

## Combined Sewer Overflow Control Rule

### Responsiveness Summary

July 28, 2016

On January 27, 2016, the Agency of Natural Resources posted for public comment the proposed Combined Sewer Overflow Rule. During the public meeting on March 24, 2016, it was requested that the public comment period be extended beyond the March 31 deadline. The public comment period closed at 4:30 PM on April 29, 2016. During these 94 days, the Agency received comments from the following individuals and entities:

Shaun Fielder, Vermont Rural Water Association  
Karen Horn, Vermont League of Cities and Towns  
Chad Whitehead, Town of St. Johnsbury  
David Drake, SmartCover Systems  
Lyle Jepson, Rutland Economic Development Corp.  
Jeff Wennberg, City of Rutland  
Board of Aldermen, City of Rutland  
Thomas McArdle and Kurt Motyka, City of Montpelier  
Mendon Selectboard, Town of Mendon  
Lake Champlain International, Inc., the Conservation Law Foundation, and the Connecticut River Watershed Council (hereinafter “Vermont Environmental Advocacy Organizations”)  
Richard Horner, Town of Killington  
Steve Roy and Megan Moir, City of Burlington  
Mel Hawley, City of Vergennes  
Don Marsh, Marsh Engineering  
Jason Brisson  
Michel Messier  
Warren Vail

Comments are grouped together by subject. Where comments from a number of people or entities were closely related, the Agency has combined and paraphrased the comments, and provided a single response.

### **GENERAL**

#### **Comment 1:** [Jason Brisson]

Vermont has had many municipalities releasing a huge amount of raw sewage into our water bodies recently. It’s disgusting, polluting and completely avoidable. This is counterproductive to all the efforts to clean up Lake Champlain. What’s the point in identifying point sources of pollution and doing nothing about them? The municipality of Rutland would be a start. Hundreds of thousands of gallons of raw sewage being dumped is ridiculous.

**Response:** The Agency acknowledges these concerns. Controlling combined sewer overflows (CSOs) has long been a goal of state and federal pollution control programs. The Vermont Agency of Natural Resources (Agency) first adopted a Combined Sewer Overflow Control Policy in June 1990 (1990 Policy). The 1990 Policy was intended to establish a state-wide strategy for

the control and elimination of CSOs, and significant progress has been made since that time. In 1990, it was estimated that there were 171 CSO outfalls in Vermont across 27 municipalities. Between 1990 and 2016, municipalities eliminated 106 outfalls. Based on current information, 65 CSO outfalls remain across 16 municipalities. These 65 CSOs are the most challenging ones to address, and in many cases will require a Long Term Control Plan (LTCP) with interim milestones.

The purpose of the revision to the 1990 Policy and its adoption as a Rule is to further enhance and support the control of CSOs in Vermont to ensure compliance with the requirements of the federal Clean Water Act (CWA) and state law, including the Vermont Water Quality Standards (VWQS). The Agency will work diligently to reissue National Pollutant Discharge Elimination System (NPDES) permits and 1272 Orders, or other legally enforceable mechanisms, as needed, to bring the remaining CSO municipalities into compliance with this new Policy.

**Comment 2:** [City of Rutland]

[The proposed Rule and the 1990 Policy] appear less concerned about protection of water quality and more concerned about responding to public and legislative pressure, much of which lacks comprehension of water quality and historical perspectives.

**Response:** The 1990 Policy needed to be updated to be in compliance with federal law, 33 U.S.C. § 1342(q)(1) (CWA § 402(q)(1)). Therefore, this update will ensure the State clearly complies with its duties under federal law as a state delegated to administer the NPDES Program and to ensure CSOs do not violate the VWQS. Through the provisions of the LTCP section, the Rule recognizes the iterative and costly process of controlling CSOs and the Agency commits to work with municipalities to meet the requirements of the Rule.

**Comment 3.1:** [City of Rutland]

The provisions in the Rule seem to be written without any appreciation for the actual risk associated with exposure to untreated waste. Clearly the risk is real but there are a host of factors that minimize the likelihood of exposure or resultant illness, none of which are considered here. For example, the VWQS contain no provisions recognizing the condition of streams during intense rain events. Notwithstanding contributions from CSOs, most streams are awash with pathogens during high water events from fecal matter washing off farms, forests and suburban back yards. When the swimming hole is a torrent is there really a risk that someone will ingest these pathogens while swimming? When surface runoff causes the stream to violate dry weather VWQS, is it necessary or reasonable to hold CSOs to this standard? We suggest that the department amend the VWQS to include a subset of “Wet Weather Standards” that reflect the typical, natural but very different condition of our waters during these events.

**Comment 3.2:** [City of Burlington]

The City of Burlington believes the best way to ensure communities have the full range of options available to them during the development and implementation of a LTCP is for the State to adopt wet-weather criteria that allow for some CSOs to discharge on an infrequent basis and still comply with

VWQS and State Law. These criteria could include a continuum of options to be applied in different situations of human health risk and sensitivity of the receiving water body.

The Rule should consider exemptions [for CSO events] related to temporary soil conditions and winter weather periods, particularly at times of the year when recreational use of waters is unlikely. In fact, the EPA policy and the VWQS account for such conditions: in Section III.B of its Combined Sewer Overflow Policy (1994), EPA states that “[a]nother option is for States to adopt partial uses by defining when primary contact recreation such as swimming does not exist, such as during certain seasons of the year in northern climates or during a particular type of storm event”. And the Water Quality Criteria for Class B waters in the VWQS allows the Secretary to waive compliance with an *E. coli* limit between October 31 and April 1 of each year (§ 3-04(B)(3)).

**Response:** As a preliminary matter, current state statute does not allow for the State to authorize wet weather standards (10 V.S.A. § 1259(c)). While federal law allows for adoption of “wet weather standards,” such a standard in Vermont would not comport with current state statute.

The Agency acknowledges that exposure to pathogens during storm events may be lessened due to decreased recreation at times when CSO events are likely occurring and that *E. coli* from other sources likely contribute to the problem. The Agency remains open to having discussions with CSO communities, environmental advocacy groups, the public, legislators, and others about the potential for adopting wet weather standards.

**Comment 4:** [Vermont Environmental Advocacy Organizations]

The adequacy of DEC’s response to the CSO problem cannot be judged facially in the abstract context of a general policy. Rather, DEC’s fulfillment of its obligations as the permitting authority requires “site-specific”, “time-specific” analysis and implementation for each permit covering CSO discharges.

**Response:** This Rule clarifies the technology-based and water quality-based requirements applicable to CSOs and lays out the existing permits, tools, and processes by which the State will require municipalities to bring CSOs into compliance with state law, including the VWQS. This Rule does not preclude the process by which every permit is currently, and will continue to be, reviewed and renewed, which includes the “site-specific”, “time-specific” analyses that the commenter mentions.

While all CSOs are subject to the same regulations, CSO abatement is site-specific; thus the steps taken by, and the requirements of, each municipality at any given time may be different. The Agency will work with CSO municipalities to develop individualized LTCPs that best addresses the unique nature of each municipality’s combined sewers and that brings them into compliance in the shortest reasonable time possible.

**Comment 5:** [Michel Messier]

Mr. Messier commented on riparian rights; Combination Pond; and the importance of public comments, open meetings, and open meeting laws.

**Response:** This comment was beyond the scope of this rulemaking.

**Comment 6:** [Warren Vail]

Mr. Vail requested a copy of the Rule. He asked about the geographic scope of the Rule, the locations of CSO outfalls, and the available funding. He commented on the deterioration of infrastructure within Vermont and across the United States. He advised that the Legislature do pilot studies.

**Response:** The Agency acknowledged these comments, and provided Mr. Vail with the available information he requested.

**COST****Comment 7.1:** [Town of St. Johnsbury]

State and federal funding is imperative to reaching the goal of this policy. [St. Johnsbury] is currently on track with our CSO elimination plan approved in 1993, but keeping these efforts moving forward while maintaining affordable rates and taxes is nearly impossible.

**Comment 7.2:** [City of Montpelier]

State and federal funding is imperative to reaching the goal of this policy. Montpelier tax and utility customers are still paying for the CSO separation work that took place from 1995-2003, and are faced with mandated wastewater treatment plant and water system upgrades coupled with an aging and generally failing infrastructure. The LTCP envisions that the municipality shall draft all reports including associated planning documents, according to the PER format to apply for funding. This alone could be a costly process requiring consulting services, and there is no apparent funding mechanism established from which to develop this report.

**Response:** The Agency concurs that adequate state and federal funding is imperative for municipalities to control CSOs and reach the goals of the Rule, and is committed to working with municipalities to identify funding mechanisms and sources. There are currently funding sources available to assist municipalities, such as the Vermont EPA Pollution Control Revolving Fund, also known as the Clean Water State Revolving Fund (CWSRF). Additionally, CSO municipalities are currently eligible for up to 25% grant funds (Act 103 2016, Section 39) and will be eligible for up to 35% grant funds after adoption of the new Project Priority System Rule (10 V.S.A. § 1626b(c)).

**Comment 8:** [Vermont Environmental Advocacy Organizations]

We recommend the Rule to include language modeled on the EPA's "Combined Sewer Overflows Guidance for Permit Writers": The permittee shall allocate adequate funds specifically for operation and maintenance activities. The permittee shall submit a certification of assurance from the appropriate local government entities that the necessary funds, equipment, and personnel have been or be willing to carry out the O&M plan.

Such enforceable permit conditions mandating financial planning for CSO control are essential to ensuring that the dischargers and their financial partners in the state and federal legislatures dedicate the necessary resources.

**Response:** The Agency acknowledges that long term O&M costs can be substantial and agrees that municipalities should plan accordingly. The Agency will consider adding language to permits moving forward relating to this issue.

**Comment 9:** [City of Rutland]

The draft Rule . . . essentially shifts the full responsibility for the cost of CSO capital improvements onto municipalities. The draft Rule disassociates compliance schedules from State funding priorities. The 2015 Legislature refused to fund the 25% CSO grants and the Department has asked the 2016 Legislation to repeal the authorizing statute (H.610). The only conclusion one can reach is the Department intends to require municipal compliance with or without state financial assistance whether or not the community can afford it. If this is not the case, then [“the shortest reasonable time to bring CSO(s) into compliance”] needs to be defined as within the technical and financial capability of the municipality and its fee payers. Furthermore, financial capability should also be defined so as to limit the Department’s discretion in establishing the criteria.

**Response:** The Agency recognizes that CSO abatement is site-specific; thus the steps taken by, and the requirements of, each municipality at any given time may be different. The Agency will work with municipalities to develop LTCPs that best address the unique nature of each municipality’s combined sewers and brings them into compliance in the shortest *reasonable* time.

This Rule, like the EPA Policy, allows for a phased approach for implementation of CSO controls that considers a municipality’s financial capability. In creating a LTCP, a municipality must develop a financing plan and proposed timeline for implementing projects. Both of these factors will inform what is considered “the shortest *reasonable* time” when developing a compliance schedule.

Additionally, the Agency would like to clarify that H.610 (Act 103 of 2016) increased the amount of grant for which a CSO project may be eligible. CSO municipalities are currently eligible for up to 25% grant funds (Act 103 2016, Section 39) and will be eligible for up to 35% grant funds after adoption of the new Project Priority System Rule (10 V.S.A. § 1626b(c)).

## **INTEGRATED PERMITTING**

**Comment 10.1:** [City of Rutland]

Will the timeline included in the LTCP for implementing the projects necessary to bring the CSOs into compliance with the VWQS be governed by an integrated permitting process, taking into consideration cost and local ability to pay, as well as other priority expenditures under the CWS or other mandates?

**Comment 10.2:** [City of Rutland]

The Draft rule should specifically reference [EPA’s “CSO Financial Capability Assessment Approach (CSO FCA)] and integrated permitting as part of this program, and should allow for compliance periods beyond 20 years if major federal and state funding of these requirements is not forthcoming.

**Comment 10.3:** [City of Burlington]

Many CSO communities are facing numerous Clean Water Act obligations and will struggle to raise funds to address all these obligations. Moreover, various Clean Water Act obligations may sometimes have competing priorities, such as the tension between CSO elimination and overall water quality effects. The Rule should expressly recognize the role of Integrated Planning in setting requirements for determining compliance schedules and deadlines for completion of LTCP implementation.

**Comment 10.4:** [Vermont League of Cities and Towns]

We urge you to amend language in this updated policy at Section 103 to state “to abate and control CSO(s) and bring them into compliance consistent with availability of state funding”. In view of the scarcity of dollars to address water quality problems overall, we strongly urge you to adopt the integrated permitting program that EPA has endorsed, and also to implement the EPA “Combined Sewer Overflows – Guidance for Financial Capability Assessment and Schedule Development” (1997), in which it is stated that “economic factors are considered in the process of modifying WQS. State WQS authorities conduct economic analysis of the impacts that will result from treatment levels beyond technology-based requirements of the Clean Water Act”.

**Comment 10.5:** [Vermont Rural Water Association]

Any ongoing and future regulatory demands put onto wastewater systems have to be ranked and a process allowing for investments that will give the best return (e.g., most pollution reduction gain) has to be the priority. This strategy is noted in the US EPA Memorandum from October 27, 2011: “Today, the EPA, states, and municipalities often focus on each CWA requirement individually for protecting water quality. As a result, we sometimes assess and implement the best alternative to solve one problem at a time without full consideration of all CWA obligations. This approach may have the unintended consequences of constraining a municipality from implementing the most cost-effective solutions in a sequence that addresses the most serious water quality issues first”. Toward this goal, VRWA strongly recommends an approach that reviews all required CWA-required improvements such as TMDL, MS4, etc. and allows for investments first and foremost that will give the most pollution reduction per dollar invested. This does imply high-cost, low-pollution reduction gain processes would not be required for a given system.

**Response:** EPA and the Agency both acknowledge that Vermont municipalities are facing multiple financially-demanding challenges to meet the obligations of the CWA, and that controlling CSOs typically represents an expensive compliance issue. While EPA has expressed support and actively encourages an integrated planning approach to wastewater and stormwater management, the implementation of integrated plans through integrated permitting is still novel. In 2014, EPA awarded grants to five *pilot* communities to develop integrated plans in order to provide a model for how integrated plans may operate; one of those communities was Burlington, VT.

To date, the Agency has discussed integrated planning and the potential for integrated permitting with Burlington and Rutland, and is happy to discuss these with other interested municipalities. The Agency is committed to exploring with municipalities all potential approaches that will achieve water quality goals cost-effectively, and in a manner that addresses the most pressing water infrastructure problems first.

Additionally, the Agency would like to add that the Rule does not dictate the length of compliance schedules. Each municipality's particular circumstances will dictate what is a reasonable compliance schedule for that municipality.

## **DEFINITIONS**

### **Comment 11.1:** [City of Rutland]

[The definition of a "combined sewer overflow" in the proposed Rule] means a single storm event that results in multiple outfall overflows is actually multiple CSO events. This is at odds with the traditional definition and will result in a geometric increase in reported events solely because of the definitional change. [The definition should] be restated as: "Combined sewer overflow" (CSO) means a discharge to waters of the State from a CSS that results from a wet weather storm event".

### **Comment 11.2:** [Vermont League of Cities and Towns]

We urge you to define a Combined Sewer Overflow event as a storm that triggers at outfalls. The difference is significant as one storm might trigger several overflows at a variety of outfalls connected to the same system.

**Response:** CSOs are discharges of raw sewage and stormwater that may contain untreated human waste and pollutants discharged by residential, commercial, and industrial establishments as well as solids, metals, bacteria, viruses, and other pollutants contained in runoff, and can create both short-term public health and water quality concerns. In efforts to build public awareness of sewage entering the waterbodies, both to protect human health and to increase awareness of current wastewater infrastructure limitations, the Agency feels it is important for the public to be aware of the specific location of each discharge.

Additionally, for purposes of notification of discharges from CSOs, the Rule must comply with state statute (10 V.S.A. § 1295(a)(2)), which defines "CSO" as a discharge from an outfall.

### **Comment 12:** [Vermont League of Cities and Towns]

Conform the definition of "municipality" to Vermont law. A municipality in Vermont is not a borough, county, parish or association. It is generally a city, town, village or district.

**Response:** The definition of "municipality" in the Rule is consistent with the definition of "municipality" in the CWA. To conform more closely to definitions of "municipality" under state law, the word "village" has been added.

## REQUIREMENTS

### **Comment 13:** [City of Rutland]

[The draft Rule states that:] “Phase II may span several NPDES permit cycles until all CSO controls in the LTCP have been constructed and implemented.” What if the presumptive hydraulic standard is achieved before all of the controls are constructed? Should the goal not be the standard?

**Response:** The ultimate goal of municipalities with CSOs shall be to come into compliance with the requirements of the CWA and the VWQS. The hydraulic standard (5-year design storm) in the Rule is merely an interim step that a municipality may aim for in the process of achieving compliance.

## ACHIEVING COMPLIANCE

### **Comment 14:** [City of Rutland]

[The proposed Rule] fails to provide a clear standard beyond with CSOs are permitted. [Currently], compliance with the design standard [of the 1990 CSO Control Policy] equaled compliance with VWQS. Under the draft Rule . . . the ‘5-year’ storm is only the basis for “interim” controls, not VWQS compliance.

This is seriously problematic for several reasons. Absent the complete separation of sanitary and storm sewers there is no way . . . [to] design CSO controls that will meet VWQS. [If] compliance with a measureable standard does not presumptively meet VWQS, how can a community seek voter approval to finance the improvements? What assurance is there that the improvements will be sufficient?

[The EPA 1994 CSO Control Policy] provides three options for presumptive compliance . . . [these options] would succeed in allowing systems to design improvements to bring them into compliance without defaulting to total separation.

**Response:** The CWA requires discharges to comply with both technology-based and water quality-based limitations. The 1990 Policy established the 24-hour 2.5 inch rainfall as the minimum *technology*-based limitation in 1990. Compliance with the technology-based limitations did not automatically result in compliance with the VWQS. Under Section VI. of the 1990 Policy, “Water Quality Based Limitations,” municipalities also had to disinfect all CSO discharges to meet the *E. coli* criteria and monitor for other water quality criteria (dissolved oxygen, turbidity, nutrients, settleable solids, etc.), and then the Agency had to make a determination as to whether the continuing discharge was in compliance with the VWQS.

Additionally, complete separation is not necessarily required in all situations to meet the VWQS. Municipalities may prevent CSOs by, for example, employing green stormwater infrastructure to substantially reduce flows to the combined sewer system or constructing storage to detain excess flows during storm events for later treatment. Additionally, municipalities may explore treatment/disinfection at the CSO outfall.

Also, see response to Comment 3, above.



**Comment 15:** [City of Rutland]

The City . . . requests that disinfection, which is allowed under the current policy and the EPA policy, be placed back on the list as an alternative technology to achieve compliance and protect public health.

**Response:** The Agency concurs with this comment and has added “providing for disinfection of CSOs at the outfall” as an alternative that municipalities may evaluate when developing their LTCPs.

**SEPARATION****Comment 16:** [City of Burlington]

It is unclear how communities would comply with the Rule without pursuing significant sewer separation. And while sewer separation likely would result in the removal of the *short term* increase in bacterial loads and “ick factor” in a receiving water that would otherwise occur as a result of CSO discharges, such separation could actually result in other significant water quality challenges.

**Response:** The Rule provides a range of measures in addition to separation that a municipality may include in a LTCP in order to bring a CSO into compliance with the VWQS, including the addition of storage, disinfection, and the reduction of stormwater through incorporation of green stormwater infrastructure. Additionally, the Rule acknowledges the potential need to phase-in measures over time, in part to allow for any new stormwater discharges to be properly managed.

Any new stormwater discharges resulting from separation will need to be compliant with the VWQS. This will be achieved through MS4 permitting for MS4 communities, or otherwise through state statute and regulations (10 V.S.A. § 1264(e)).

**Comment 17.1:** [City of Burlington]

We urge the Department to require consideration of the overall water quality impacts of sewer separation projects. Specifically, the potential deleterious impacts of sewer separation should be directly acknowledged in the Rule or in supporting guidance documents.

**Comment 17.2:** [Wennberg/City of Rutland]

Combined sewers are the BEST treatment available for urban stormwater . . . [w]ater quality is better RIGHT NOW with all the CSOs than would be the case if there were no combined sewers and no possibility of a CSO . . . [t]he rules should consider the total impact on water quality of every proposed CSO mitigation measure with the goal of minimizing them while improving – rather than degrading – water quality.

**Comment 17.3:** [City of Rutland]

The City of Rutland is opposed to separation by mandate or default. Combined sewers provide substantial water quality benefits as they collect and treat urban runoff to a level far beyond what even the most stringent stormwater standard ever proposed . . . If the only viable response to the CSO Rule is total separation, a significant volume of urban runoff will be diverted to nearby receiving waters.

**Comment 17.4:** [City of Burlington]

If a community pursues complete separation, pollutants [in stormwater] that would have been removed during the treatment process would instead be discharged directly into receiving waters. This could very likely have a longer term, worse water quality impact under other water quality criteria. The cost/benefit ratio of complete separation plus stormwater treatment simply to control CSOs that occur *beyond* the 5-year design storm clearly suggest that such actions are not economically justified, particularly when viewed in context of the City's numerous other water quality challenges.

**Response:** The Department acknowledges that unmitigated stormwater discharges resulting from separation could have deleterious impacts on water quality. However, as described previously, any such new discharges may be managed under either MS4 permitting or state statute to ensure compliance with the VWQSs.

Further, LTCPs will include implementation schedules informed by municipality-specific conditions. Identifying the time and measures necessary to prevented new, unmitigated stormwater discharges as part of the LTCP is appropriate.

**Comment 18:** [City of Rutland]

The draft Rule fails to provide a standard or guidance regarding the potential requirement that CSO separation projects will require a stormwater discharge permit. The Rule must set a clear standard for the circumstances under which stormwater regulations will be triggered.

**Response:** The Department will review proposed separation projects on a case-by-case basis to determine if a stormwater discharge permit is required. Stormwater discharges resulting from a separation project in a community covered by the MS4 General Permit or an Individual MS4 Permit will not require additional stormwater permit coverage.

**MINIMUM CONTROL 3****Comment 19:** [City of Montpelier]

It is unclear what the meaning of "review and modification of pretreatment requirements" regards as an application and modification in an existing CSO structure. Pretreatment is not defined, other than the vague description of minimized impacts.

**Response:** This Minimum Control is required by federal law. EPA has developed a guidance document to help municipalities evaluate and implement the Minimum Controls, in which an array of different measures a municipality may employ is provided (Combined Sewer Overflows: Guidance For Nine Minimum Controls, 1995). The objective of this Control is to minimize the impacts of discharges into CSSs from nondomestic sources (i.e., industrial and commercial sources, such as restaurants and gas stations) during wet weather events. Although administration of the pretreatment program has remained at the state level in Vermont, municipalities can determine whether nondomestic sources are contributing to CSO impacts and, if so, explore ways to control them.

**MINIMUM CONTROL 6****Comment 20.1:** [Town of St. Johnsbury]

The cost of treatment at overflow locations [to control of solids and floatable materials] would provide little water quality benefit compared to utilizing these funds to complete system-wide separation.

**Comment 20.2:** [City of Montpelier]

Minimum Control 6 requires control of solids and floatable materials in CSOs. To what standard will this treatment be held? Has the feasibility of this type of treatment been evaluated?

**Response:** This Minimum Control is required by federal law. The purpose of this Control is to reduce visible floatables and solids in a CSO before it reaches the receiving water (Combined Sewer Overflows: Guidance For Nine Minimum Controls, 1995). Several simple measures can be used, such as baffles, screens, and racks, or source control programs. Studies suggest that in some locations, street litter accounts for most of the floatables in CSOs; pollution prevention measures, such as street sweeping, can prevent solids and floatables from entering the system. The Agency acknowledges that measures will be site-specific and a municipality may select from several available measures to effectively implement a control.

**MINIMUM CONTROL 7****Comment 21:** [City of Montpelier]

It is unclear what the meaning of “pollution prevention programs” entails. As an enforceable rule, what level of feasibility analysis has DEC conducted to assure itself that Towns will be in a position to actually implement pollution prevention measures when required to do so.

**Response:** This Minimum Control is required by federal law. This Control, much like Minimum Control 6, is intended to keep contaminants from entering the CSS (Combined Sewer Overflows: Guidance For Nine Minimum Controls, 1995). Measures often involve behavioral changes rather than construction of storage or treatment devices, and can include programs such as, street cleaning and public education. Much of what can be accomplished by Minimum Control 7 generally requires the cooperation of the general public, and the Agency acknowledges that while a municipality can educate and encourage the public, it will have limited control of the degree of implementation and actual pollutant reduction.

The municipality will be expected to submit documentation to demonstrate the evaluation and implementation of this and the other Minimum Controls. Documentation should include: (1) the identification and evaluation of alternatives; (2) the control alternative(s) selected to comply with the minimum control; (3) a schedule of future actions; and (4) a description of the results of the actions taken.

**MINIMUM CONTROL 9****Comment 22:** [Town of St. Johnsbury]

The capitol cost for monitoring equipment [to reliably measure volumes of events] for the Town of St. Johnsbury is estimated to be in excess of \$200,000. We feel this investment would be better spent if applied towards combined sewer separation.

**Response:** State law and this Rule do not require an exact measurement of the volume of CSO events. Pursuant to § 34-404 of this Rule, a municipality must be able to determine the *approximate* total volume of sewage and stormwater in order to provide the public an idea of the scope of the overflow event. The Agency is willing to work with the municipality to identify an approach that meets this requirement in a more cost efficient manner.

**Comment 23:** [Vermont Environmental Advocacy Organizations]

EPA's 1994 Combined Sewer Overflow Control Policy requires permittees to develop a "comprehensive, representative CSO monitoring program that measures the frequency, duration, flow rate, volume and pollutant concentrations of CSO discharges" and that "nutrients" like phosphorus should be included in the monitoring parameters. Conformity with federal policy and permitting requirements is not possible without representative CSO monitoring that includes pollutant concentration measurements, specifically for pollutants of extreme concern like phosphorus.

**Response:** Under Minimum Control 9, the Rule requires "[m]onitoring to effectively characterize CSO impacts and the efficacy of CSO controls," and at a minimum the municipality must "define through monitoring, modeling, and other means, as appropriate, the sewer system, the response of the system to a range of precipitation events that encompasses the 5-year design storm, the characteristics of the overflows, and the water quality impacts that result from CSOs."

EPA's 1994 CSO Policy recognizes that compliance with the full suite of requirements under Section II(C)(1) of the Policy ("Long-Term CSO Control Plan; Characterization, Monitoring, and Modeling of the Combined Sewer System") may be difficult for small CSSs under 75,000 people (EPA 1994 CSO Policy, Section I(D)). Therefore, the EPA Policy leaves it to the discretion of the NPDES Authority to determine the necessary characterization, monitoring, and modeling for such small municipalities. The largest CSO municipality, Burlington, has a population of approximately 42,452 people based upon the 2015 U.S. census estimate. Therefore, all CSO municipalities fall under the "small CSS" definition in EPA's Policy.

If the Agency determines that additional characterization, monitoring, or modeling is necessary for a particular CSO municipality to comply with Minimum Control 9, the Agency may require this when reviewing a municipality's LTCP.

**Comment 24.1:** [David Drake, SmartCover Systems]

The Rule should acknowledge that most overflow monitoring locations will require system operators to report flow data, which is impossible with tell-tale blocks. Tell-tale blocks should be limited only to locations where the state will not seek flow or volume data in the event of a CSO.

**Comment 24.2:** [City of Burlington]

The City suggests that the Rule include requirements for monitoring methods that 1) provide timely notification to reduce impacts to human health and 2) ensure consistent compliance with the notification requires of the Rule across all CSO communities.

**Comment 24.3:** [City of Rutland]

The flexibility [provided in Minimum Control 9(A)(ii)] is good, but the reporting requirement suggest that a tell-tale block will not provide all the information required.

**Response:** Although state law and § 34-404 of this Rule require a municipality to notify the public of the *approximate* total volume of sewage and stormwater, the goal of Minimum Control 9 is an initial characterization of the CSS to collect and document information on the overflow occurrences and impacts (Combined Sewer Overflows: Guidance For Nine Minimum Controls, 1995). The monitoring system, the minimum of which is a tell-tale block at each overflow structure, is a precursor to the more extensive characterization and monitoring efforts to be conducted as part of the LTCP.

**Comment 25.1:** [City of Rutland]

[The establishment and maintenance of a precipitation recording station] will cost \$3,000. There is at least one virtual rain monitoring system available that would probably give everyone all the data they require, and at a cost of less than \$100 per year per location. The language in the draft Rule should be changed to allow for alternative technologies.

**Comment 25.2:** [David Drake, SmartCover Systems]

The rainfield is a noisy and variable source of data. Its variance is comparable to its mean. If you measure rainfall at a single point it gives you a vastly under sampled view of rain. This is common with Tipping Bucket Raingauges, which are usually well thought of as a data source. We would propose generalizing the methods and sampling times to allow real-time, remote operations to meet rainfall needs.

**Response:** The Agency acknowledges that there may be technologies other than physical precipitation recording stations that could adequately monitor rainfall. The Rule has been modified to identify the necessary data specifications independent of methodology.

**Comment 26:** [City of Montpelier]

[Minimum Control 9(A)(i)] requires installation of precipitation stations for each CSO subcatchment area. This requirement should be removed as it will not add any significant value to CSO analysis. A single rain station at the treatment plant is sufficient and funds are better spent in working towards CSO overflow reduction/elimination.

**Response:** The Agency counters that rainfall may vary significantly between CSO subcatchments within a single municipality, and believes that understanding the correlation between rainfall and CSO events is essential to CSO control. While the Rule does not require a precipitation station for every CSO outfall, it does require monitoring that will capture any rainfall variability that would inform the projects necessary to bring CSOs into compliance.

### **MINIMUM CONTROLS 10 & 11**

**Comment 27.1:** [City of Burlington]

The Rule should clarify that the Minimum Control 11 applies only to sewage backup in buildings as a result of wet weather events.

**Comment 27.2:** [City of Rutland]

Has the Agency considered how [Minimum Control 10 and Minimum Control 11] would work? What is the baseline? Are we talking about flows based upon 2010 or 2016? Will municipalities that have already invested significantly to reduce flows be credited for such work? Have you considered the impact of the weather [and the increasing intensity of rainfalls]? Will the Agency seek to regulate the weather to ensure CSOs do not increase?

**Comment 27.3:** [multiple commenters]

The adoption of Minimum Control 10 (prohibition of the connection of new sources of stormwater or wastewater to any CSS if such connection would result in a net increase of stormwater or wastewater to the CSS) could halt development in the downtowns, limit the economic growth of a CSO community, and drive development in greenfields.

**Comment 27.4:** [Town of St. Johnsbury]

Until the entire sewer system [in St. Johnsbury] is separated, overflows will continue to be necessary to ensure that sewage is not being backed up into buildings where human exposure is probable. St. Johnsbury's success at system-wide separation depends strongly with maintaining voter support to move projects forward. A rule that prevents future connections [per Minimum Control 10] will be viewed as limiting the economic growth of our community and will not help us maintain community support.

**Comment 27.5:** [Killington Selectboard; Don Marsh, Marsh Engineering]

The Town of Killington has invested millions of dollars constructing the Route 4 sewer [which is ultimately treated by the Rutland City wastewater treatment facility], and individual shareholders – many of which have not yet connected, have been paying fees for many years. If these shareholders are no longer allowed to build, or even add a bathroom, how can they be expected continue to pay these fees? The draft Rule should be amended to allow any person or entity with an active permit or vested interest through the payment of fees be exempted from the requirements of [Minimum Control 10].

**Comment 27.6:** [Mendon Selectboard]

The result of [Minimum Control 10] is economically devastating for any potential growth along Route 4 in Mendon.

**Comment 27.7:** [Wennberg/City of Rutland]

The result of [Minimum Control 11 (immediate notification to the Agency and local health officer of sewage backing up into buildings or discharges of raw sewage onto the ground surface from surcharging manholes of pump stations. If there are documented, recurrent instances of sewage backups or discharges of raw sewage onto the ground surface, the municipality shall, upon receipt of written notification from the Agency, prohibit further connections within the service area of backup that would increase the frequency or volume of the surcharges/backups] is the likely termination of all new wastewater and stormwater connections in Rutland City, Rutland Town, Killington and Clarendon.

**Comment 27.8:** [City of Rutland]

Both [Minimum Control 10 and Minimum Control 11] are unnecessary in light of [the employment of] “an order pursuant to 10 V.S.A § 1272” to govern and enforce compliance with improvement plans and schedules . . . One assumes that the Agency, in reviewing and approving the plan and schedule [in a 1272 Order] will be satisfied that the required progress towards minimizing CSO frequency and duration is adequate to ensure satisfactory improvement. And the enforcement authority under a 1272 Order is more than adequate to bring into line any municipality that fails to perform as planned.

**Comment 27.9:** [Vermont League of Cities and Towns]

We strongly oppose [Minimum Controls 10 and 11]. Adoption of these prohibitions could shut down development in downtowns that have been state and local priorities for infrastructure improvements, development and redevelopment for years.

**Comment 27.10:** [Vermont Environmental Advocacy Organizations]

We strongly support [Minimum Control 10]. Aggressive and long-overdue deployment of green stormwater infrastructure, restoration of natural infrastructure and water/sewer conservation measures and standards are available now to ensure that municipalities and developers building in CSSs do not exacerbate the CSO problem plaguing our waterways. This requirement belongs as an immediately-effective minimum control measure rather than an element of a long-term plan.

**Response:** The Agency has carefully considered and weighed the comments on Minimum Controls 10 and 11, which are minimum controls that are not included in EPA’s 1994 CSO Policy. The Agency understands the municipalities’ strong concerns, but supports the original intent of the Controls, which is to ensure the CSO problem is not exacerbated and that people are not exposed to raw sewage on the ground. Therefore, the Agency has modified these provisions and moved them into the LTCP Section:

“(5) The LTCP shall ensure that new sources of stormwater and wastewater to the CSS do not increase the volume, frequency, or duration of CSO events through implementation of control measures, such as making reductions in existing sources of stormwater or wastewater to the CSS, creating or increasing storage capacity within the collection system, or other measures approved by the Secretary. The municipality shall report annually in the report required by § 34-402(9)(B) of this Rule on the steps it has taken in the prior year to address this requirement.

(6) If there are documented, recurrent instances of sewage backups or discharges of raw sewage onto the ground surface, the LTCP shall include measures to address these occurrences and prevent them from happening in the future.”

**Comment 28.1:** [City of Rutland]

Please define what is meant by ‘immediate’ [in Minimum Control 11].

**Comment 28.2:** [Vermont League of Cities and Towns]

We urge you to eliminate the requirements for “immediate” notification to the Agency and local health officer [per Minimum Control 11]. “Immediate” allows no discretion to address an immediate problem until notification is provided, regardless of the scope of the backup.

**Comment 28.3:** [City of Rutland]

There is almost never a need for “immediate” notice [per Minimum Control 11]. In nearly every case [of sewage backing up into buildings] is a plug within the property owner’s plumbing, and the only people affected by the backup [almost none of which are associated with wet weather] are the people who originally notified the town. Only in the instances of a sewer backup that result in discharges to waters of the state should notice be required.

**Comment 28.4:** [City of Burlington]

The phrase “immediate notification” [in Minimum Control 11] is vague and would be difficult to enforce. The Rule should specify time limits, and include a “discovery” qualification for backups that may not be immediately observable.

**Response:** The Agency has removed Minimum Control 11 (see response immediately above). However, the Agency would like to note, that as a condition of NPDES Wastewater Treatment Facility discharge permits (Noncompliance Notification requirements), municipalities must report failures of their waste collection systems. If a municipality is aware of sewage backups in buildings or discharges of raw sewage onto the ground surface from surcharging manholes or pump stations, those things should be reported to the Agency pursuant to the discharge permit for the wastewater treatment facility to which the sewage should have been directed.

**NOTIFICATION****Comment 29.1:** [Vermont Environmental Advocacy Organizations]

The draft Rule should . . . conform to the notification standards recently passed by the Vermont House and Senate.

**Comment 29.2:** [Vermont Rural Water Association]

VRWA supports a simple initial notice within 1 hours of discovery of a discharge so the public can be informed of the issue and to prevent a potential exposure to contaminated waters. VRWA requests the notification be as simple as a phone call to a “clearinghouse” number and nothing more.

**Comment 29.3:** [City of Rutland]

The Agency should consider adopting a version of the provision in H.674 as passed by the House, which set up 2-step notification system. This approach serves [two] purposes – timely notification of the public and more detailed reporting once the system operator has had time to respond and evaluate the event.



**Response:** The Agency has updated the Rule to reflect the requirements of H.674 (Act 86), enacted in the 2016 legislative session and codified as 10 V.S.A. § 1295.

### **LONG TERM CONTROL PLAN (LTCP)**

**Comment 30.1:** [City of Rutland]

How are we to identify all of [the affected public that a municipality is required to actively involve in the decision-making to develop and select the long term CSO controls (§ 403(2))]? Does “the public participation process that actively involves the affected public” mean a process such as review and comment of proposed actions, or actually give these parties some authority over the final LTCP decisions?

**Comment 30.2:** [City of Montpelier]

The public participation requirement [of Section 403(2)] is too stringent. We support public participation, but requiring involvement for persons who reside downstream of CSO outfalls and those who use and enjoy downstream waters is too far-reaching. We suggest revising this section to state that it “may” include these participants. Are there partners available to a municipality to assist with making such a requirement useful, and will it be a valuable measure to meet the intent of DEC?

**Response:** Public participation is considered by the EPA to be an essential element to the success of a CSO control program, and is required by the 1994 CSO Policy: “In developing its long-term CSO control plan, the permittee will employ a public participation process that actively involves the affected public in the decision-making to select the long-term CSO Controls. The affected public includes rate payers, industrial users of the system, persons who reside downstream from the CSOs, persons who use and enjoy these downstream waters, and any other interested persons.”

Public involvement during the development, evaluation, and selection of the control strategy increases the identification of issues and potential conflicts up front. But perhaps the importance of engagement with the public is no more obvious than in the potential for significant expenditure of public funds.

The public can be engaged in a number of ways, such as through Citizen Advisory Committees, holding public meetings, and noticing and taking public comments on LTCPs. While the Agency certainly does not expect a municipality to require their citizens to attend outreach activities, the Agency DOES expect a municipality to make a good-faith effort to engage the public.

**Comment 31.1:** [Vermont League of Cities and Towns]

If the Department is committed to encouraging green stormwater infrastructure, it may want to include incentives or credits for taking action to develop that infrastructure in this Rule.

**Comment 31.2:** [Vermont Environmental Advocacy Organizations]

We suggest to amend language in this updated Rule at Section 403(3)(F) to state “to reduce stormwater flow into CSS’s to the greatest extent feasible ~~and practical~~” as it is redundant and confusing. Across the

country, deployment of green stormwater infrastructure is displacing outmoded “gray infrastructure approaches as the preferred method of CSO control. Additionally, DEC should also encourage dischargers to investigate “natural infrastructure”, the restoration of existing natural landscape features whose beneficial hydrologic features have been compromised.

**Response:** The Agency does not believe this Rule is the appropriate vehicle for creating a green stormwater infrastructure incentive program. One vehicle, which is likely to provide increased incentive for and priority to green stormwater infrastructure will be the new Project Priority System Rule, which the Agency plans to amend pursuant to Act 103 of 2016 (H.610).

Green infrastructure is unlikely to fully control CSOs, but it can be an important aspect of a municipality’s CSO control strategy. The Agency fully supports and encourages the use of green infrastructure (and “natural infrastructure”), where appropriate, in lieu of or in addition to the more traditional controls as long as the municipality is working towards meeting the limits necessary to achieve water quality standards.

However, municipalities are given the discretion over how they want to comply with the requirements. Characteristics such as land use, soil types, and topography, as well as the support of the community, can influence the success of a green infrastructure project. The municipal officials and various stakeholders within a community are best suited to assess the viability of green infrastructure.

## **5-YEAR DESIGN STORM**

### **Comment 32.1:** [City of Rutland]

Rain does not fall homogeneously over 60 minutes or 24 hours. Successfully engineering system modifications to meet a . . . rainfall/time standard must have the standard expressed as a curve.

### **Comment 32.2:** [City of Burlington]

The City suggests using rainfall depths at intervals other than one and 24 hours in the 5-year frequency rainfall table [Appendix A of draft Rule]. Since the Department is requiring precipitation monitoring, municipalities should be able to determine compliance with the 5-year storm design standard using all relevant time durations (15 minutes through 24 hours).

**Response:** The 5-year design storm is an interim control and is a suggested goal on the path to full compliance with the VWQS. The Agency will not be requiring compliance to that standard.

### **Comment 33:** [City of Rutland]

The design standards should not be expressed in terms of probability of a CSO event. Even for explanatory purposes, any statement that the standard will result in a 20 percent probability of a CSO each year is incorrect and misleading. The policy is properly directed at the rainfall vs. time standard, but public expectations are unreasonably raised by the assertion that the new standard will reduce CSO events to 20 percent probability each year.

**Response:** The Agency agrees with this statement. Not only is there high variability of rain events between years, but flow frequencies are not necessarily the same as rainfall frequencies; other factors in a drainage, such as antecedence moisture, leaf litter on storm drains, and frozen ground, can influence runoff rates and volumes, and thereby CSO event frequency. The references to probability have been removed from this Rule.

**Comment 34:** [City of Burlington]

The 5-year design standard is referred to simply as an “interim” standard, and the Rule does not provide any assurances about a municipality’s ability to rely on that interim standard in designing sewer system controls. The City is concerned that a municipality could undergo substantial expenditures to comply with the interim 5-year design standard, only to be told during a future NPDES permit renewal process that CSO discharges will have to cease entirely.

**Response:** The Agency recognizes that financial capability is a significant factor in meeting water quality standards, and therefore, allows the LTCP to include a phased implementation schedule that is prioritized based on the relative importance of adverse impacts upon water quality, including designated uses. As such, the Agency recognizes the need to address rainfall conditions when evaluating and designing any interim CSO controls. The wet weather design standard requires CSO control systems to provide sufficient storage and/or treatment capacity to prevent the discharge of untreated wastewater under most wet weather conditions.

The Agency will not require a municipality to construct interim controls in the process of bringing CSOs into compliance with the water quality standards, only that the municipality has a LTCP to bring the CSO(s) into compliance within the shortest reasonable time. The 5-year design standard is merely a suggested interim goal in the process of bringing CSOs into full compliance with the VWQS.

**Comment 35:** [Vermont Environmental Advocacy Organizations]

If the Rule is going to encourage dischargers to consider deployment of interim CSO controls based on a 5-year design storm, then the rule must reflect the reality of a climate that is changing rapidly, especially as regards to precipitation patterns. We are concerned by the notion that incorporation of Appendix A into a rule may result in interim controls being calibrated to stale data no longer reflective of on-the-ground precipitation conditions and the discharges they cause. Rather than fixing a static set of precipitation values in rule, the Rule should adopt a narrative standard. Thus DEC could set forth a review protocol for interim CSO controls, in cases where they are lawfully permissible, to be evaluated based on a 5-year design storm calculated at the time such interim controls are proposed using best-available data plus a margin of safety accounting for uncertainty.

**Response:** Year-to-year variation alone could change the values found in Appendix A. The 5-year design storm is provided as a benchmark interim step that a municipality may take to control CSOs. The Agency anticipates that climate change, including changing wet weather patterns, will be considered in LTCPs, and over the life of the plans, interim goals will be adjusted to account for climate changes.