Design example of res. Subdivision
• All was useful
• Not explicitly related to my job (civil eng. DOT)
• None
• All useful, although CRMC stuff was not applicable to my review stuff but still of interest.
• Comparisons of each alternatives (ie which solution apply best)
• Run through BMPs and Pretreatment was too fast; Michelle goes too fast.
• n/a
• Redundant info from previous workshops
• Overview of previous seminars
• Residential construction
• Material was covered rather quickly- given the nature of material/breadth this is probably unavoidable
• Too much “reading of slides”
• I would get more out of this seminar after I used it in practice for at least 1 year.
• Engineering calculations
• How to use this in urban situations; the example (post rd) doesn’t consider BMP w/ the related previous area
• Better definition w/ water quality and storm water/recharge, more clarity. It took me a while to catch on the differences as separate components. CPX??- abbreviations are not familiar to me- acronyms used too much for my head. BMP selection criteria slide would be good to put up front.
• (Principal Landscape Architect Private sector)
• n/a
• n/a
• BMP design was significant but run through too quickly
• Brief overviews of calculations
• Presentation on LID site planning and design including hydrocCAD etc. Maybe this could be its own ½ day seminar.
• Not having handouts of discussion items on screen; either provide or as part of the online info note items that should be printed and brought to the workshop.
• All the rest of it (besides first presenter)- this workshop was really meant more for engineers- not planners (and certainly not OPW guys) [town planner-municipal]
• Going over calculations. It would have been more helpful to explain what the calculations represented and what to look for when reviewing projects.
• Residential subdivision case study
• Examples based on private development
• Going over examples that are already in the manual. Rapid pace, not getting to work through an example w/o having the answer already.
• Presentation on STDs in manual.
• The design examples were a little overwhelming and difficult to follow.
• Images too far away; used to much detail; too much text; hard to read; should have told us ahead of time to print handouts and bring handbook.
• A lot of information could’ve been read from manual that would have helped us better locate required information
• Examples were ran through quickly and some assumptions could have been better explained
• Hard to say…

12. How do you plan to use the information presented today, and is there anything you will do differently?

Many participants mentioned in this section that they will use the information in future and pending design projects and drainage reports, as well as in the planning stages of projects. Many mentioned that they will continue to use and study the design examples, as well as share the examples with coworkers and employees. The engineer respondents in particular mentioned using the information to modify current and future calculations. Overall many people mentioned using the manual, and teaching others about the manual. 2 or 3 people mentioned that they need to read and review the manual more before using it in their practice. Among non-
engineering attendees, especially in the private sector, it was mentioned that the information is not very useful or useful only in understanding regulations or understanding engineers better when working with them, as opposed to practical use of the information. 17 people left this question blank.

**Actual Responses:**

- To calculate run off from roadway impervious; distribute copies of the example calculation.
- I will double check some calculations
- No immediate plans
- Municipal review and private design work
- Begin to implement the new stormwater manual
- Local projects at our facility, also for compliance w/ regulations
- Review drainage/stormwater management plans; future – retrofit existing basins
- We’re already requiring that anyone coming in use the new manual.
- n/a
- Really need to read over the manual.
- Make sure any submitted plans are DEM/ RI stormwater design and installation standards manual, approved.
- This info today helped me further enhance my comprehension of manual. I am conversely updating my notes with latest info and policy nuances (such as the redevelopment issues) so as to be able to efficiently as possible review projects and respond to questions as best possible.
- In my practice
- Improve work efficiency
- Design and permitting of development and water quality improvement/retrofit projects for clients.
- I reviewed the design examples and put the equations in excel. I will continues to follow the design examples.
- Use information when preparing drainage reports and planning new projects
- Look to apply it in future projects
- To form strategy to utilize in a timely and cost affective manner
- Apply them to future projects. Update stormwater report templates
- Educate people at the office on new manual. Design sites differently.
- Will use responses to my question to prepare appropriate design
- Try to follow design examples with projects.
- All site design
- A lot of info in a short span. Almost like an overview for me. Very informative.
- For a better understanding when working with an engineer.
- Review guidelines and apply regs.
- The information I learned will be used for professional development.
- Incorporate into designs
- Water Quality Volume design w/ hydroCAD; corrected CN values
- It will be implemented in new and pending applicable projects, Clients will be advised of new stormwater standards.
- I plan to implement in my (camper??-I literally have no idea what this word was) designs.
- I need to review the manual in more detail to better understand the method of approach for projects.
- In design
- Review of permit applications
• To assist in reviewing design plans
• The info will be used to apply the manual to RIDOT projects
• Assist in future design and permitting
• Review of plans submitted, town looking at creating templates for typical developments in town, simplify design review.
• This will be helpful in plan reviews
• Review/ comment on plan submittals
• Improve designs produced, approved
• Incorporate basic knowledge to understand new and original requirements for road projects
• It is relevant to current project reviews

13. What topics would you like to see addressed in future training?
Many of the comments in this section are very specific to particular jobs. Often people want to know what the specific responsibilities are in their field according to regulations, what the regulations are, and especially who is responsible for overseeing them. It would be useful to read these individually since many of them differ significantly, however most of the questions seem to be things that should be answered in seminars that are career specific.

Actual Responses (municipal officials):
• How to get maintenance performed.
• Another rain garden design and installation training.
• Enforcement
• Planning Board and Council Training
• How to apply the new methods to the subdivision or development process.
• How do we deal with oversight of design, installation and maintenance? Who does it? What is the incentive to the developers, owners and future owners of the developments?
• How to ensure that these get constructed properly (use informal session with discussion of case study examples)
• Once they are properly constructed, to make sure they don’t get destroyed or otherwise damaged or deteriorated during the rest of construction on the site.
• Retrofit existing stormwater management systems, especially along Bailey’s Brook / Maidford River.
• Addressing high water table and poor soils for design templates.
• Proper review and inspection for maintenance of BMPS
• A-Z municipal responsibilities for program interaction
• How to control compaction of sites.
• Stormwater systems in urban, highly impervious areas!
• Targeted training to municipalities for certain conditions; urban, suburban, rural, impervious, high density, etc.
• How the projects are going to be inspected and approved. Who is going to be responsible – DEM? Towns and cities have too many requirements to meet as is. I agree these regs are needed, it is overwhelming to say the least.
• Less on presentation, more examples.
• Interactive design approach from concept to complete design with respect to the manual.
• BMP and QPA tracking—when property sold; how to be sure its not double
counted or doubly used or built on later owners
• I’ll get back to you maybe on this one

(All Others: mostly engineers, some landscape architects and others)

• Mounding
• Infiltration Basins (not mentioned in AM session)
• What type of trigger would DEM look at for design by manual if the project (a
  redevelopment, less impervious) is in an upland area and ties into an
  existing closed drainage system?
• Consider using one standard site to apply the design of each alternate BMP
  and LID so we can compare treatment options applied to the same site.
• Thursday’s detailed session.
• More on enforcement of maintenance of bmps, required by the new regs.
  How will you make sure bmps are maintained?
• Clarification on requirements for field testing. Specifically infiltration tests.
  Are they always required? Table H-1 seems to indicate they are required as
  well as 5.3.1 (says needs to be confirmed by Appendix J&H) Appendix H
  seems to say it is required.
• Option for single family development within Freshwater Wetlands and CRMC
  jurisdiction.
• BMPS for commercial sites or sites with some existing pervious areas.
• Single family development with high water table, OWTS, private well, small
  site.
• Pervious concrete design and credit. General overview and examples of
  meeting all credit requirements /standards.
• DOT specific – linear development training.
• How to meet LID criteria.
• How to develop SWPPP to meet standards 7 P2 (?) and 10 –E&S controls.
• Sessions more geared toward RIDOT projects
• Regulations should include enforcement /documentation of proper
  construction and maintenance of facilities in the future.
• Practical BMP implementation – What is feasible locally; life cycle costs;
• Use of Hydrocad with examples.
• Once these practices are designed and constructed who is going to be
  responsible to maintain them?
• How will all municipalities buy into these designs?
• Redevelopment cases
• Field “How to” especially with regards to upgrades to existing infrastructure
  and bioretention installation.
• Proper grading of materials for “soil evaluators”
• Gradation of various materials specified – biosoils, gravel <.75”, pea gravel
• Linear /roadway projects involving maintaining existing infrastructure.
• Redevelopment projects
• High water table sites
• O&M sample plans
• Roadway vs. sites.
• More development sites and a site with high groundwater tables.
• Will local officials allow reduced ROWs and lot sizes to allow implementation
  of new stormwater regs?
More design examples, more calculations.
The design examples cover minimum requirement for BMPS. Most municipalities require zero runoff. Sizing bmps for minimum requirements does not address the remainder of the runoff. How do we handle additional runoff?
Design roadside retention pond
More about planting and velocity issues (LA)
As DEM/CRMC begins reviewing under new regs, a session addressing “common deficiencies” etc. would be helpful.
Stormwater Mgt certification for professionals.
How does DEM/CRMC want to see the required information presented (i.e. sizing calculations) beyond “the checklist”.
Examples of good application submissions.
Similar seminar in 1 to 2 years would be more meaningful to me.
Design for landscape architects including vegetation, soils, existing natural features, town zoning & planning regs, CRMC (LA)
Would like to work through a sample design in greater detail from start to finish, as opposed to briefly summarizing.
Professional specific training ie – engineers, planners, landscape architects.
Anything that would be helpful to designers and we reviewers to help, in the future, streamline submittals on these BMPs. Will need to see how the first few months of submittals look for their being adequately conducive for review. (DEM staff)
So far so good...
More on LID and conservation development
Manual application to road projects

14. What training format do you prefer? (Other: Please describe) Also final comments and thoughts.
Similar responses to previous question. Also a few mentions of problems with timing/length of seminars.

Actual Responses:

- PPTS that include equations should us a font where the letter I looks like I and not 1.
- Need to have workshops for the contractors / construction industry. You can not just assume that they will be constructed properly.
- As discussed by the DEM before, plans to do the dissemination of policy clarifications to “list serve” will be helpful. Some examples of pertinent clarifications as they develop would be helpful
- Stormwater management, certification for professionals.
- Would like to work through a sample design in greater detail from start to finish, as opposed to brief summarizing.
- What type of triggers would DEM look at for design by manual if the project (a redevelopment, less impervious) is in an upland area and ties into an existing closed drainage system?
- Lunch was a good idea
• Not in the same week. Two full days in one week take a lot of time away from office obligations
• Onsite constructed projects
• Professional specific training- engineers, planners, landscape architects, etc.
• Full day seminars with alternate days covering the same material
• Interactive design approach from concept to complete design w/ respect to the manual