

2008 Annual Report

VTrans SWMP 2008-2013 Best Management Practices

Minimum Control Measure #1 "Public Outreach & Education"

Minimum Control Measure and BMP	Target Audience	Timeframe	Measurable Goal(s)
BMP 1.A Regional Stormwater Education Program	Public, VTrans, Consultants, Municipalities, VANR	Monthly RSEP Meetings for Permit Term	As defined in RSEP MOU and reported annually. The Steering Committee, assisted by the CCPRC and media consultants, will implement media advertising campaign and provided stormwater education services that satisfy the requirements of Minimum Control Measure #1 ("Public Education and Outreach"). The Program Content for each Program Year will be as defined in the Communications Plan for that year as approved by a majority of the RSEP Steering Committee. Annual Program elements will include, at a minimum: 1) operation of the RSEP website, www.smartwaterways.org or its equivalent; 2) the hosting of occasional educational seminars open to the public concerning stormwater pollution prevention and related topics; and, 3) advertisements in various media. In the annual report that is required under Part 5.3 of the Permit, public education and outreach activities and initiatives will be summarized.
2008 Activity: VTrans continued its participation in the RSEP and paid the \$5,000 annual operating fee.			
2008 Indicators / Measurable Accomplishments: See attached RSEP Annual Review Documents (Attachment A).			
2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.			
BMP 1.B VTrans Stormwater Website	Public, VTrans, Consultants, Municipalities, VANR	Manage and Update for Permit Term - Bring Operations Stormwater Web Site on-line by Spring 2009	A summary of actions taken and progress made on the proposed action items, the number of visits recorded on hit counter, and suggestions or comments from public will be reported annually.
2008 Activity: The existing VTrans web site originally created in 2004 is being maintained under the Program Development - Environmental Section home page while a new web site is being developed by VTrans Operations Division, as the responsibility for managing compliance with the MS4 GP has been transferred to Operations in November of 2007. This has been a slow process, but the new web pages are scheduled to come on line during the Summer of 2009.			
2008 Indicators / Measurable Accomplishments: Maintained the existing web site and made substantial progress on the new web site. Final web page edits completed and awaiting publication. The Agency has disabled the web hit counter for budget considerations and there were no public inquires reported in 2008.			
2008 BMP Effectiveness: This BMP has proven to be somewhat effective and will be continued thru the remainder of the Permit Term with minor modification. Due to the hit counter being disabled Agency-wide on all web sites, VTrans will no longer be reporting this information and will petition ANR to have it removed from the SWMP.			
BMP 1.C Storm Drain Markers	Public, VTrans, Municipalities	Install with D-5 forces over Permit Term	Report number and location installed annually .
2008 Activity: Storm drain markers continued to be installed as structure maintenance was performed.			
2008 Indicators / Measurable Accomplishments: 27 markers were installed on US Route 2 in Williston Village.			
2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.			
BMP 1.D VTrans Operations Environmental Coordinator Position	Public, VTrans, MS4 Communities, Federal and State Regulatory Agencies, other professionals	Permit Term	Report on activities performed in support of this BMP annually.
2008 Activity: The former VTrans Environmental Coordinator position was transferred from the VTrans Program Development-Environmental Section to the VTrans Operations Division and the Operations Environmental Coordinator (OEC) position was filled in November 2007. The primary duty of the OEC is to provide regulatory compliance and support on permitting and compliance with a specific emphasis on State and Federal Stormwater Regulations			
2008 Indicators / Measurable Accomplishments: The OEC provided support activities associated with managing compliance with the MS4 GP and other Federal and State Stormwater Regulations.			
2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.			

Minimum Control Measure #2 "Public Involvement & Participation"

Minimum Control Measure and BMP	Target Audience	Timeframe	Measurable Goal(s)
BMP 2.A VTrans Stormwater Advisory Group (SWAG)	Public, VTrans, public water suppliers, MS4 Communities, State and Federal Regulators	The SWAG meets on a quarterly basis (at a minimum) and more frequently as the need arises.	Meeting meeting dates, agendas, participants, tasks accomplished, and projects undertaken will be summarized annually.
2008 Activity: VTrans SWAG met to discuss MS4 SWMP development and to disseminate information about stormwater regulations, permit programs, policy & procedures, and BMPs through VTrans. This advances integration of the BMPs into design of transportation projects, the acquisition of environmental permits, operation and maintenance activities, and transportation planning			
2008 Indicators / Measurable Accomplishments: The SWAG met on 3-10-2008 and July 10-2008. Then on 9-11-2008 it was reconfigured into the VTrans Stormwater Advisory Committee (SWSC) in order to respond to policy and planning needs, rule review, legislative actions, and to disseminate information about stormwater regulations, permit programs, policy and procedures within VTrans. The VTrans SWSC meets monthly.			
2008 BMP Effectiveness: This BMP has proven to be non-effective in addressing Public Involvement & Participation. It has however proven to be very effective as a Good Housekeeping BMP and will be continued thru the remainder of the Permit Term under its current form but will be moved to MCM#6. VTrans will petition ANR to move this BMP to MCM#6.			
BMP 2.B Regional Planning Coordination	Public, MS4 Communities, RPCs	Ongoing and continued involvement	List CCMPO and CCRPC public meeting dates that VTrans attended during which transportation projects and stormwater management were discussed.
2008 Activity: VTrans Policy and Planning Division continues to carry out the Vermont Transportation Planning Initiative (TPI), in coordination with the Chittenden County Metropolitan Planning Organization (CCMPO) and with the Chittenden County Regional Planning Commission (CCRPC). The VTrans Policy and Planning Division Regional Transportation Planning Coordinators worked directly with the CCMPO and indirectly (by way of the CCMPO) with CCRPC. The VTrans coordinators and these organizations solicited local input, identified needs, developed regional transportation plans and transportation improvement programs, and provided planning capacity to VTrans on an ongoing basis. The CCMPO and the CCRPC provided significant and in-depth public involvement and participation in transportation planning.			
2008 Indicators / Measurable Accomplishments: VTrans will continue to work with the CCMPO and the CCRPC to ensure that the public is involved in transportation planning including stormwater management issues			
2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.			
BMP 2.C Project Related Public Notice/Participation Requirements	Public	Permit Term	Information will be provided about water quality protection related permits acquired for VTrans projects and activities within the VTrans MS4 annually.
2008 Activity: VTrans obtains environmental permits for most development projects. Several of these permit processes require public notice and allow for substantial public participation and input affecting the final development of transportation projects.			
2008 Indicators / Measurable Accomplishments: <u>Operational Stormwater</u> = Colchester TCSP TCSE(7); <u>Construction Stormwater</u> = none; <u>Stream Alteration Permits</u> = S. Burlington Culvert Br 1-1 on I-89; <u>CUDs</u> = Colchester STP 5600(9); <u>USACE permits</u> = S. Burlington IM SCRP(3) and So. Burlington VT RTE. 116 SW Treatment Pond			
2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.			
BMP 2.D Low Impact Development Workshops & Projects	Public, Educators, Developers, Municipalities, VTrans.	Conduct at least three workshops and involve the public in construction of at least two projects over the Permit Term.	Workshop dates, topics, participants, and public involvement in constructing and monitoring LID Projects will be reported annually.
2008 Activity: VTrans partnered with the UVM Extension Service to fund, design, and tap into local volunteers to implement LIDs in the VTrans MS4 and MS4 Municipalities.			
2008 Indicators / Measurable Accomplishments: May 2008 completed one demonstration rain garden at VTrans Chimney Corners (Colchester) District Garage and conducted one educational workshop.			
2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.			
BMP 2.E VTrans Stormwater Website	Public, VTrans, Consultants, Municipalities, VANR	Manage & Update for Permit Term - Operations Stormwater Web Site on-line by Spring 2009	A summary of actions taken and progress made on the proposed action items, the number of visits recorded on hit counter, and suggestions or comments from public will be provided annually.
2008 Activity: The existing VTrans web site originally created in 2004 is being maintained under the Program Development - Environmental Section home page while a new web site is being developed by VTrans Operations Division, as the responsibility for managing compliance with the MS4 GP has been transferred to Operations in November of 2007. This has been a slow process, but the new web pages are scheduled to come on line during the Summer of 2009.			
2008 Indicators / Measurable Accomplishments: Maintained the existing web site and made substantial progress on the new web site. Final web page edits completed and awaiting publication. The Agency has disabled the web hit counter for budget considerations and there were no public inquires reported in 2008.			
2008 BMP Effectiveness: This BMP has proven to be somewhat effective and will be continued thru the remainder of the Permit Term with minor modification. It is our hope that the new web site will generate more public comments. Due to the hit counter being disabled Agency-wide on all web sites, VTrans will no longer be reporting this information and will petition ANR to have it removed from the SWMP.			
BMP 2.F VTrans Operations Environmental Coordinator Position	Public, VTrans, MS4 Communities, Federal and State Regulatory Agencies, other professionals	Permit Term	Report on activities performed in support of this BMP annually.
2008 Activity: The former VTrans Environmental Coordinator position was transferred from the VTrans Program Development-Environmental Section to the VTrans Operations Division and the Operations Environmental Coordinator (OEC) position was filled in November 2007. The primary duty of the OEC is to provide regulatory compliance and support on permitting and compliance with a specific emphasis on State and Federal Stormwater Regulations			
2008 Indicators / Measurable Accomplishments: The OEC provided support activities associated with managing compliance with the MS4 GP and other Federal and State Stormwater Regulations.			
2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.			

Minimum Control Measure #3 "Illicit Discharge Detection & Elimination"

Minimum Control Measure and BMP	Target Audience	Timeframe	Measurable Goal(s)
BMP 3.A Maintain GPS and GIS Mapping	Public, Municipalities, Regional Planning Commission, VANR, VTrans Operations and Program Development Staff	There will be on-going update of information through the term of the Permit	In the annual report that is required under Part 5.3 of the Permit, a summary of any changes to the 2007 mapped stormwater management system will be documented by VTrans for use in future mapping updates. Updated mapping GIS/GPS information will be collected and furnished to VANR and CCRPC only after a standard procedure has been agreed upon by VANR, CCRPC, and the MS4s. Additionally, VTrans will provide updates on the names of all known waters that receive a discharge from the VTrans MS4 and the number of outfalls to each identified water as considered necessary due to changes resulting from roadway reconstruction projects or stormwater infrastructure enhancements.
2008 Activity: VTrans mapped the MS4 based on 2008 303(d) data layers provided by ANR; mapped its MS4 outfalls by watershed; and created a map book for use in the field while conducting IDDE inspections. Copies of all provided to ANR and CCRPC (see documents under Attachment B)			
2008 Indicators / Measurable Accomplishments: As of 9-1-2008 the Total Outfalls in MS4 = 867 and the Total Drop Inlets in MS4 = 1907 (see previously submitted data under Attachment B)			
2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term. Specifically, any changes to current mapping will be reported to ANR and CCRPC.			
BMP 3.B Testing & Monitoring Plan	Public, Commercial Developers, Municipalities, VANR, VTrans Operations and Program Development Staff.	Finalize the IDDE Testing and Monitoring Protocol for suspect dry weather non-stormwater discharge by July 2008. Continue outfall testing and monitoring in the Summer of 2008 through the term of the Permit with the goal of inspecting all outfalls one time over the 5 year Permit Term. Testing will occur as discharges are discovered and declared to be suspect as being non-stormwater..	In the 2008-2013 Permit Term, VTrans will develop and adopt an enhanced IDDE Policy and Procedure (BMP 3.F) and an IDDE Testing & Monitoring Protocol (BMP 3.B) to support accomplishments made in the 2003-2008 Permit Term. VTrans will provide a copy of the enhanced IDDE Policy & Procedure and the IDDE Testing and Monitoring Protocol for VTrans MS4 as an attachment to our 2008 annual report. VTrans will provide a summary of the testing and monitoring plan methodology, survey information, locations of suspected non-stormwater discharges, data gathered, and actions taken to eliminate the suspected non-stormwater discharge in each annual report that is required under Part 5.3 of the Permit. Data will be reported using standard Discharge Monitoring Forms (MDRs) provided by the VANR.
2008 Activity: A plan and prohibition on illicit discharge are in place (see BMP 3.D). VTrans continues to work on an enhanced IDDE Policy & Procedure (BMP 3.F) and an IDDE Testing and Monitoring Protocol (BMP 3.B) to be formally adopted and put into practice to detect and eliminate non-stormwater discharges into the VTrans stormwater systems in the VTrans MS4. For VTrans, a non-traditional linear MS4, monitoring for and encounters with illicit discharges occurs at multiple levels. Monitoring for illicit discharges occurs as a standard operation procedure under the Permit. Encountering illicit discharges occurs during project development & design, right-of-way negotiation and acquisition, project construction, maintenance operations, Multi-Sector General Permit (MSGP) inspections, Hazardous Materials Spill Reporting Procedures, or from unsolicited reports from the general public. VTrans BMPs contributing to the testing and monitoring of Illicit Discharges are addressed under the 2008-2013 VTrans MS4 Stormwater Management Plan.			
2008 Indicators / Measurable Accomplishments: Conducted internal meetings and researched other DOT testing and monitoring programs. No Illicit Discharges were reported in 2008. Field work to commence in Summer of 2009 using map book discussed under BMP 3.A. The VTrans Roadway Asset Management Unit inspected 164 small culverts (under 6-ft) in the VTrans MS4 along I-89 and did not report any suspicious water quality issues. The District inspected 368 Culvert Outfalls and 239 Stormwater Structures as part of routine maintenance and did not report any suspicious water quality issues.			
2008 BMP Effectiveness: Work under this BMP is moving along slowly, but will prove to be very effective. Therefore it will be continued thru the remainder of the Permit Term.			
BMP 3.C Coordination with other MS4s in Vermont	MS4 Municipalities, CCRPC, VANR, VTrans Staff.	Coordination is ongoing for the Permit term.	Provide a summary as required under Part 5.3 of the Permit addressing all collaborative efforts underway or completed that address this BMP.
2008 Activity: Many of the VTrans and other MS4 storm sewer systems are connected and stormwater flows across MS4 jurisdictional boundaries. VTrans representative(s) have participated in monthly VANR/CCRPC hosted Phase 2 "Regional Stormwater Education Program" group meetings where MS4 Communities engage in discussions and share information related to MS4 compliance and initiatives (BMP 1.A). VTrans has coordinated with most MS4 Communities on proposed new private development projects (BMPs 2.A, 2.B, 2.C, and 2.F). The drainage infrastructure inventory / ArcGIS Personal Geo Data Base has been sent to the CCRPC and to the VANR-Stormwater Section and all MS4s, CCRPC, and ANR are working together on a mapping update standardization procedure (BMP 3.A).			
VTrans Operations Environmental Coordinator (BMP 3.G) and Program Development Environmental Stormwater Engineer (BMP 5.B) continue to participate in the monthly Regional Stormwater Education Program, where data and information is shared between all MS4s. VTrans is also developing an enhanced IDDE Policy & Procedure (BMP 3.F) and an IDDE Testing and Monitoring Protocol (BMP 3.B) which will be developed in partnership with other MS4s in Vermont due to the interconnectivity of the MS4 storm sewer systems and lack of enforcement authority VTrans has over discharges from non-VTrans property.			
2008 Indicators / Measurable Accomplishments: RSEP involvement, mapping coordination, and IDDE coordination.			
2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.			

Minimum Control Measure #3 “Illicit Discharge Detection & Elimination” CONTINUED

Minimum Control Measure and BMP	Target Audience	Timeframe	Measurable Goal(s)
BMP 3.D Title 19, Section 1111 Permitting	Public, Municipalities, VANR, VTrans.	Ongoing for Permit Term.	A tracking system to account for these types of Section 1111 Permits on an annual basis will be put in place to assist in generating the annual report to VANR. A summary of the number of suspect illicit discharges reported, investigated and acted upon, and the number of Section 1111 permits issued for legal stormwater connections to the VTrans right-of-way, and the number of illicit discharge enforcement actions taken or forwarded to the MS4 Municipalities or VANR, along with an effectiveness statement of this BMP will be reported annually.
2008 Activity: During the 2003-2008 Permit Term, the Standard Conditions of the Section 1111 have been updated to effectively prohibit and regulate illicit discharges. This permitting program will be reviewed annually, and where appropriate modified to add further constraints to prevent discharge of non-stormwater discharges or pollutants into the VTrans MS4. Tracking systems to account for these types of Section 1111 Permits on an annual basis are being considered to assist in generating the annual report to VANR. The goal of the modifications will be to ensure proper management of stormwater from non-VTrans projects prior to it entering the VTrans stormwater systems.			
2008 Indicators / Measurable Accomplishments: VTrans has secured funding to update its Maintenance Activities Tracking System (MATS) in an effort to achieve this goal.			
2008 BMP Effectiveness: This BMP holds promise and will be continued thru the remainder of the Permit Term.			
BMP 3.E Inform Public Employees, Businesses, & General Public	Public, Municipalities, Professionals, Businesses, VANR, VTrans	Ongoing for the Permit Term	A summary of methods used to inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste, along with a summary of the effectiveness of this BMP will be reported annually.
2008 Activity: VTrans has continued the various trainings for its District Maintenance Personnel on various topics, including stormwater and illicit discharges (BMPs 1.A through 1.D, 2.A, 2.D, 2.E, 2.F, 3.C through 3.H, 4.E, 4.I, 5.C, and 6.D). VTrans SWAG (now SWSC) and RSEP provide multiple opportunities to inform the public on this topic, as does the VTrans and RSEP Stormwater web sites (BMPs 1.A, 1.B, and 2.E). VTrans will continue to take advantage of activities under the 2008-2013 SWMP to the extent practicable to host as many forums as is practicable to meet the intent of this BMP.			
2008 Indicators / Measurable Accomplishments: Estimated total of 400 training hours in 2008 (hours x participants).			
District Trainings: In April and May an on-the-road training series was conducted by the CEE and ACEE. It took place at five sites around the state to ensure each District was covered. All Maintenance General Managers, District Technicians, Areas Supervisors and Senior Maintenance Workers were trained in Erosion Prevention and Sediment Control. Each 3 hour training session covered: i) Soils Identification and Erosion; ii) Rules and Regulations (with focus on Construction General Permits), iii) Best Management Practices; iv) Case Studies / example projects (date included: April 29th - Districts 7 & 9 approx. 28 participants. May 5th - District 3 approx. 14 participants. May 8th - Districts 5 & 8, approx. 28 participants. May 13th - Districts 1 & 2, approx. 23 participants. May 15 - District 4 & 6, approx. 28 participants) VTrans Operations has provided a total of 20 hours of training and outreach to 500 District Staff and BGS Staff in the areas of IDDE, Spill Prevention, Containment and Countermeasures, Spill & Emergency Response. National Stormwater Conference 4 days for 1 person.			
2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.			
BMP 3.F Enhanced IDDE Policy & Procedure adoption for VTrans MS4 anticipated by July 2008. Policy implementation for Permit Term	Public, Municipalities, VANR, VTrans Roadway, Structures, Environmental, Construction, and Operations staff.	Enhanced IDDE Policy & Procedure adoption for VTrans MS4 anticipated by July 2008. Policy implementation for Permit Term	Provide a copy of the Illicit Discharge Detection & Elimination Policy & Procedure for VTrans MS4 as part of 2008 annual report. A summary and effectiveness of this BMP will be included in the annual report.
2008 Activity: A plan and prohibition on illicit discharge are in place (see BMP 3.D). VTrans continues to work on an enhanced IDDE Policy & Procedure (BMP 3.F) and an IDDE Testing and Monitoring Protocol (BMP 3.B) to be formally adopted and put into practice to detect and eliminate non-stormwater discharges into the VTrans stormwater systems in the VTrans MS4. For VTrans, a non-traditional linear MS4, monitoring for and encounters with illicit discharges occurs at multiple levels. Monitoring for illicit discharges occurs as a standard operation procedure under the Permit. Encountering illicit discharges occurs during project development & design, right-of-way negotiation and acquisition, project construction, maintenance operations, Multi-Sector General Permit (MSGP) inspections, Hazardous Materials Spill Reporting Procedures, or from unsolicited reports from the general public. VTrans BMPs contributing to the testing and monitoring of Illicit Discharges are addressed under the 2008-2013 VTrans MS4 Stormwater Management Plan.			
2008 Indicators / Measurable Accomplishments: Conducted internal meetings and researched other DOT IDDE Policy and testing and monitoring programs.			
2008 BMP Effectiveness: Work under this BMP is moving along slowly, but will prove to be very effective. Therefore it will be continued thru the remainder of the Permit Term.			
BMP 3.G VTrans Operations Environmental Coordinator Position	Public, VTrans, MS4 Communities, Federal and State Regulatory Agencies, other professionals	Permit Term	Report on activities performed in support of this BMP annually.
2008 Activity: The former VTrans Environmental Coordinator position was transferred from the VTrans Program Development-Environmental Section to the VTrans Operations Division and the Operations Environmental Coordinator (OEC) position was filled in November 2007. The primary duty of the OEC is to provide regulatory compliance and support on permitting and compliance with a specific emphasis on State and Federal Stormwater Regulations			
2008 Indicators / Measurable Accomplishments: The OEC provided support activities associated with managing compliance with the MS4 GP and other Federal and State Stormwater Regulations.			
2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.			

Minimum Control Measure #4 "Construction Site Runoff Control"			
Minimum Control Measure and BMP	Target Audience	Timeframe	Measurable Goal(s)
BMP 4.A Construction General Permit & Individual Permit Compliance	VTrans Construction Environmental Engineers, Resident Engineers, Contractors and Project Managers, District Maintenance Staff.	Annual review of BMP will be performed for Permit Term	A list of VTrans projects statewide that had coverage under Construction General Permit or an Individual Permit will be reported annually.
<p>2008 Activity: VTrans will comply, or will require others working in our right-of-way under a Section 1111 Permit to comply, with ANR issued General Permit 3-9020 (2008) and/or Individual Permit regulating stormwater runoff from construction sites which result in land disturbance equal to or greater than one acres of land.</p> <p>2008 Indicators / Measurable Accomplishments: VTrans continues to comply, and requiring others working in our right-of-way under a Section 1111 Permit to comply, with ANR issued General Permit 3-9020 (2008) and/or Individual Permit regulating stormwater runoff from construction sites which result in land disturbance equal to or greater than one acres of land.</p> <p>VTrans projects in the MS4 area under construction during 2008 having coverage under an Individual or General Permit-3-9020 for Construction include: Richmond-So. Burlington IM089-2(39) and So. Burlington-Colchester IM 089-3(60) Low Risk under CGP 3-9020 VTrans under 1 acre "non-jurisdictional" projects under construction in the VTrans MS4 during 2008 having been reviewed under the VTrans EPSC Protocol and are: None to report in 2008. During 2008, VTrans continued implementation of its EPSC Protocol developed in 2006. It sets guidelines for Consultant and in-house Designers and field staff for creating and implementing consistent Erosion Prevention and Sediment Control Plans that meet the requirements of the New CGP 3-9020 and for those projects disturbing less than 1 acre with any potential to impact resources. The guidelines include EPSC Plan Checklists, flowcharts, detail drawings, specifications and general guidance; all of which are posted on VTrans Environmental Section Webpage.</p> <p>2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.</p>			
BMP 4.B VTrans Construction Environmental Engineer (CEE) and Assistant CEE Positions	VTrans, Consultants, Contractors.	Ongoing through the Permit Term.	Report on activities performed in support of this BMP annually.
<p>2008 Activity: The CEE and ACEE worked to ensure VTrans compliance with the Construction General Permits or Individual Permits, reviewed and updated construction erosion control details and specifications (BMP 4.C), provided training (BMP 4.E) for VTrans Staff Statewide, Consultants and Contractors, and conducted construction site assurance visits (BMP 4.D).</p> <p>2008 Indicators / Measurable Accomplishments: The CEE leads an EPSC Working Group that meets quarterly to discuss ongoing compliance under this Minimum Control Measure. Ongoing activities can be found on the VTrans Construction Web Site at http://www.aot.state.vt.us/progdev/Sections/Construction/construct.htm and on the Environmental Stormwater Web Site at http://www.aot.state.vt.us/TechServices/EnvPermit/Stormwater04.htm. Also see related BMPs for more information.</p> <p>2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.</p>			
BMP 4.C Erosion Prevention & Sediment Control Guidance Materials	VTrans, primarily targeted at construction and maintenance.	Review and update for Permit Term.	A summary update of Standards, Procedures, and Handbooks will be included in the annual report.
<p>2008 Activity: None to report in 2008</p> <p>2008 Indicators / Measurable Accomplishments: None to report in 2008</p> <p>2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.</p>			
BMP 4.D Erosion Prevention & Sediment Control Assurance Visits	VTrans, Consultants, Contractors	Ongoing for Permit Term.	The annual report that is required under Part 5.3 of the Permit will track frequency of visits, provide summary of information gathered, and corrective actions taken.
<p>2008 Activity: This BMP has evolved with the hiring of the VTrans Construction Environmental Engineer and Assistant Construction Environmental Engineer (refer to BMP 4.B). The primary purpose of Erosion Prevention and Sediment Control Assurance Visits is to ensure that VTrans protects natural resources and complies with state and federal regulations through implementation of project Erosion Prevention and Sediment Control Plans and compliance with environmental permit conditions. The CEE and ACEE visit VTrans contracted construction projects to provide input, training, support, and resources relative to erosion prevention and sediment control</p> <p>2008 Indicators / Measurable Accomplishments: The CEE and ACEE conducted multiple assurance visits to every VTrans managed construction project statewide. At which time the ensure permit compliance and recommend corrective actions to maintain water quality standards. In the VTrans MS4, the only projects under construction in 2008 included the Richmond-So. Burlington and So. Burlington-Colchester Roadway Projects.</p> <p>2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.</p>			

Minimum Control Measure #4 "Construction Site Runoff Control" CONTINUED			
Minimum Control Measure and BMP	Target Audience	Timeframe	Measurable Goal(s)
BMP 4.E Stormwater Management - Erosion Prevention & Sediment Control Training	VTrans, Contractors, Consultants, and other professionals.	A broad offering of training classes will continue to be scheduled throughout each year for the Permit Term.	Class titles and number of VTrans employees and other attendees will be reported annually.
<p>2008 Activity: VTrans offers a broad range of formal training on erosion and sediment control and stormwater management design to agency staff. These training classes are instructed by VTrans and non-VTrans subject experts from around the country.</p> <p>2008 Indicators / Measurable Accomplishments: 2008 Indicators / Measurable Accomplishments: Estimated total of 1200 training hours in 2008 (hours x participants). Stormwater Webcast –BMP Performance and international BMP Database 10 Staff 2 hrs NHI Urban Drainage Design course 30 Staff 3 days ACO Road- proprietary drainage solutions presentation 4 Staff 2 hrs Climate Change and Transportation Webinar 6 Staff 2 hrs LID Conference (Burlington) 1 Staff 2 hrs LID Workshop NWRPC and DEC (St. Albans) 14 Staff 4hrs Filtrexx compost presentation 5 staff 3 hrs NRCS Soil Survey workshop 3 staff 4 hrs National DOT Hydraulic Engineers Annual Conference 2 staff 3.5 days LID Greenstreets lecture (Burl) 1 staff 2 hrs Microtunnelling (trenchless pipe replacement) seminar 25 staff 2hrs District "On-the-Road" Erosion Prevention and Sediment Control Training Session Dates included: April 29th - Districts 7 & 9 approx. 28 participants. May 5th - District 3 approx. 14 participants. May 8th - Districts 5 & 8, approx. 28 participants. May 13th - Districts 1 & 2, approx. 23 participants. May 15 - District 4 & 6, approx. 28 participants. Each session was 3 hours. Construction Regional Closeout Meetings – approx. 70 people for 1 – 1.5 hours Low Impact Development for Engineers – Andrea and Bill (4 hours) NRCS Soils Workshop – Andrea and Bill - (4 hours) COE Training – Andrea and Bill - (6 hours) Northeast Chapter International Erosion Control Association – Andrea (2 days) VTrans Operations has provided a total of 20 hours of training and outreach to 500 District Staff and BGS Staff in the areas of Spill Prevention, Containment and Countermeasures, Spill & Emergency Response. National Stormwater Conference 4 days for 1 person.</p>			
2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.			
BMP 4.F Certified Professionals in Erosion and Sediment Control (CPESC) and Certified Professionals in Stormwater Quality (CPSWQ)	VTrans Staff.	VTrans will continue to support the training of the current CPESCs/CPSWQ's and will support CPESC/CPSWQ training for other qualified employees.	The number of CPESC's and CPSWQ's along with an activities summary of the VTrans CPESCs/CPSWQs will be reported annually..
<p>2008 Activity: Certified Professionals in Erosion and Sediment Control (CPESC) and Certified Professionals in Stormwater Quality (CPSWQ) is an internationally recognized professional certification in the stormwater management field http://www.cpesec.net/. In 2008 VTrans paid for annual dues for all VTrans CPESCs and CPSWQs and provided opportunities for others interested in pursuing CPESC or CPSWQ training and certification. The membership provides access to up-to-date information on erosion prevention and sediment control, Stormwater Quality, and training opportunities.</p> <p>2008 Indicators / Measurable Accomplishments: VTrans has 7 CPESCS and 2 SPSWQ.</p> <p>2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.</p>			
BMP 4.G Reporting Erosion Prevention and Sediment Control Noncompliance for Non-VTrans Projects	VTrans, MS4 Communities, VANR.	Ongoing for the Permit Term.	VTrans activities relative to this BMP, including number of alleged violations reported to ANR, will be reported annually.
<p>2008 Activity: VTrans is using the existing VTrans Access Management Program, Highway Permits, and Development Agreements (Title 19 Section 1111 Permit) to Manage EPSC Activities of non-VTrans Projects that need access to our right-of-way. The Section 1111 Permit Standard Conditions was updated during the 2003-2008 Permit Term and resulted in the writing and adopting of Stormwater Conditions for all VTrans Access Permits. These conditions improve VTrans' control over discharge into the VTrans MS4s of stormwater generated by non-VTrans property owners. This implementation has been done Statewide. The condition also better informs the applicants and others of the responsibilities and requirements for managing stormwater.</p> <p>VTrans Maintenance District personnel responsible for the State Highways in the Phase 2 Communities, have been educated on the importance of identifying EPSC problems suspected to originate outside of the VTrans right-of-way. This stormwater may originate from non-VTrans property, causing a nuisance by discharging eroding material and sediment in stormwater runoff from non-VTrans projects into the VTrans Stormwater Management System. All reports of alleged non-compliance will be made by the DTA or the OEC directly to ANR Enforcement Division.</p>			

Minimum Control Measure #5 "Post Construction Stormwater Management"			
Minimum Control Measure and BMP	Target Audience	Timeframe	Measurable Goal(s)
BMP 5.A Maintain Compliance for Post-Construction Stormwater Management	VTrans Project Designers and design consultants.	Ongoing for the Permit Term.	A list of VTrans projects that complied with the GP-3-9015 or Individual Permit or that followed the internal VTrans procedure for projects not subject to these permits will reported annually.
2008 Activity: VTrans is complying with the requirements of ANR permit "Stormwater Discharges from New Development and Redevelopment to non-WIP Waters General Permit 3-9015." VTrans has also developed an internal procedure to address the permit jurisdictional threshold gap between the VANR GP-3-9015 jurisdictional thresholds and the EPA one acre of land disturbance permit threshold. The goal of this internal procedure is to protect water quality by designing post-construction stormwater management systems on all new and redeveloped VTrans projects in the VTrans MS4 to comply with the Vermont Stormwater Management Manual to the extent that is practical.			
2008 Indicators / Measurable Accomplishments: Operational Stormwater Permits for Colchester TCSP TCSE(7) and Richmond STP RS 0284 (11). All other non-jurisdictional projects followed this internal procedure.			
2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.			
BMP 5.B VTrans Stormwater Engineer Position	VTrans, and other professionals.	The responsibilities of this position are ongoing for the Permit Term.	A summary of this employee's activities in support of this BMP will be reported annually.
2008 Activity: The VTrans Stormwater Management Engineer's primary duty is to provide engineering support on the design and retrofitting of VTrans stormwater management systems. The tasks related to this duty include but are not be limited to: Stormwater management system engineering assistance to VTrans project managers, designers, and others; Review of stormwater management system plans of projects that have been developed both in house and by consultants as part of the environmental permitting process; Design stormwater management systems for VTrans projects; Assist in VTrans compliance with state issued General Permit 3-9010, General Permit 3-9015, National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) General Permit, and other permits that involve long-term stormwater management; Assist VTrans on changes in design and treatment needs for long-term stormwater management systems.			
2008 Indicators / Measurable Accomplishments: The activities of this position support other BMPs under the VTrans SWMP [refer to other BMPs for more information]. In 2008 VTrans adopted the "VTrans Project Post Construction (Operational) Stormwater Protocol", a guidance document compiled with input Agency wide and intended to facilitate the typical Program Development Projects' stormwater processes during the various stages of project development carrying forward into operation and maintenance. The Stormwater Management Engineer lead this effort and the Protocol was adopted in December 2008.			
2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.			
BMP 5.C Stormwater Management - Erosion Prevention & Sediment Control Training	VTrans, Contractors, Consultants, and other professionals.	A broad offering of training classes will continue to be scheduled throughout each year for the Permit Term.	Class titles and number of VTrans employees and other attendees will be reported annually.
2008 Activity: [see BMP 4.E]			
2008 Indicators / Measurable Accomplishments: [see BMP 4.E]			
2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.			
BMP 5.D Report Noncompliance for Non-VTrans Projects	VTrans, MS4 Communities, VANR.	Ongoing for the Permit Term.	A summary of VTrans activities relative to this BMP, including number of alleged violations reported to ANR, will be reported annually.
2008 Activity: VTrans is using the existing VTrans Access Management Program, Highway Permits, and Development Agreements (Title 19 Section 1111 Permit) to Manage Post-Construction Stormwater Activities of non-VTrans Projects that need access to our right-of-way. The Section 1111 Permit Standard Conditions was updated during the 2003-2008 Permit Term and resulted in the writing and adopting of Stormwater Conditions for all VTrans Access Permits. These conditions improve VTrans' control over discharge into the VTrans MS4s of stormwater generated by non-VTrans property owners. This implementation has been done Statewide. The condition also better informs the applicants and others of the responsibilities and requirements for managing stormwater. VTrans uses its Construction Environmental Engineer (CEE) and Assistant Construction Environmental Engineer (ACEE) Positions (see BMP 4.B) and Stormwater Engineer Position (BMP 5.B) to ensure compliance. While on-site or traveling through the State, they are in a position to report suspect activity in or near VTrans right-of-way for enforcement or suggest corrective action on the spot. VTrans Maintenance District personnel responsible for the State Highways in the Phase 2 Communities, are educated on the importance of identifying suspect stormwater flowing into our right-of-way.			
2008 Indicators / Measurable Accomplishments: None Reported in 2008			
2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.			

Minimum Control Measure #6 “Pollution Prevention & Good Housekeeping”			
Minimum Control Measure and BMP	Target Audience	Timeframe	Measurable Goal(s)
BMP 6.A Enhance VTrans MS4 related Maintenance & Best Management Activities	VTrans Operations Division and District Maintenance Staff.	Enhancements of MS4 related maintenance activities, BMPs, policy, and procedures are an ongoing activity and will continue through the Permit Term. Maintenance and servicing infrastructure (ie. catch basin cleaning and street seeping) in the VTrans MS4 performed annually.	VTrans will submit a summary annual report as is required under Part 5.3 of the Permit. This report will include a list of the enhancements put in practice in support of this BMP. VTrans will also provide what data it can to quantify its actions under this BMP including, at a minimum, the number of catch basins cleaned and roadway miles swept in the VTrans MS4 annually. The data will more likely represent quantities by MS4 Municipal Jurisdictional boundaries than by VTrans MS4 limits. VTrans will do its best to refine the data provided, to the extent practicable, to represent the VTrans MS4 area.
2008 Activity: VTrans continued with this ongoing effort in 2008.			
2008 Indicators / Measurable Accomplishments: Catch Basins Cleaned in 2008 both # of basins and cubic yards of material collected in the VTrans MS4 coverage area = Cleaned 27 basins or 6 c.y.			
Street Sweeping in 2008 both # lane miles and cubic yards of material collected in the VTrans MS4 coverage area = 75 miles or 111 c.y.			
Green-up in 2008 # tons of trash disposed of all of in the VTrans MS4 coverage area = 11 tons.			
Hazardous Waste Disposed of in 2008 in # tons including all of D-5 sites in Chittenden County. No waste for D-5 however AOT generated and disposed of roughly 700 lbs of hazardous waste in the MS4 area in 2008.			
This waste was generated as a result of responding to two seperated vehicle accidents resulting in the discharge of petroleum.			
# of VTrans Culvert Outfalls Inspected/Surveyed in the VTrans MS4 coverage area = 368 Inspected in Chittenden Cty.			
# of VTrans Catch Basins Inspected in the VTrans MS4 coverage area = 239 Structures inspected in Chittenden Cty.			
Best Management Documents developed and adopted in 2008 include: State Highway Mowing BMP and the Rail Trail BMP.			
2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.			
BMP 6.B Erosion Prevention & Sediment Control Guidance Materials	VTrans, primarily targeted at construction and maintenance.	Review and update for Permit Term.	A summary update of Standards, Procedures, and Handbooks will be included in the annual report.
2008 Activity: None to report in 2008			
2008 Indicators / Measurable Accomplishments: None to report in 2008			
2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.			
BMP 6.C Erosion Prevention & Sediment Control Assurance Visits	VTrans, Consultants, Contractors	Ongoing for Permit Term.	The annual report that is required under Part 5.3 of the Permit will track frequency of visits, provide summary of information gathered, and corrective actions taken.
2008 Activity: [see BMP 4D]			
2008 Indicators / Measurable Accomplishments: [see BMP 4.D]			
2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.			
BMP 6.D Stormwater Management - Erosion Prevention & Sediment Control Training	VTrans, Contractors, Consultants, and other professionals.	A broad offering of training classes will continue to be scheduled throughout each year for the Permit Term.	Class titles and number of VTrans employees and other attendees will be reported annually.
2008 Activity: [see BMP 4.E]			
2008 Indicators / Measurable Accomplishments: [see BMP 4.E]			
2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.			

Minimum Control Measure #6 "Pollution Prevention & Good Housekeeping" CONTINUED

Minimum Control Measure and BMP	Target Audience	Timeframe	Measurable Goal(s)
<p>BMP 6.E VTrans Compliance Plan with GP-3-9003 Multi-Sector General Permit</p>	<p>VTrans District 5.</p>	<p>Inspections and EAO Audits will be conducted annually for the Permit Term.</p>	<p>VTrans will conduct an internal annual inspection and audit of the Colchester Fort Ethan Allen District Maintenance Facility in order to keep its non-regulatory SWMP/SPPP up to date and operations at this facility free of deficiencies. At a minimum, to meet the requirements under Minimum Control Measure #6, VTrans will also conduct one inspection and audit at this facility with the VANR Environmental Assistance Office. A summary of Pollution Prevention and Good Housekeeping activities and inspection/audit results will be reported in each annual report that is required under Part 5.3 of the Permit.</p>
<p>2008 Activity: The Multi-Sector General Permit 3-9003 (MSGP) for Stormwater Discharges Associated with Industrial Activity was issued by ANR Aug 18, 2006. Exempt from coverage under the MSGP are facilities classified as Municipal and Highway Garages. In the VTrans MS4 area, the District 5 Maintenance Facility in Colchester does not require MSGP coverage; however, VTrans has developed Stormwater Management Plan/Pollution Prevention Plan (SWMP/SWPPP) for this facility. It is up to date and undergoing periodic inspections and audits supervised by the VANR Environmental Assistance Office (EAO). The last EAO supervised audit was conducted in October 2007. This program is managed by the VTrans Operations Hazardous Materials/Safety Coordinator Position (refer to BMP 6.F for more information). The VTrans Operations Hazmat/Safety Coordinator position was created and filled in 2006 and continues to be instrumental in providing oversight on a number of pollution prevention and good housekeeping measures including trainings, prepared Stormwater Management Plans and Pollution Prevention Plans. This position was part of the Stormwater Work Group (SWWG) and was focused heavily on pollution prevention and stormwater management in the VTrans MS4.</p>			
<p>2008 Indicators / Measurable Accomplishments: The next EAO inspection is scheduled for March 2009. There was not inspection in 2008.</p>			
<p>2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.</p>			
<p>BMP 6.F VTrans Operations Hazmat/Safety Coordinator Position</p>	<p>VTrans, VANR, other professionals.</p>	<p>Permit Term</p>	<p>Report on activities performed in support of this BMP annually.</p>
<p>2008 Activity: This position was created and filled in 2006 and continues to be instrumental in providing oversight on a number of pollution prevention and good housekeeping measures (see BMP 6.F). The duties of this position support the IDDE Minimum Control Measure #3.</p>			
<p>2008 Indicators / Measurable Accomplishments: VTrans generated and disposed of roughly 700 lbs of hazardous waste in the MS4 area in 2008 under the supervision of this position. This waste was generated as a result of responding to two separated vehicle accidents resulting in the discharge of petroleum. Vtrans Operations has provided 20 hours of training and outreach to all District Staff as well as BGS Staff in the areas of Spill Prevention, Containment and Countermeasures, Spill Response and Notification Procedures, and Emergency Response.</p>			
<p>2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.</p>			
<p>BMP 6.G VTrans Operations Environmental Coordinator Position</p>	<p>Public, VTrans, MS4 Communities, Federal and State Regulatory Agencies, other professionals</p>	<p>Permit Term</p>	<p>Report on activities performed in support of this BMP annually.</p>
<p>2008 Activity: The former VTrans Environmental Coordinator position was transferred from the VTrans Program Development-Environmental Section to the VTrans Operations Division and the Operations Environmental Coordinator (OEC) position was filled in November 2007. The primary duty of the OEC is to provide regulatory compliance and support on permitting and compliance with a specific emphasis on State and Federal Stormwater Regulations.</p>			
<p>2008 Indicators / Measurable Accomplishments: The OEC provided support activities associated with managing compliance with the MS4 GP and other Federal and State Stormwater Regulations.</p>			
<p>2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.</p>			
<p>BMP 6.H Use Title 19, Section 1111 Permitting</p>	<p>VTrans, MS4 Communities, VANR, Commercial and Residential Development, Public, other professionals.</p>	<p>Ongoing for the Permit Term.</p>	<p>The VTrans Access Management Program, Highway Permits, and Development Agreements (Title 19 Section 1111 Permit) require a permit be issued to a non-VTrans property owner if they wish to divert stormwater flow into the VTrans right-of-way. A summary of the number of Section 1111 permits issued for legal stormwater connections to the VTrans right-of-way, and the number of illicit discharge enforcement actions taken or forwarded to the MS4 Municipality or VANR, along with an effectiveness statement of this BMP will be reported annually.</p>
<p>2008 Activity: VTrans is using the existing VTrans Access Management Program, Highway Permits, and Development Agreements (Title 19 Section 1111 Permit) to Manage Post-Construction Stormwater Activities of non-VTrans Projects that need access to our right-of-way. The Section 1111 Permit Standard Conditions was updated during the 2003-2008 Permit Term and resulted in the writing and adopting of Stormwater Conditions for all VTrans Access Permits. These conditions improve VTrans' control over discharge into the VTrans MS4s of stormwater generated by non-VTrans property owners. This implementation has been done Statewide. The condition also better informs the applicants and others of the responsibilities and requirements for managing stormwater.</p>			
<p>VTrans also uses the Section 1111 Permit process to ensure that there is no increase in peak discharge at the design storm event from pre to post construction conditions prior to issuing the Section 1111.</p>			
<p>2008 Indicators / Measurable Accomplishments: No Section 1111 Permits were issued for Stormwater Connections in 2008.</p>			
<p>2008 BMP Effectiveness: This BMP has proven to be very effective and will be continued thru the remainder of the Permit Term.</p>			