

## Proposed Construction General Permit (CGP) – Fact Sheet

### I. Background.

Congress passed the Federal Water Pollution Control Act of 1972 (Public Law 92-500, October 18, 1972) (hereinafter the Clean Water Act or CWA), 33 U.S.C. 1251 et seq., with the stated objectives to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 101(a), 33 U.S.C. 1251(a). To achieve this goal, the CWA provides that "the discharge of any pollutant by any person shall be unlawful" except in compliance with other provisions of the statute. CWA section 301(a), 33 U.S.C. 1311. The CWA defines "discharge of a pollutant" broadly to include "any addition of any pollutant to navigable waters from any point source." CWA section 502(12), 33 U.S.C. 1362(12). EPA is authorized under CWA section 402(a) to issue a National Pollutant Discharge Elimination System (NPDES) permit for the discharge of any pollutant from a point source. These NPDES permits are issued by EPA regional offices or NPDES authorized state or tribal agencies. Since 1972, EPA and the states have issued NPDES permits to thousands of dischargers, both industrial (e.g., manufacturing, energy and mining facilities) and municipal (e.g., sewage treatment plants). As required under Title III of the CWA, EPA has promulgated Effluent Limitations Guidelines (ELGs) and standards for many industrial point source categories, and these requirements are incorporated into the permits. The Water Quality Act (WQA) of 1987 (Public Law 100-4, February 4, 1987) amended the CWA, adding CWA section 402(p), requiring implementation of a comprehensive program for addressing stormwater discharges. 33 U.S.C. 1342(p).

#### Clean Water Act Stormwater Program.

Prior to the Water Quality Act of 1987, there were numerous questions regarding the appropriate means of regulating stormwater discharges within the NPDES program due to the serious water quality impacts of stormwater discharges, the variable nature of stormwater, and the large number of stormwater point sources. EPA undertook numerous regulatory actions in an attempt to address these unique discharges. Congress, with the addition of section 402(p), established a structured and phased approach to address stormwater discharges and fundamentally altered the way stormwater is addressed under the CWA as compared with other point source discharges of pollutants. Section 402(p)(1) created a temporary moratorium on NPDES permits for point source stormwater discharges, except for those listed in section 402(p)(2), including dischargers already required to have a permit and discharges associated with industrial activity. In 1990, pursuant to section 402(p)(4), EPA promulgated the Phase I stormwater regulations for those stormwater discharges listed in 402(p)(2). See 55 FR 47990 (November 16, 1990). The Phase I regulations required NPDES permit coverage for discharges associated with industrial activity and from "large" and "medium" municipal separate storm sewer systems (MS4s). CWA section 402(p)(2). As part of that rulemaking, the Agency interpreted stormwater "discharges associated with industrial activity" to include stormwater discharges associated with "construction activity" as defined at 40 CFR 122.26(b)(14)(x). See 55 FR 48033-34. As described in the Phase I regulations, dischargers must apply for and obtain authorization to discharge (or "permit coverage"), and a permit is required for discharges associated with construction activity, including clearing, grading, and excavation, if the construction activity:

- will result in the disturbance of five acres or greater; or

- will result in the disturbance of less than five acres of total land area that is a part of a larger common plan of development or sale if the larger common plan will ultimately disturb five acres or greater.

See 40 CFR 122.26(b)(14)(x) and (c)(1). These discharges associated with “large” construction activity are one of the categories of stormwater dischargers EPA defined as associated with industrial activity. See 40 CFR 122.26(b)(14).

Section 402(p)(6) establishes a process for EPA to evaluate potential sources of stormwater discharges not included in the Phase I regulations and designation of those discharges for regulation in order to protect water quality. Section 402(p)(6) instructs EPA to “issue regulations...which designate stormwater discharges, other than those discharges described in [section 402(p)(2)], to be regulated to protect water quality and shall establish a comprehensive program to regulate such designated sources.” In 1999, pursuant to the broad discretion granted to the Agency under section 402(p)(6), EPA promulgated the Phase II stormwater regulations that designated discharges associated with “small” construction activity and “small” MS4s. 64 FR 68722 (December 8, 1999). An NPDES permit is required for discharges associated with “small” construction activity, including clearing, grading, and excavation, if the construction activity:

- will result in land disturbance of equal to or greater than one acre and less than five acres; or
- will result in disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one and less than five acres.

See 40 CFR 122.26(b)(15).

EPA continues to have the authority to use section 402(p)(6) to designate additional stormwater discharges for regulation under the CWA in order to protect water quality. See 40 CFR 122.26(a)(9)(i)(C)-(D); see also *Env't Defense Ctr. v. EPA*, 344 F.3d 832, 873-76 (9th Cir. 2003).

### **NPDES Permits for Stormwater Discharges Associated With Construction Activity.**

The NPDES regulations provide two options for obtaining authorization to discharge or “permit coverage”: general permits and individual permits. A brief description of these types of permits as they apply to C&D sites follows.

#### **(a) General NPDES Permits.**

The vast majority of discharges associated with construction activity are covered under NPDES general permits. EPA, states, and tribes use general permits to cover a group of similar dischargers under one permit. See 40 CFR 122.28. General permits simplify the process for dischargers to obtain authorization to discharge, provide permit requirements for any discharger that files a notice of intent to be covered, and reduce the administrative workload for NPDES permitting authorities. General permits, including a fact sheet describing the rationale for permit conditions, are issued by NPDES permitting authorities after an opportunity for public review of the proposed general permit. Typically, to obtain authorization to discharge under a construction general permit, a discharger (any owners and operators of the construction site; typically, a developer, builder, and/or contractor) submits to the permitting authority a Notice of Intent (NOI) to be covered under the general permit. An NOI is not a permit or a permit application (see *Texas Independent Producers and Royalty Owners Ass'n v. EPA*, 410 F.3d 964, 977-78 (7th Cir. 2005)), but by submitting the NOI, the discharger acknowledges that it is eligible for coverage under the general permit and agrees to the conditions in the

published general permit. Discharges associated with the construction activity are authorized consistent with the terms and conditions established in the general permit.

EPA regulations allow NPDES permitting authorities to regulate discharges from small construction sites under a general permit without the discharger submitting an NOI if the permitting authority determines an NOI is inappropriate and the general permit includes language acknowledging that an NOI is unnecessary. See 40 CFR 122.28(b)(2)(v). To implement such a requirement, the permitting authority must specify in the public notice of the general permit any reasons why an NOI is not required. In these instances, any stormwater discharges associated with small construction activity are automatically covered under an applicable general permit and the discharger is required to comply with the terms, conditions and effluent limitations of such permit. EPA notes that the Agency has not elected to use such an approach to regulate small construction sites under its CGP.

Similarly, EPA, states and tribes have the authority to notify a construction site operator that it is covered by a general permit, even if that operator has not submitted an NOI. See 40 CFR 122.28(b)(2)(vi). Sites covered under a general permit may be notified of the need to apply for an individual permit on a case-by-case basis. See 40 CFR 122.28(b)(3). Individual permits are discussed in Section III.B.1.d.

**(b) EPA Construction General Permit (CGP).**

Since 1992, EPA has issued a series of Construction General Permits (CGPs) that cover areas where EPA is the NPDES permitting authority. At present, EPA is the permitting authority in four states (Idaho, Massachusetts, New Hampshire, and New Mexico), the District of Columbia, Puerto Rico, all other U.S. territories with the exception of the Virgin Islands, federal facilities in four states (Colorado, Delaware, Vermont, and Washington), most Indian Country lands and a couple of other specifically designated activities in specific states (e.g., oil and gas activities in Texas and Oklahoma). See Appendix B for a complete list of areas covered by EPA's CGP. EPA's current CGP became effective on June 30, 2008 (see 74 FR 40338), and will expire on June 30, 2011. (Note that EPA has proposed an extension of the 2008 CGP so that it would expire on January 31, 2012, instead of June 30, 2011.) This proposed permit, once finalized, will replace the 2008 CGP as well as the 2003 CGP, for construction sites still covered under that administratively continued permit.

The key components of EPA's current CGP are non-numeric effluent limitations that require the permittee to minimize discharges of pollutants in stormwater discharges using control measures that reflect best engineering practices based on EPA's best professional judgment. Dischargers must minimize their discharge of pollutants in stormwater using appropriate erosion and sediment controls and control measures for other pollutants such as litter, construction debris, and construction chemicals that could be exposed to stormwater and other wastewater. The 2008 CGP requires dischargers to develop a stormwater pollution prevention plan (SWPPP) to document the steps they will take to comply with the terms, conditions and effluent limitations of the permit. Note that the SWPPP is not an effluent limitation, nor does it include effluent limitations; these are established by EPA directly in the CGP itself. Rather, the SWPPP documents how dischargers are complying with the effluent limitations in the permit. EPA's guidance manual, "Developing Your Stormwater Pollution Prevention Plan: A Guide for Construction Sites," (EPA-833-R-060-04, May 2007; available on EPA's website at <http://www.epa.gov/npdes/stormwater>) discusses the SWPPP process in detail. As detailed in EPA's CGP, the SWPPP must include a description of the construction site with maps showing drainage patterns, discharge points, and locations of discharge controls; a description of the control measures used; and inspection procedures. A copy of the

SWPPP must be kept at the construction site from the date of project initiation to the date of final stabilization. The CGP does not require permittees to submit a SWPPP to the permitting authority; however a copy must be readily available to authorized inspectors during normal business hours. Other requirements in the CGP include conducting regular inspections and reporting releases of reportable quantities of hazardous substances.

**(c) Individual NPDES Permits.**

A permitting authority may require any construction site to apply for an individual permit rather than using the general permit. Likewise, any discharger may request to be covered under an individual permit rather than seek coverage under an otherwise applicable general permit. See 40 CFR 122.28(b)(3). Unlike a general permit, an individual permit is intended to be issued to one permittee, or a few co-permittees. Individual permits for stormwater discharges from construction sites are rarely used, but when done so, are most often used for very large projects or projects located in sensitive watersheds. EPA estimates that less than one half of one percent (< 0.5%) of all construction sites in the country are covered under individual permits.

**Technology-Based Effluent Limitations Guidelines and Standards in NPDES Permits.**

Effluent limitations guidelines (ELGs) and new source performance standards (NSPSs) are technology-based effluent limitations required by CWA sections 301 and 306 for categories of point source discharges. These effluent limitations, which can be either numeric or non-numeric, along with water quality-based effluent limitations, if necessary, are incorporated into NPDES permits. ELGs and NSPSs are based on the degree of control that can be achieved using various levels of pollutant control technology as defined in Title III of the CWA and summarized as follows:

1. Best Practicable Control Technology Currently Available (BPT) - The CWA requires EPA to specify BPT effluent limitations guidelines for conventional, toxic, and nonconventional pollutants. In doing so, EPA is required to determine what level of control is technologically available and economically practicable. CWA section 301(b)(1)(A). In specifying BPT, the CWA requires EPA to look at a number of factors. EPA considers the total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application. The Agency also considers the age of the equipment and facilities, the process employed and any required process changes, engineering aspects of the application of the control technologies, non-water quality environmental impacts (including energy requirements), and such other factors as the Administrator deems appropriate. CWA section 304(b)(1)(B).
2. Best Available Technology Economically Achievable (BAT) - BAT effluent limitations guidelines are applicable to toxic (priority) and nonconventional pollutants. EPA has identified 65 pollutants and classes of pollutants as toxic pollutants, of which 126 specific pollutants have been designated priority toxic pollutants. See 40 CFR 401.15 and 40 CFR part 423, Appendix A. In general, BAT represents the best available performance of facilities through application of the best control measures and practices economically achievable including treatment techniques, process and procedure innovations, operating methods, and other alternatives within the point source category. CWA section 304(b)(2)(A). The factors EPA considers in assessing BAT include the cost of achieving BAT effluent reductions, the age of equipment and facilities involved, the processes employed, the engineering aspects of the control technology, potential process changes, non-water quality environmental impacts (including

energy requirements), and such factors as the Administrator deems appropriate. CWA section 304(b)(2)(B).

3. Best Conventional Pollutant Control Technology (BCT) - The 1977 amendments to the CWA required EPA to identify effluent reduction levels for conventional pollutants associated with BCT technology for discharges from existing point sources. BCT is not an additional limitation, but replaces Best Available Technology (BAT) for control of conventional pollutants. In addition to other factors specified in CWA section 304(b)(4)(B), the Act requires that EPA establish BCT limitations after consideration of a two-part "cost-reasonableness" test. EPA explained its methodology for the development of BCT limitations in July 1986. 51 FR 24974 (July 9, 1986). Section 304(a)(4) designates the following as conventional pollutants: biochemical oxygen demand (BOD<sub>5</sub>), total suspended solids (TSS), fecal coliform, pH, and any additional pollutants defined by the Administrator as conventional. See 40 CFR 401.16. The Administrator designated oil and grease as an additional conventional pollutant. 44 FR 44501 (July 30, 1979). CWA section 304(b)(4)(B).
4. Best Available Demonstrated Control Technology (BADT) for New Source Performance Standards (NSPS) - NSPS apply to all pollutants and reflect effluent reductions that are achievable based on the BADT. New sources, as defined in CWA section 306, have the opportunity to install the best and most efficient production processes and wastewater treatment technologies. As a result, NSPS should represent the greatest degree of effluent reduction attainable through the application of the best available demonstrated control technology. In establishing NSPS, CWA section 306 directs EPA to take into consideration similar factors that EPA considers when establishing BAT, namely the cost of achieving the effluent reduction and any non-water quality, environmental impacts and energy requirements. CWA section 306(1)(B).

NPDES permits issued for construction stormwater discharges are required under Section 402(a)(1) of the CWA to include conditions for meeting technology-based effluent limitations guidelines established under Section 301 and, where applicable, any new source performance standard established under Section 306. Once an effluent limitations guideline or new source performance standard is promulgated in accordance with these sections, NPDES permits are required to incorporate limits based on such limitations and standards. See 40 CFR 122.44(a)(1). Prior to the promulgation of national effluent limitation guidelines and standards, permitting authorities incorporate technology-based effluent limitations on a best professional judgment basis. See CWA section 402(a)(1)(B); 125.3(a)(2)(ii)(B).

### **EPA's Construction and Development Effluent Limitations Guidelines and New Source Performance Standards**

On December 1, 2009, EPA promulgated effluent limitations guidelines (ELGs) and new source performance standards (NSPS) to control the discharge of pollutants from construction sites. See 74 Fed. Reg. 62996, and 40 CFR 450.21. These requirements, known as the "Construction and Development Rule" or "C&D rule", became effective on February 1, 2010. Because EPA's next permit is required to incorporate the C&D rule requirements, the proposed CGP includes significant modifications to the current permit to reflect these requirements. A summary of the C&D rule requirement is included in Section II below.

## II. Summary of C&D Rule Requirements.

The C&D rule requirements include (1) non-numeric effluent limitations that apply to all permitted discharges from construction sites (40 CFR 450.21), and (2) a numeric effluent limit for turbidity that applies to certain larger sites (40 CFR 450.22 - .24). This section summarizes both types of the C&D rule's effluent limits.

### Non-Numeric Effluent Limits.

The C&D rule's non-numeric effluent limitations are structured to require construction operators to first prevent the discharge of sediment and other pollutants through the use of effective planning and erosion control measures; and second, to control discharges that do occur through the use of effective sediment control measures. Permittees are also required to implement a range of pollution prevention measures to limit or prevent discharges of pollutants including those from dry weather discharges.

The non-numeric effluent limitations are designed to prevent the mobilization and stormwater discharge of sediment and sediment-bound pollutants, such as metals and nutrients, and to prevent or minimize exposure of stormwater to construction materials, debris and other sources of pollutants on construction sites. In addition, these non-numeric effluent limitations limit the generation of dissolved pollutants, such as nutrients, organics, pesticides, herbicides and metals that may be present naturally in the soil on construction sites, such as arsenic or selenium, or may have been contributed by previous activities on the site such as agriculture or industrial. These pollutants, once mobilized by rainfall and stormwater, can detach from the soil particles and become dissolved pollutants. Once dissolved, these pollutants would not be removed by down-slope sediment controls. Source control through minimization of soil erosion is therefore the most effective way of controlling the discharge of these pollutants.

The C&D rule's non-numeric effluent limits are as follows (see 40 CFR 450.21):

a. Erosion and Sediment Controls: Permittees are required to design, install and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum, such controls must be designed, installed and maintained to:

- i. Control stormwater volume and velocity within the site to minimize soil erosion;
- ii. Control stormwater discharges, including both peak flowrates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and streambank erosion;
- iii. Minimize the amount of soil exposed during construction activity;
- iv. Minimize the disturbance of steep slopes;
- v. Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater discharge, and soil characteristics, including the range of soil particle sizes expected to be present on the site;
- vi. Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible; and
- vii. Minimize soil compaction and, unless infeasible, preserve topsoil.

b. Soil Stabilization Requirements: Permittees are required to, at a minimum, initiate soil stabilization measures immediately whenever any clearing, grading, excavating or other

earth disturbing activities have permanently ceased on any portion of the site, or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. Stabilization must be completed within a period of time determined by the permitting authority. In arid, semi-arid, and drought-stricken areas where initiating vegetative stabilization measures immediately is infeasible, vegetative stabilization measures must be initiated as soon as practicable.

c. Dewatering Requirements: Permittees are required to minimize the discharge of pollutants from dewatering trenches and excavations. Discharges are prohibited unless managed by appropriate controls.

d. Pollution Prevention Measures: Permittees are required to design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented and maintained to:

- i. Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
- ii. Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to stormwater; and
- iii. Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.

e. Prohibited Discharges: The following discharges from C&D sites are prohibited:

- i. Wastewater from washout of concrete, unless managed by an appropriate control;
- ii. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
- iii. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and
- iv. Soaps or solvents used in vehicle and equipment washing.

f. Surface Outlets: When discharging from basins and impoundments, permittees are required to utilize outlet structures that withdraw water from the surface, unless infeasible.

This Fact Sheet will detail how EPA proposes to incorporate these requirements into its draft CGP in the sections below. The discussion will include a summary of each provision, the Agency's rationale for proposing the provision in this way, and, where applicable, a comparison between the proposed provision and the requirements of the 2008 CGP. EPA notes that a number of the current permit's provisions are retained in the draft CGP.

#### **Numeric Effluent Limit.**

EPA also promulgated as part of the C&D rule a numeric limit for turbidity that applies to sites disturbing 10 or more acres at a time. Sites that are required to comply with the numeric limit must also meet the non-numeric effluent limits described above. The C&D rule's numeric effluent limit at 40 CFR 450.22 is as follows:

a. Beginning no later than August 1, 2011 during construction activity that disturbs 20 or more acres of land at one time, including non-contiguous land disturbances that take place at the same time and are part of a larger common plan of development or sale; and no later than February 2, 2014 during construction activity that disturbs ten or more acres of land area at one time, including non-contiguous land disturbances that take place at the same time and are part of a larger common plan of development or sale, the following requirements apply:

(1) Except as provided by paragraph (b) of this section, the average turbidity of any discharge for any day must not exceed the value listed in the following table:

Pollutant	Daily Maximum Value (NTU) <sup>1</sup>
Turbidity	280

<sup>1</sup>Nephelometric turbidity units.

(2) Conduct monitoring consistent with requirements established by the permitting authority. Each sample must be analyzed for turbidity in accordance with methods specified by the permitting authority.

b. If stormwater discharges in any day occur as a result of a storm event in that same day that is larger than the local 2-year, 24-hour storm, the effluent limitation in paragraph (a)(1) of this section does not apply for that day.

*EPA's Stay of the Numeric Turbidity Limit / Effects on EPA's CGP*

EPA notes that since the promulgation of the C&D rule, EPA discovered that the data used to calculate the numeric limit for turbidity were misinterpreted, and that the record is insufficient to support the numeric limit for turbidity that was promulgated in December of 2009. On August 12, 2010, EPA filed a motion with the U.S. Court of Appeals for the Seventh Circuit, requesting the Court issue an order vacating and remanding to the Agency limited portions of the final C&D rule regulation. To address the specific issues raised by petitioners, the motion also provided that EPA:

- “may address (and if necessary take further regulatory action on) certain impacts of the final rule specific to linear gas and electricity utility projects.”
- will “solicit site specific information regarding the applicability of a numeric limit” to cold weather sites and to small sites that are part of a larger plan of development that is subject to the numeric limit.

On August 24, 2010 the U.S. Court of Appeals for the Seventh Circuit remanded the matter to EPA but did not vacate the 280 NTU numeric limit. On September 9, 2010, the National Association of Home Builders (NAHB) filed a motion for clarification (which EPA did not oppose) asking the court to (1) vacate the limit and (2) hold the case in abeyance instead of remanding the case to EPA. On September 20, 2010, the Court granted the motion in part by ruling to hold the matter in abeyance pending EPA consideration of the numeric limit and the other remand issues, but the Court did not vacate the 280 NTU limit. Instead, the Court stated that “EPA may make any changes to the limit it deems appropriate, as authorized by law.”

EPA finalized a stay, effective January 4, 2011, of the numeric limitation of 280 NTU that was published in the December 1, 2009, Construction and Development Effluent Limitation Guideline. EPA will propose a revised limit in a future rulemaking. If the numeric limit is promulgated and becomes effective prior to the issuance of the CGP, EPA will

incorporate the final limit into the new CGP. Because EPA plans to incorporate the recalculated numeric limit into the final permit, and because the current 280 NTU limit is being stayed, rather than including the 280 NTU limit in the proposed permit, a placeholder reference to the final numeric limit is included instead. If the recalculated turbidity limit is not finalized before the final CGP is issued, the permit will be issued without a turbidity limit and the related permit provisions.

### **III. Summary of Significant Proposed Changes to the CGP**

As stated above, this Fact Sheet describes in detail how the proposed permit has modified the 2008 CGP requirements. This section summarizes the significant changes EPA proposes to the current permit, many of which are directly related to the need to implement the new C&D rule requirements.

#### **Structure/Appearance of Permit.**

EPA attempted to restructure its CGP so that it is better organized and presents requirements in a generally more readable manner. It is EPA's hope that this structure will assist permittees in understanding and complying with the permit requirements. For instance, EPA generally follows the same outline for the C&D rule requirements related to erosion and sediment control (Part 2.1) and pollution prevention (Part 2.3). Within the erosion and sediment control requirements of the permit, EPA has organized the sections to reflect the general sequence of the construction process. That is, there are different requirements that apply to the site planning phase, which should occur prior to earth-disturbance, followed by requirements affecting the selection, design, and installation of stormwater controls. Similarly, in the pollution prevention section, EPA organizes the requirements based on where in the construction sequence they would apply. Therefore, there are requirements for (1) location of the pollution-generating activity, (2) stormwater control design, (3) performance standards during construction, and (4) maintenance.

#### **Request for Comments.**

EPA includes in the body of the proposed permit several specific issues on which it requests feedback, which is different from past permits where any specific requests for comments were included in the accompanying Federal Register notice and/or permit fact sheet. The Agency believes that by including highlighted areas on which it requests comments in the permit itself, reviewers will have an easier time considering the issue within the context of the proposed permit provision that it affects. EPA of course solicits comments on the entire permit as well. The following is a summary list of these specific requests for comments, and where they are included in the permit:

1. How to submit your NOI – Request for comments on the transition to a “paperless” NOI system for the CGP. Part 1.5.2.
2. Natural buffers and equivalent sediment controls compliance alternatives – Request for comments on the buffer compliance alternatives. Part 2.1.2.1.
3. General design requirements/required design factors – Request for comments on the concept of adopting a 2-year, 24-hour design storm standard for stormwater controls. Part 2.1.3.1.a.
4. Install stormwater controls before construction starts – Request for comments on whether there are other situations in which it would be infeasible or impracticable

- to make operators install all stormwater controls before commencing earth disturbances. Part 2.1.3.2.a.
5. Stabilize construction entrance and exit points – Request for comments on the feasibility of stabilizing entrance and exit points for a minimum of 50 feet. Part 2.1.3.7.a.
  6. Chemical treatment – Request for comments on the proposed permits restrictions on the use of polymers, flocculants, or other treatment chemicals to enhance sediment removal. Part 2.1.4.5.
  7. Deadline to complete stabilization activities – Request for comments on the practicability of the stabilization timeframes. Part 2.2.1.2.
  8. Stabilization deadlines for arid/semi-arid areas and sensitive areas – Request for comments on the proposed deadlines for initiating and completing stabilization of exposed areas of the site in arid and semi-arid areas. EPA also requests comment on treating as a sensitive area for stabilization purposes sites that will conduct construction activities in critical habitat areas or areas where listed endangered species exist. Part 2.2.1.4.
  9. Criteria for stabilization/vegetative stabilization – Request for comments on whether the C-factor stabilization criteria should be used as the sole option for complying with the permit's stabilization requirements, as opposed to allowing permittees to choose either the C-factor method or the 70 percent areal cover approach. Part 2.2.2.1.
  10. Pollution prevention standards for fueling and maintenance of equipment and vehicles – Request for comments on the practicability of providing secondary containment or cover for fueling and maintenance areas on the site. Part 2.3.2.1.b.
  11. Pollution prevention standards for staging and storage areas – Request for comments on the practicability of providing secondary containment or cover for staging and storage areas on the site. Part 2.3.2.3.b.
  12. Types of discharge conditions requiring sampling – Request for comments on whether the permit should include a minimum rainfall amount below which no sampling is required. Part 3.3.1.1.
  13. Sampling frequency – Request for comments on the sampling frequency specified, and on the alternative option of requiring samples to be taken once every 2 hours following the first sample. Part 3.3.2.
  14. Sampling location – Request for comments on whether the permit should allow representative samples to represent multiple discharge points for other types of construction projects besides linear projects. Part 3.3.3.4.
  15. Actions required if you violate the numeric turbidity limit – Request for comments on whether the permit should require immediate notification of EPA for extremely high turbidity levels. Part 3.3.8.
  16. Reporting turbidity sample results to EPA – Request for comments on whether allowances should be made in the permit for quarterly (rather than monthly) reporting for sites which have not exceeded the turbidity limit. Part 3.3.9.
  17. Discharge limitations for impaired waters – Request for comments on the way in which this permit determines whether there is a discharge to impaired waters. Part 4.2.

18. Requirements for discharges to sediment or nutrient-impaired waters without an EPA-approved or established TMDL/water quality benchmark monitoring – Request for comments on whether benchmark monitoring is an appropriate tool for assessing the effectiveness of controls in not contributing to impairments, and request for comments on the 10-acre threshold for requiring sites to conduct benchmark monitoring. EPA also requests comment on how benchmark monitoring might be used for discharges to waters that are habitat for listed fish species (e.g., white sturgeon, sockeye salmon). Part 4.2.2.1.
19. Daily visual examination – Request for comment on the appropriateness of daily visual examinations. Part 4.2.2.3.b.
20. Requirements for discharges to sediment or nutrient-impaired waters – Request for comment on the proposed additional requirements on sites discharging to sediment or nutrient-impaired waters. Also request for comment on whether the focus should be expanded to cover certain biological impairments attributable to sediment or nutrients. Part 4.2.2.
21. Requirements for inspections – Request for comments on the proposed application of the same inspection requirements for linear projects as to other types of construction projects. Part 5.1.4.
22. Residual chitosan testing – Request for comments on whether there is a level of chitosan residual below which corrective action would not be necessary. Part 6.3.1.3.
23. Timeframe to install and make operational corrective action stormwater controls – Request for comment on whether the 7-day timeframe is feasible. Part 6.3.2.4.
24. Reporting to EPA – Request for comments on whether the deadline for reporting to EPA is reasonable, or whether a different deadline is more appropriate. Part 6.6.
25. Person(s) responsible for developing SWPPP – Request for comment on whether the owner of the site should bear the initial requirement to develop the SWPPP. Part 8.1.2.
26. Turbidity benchmarks – Request for comment on the proposed methodology used to establish benchmarks for waters impaired for turbidity when the underlying water quality criterion is based on natural background levels of turbidity.

**Eligibility for New Sources, Existing Unpermitted Dischargers, and Existing Permitted Dischargers.**

Because the CGP is required to incorporate the C&D rule's New Source Performance Standards (NSPS), the permit provides coverage for "new sources", which are defined as sites whose construction commenced after the effective date of the NSPS, or February 1, 2010. Besides new sources, the permit also provides coverage for "existing permitted dischargers" (sites whose construction began prior to February 1, 2010, and which have received prior NPDES permit coverage) and "existing unpermitted dischargers" (sites whose construction began prior to February 1, 2010, and which have never received coverage under an effective NPDES permit). All references in the current 2008 CGP to "new project", "permitted ongoing project", and "unpermitted ongoing project" have been removed, and are replaced with the new terms. Definitions have been provided in Part 1.5.3 and specific deadlines for NOI submittal have been assigned to each type of source.

### **Eligibility for Emergency-Related Construction.**

EPA proposes to provide immediate authorization on a case-by-case basis for construction activities required for response to public emergencies (e.g., tornado, hurricane, flooding). Immediate authorization would enable work that is necessary to avoid imminent endangerment to human health or the environment. The construction operator must still comply with the terms of the permit, and must submit an NOI within 7 days after commencing earth-disturbing activities.

### **Authorization Process / NOIs.**

EPA proposes to increase the “waiting period” from 7 days to 30 days for “new sources.” The new 30-day timeframe better accommodates the endangered species and historic properties-related reviews that must take place prior to authorization. The 30-day timeframe does not apply to “secondary operators” (operators who seek permit coverage under the permit for discharges from all or a portion of a site that has already received permit coverage under the CGP for a “primary operator”), operators of emergency-related projects, and new operators of existing permitted dischargers or new sources. Instead of the 30-day deadline, with the exception of operators of emergency-related projects who must submit their NOI within 7 days after commencing earth-disturbing activities, these operators must submit their NOIs at least 7 days prior to commencing earth-disturbing activities.

EPA also proposes to maximize the use of its electronic NOI, or eNOI, process for authorizing construction discharges by requiring that construction operators seek coverage using the eNOI system. Certain case-by-case exceptions, where a “paper NOI” will be allowed, will still exist, but approval by the applicable EPA Region will be necessary first.

### **Sediment and Erosion Controls.**

The proposed permit includes specific requirements that implement the C&D rule's sediment and erosion control limits. While many of these requirements are included in the 2008 CGP, the proposed permit includes more specifics in order to properly implement the C&D rule. The following is a list of requirements that can be considered the most significant modifications to the 2008 CGP:

1. Buffers – Operators must ensure that, if any waters of the U.S. are located on or immediately adjacent to the site, any discharges flowing through the area between the disturbed portion of the site and the waters of the United States are treated by an area of undisturbed natural vegetation that alone or with alternative sediment and erosion controls achieves a reduction in sediment loads equivalent to a 50 foot buffer.
2. Installation of Sediment Controls Prior to Construction – Operators must install and make operational all sediment and erosion controls prior to conducting earth-disturbing activities in any portion of the site, with certain exceptions.
3. Sediment Removal Requirements – Operators are specifically required to remove deposited sediment on the site, tracked out of the site, or accumulated behind sediment controls before it compromises the effectiveness of on-site controls and/or is discharged to surface waters.
4. Entrance and Exit Points – Any entrance and exit points created on the site must be stabilized for a minimum of 50 feet into the site.

5. Storm Drain Inlets – Controls must be installed and maintained to protect any storm drain inlets to which the site discharges and to which the operator has access.
6. Chemical Treatment – Where operators plan to employ treatment chemicals to reduce sediment discharges, they are subject to specific use restrictions and stormwater control design requirements.
7. Dewatering Practices – Specific controls and discharge restrictions apply to sites that will discharge groundwater or accumulated stormwater removed from excavations, trenches, foundations, vaults, or other points of accumulation associated with construction activity.

#### **Stabilization Requirements.**

The permit includes modified stabilization requirements that define more specifically what EPA expects for temporary and final stabilization. Criteria are proposed for both vegetative and non-vegetative stabilization that are based on the Revised Universal Soil Loss Equation's (RUSLE) cover management factor, or "C-factor". This permit also retains the 70 percent vegetative cover method that was included in the 2008 permit as an option for stabilizing the site.

#### **Pollution Prevention.**

Beyond adopting the specific C&D rule requirements for pollution prevention and the prohibition of certain discharges, the proposed permit includes specific location restrictions (e.g., locate pollutant-generating activities outside of any buffers established under Part 2.1.2 and set back from stormwater conveyance channels) and design standards (e.g., install secondary containment or cover activities).

#### **Numeric Turbidity Limit.**

To account for the promulgation of the C&D rule's numeric turbidity limit, and for the fact that EPA is working to issue a corrected numeric limit to replace the stayed 280 NTU limit, EPA includes a reference to that section of the C&D rule (the specific limit to be included once it is recalculated and published), as well as applicability, sampling, and reporting requirements.

#### **Water Quality-Based Effluent Limits.**

The proposed permit includes specific requirements that apply to sites discharging to waters impaired for common pollutants associated with construction activities, such as sediment and nutrients. For such sites, construction activities are subject to additional requirements, including tighter stabilization deadlines (immediately initiate stabilization if construction in an area is inactive for 7 days, as opposed to 14 days) and more frequent site inspections. For sites disturbing 10 or more acres at a time, the permittees would be subject to the additional requirement to conduct benchmark monitoring of their discharge based on benchmarks that are tied to the receiving water's water quality criterion. The permit also proposes to include additional requirements for waters designated as Tier 2, Tier 2.5, or Tier 3 waters.

#### **Site Inspections.**

EPA proposes to make explicit the requirement for operators to visually assess the quality of the discharge (e.g., color, odor, floating, settled, or suspended solids) if the site inspection occurs during a discharge-generating rain event.

### **Corrective Actions.**

Although the current permit requires corrective action, it does not include specific requirements instructing the permittee as to what conditions trigger such corrective action and what deadlines apply. The proposed permit includes specific triggering conditions for corrective action as well as deadlines to fix such problems and document what was done.

### **Stormwater Pollution Prevention Plan.**

The SWPPP requirements are modified in accordance with the proposed changes discussed above. In general, the requirements are more specific, but consistent with the current permit.

### **Notice of Termination.**

EPA proposes to include additional requirements that affect when a site may terminate coverage under the CGP. For instance, beyond enabling sites to terminate coverage when earth-disturbing activities have stopped and the site is stabilized, the permit would require the removal of all temporary stormwater controls and construction materials, waste, and waste handling devices.

## **IV. Geographic Coverage of the Proposed Permit**

This permit provides coverage for stormwater discharges associated with construction activities that occur in areas not covered by an approved State NPDES program. The areas of geographic coverage of this permit are listed in Appendix B, and include the states of Idaho, Massachusetts, New Hampshire, and New Mexico as well as all Indian Country lands, and federal facilities in selected states. Permit coverage is also provided in the District of Columbia, Puerto Rico, and all other U.S. territories with the exception of the Virgin Islands. The only changes to the current permit's area of coverage is that Indian Country lands in Region 4 and the Denali National Park and Preserve in Region 10 are now added to the proposed permit's area of coverage. In addition, construction sites within the State of Alaska are no longer covered under EPA's CGP due to the delegation of NPDES program responsibilities to the state.

## **V. Categories of Facilities That Can Be Covered Under This Permit**

The proposed permit provides coverage for stormwater discharges associated with construction activities located in one of the areas identified in Appendix B, which disturb 1 or more acres of land, or will disturb less than one acre, but are part of a common plan of development or sale that will ultimately disturb one acre or more. See 40 CFR 122.26(b)(14)(x) and (15), and Part 1.1 of the draft permit. Table 1 summarizes which construction activities are covered by this permit:

**Table 1 Categories of facilities that can be covered under this permit.**

Examples of Affected Entities	North American Industry Classification System (NAICS) Code
Construction site operators disturbing 1 or more acres of land, or less than 1 acre but part of a larger common plan of development or sale if the larger common plan will ultimately disturb 1 acre or more, and performing the following activities:	
Building, Developing and General Contracting	233
Heavy Construction	234

Eligibility for coverage by the permit is available to “new sources”, “previously permitted new sources”, “existing permitted dischargers”, “existing unpermitted dischargers”, “new operators of new sources or existing permitted dischargers”, and operators of “emergency-related projects”, as defined in Part 1.5.3.

**VI. How to Obtain Permit Coverage Under the CGP (Part 1).**

Part 1 of the draft CGP details the requirements that must be met to obtain coverage under the permit. Although this section has been reorganized from prior permits, many of the requirements for coverage and the process to be followed for seeking coverage remain unchanged.

**VI.1 Applicability of this Permit. (Part 1.1).**

Part 1.1 describes that coverage under this permit may be obtained by submitting a Notice of Intent (NOI) for all “operators” of a construction project that:

1. will disturb one or more acres of land, or will disturb less than one acre, but is part of a common plan of development or sale that will ultimately disturb one acre or more; and
2. is located in an area where EPA is the permitting authority. Appendix B lists the areas where EPA is the permitting authority. See 40 CFR 122.26(b)(14)(x) and (15).

Part 1.1 describes the possible exemptions from NPDES permitting requirements for qualifying projects. Three scenarios exist under which stormwater discharges associated with construction activities may be waived from the NPDES permitting requirements detailed in this permit. Details of the waiver options and procedures for requesting a waiver are provided in Appendix C.

- *Purpose:* Part 1.1 of the proposed CGP describes the types of construction activities and the person(s) that are required to obtain a permit for stormwater discharges from construction activities. This requirement is based on the NPDES regulatory provision requiring that discharges of stormwater associated with industrial activity (40 CFR 122.26(a)(2)) and discharges associated with small construction activity (40 CFR 122.26(a)(9)(i)(B)) be covered by a permit. Included in the definition of a “stormwater discharge associated with industrial activity” (40 CFR 122.26(b)(14)(x)) are construction activities disturbing five or more acres, or

disturbing less than five acres if they are part of a larger common plan of development or sale if the larger common plan will ultimately disturb five or more acres. Included in the definition of “stormwater discharge associated with small construction activity” (40 CFR 122.26(b)(15)(i)) are construction activities disturbing less than five acres and greater than or equal to one acre, or disturbances of less than one acre if they are part of a larger common plan of development or sale if the larger common plan will ultimately disturb one or more acres.

Part 1.1 of the proposed CGP also makes permittees aware that certain construction projects may qualify for a waiver from the NPDES permitting requirements pursuant to 40 CFR 122.26(b)(15)(i)(A) and (B).

## **VI.2 Person(s) Responsible for Obtaining Permit Coverage.**

Part 1.2 defines an “operator” as any party associated with a construction project that meets either of the following two criteria:

1. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
2. The party has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the permit).

Part 1.2 requires that when there are multiple operators associated with the same project, all operators are required to obtain permit coverage. Once covered by a permit, all such operators are to be considered co-permittees to the extent that their involvement in the construction activities affects the same project site, and are jointly and severally responsible for complying with the permit. Where there are multiple operators, the following definitions apply:

1. Primary operator – for a construction project that has more than one operator, an operator who has received coverage under this permit for discharges from all earth-disturbing activities at a construction site.
  2. Secondary operator – for a construction project that has more than one operator, an operator who seeks permit coverage under this permit for discharges from earth-disturbing activities on all or a portion of a site that has already received permit coverage under this permit for a primary operator. All areas of the site from which discharges result from the secondary operator’s earth-disturbing activities must have already received permit coverage before the operator can be treated as a secondary operator under this section.
- *Purpose:* To specify what parties associated with a construction project must obtain permit coverage for their discharges. The definition of “operator” in the draft permit is the same as that used in the 2008 CGP.

Part 1.2 clarifies that, for projects involving multiple operators, all operators are required to obtain permit coverage, and that once covered by the permit all such operators will be considered co-permittees, and are held jointly and severally responsible for complying with the permit. Part 1.2 defines “primary

operator” and “secondary operator” for situations in which there are multiple operators.

### **VI.3 Eligibility Conditions. (Part 1.3)**

#### **VI.3.1 Eligibility Conditions for All Projects. (Part 1.3.1).**

Part 1.3.1 includes the eligibility conditions for coverage under the CGP. The following conditions must be met in order to be eligible for permit coverage:

1. The applicant is an operator of a construction project;
2. The project will disturb 1 or more acres, or will disturb less than 1 acre but is part of a common plan of development or sale that will ultimately disturb 1 or more acres.
3. The construction project is located in an area where EPA is the permitting authority. For a list of such areas, see Appendix B.
4. The project is not:
  - a. Already covered by another NPDES stormwater permit for the same discharge, except where a site requires permit coverage under this permit and a state-issued construction stormwater permit because earth-disturbing activities will take place in areas covered by both permits;
  - b. In the process of having coverage under another NPDES stormwater permit denied, terminated, or revoked; or
  - c. Covered by another NPDES stormwater permit in the past five (5) years where that permit established site-specific water quality-based effluent limits developed for the stormwater component of the discharge.

EPA may waive these restrictions on a site-specific basis.

5. Discharges from the site are not likely to adversely affect any species that are federally-listed as endangered or threatened under the Endangered Species Act (ESA) and will not result in the adverse modification or destruction of habitat that is federally-designated as “critical habitat” under the ESA. To demonstrate this, one of the criteria listed in Appendix D must be met, following the procedures set forth in that appendix;
6. Discharges from the site will not adversely affect historic properties. To do this, one of the criteria listed in Appendix E must be met, following the procedures set forth in that appendix;
7. Any necessary CWA Part 404 dredge and fill permit(s) must have already been obtained for any disturbances (e.g., stream crossings, infrastructure work, stream restoration) resulting in discharges of dredge or fill material to waters of the U.S., including wetlands, associated with the construction project; and
8. Any specific requirements for the construction project respecting your eligibility as imposed by the state, tribe, or territory listed in Part 10 of this permit have been complied with.

Part 1.3.1 of the proposed CGP also requires the operator to satisfy the conditions in Parts 1.3.2 through 1.3.4, if applicable, to obtain coverage under this permit.

- *Purpose:* The proposed requirements in Part 1.3.1 describe all the conditions that must be met for the project to be eligible for coverage under this permit. Listing these eligibility conditions in Part 1.3.1 ensures that operators have verified that their particular construction project, and stormwater discharges from it, are eligible for coverage.

With the exception of eligibility conditions (4), (6), (7), and (8) above, all of the listed proposed eligibility conditions in Part 1.3.1 were included in Part 1.3 of the 2008 CGP. Although the eligibility condition (4) above was not listed under the corresponding part in the 2008 CGP, the conditions nevertheless applied as a restriction on permit eligibility. EPA has added eligibility condition (6) to address the requirement to demonstrate eligibility under one of the criteria in Appendix E related to potential impacts to historic properties. EPA proposes to include eligibility condition (7) above to ensure that operators have obtained all necessary CWA Part 404 permits for discharges of dredge or fill materials to surface waters and wetlands prior to the commencement of construction. Where such impacts are proposed as part of a construction project (e.g., building a stream crossing, or construction of a water-dependent use), EPA believes it is important that the operator first obtain any necessary Part 404 permits prior to obtaining CGP coverage. By requiring that such permits be obtained first, EPA believes that it will enable those agencies charged with 404 permit issuance to be able to evaluate the proposed impacts to wetlands and/or surface waters independent from the construction project as a whole. EPA proposes in Part 1.3.1 to include eligibility condition (8) above to ensure that any state, tribe, or territory construction site requirements are complied with in addition to the requirements of this permit.

### **VI.3.2 Eligibility for Emergency-Related Construction Activity. (Part 1.3.2).**

Part 1.3.2 describes permit eligibility for earth-disturbances that occur in response to a public emergency (e.g., tornado, hurricane, earth quake, flood). If earth-disturbances require immediate authorization to avoid imminent endangerment to human health or the environment, permit coverage for discharges associated with such earth-disturbances are authorized on the condition that a complete and accurate NOI is submitted within 7 days of commencing earth-disturbing activities (see Table 1-2 of Part 1.5.3) and all other relevant requirements in the permit regarding discharges associated with your construction activities are complied with.

- *Purpose:* EPA recognizes that obtaining CGP coverage following the normal procedures is not feasible in situations requiring emergency earth-disturbances. Although the eligibility provisions in Part 1.3.2 for emergency-related construction activity were not included in the 2008 CGP, EPA proposes to include them in the draft CGP to ensure that permit compliance does not interfere with emergency-related earth-disturbances required to avoid endangerment to human health or the environment. Part 1.3.2 allows emergency earth-disturbances to remain in compliance with the CGP by permitting them to submit their NOI within 7 days of commencement of the earth-disturbances.

### **VI.3.3 Water Quality Standards - Eligibility for New Sources and Existing Unpermitted Dischargers Discharging to Impaired Waters. (Part 1.3.3).**

Part 1.3.3 describes permit eligibility with regard to new sources and existing unpermitted dischargers discharging to impaired waters. Construction projects are considered to have a discharge to an impaired water if the first water of the U.S. to which they discharge is identified by a state, tribe, or EPA pursuant to Section 303(d) of the Clean Water Act as not meeting an applicable state or tribal water quality standard, or is included in an EPA-approved or established total maximum daily load (TMDL). For discharges that enter a storm sewer system prior to discharge, the water of the U.S. the site discharges to is the first water of the U.S. that receives the stormwater discharge from the storm sewer system. Appendix J includes further instructions regarding whether the site discharges to an impaired waters. EPA is requesting comments on this approach for determining whether there is a discharge to impaired waters.

If the project is a “new source” or “existing unpermitted discharger” (see Parts 1.5.3.1 and 1.5.3.3), it is not eligible for discharges that EPA, prior to authorization under this permit, determines will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard. Where such a determination is made prior to authorization, EPA may notify the permittee that an individual permit application is necessary in accordance with Part 1.5.6. However, EPA may authorize coverage under this permit after the permittee has included appropriate controls and implementation procedures designed to bring the discharge into compliance with water quality standards.

- *Purpose:* The proposed requirements in Part 1.3.3, which apply to new sources and existing unpermitted dischargers, are designed to comply with 40 CFR 122.4(i) requirements that address the issuance of permits to new sources and existing unpermitted discharges to waterbodies not meeting instream water quality standards. The proposed requirements in Part 1.3.3 are the same as the corresponding requirements in Part 1.3.C.4 of the 2008 CGP.

### **VI.3.4 Eligibility for a New Source or Existing Unpermitted Discharger Discharging to Waters with High Water Quality. (Part 1.3.4).**

Part 1.3.4 includes the eligibility requirements for new projects discharging to waters identified as Tier 2, Tier 2.5, or Tier 3 by a state, tribe, or EPA for antidegradation purposes. Permittees are considered to discharge to a high quality water if the first water of the U.S. to which they discharge is identified by a state or EPA as a Tier 2, Tier 2.5, or Tier 3 water. Tier 2, 2.5, or Tier 3 maintains and protects water quality in high quality waters. 40 CFR 131.12(a)(2). For discharges that enter a storm sewer system prior to discharge, the first water of the U.S. to which you discharge is the waterbody that receives the stormwater discharge from the storm sewer system.

Part 1.3.4 provides eligibility to operators whose sites will discharge to a Tier 2, Tier 2.5, or Tier 3 water only if their discharge will not lower the water quality of the applicable water. In the absence of information demonstrating otherwise, EPA expects that compliance with the stormwater control requirements of this permit, including the requirements applicable to such discharges in Part 4.3.2, will result in discharges that will not lower the water quality of the applicable water. EPA provides a list of Tier 2, Tier 2.5, and Tier 3 waters in Appendix F.

- *Purpose:* The purpose of the proposed specific requirements in Part 1.3.4 for discharging to high quality waters is to ensure compliance with antidegradation requirements applicable to Tier 2, Tier 2.5, and Tier 3 waters.

The proposed requirements in Part 1.3.4 correspond to the requirements in Part 1.3.C.4 of the 2008 CGP, but include additional specificity by requiring permittees to determine first if they discharge to a Tier 2, Tier 2.5, or Tier 3 water, and if they do, to comply with specific requirements in the permit, which are intended to ensure that their discharges will not result in a lowering of water quality. The additional specificity makes clear to permittees their requirements for complying with antidegradation policy, and provides greater assurance that permittees will not cause or contribute to a lowering of water quality.

#### **VI.4 Types of Discharges Authorized Under the CGP. (Part 1.4).**

##### **VI.4.1 List of Allowable Discharges. (Part 1.4.1).**

Part 1.4.1 lists categories of stormwater and non-stormwater discharges that are allowed under the CGP, provided that all applicable permit limits and conditions are met. This list includes the following discharges:

1. Stormwater discharges, including stormwater runoff, snowmelt runoff, and surface runoff and drainage, associated with construction activity;
2. Stormwater discharges designated by EPA as needing a permit under 40 CFR § 122.26(a)(1)(v) or § 122.26(b)(15)(ii);
3. Stormwater discharges from construction support activities (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas) provided:
  - a. The support activity is directly related to the construction site required to have permit coverage for stormwater discharges;
  - b. The support activity is not a commercial operation serving multiple unrelated construction projects;
  - c. The support activity does not continue to operate beyond the completion of the construction activity at the project it supports; and
  - d. Appropriate control measures are identified in the SWPPP covering the discharges from the support activity areas.
4. Non-stormwater discharges from your construction activity, including:
  - a. Discharges from emergency fire-fighting activities;
  - b. Fire hydrant flushings;
  - c. Water used to wash vehicles where soaps, solvents, or detergents are not used;
  - d. Water used to control dust;
  - e. Potable water including uncontaminated water line flushings, provided the water line flushings are directed towards appropriate stormwater controls to remove sediment prior to discharge;

- f. Routine external building wash down that does not use detergents;
  - g. Pavement wash waters provided spills or leaks of toxic or hazardous material have not occurred (unless all spill material has been removed) and where detergents are not used, provided these waters are directed towards the appropriate stormwater control to remove sediment prior to discharge;
  - h. Uncontaminated air conditioning or compressor condensate;
  - i. Uncontaminated, non-turbid discharges of groundwater or spring water;
  - j. Foundation or footing drains where flows are not contaminated with process materials such as solvents or contaminated groundwater; and
  - k. Uncontaminated construction dewatering wastewaters that have been treated by an appropriate control under Part 2.1.4.6. Dewatering wastewater that has been treated in accordance with Part 2.1.4.6, but still contain trace amounts of sediment, are not considered contaminated; and
5. Discharges of stormwater listed above in (1), (2), and (3), or authorized non-stormwater discharges in (4), which commingles with a discharge authorized by a different NPDES permit and/or a discharge that does not require NPDES permit authorization.
- *Purpose:* Part 1.4.1 of the proposed CGP provides permittees with a comprehensive list of the types of discharges that are authorized once covered under this permit. This list makes permittees aware of allowed stormwater discharges, and of any additional requirements associated with those discharges to minimize the discharge of pollutants, and also makes permittees aware that any discharges not included on the list are prohibited from coverage under this permit.

EPA notes the following changes from the 2008 CGP's list of authorized non-stormwater discharges:

- In Part 1.4.1.e, added "provided the water line flushings are directed towards appropriate stormwater controls to remove sediment prior to discharge"
- In Part 1.4.1.g, added "provided these waters are directed towards the appropriate stormwater control to remove sediment prior to discharge"
- In Part 1.4.1.h, added "non-turbid"
- In Part 1.4.1.j, added "or contaminated groundwater"
- In Part 1.4.1.k, added "wastewaters that have been treated by an appropriate control under Part 2.1.4.6. Wastewaters that have been treated in accordance with Part 2.1.4.6, but still contain trace amounts of sediment, are not considered contaminated."

These changes were made to ensure consistency with the corresponding sediment and erosion control requirements in Part 2 of the draft permit.

#### **V.4.2 List of Discharges Not Addressed by this Permit. (Part 1.4.2).**

Part 1.4.2 provides a list of discharges that are not addressed under the CGP because they are either required to be covered by another permit or they are not within

the scope of designated discharges requiring NPDES permit coverage. Unauthorized discharges include:

1. Discharges mixed with non-stormwater discharges, unless they are listed as allowable non-stormwater discharges in Part 1.4.1;
  2. Discharges of fill or dredged material regulated by Part 404 of the CWA;
  3. Stormwater discharges associated with construction activities that have been covered under an individual NPDES permit or a different NPDES general permit, unless authorized in writing by EPA; and
  4. Stormwater and/or allowable non-stormwater discharges associated with construction activities that are discharged to a combined sewer system.
- *Purpose:* The proposed list in Part 1.4.2 informs permittees of discharges that are not authorized for coverage under this permit. The list includes discharges that either should be covered by other permits or are not within the scope of designated discharges requiring NPDES coverage.

#### **VI.5 Submitting Your Notice of Intent. (Part 1.5).**

Part 1.5 specifies that to be covered under the CGP, the operator must submit to EPA a complete and accurate Notice of Intent (NOI) prior to commencing construction activities, except for emergency-related construction activities, in which case the NOI must be submitted within 7 days after the commencement of earth-disturbing activities (see Part 1.3.2). The NOI certifies the permittee is eligible for coverage under Part 1.3 and provides information on the construction operation and discharge.

Part 1.5 also clarifies that authorization is not valid if the NOI upon which authorization is based is incomplete or inaccurate, or if the discharge was never eligible for permit coverage.

- *Purpose:* The proposed requirements in Part 1.5 establish the fundamental principle that discharges are not authorized until permit coverage is obtained, and that permit coverage is obtained for the CGP through the submission of a complete and accurate NOI.

#### **VI.5.1 Information Required in Your NOI. (Part 1.5.1).**

Part 1.5.1 summarizes the information required to be included as part of the NOI. Required information related to your discharge includes:

1. NPDES permit number (see Appendix B);
2. Operator information;
3. Project/site information;
4. Receiving water quality information, including whether you discharge to an impaired water (as defined in Part 4.2), or a water identified as Tier 2, Tier 2.5, or Tier 3;
5. Buffer information;
6. Chemical treatment information, if applicable;

7. SWPPP information;
  8. Threatened and endangered species information;
  9. Historic property information;
  10. Certification of NOI; and
  11. Contact information for NOI preparer.
- *Purpose:* Part 1.5.1 of the proposed CGP lists all of the types of information that must be submitted in the NOI. The NOI must be submitted prior to the commencement of construction activities for coverage under this permit. The NOI identifies for EPA operators whose discharges are authorized by this permit and helps EPA in its tracking and oversight of such discharges with respect to CWA compliance.

#### **VI.5.2 How to Submit Your NOI. (Part 1.5.2).**

Part 1.5.2 specifies that NOIs must be submitted using the electronic NOI system, or “eNOI system”, located at [www.epa.gov/npdes/eNOI](http://www.epa.gov/npdes/eNOI), unless the relevant EPA Regional Office specifically authorizes the use of a paper NOI.

- *Purpose:* The proposed requirements in Part 1.5.2 clarify the method by which operators are to submit their NOIs for permit coverage. This will be the third CGP that has made use of the eNOI system. In the past, operators were encouraged to use the eNOI system, but were given the option to submit paper NOIs. Due to the expansion in internet availability, greater efficiency in administrative processing, and reductions in cost to manage the system as compared to paper NOIs, it is required that the eNOI system be the primary mechanism by which construction projects obtain permit coverage. If it is not possible for a permittee to make use of the eNOI system, and the relevant EPA Regional Office specifically authorizes the use of a paper NOI, then permittees may submit a paper NOI to the Regional Office. EPA is requesting comment on this proposed requirement.

#### **VI.5.3 Deadlines for Submitting Your NOI. (Part 1.5.3).**

Part 1.5.3 specifies the deadlines for submitting NOIs for permit coverage in Table 1-1. These deadlines vary depending on whether the particular construction activity can be characterized as a “new source”, a “previously permitted new source”, an “existing permitted discharger”, “an existing unpermitted discharger”, a “new operator of a new source or existing permitted discharger”, a “primary operator”, or a “secondary operator, or whether the activity is an “emergency-related project.” The following definitions apply to the different project types:

1. New source – a construction project that commenced construction activities after February 1, 2010, and that requires NPDES permit coverage for its construction discharges under Part 1.1.
2. Previously permitted new source – a construction project that commenced construction activities after February 1, 2010, and that received prior coverage for its construction discharges under an effective NPDES permit, such as the 2003 CGP or 2008 CGP.

3. Existing permitted discharger – a construction project that is not a new source, because construction activities commenced prior to February 1, 2010, and that received prior coverage for its construction discharges under an effective NPDES permit, such as the 2003 CGP or 2008 CGP.
4. Existing unpermitted discharger - a construction project that is not a new source, because construction activities commenced prior to February 1, 2010, but has never received coverage for its construction discharges under an effective NPDES permit.
5. New operator of a new source or existing permitted discharger – an operator that replaces an existing operator on a permitted construction project through transfer of ownership and/or operation.
6. Emergency-related project – a construction project in which discharges resulting from earth-disturbing activities require immediate authorization in response to a public emergency.
7. Primary operator - for a construction project that has more than one operator, an operator who has received coverage under this permit for discharges from all earth-disturbing activities at a construction site.
8. Secondary operator - for a construction project that has more than one operator, an operator who seeks permit coverage under this permit for discharges from earth-disturbing activities on all or a portion of a site that has already received permit coverage under this permit for a primary operator. All areas of the site from which discharges resulting from the secondary operator's earth-disturbing activities must have already received permit coverage before the operator can be treated as a secondary operator under this section.

Table 2 summarizes the deadlines as follows:

**Table 2 NOI submittal deadlines.**

Type of Construction Project	Deadlines for Operators to Submit NOI
New source	Except for secondary operators, at least 30 days prior to commencing earth-disturbing activities. For secondary operators, at least 7 days prior to commencing earth-disturbing activities.
Previously permitted new source	By no later than [90 DAYS AFTER PERMIT ISSUANCE], if earth-disturbing activities commenced after February 1, 2010 and prior to [DATE OF PERMIT ISSUANCE], and the operator is currently covered under the 2003 or 2008 CGPs. Provided you submit your NOI by this deadline, your coverage under the 2003 or 2008 CGP will be automatically continued under those permits until you have been granted coverage under this permit or an alternative NPDES permit, or you are denied coverage under this permit.

Type of Construction Project	Deadlines for Operators to Submit NOI
Existing permitted discharger	By no later than [90 DAYS AFTER PERMIT ISSUANCE]. Provided you submit your NOI by this deadline, your coverage under the 2003 or 2008 CGP will be automatically continued under those permits until you have been granted coverage under this permit or an alternative NPDES permit or you are denied coverage under this permit.
Existing unpermitted discharger	Immediately.
New owner/operator of a new source or existing permitted discharger	A minimum of 7 days prior to the date that the transfer will take place to the new owner/operator.
Emergency-related project	Within 7 days after commencing earth-disturbing activities.

If the deadline to submit the NOI corresponding to the project type in Table 2 has been missed, the operator must submit the NOI immediately to minimize the time discharges from the project are unauthorized. EPA reserves the right to take enforcement action for any unpermitted discharges or permit noncompliance that occurs between the commencement of earth-disturbing activities and discharge authorization.

- Purpose:* The proposed requirements in Part 1.5.3 provide definitive deadlines for submitting NOIs based upon the type of construction project. The proposed permit utilizes new terms to describe the different types of construction projects, primarily resulting from the promulgation of NSPS requirements in the C&D rule. Because there are now new source requirements, new construction sites seeking coverage under the permit will be subject to these requirements, and therefore be considered new sources. Due to the creation of the “new source” category, there are other types of sites that must be defined, whose discharges are not subject to the NSPS requirements. For that reason, the proposed permit adopts two categories of “existing discharger” based on whether or not they had obtained prior coverage under an effective NPDES permit.

The requirement for new sources to submit NOIs a minimum of 30 days prior to commencing construction provides the Fish & Wildlife Service and the National Marine Fisheries Service (the “Services”), as well as State and Tribal Historic Preservation Offices, and the public, with an opportunity to review these submissions and inform EPA if more time is needed to review the potential impacts from the project. The 30 days between receipt of the NOI and authorization is referred to as the “waiting period”. (EPA notes that the existing 7-day waiting period is retained for new sources that are “secondary operators”, as defined in Part 1.5.3.7, or new operators of new sources or existing permitted dischargers. The secondary operator category is being proposed as a way of providing administrative efficiency to sites with multiple operators, where one of

the operators (the “primary operator”) has already undergone the 30-day review for the entire construction site.)

During the 30-day waiting period, where one or both of the Services, or a State or Tribal Historic Preservation Office, requests that they or EPA need to further explore whether or not a particular facility is eligible for permit coverage, EPA can delay authorization to allow such an assessment to take place. EPA may also use the waiting period to determine whether any more stringent requirements are necessary to meet applicable water quality standards, to be consistent with an applicable WLA, or to comply with state or tribal antidegradation requirements.

Additionally, during this waiting period, the public has an opportunity to review the NOIs and request to review the SWPPPs. Anyone wishing to provide feedback to EPA can send information to the appropriate EPA Regional Office listed in Appendix B of the permit for consideration. EPA clarifies that this waiting period is not a formal permit public notice and comment period. EPA will consider any information provided to it during the waiting period but does not plan to provide specific responses to comments received. Where appropriate, EPA will address concerns raised (e.g., will require the relevant operator to make improvements to the designed stormwater controls). Depending on the nature of the issue and the timing of the comments, EPA will require appropriate action either prior to or following discharge authorization. In addition, EPA may delay authorization if warranted, or may determine that the discharge is not eligible for authorization under this permit.

The following proposed changes are made from the 2008 CGP:

1. **New Sources:** The permit would now require NOIs to be submitted 30 days, instead of 7 days in the 2008 CGP, prior to the commencement of construction. (The exception to this proposed requirement is for “secondary operators”, which are able to submit NOIs 7 days in advance of beginning construction.) This additional time was added to provide a more realistic window of time for the Services and the State or Tribal Historic Preservation Offices to determine whether the location of the construction project may be a cause for concern. EPA also believes that requiring a 30-day period is consistent with other state or local permitting-related timeframes to which construction operators are accustomed.
2. **Previously Permitted New Sources:** If earth-disturbing activities commenced after February 1, 2010 and prior to the date of permit issuance, and the operator is currently covered under the 2003 or 2008 CGPs, the deadline to submit an NOI is no later than 90 days after permit issuance. Coverage under the 2003 or 2008 CGP will be automatically continued under those permits until you have been granted coverage under this permit or an alternative NPDES permit, or you are denied coverage under this permit.
3. **Existing Permitted Discharger:** The 90-day deadline for submitting NOIs is the same deadline provided in the 2003 CGP, which was the last permit that covered permitted ongoing projects. The 2008 CGP did not provide coverage for permitted ongoing projects.
4. **Existing Unpermitted Discharger:** Similar to the proposed permit, the 2008 CGP indicated that late NOIs will be accepted, and that EPA reserves the right to take enforcement action for any unpermitted discharges or permit noncompliance that occurs between the commencement of construction and discharge authorization. The proposed permit provides further

clarification that the deadline for submitting an NOI for unpermitted ongoing projects is “immediate, to minimize the time discharges from the project will continue to be unauthorized.”

5. Emergency-Related Project: The 2008 CGP did not specify any separate requirements for submitting an NOI for emergency-related projects. However, EPA recognizes that situations may occur where permit authorization is required immediately. Therefore, EPA is requiring that emergency-related projects submit their NOI within 7 days after commencing earth-disturbing activities. EPA describes the eligibility requirements for emergency-related projects in Part 1.3.2.

#### **VI.5.4 Your Official Date of Permit Coverage. (Part 1.5.4).**

Part 1.5.4 describes the date of permit coverage to be 30 calendar days after EPA acknowledges receipt of the NOI through posted information on EPA's website ([www.epa.gov/npdes/stormwater/noisearch](http://www.epa.gov/npdes/stormwater/noisearch)) (except for secondary operators, new owners/operators of a new source or existing permitted dischargers, and operators of emergency-related projects), unless EPA notifies the applicant that their authorization has been delayed.

If the relevant EPA Regional Office authorizes the use of the paper NOI, the 30-day period prior to permit coverage is the same as above, however this period commences only after the NOI Processing Center completes manual entry of the paper NOI information into the eNOI system. Note that if the paper NOI contains errors or is incomplete this will result in delaying the commencement of the 30-day waiting period.

Secondary operators and new operators of a new source or existing permitted discharger, following submittal of a complete and accurate NOI consistent with this Part, are considered covered under the terms and conditions of this permit 7 calendar days after EPA acknowledges receipt of their NOI through posted information on EPA's website ([www.epa.gov/npdes/stormwater/noisearch](http://www.epa.gov/npdes/stormwater/noisearch)), unless EPA notifies the permittee that their authorization has been delayed.

Operators of emergency-related projects, are considered provisionally covered under the terms and conditions of this permit immediately, and unprovisionally covered 30 calendar days after EPA acknowledges receipt of their NOI through posted information on EPA's website ([www.epa.gov/npdes/stormwater/noisearch](http://www.epa.gov/npdes/stormwater/noisearch)), unless EPA notifies the permittee that their authorization has been delayed.

Part 1.5.4 also describes how long permit coverage lasts. If covered under the CGP, permit coverage will last until:

1. Permit coverage is terminated, consistent with Part 9; or
  2. The project receives coverage under an different NPDES permit after being notified by EPA of the need to apply for coverage under an individual or different NPDES general permit; or
  3. The project is still active, but the date for this permit's expiration has passed, and a replacement permit has been issued.
- *Purpose:* Part 1.5.4 clarifies to permittees the length of permit coverage under the CGP. The proposed provisions in (1) through (3) above are a clarification of terms in the 2008 CGP. Although they were described differently in the 2008 CGP,

all of the specific time periods listed in (1) through (3) above are consistent with how the 2008 CGP, and past permits, have been interpreted and applied.

#### **VI.5.5 Continuation of Coverage for Existing Permittees if the Permit Expires. (Part 1.5.5).**

Part 1.5.5 specifies that if this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with section 558(c) of the Administrative Procedure Act (see 40 CFR 122.6) and remain in force and effect for discharges that were covered prior to its expiration. Any new source or existing permitted discharger still permitted under the new CGP would remain covered by this permit until the earliest of:

1. The authorization for coverage under a reissuance or replacement of this permit following the timely submittal of a complete and accurate NOI requesting coverage under the new permit; or
2. The date of the submittal of a Notice of Termination; or
3. Issuance or denial of an individual permit for the operator's discharges; or
4. A final permit decision by EPA not to reissue this general permit, at which time EPA will identify a reasonable time period for covered dischargers to seek coverage under an alternative general permit or an individual permit. Coverage under this permit will terminate at the end of this time period.

EPA reserves the right to modify or revoke and reissue this permit under 40 CFR 122.62 and 63, in which case the permittee will be notified of any relevant changes or procedures to which you may be subject.

- *Purpose:* Part 1.5.5 of the proposed CGP describes to permittees the continuation of coverage for existing permittees if the permit expires. Where EPA fails to issue a final general permit prior to the expiration of a previous general permit, EPA has the authority to administratively extend the permit for permittees authorized to discharge under the prior general permit. However, EPA does not have the authority to provide coverage to construction projects not already authorized to discharge under that prior general permit. Once the five-year expiration date for this permit has passed, any such projects would need to obtain coverage under an individual permit, or other general permit that was still in effect.

#### **VI.5.6 Procedures for Denial of Coverage. (Part 1.5.6).**

Part 1.5.6 describes to permittees the procedures for the denial of permit coverage.

Following submittal of a complete and accurate NOI, the permittee may be notified in writing by EPA that they are not covered, and that they must apply for and/or obtain coverage under either an individual NPDES permit or an alternate general NPDES permit. This notification will include a brief statement of the reasons for this decision and will provide application information. Any interested person may request that EPA consider requiring an individual permit or alternate general permit under this paragraph.

If the permittee is already covered under this permit, or a previously issued CGP, the notice will set a deadline to file the permit application or NOI for an alternate general permit, and will include a statement that on the effective date of the individual

NPDES permit or the date of coverage under an alternate general NPDES permit, coverage under this general permit will terminate. EPA may grant additional time to submit the application or NOI if the permittee requests it. If a covered permittee fails to submit an individual NPDES permit application or NOI as required by EPA, the applicability of this permit is terminated at the end of the day specified by EPA as the deadline for application or NOI submittal. EPA may take appropriate enforcement action for any unpermitted discharge. When an individual NPDES permit is issued or coverage is provided under an alternate general NPDES permit, coverage under this permit is terminated on the effective date of the individual permit.

- *Purpose:* The proposed provisions in Part 1.5.6 describe the procedures permittees must follow if they are denied coverage under this permit. It describes the procedures for permittees that were denied coverage following the submittal of an NOI, and the procedures for permittees that were denied coverage after being previously approved for coverage under this or another CGP. In both cases, permittees must apply for and/or obtain coverage under an individual permit or alternate general permit.

#### **VI.6 Requirement to Post a Notice of Your Permit Coverage. (Part 1.6).**

Part 1.6 of the CGP requires that the permittee, once covered, post a sign or other notice conspicuously near the main entrance of the construction site, which at a minimum, must include the NPDES Permit tracking number and a contact phone number for obtaining permit information, such as the SWPPP. The notice must be located so that it is visible from a public road that is nearest to the active part of the construction site, and it must use a font large enough to be readily viewed from a public right-of-way.

- *Purpose:* The purpose of the proposed requirement in Part 1.6 is to provide notice to the public, and any other interested parties, that the construction project is authorized by EPA. By providing notice of permit coverage and other information about the site, interested parties are able to obtain publicly available information about the construction site, such as their SWPPP, and can identify the site when reporting potential permit violations. Note that permittees are only required to provide copies of the SWPPP, upon request, to EPA; a state, tribal or local agency approving stormwater management plans; the operator of a storm sewer system receiving discharges from the site; or representatives of the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS). EPA may provide access to portions of the SWPPP to a member of the public upon request. Confidential Business Information (CBI) will be withheld from the public, but may not be withheld from EPA, USFWS, or NMFS.

#### **VII. Effluent Limitations Applicable to All Discharges from Construction Sites. (Part 2).**

Part 2 of EPA's Construction General Permit specifies the stormwater effluent limitations in three major sections:

- Erosion and sediment control (Part 2.1);
- Site stabilization (Part 2.2); and
- Pollution prevention (Part 2.3).

The stormwater control requirements in Part 2 are the technology-based effluent limitations that apply to all discharges associated with construction activity eligible for

coverage under this permit. The requirements in Part 2 apply the national effluent limitations guidelines and new source performance standards in the Construction and Development Rule (“C&D rule”) in 40 CFR Part 450 promulgated on December 1, 2009 (74 Fed. Reg. 62996).

The requirements in Part 2 apply in addition to any applicable state or local requirements, regardless of whether they are more or less stringent.

### ***Background of the C&D Rule’s Non-Numeric Effluent Limits***

The C&D rule contains non-numeric effluent limitations that require the permittee to minimize the discharge of pollutants. EPA’s objective in promulgating non-numeric effluent limits that apply to discharges from construction sites is to prevent the mobilization and discharge of sediment, turbidity, and other sediment-bound pollutants, such as metals and nutrients, and to prevent or minimize the exposure of stormwater to construction materials, debris, and other sources of pollutants on construction sites. See 74 FR 63016. The non-numeric effluent limits are structured to require permittees to “first prevent the discharges of sediment and other pollutants through the use of effective planning and erosion control measures; and second, to control discharges that do occur through the use of effective sediment control measures.” *Id.* The effluent limits also require the permittee to implement a range of pollution prevention measures to limit or prevent discharges of other types of non-sediment discharges.

### ***EPA’s Proposed Incorporation of the Non-Numeric Limits***

A permittee can minimize the discharge of pollutants from construction sites by satisfying the non-numeric effluent limitations at 40 CFR 450.21 and by using various controls and practices, outlined in more detail by the permitting authority. EPA crafted the non-numeric effluent limits in the C&D rule to allow flexibility in how the permitting authority implements these requirements in permits. See 74 FR 63016. As an example, 40 CFR 450.21 (a)(5) requires construction operators to design, install, and maintain controls to “minimize sediment discharges from the site.” Thus, each NPDES permitting authority has discretion within this somewhat broad requirement to further define what it means to minimize sediment discharges, or to achieve any of the other non-numeric limits. See 74 FR 63016.

Accordingly, this permit contains requirements that specifically define what is required to comply with each of the C&D rule’s non-numeric limits in order to minimize the discharge of pollutants from construction sites. This is consistent with EPA’s objective to write general permits with conditions that are clearly articulated, transparent, and enforceable. In the sections that follow, EPA will discuss the proposed permit requirements, and explain how the language is consistent with the non-numeric effluent limits in the C&D rule upon which they are based.

## **VII.1 Erosion and Sediment Control Requirements. (Part 2.1).**

Proposed Part 2.1 of the permit specifies the erosion and sediment control requirements that apply to discharges from construction sites. These requirements implement the non-numeric limits of the C&D rule that are related to sediment and erosion control, notably 40 CFR 450.21 (a), which states that dischargers must “[d]esign, install and maintain effective erosion controls and sediments controls to minimize the discharge of pollutants.” “Minimize” is defined in Appendix A of the permit as meaning “to reduce and/or eliminate to the extent achievable using stormwater controls

(including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.”

EPA believes that it is appropriate to organize these requirements into two major subparts that correspond to distinct phases of construction activity. These phases include:

- Requirements for Site Planning; and
- Requirements for Selecting, Designing, and Installing Stormwater Controls.

By organizing the permit in this way, EPA intends to make the permit requirements follow the logical progression of construction stormwater activities.

### **REQUIREMENTS FOR SITE PLANNING:**

#### **VII.1.1 Avoid sensitive areas. (Part 2.1.1).**

Part 2.1.1 describes the requirements to avoid sensitive areas during the site planning phase of construction activity. Parts 2.1.1.1 thru 2.1.1.4 describe the specific requirements that permittees must comply with to avoid such areas.

**Mark off any sensitive areas.** (Part 2.1.1.1). Part 2.1.1.1 of the proposed permit requires that the following areas be delineated and clearly marked off, to the extent they exist on the site, with flags, tape, or other similar marking device prior to the initiation of earth-disturbing activities:

1. All buffer areas established under Part 2.12;
  2. All steep slopes that will be left undisturbed, consistent with Part 2.1.1.2;
  3. Any points where a water of the U.S. will be crossed;
  4. Any areas of federally-listed critical habitat for endangered or threatened species on areas of the property that may be impacted by the discharge; and
  5. Any historic properties on areas of the property that may be impacted by the discharge.
  6. All marking devices should be removed after construction has been completed, after all areas that were disturbed have been stabilized, and once the site meets the criteria for terminating permit coverage in Part 9.2.
- *Purpose:* To implement the C&D rule requirement to minimize the amount of soil exposed during construction activity (40 CFR 450.21 (a)(3)), to minimize the disturbance of steep slopes (40 CFR 450.21 (a)(4)), and to provide and maintain natural buffers around surface waters, unless infeasible (40 CFR 450.21 (a)(6)). Requiring permittees to mark off these areas as a first step prior to earth disturbance provides operators on the site with a clear, visible boundary between those areas designated for construction and those that are designated for protection, thus minimizing the potential for unintended disturbances to sensitive areas.

**Avoid steep slopes.** (Part 2.1.1.2). Part 2.1.1.2 of the proposed permit requires the avoidance of earth-disturbing activities on slopes of 15 percent or greater. If avoidance of steep slopes is infeasible, or inconsistent with the goals of the project, permittees must comply with the additional requirements in Part 2.1.4.3.

- *Purpose:* Part 2.1.1.2 implements the C&D rule requirement to “minimize the disturbance of steep slopes” at 40 CFR 450.21(a)(4). EPA added specificity to what is to be considered a “steep slope” under the permit by defining steep slopes as those that are 15 percent or greater. EPA used 15 percent to define steep slopes based on the Agency’s past use of this slope, as well as the prevalence of slopes close to 15 percent being used by the states to define steep slopes. For instance, EPA defines as steep slopes that are 15 percent or greater in its “Model Aquatic Buffer Ordinance” (<http://www.epa.gov/nps/ordinance/mol1.htm>). New Hampshire’s *Model Ordinance for Steep Slope Protection* and the state’s *Steep Slope and Ridgeline Protection* chapter in its document *Innovative Land Use Planning Techniques: A Handbook for Sustainable Development* indicates that many communities in the state define steep slopes as being 15 percent or greater. The State of Idaho’s *Catalog of Stormwater BMPs for Idaho Cities and Counties* (1998) indicates that the erosion hazard of a site is “high” if it has a slope of 15 percent or greater, and suggests that grading should not result in a slope of greater than 15 percent. See pages 10 and 23, respectively. The State of Massachusetts’ *Erosion and Sediment Control Guidelines for Urban and Suburban Areas: A Guide for Planners, Designers, and Municipal Officials* (May 2003) notes that structural sediment and erosion control practices are not suitable on slopes of 12 percent or greater. See page 39. EPA was not able to locate a similar stormwater control manual for the State of New Mexico. However, the City of Santa Fe’s *Development and Design Standards* (Article 14-8) prohibits disturbances to slopes that are 10 percent or greater. See Section 14-8.2(B)(2).

Other states have also adopted the 15 percent slope as the cutoff for what is considered steep. For instance, the State of Washington’s *Stormwater Management Manual for Western Washington* (April 2005) defines steep slopes as measuring 15 percent or greater, or as steeper than 15 percent within 500 feet of the site. The State of Maryland’s *2010 Maryland Standards and Specifications for Soil Erosion and Sediment Control* (draft 2010) defines as steep slopes those that are 15 percent or greater. See page A-3.

**Minimize stream crossings.** (Part 2.1.1.3). Part 2.1.1.3 requires stream crossings on the site to be limited to the minimum necessary to provide access to the construction site and to install required infrastructure. The proposed provision also requires that for any stream crossing the operator must have obtained a CWA Part 404 permit prior to any discharge of dredge or fill materials to waters of the U.S.

- *Purpose:* The requirement in Part 2.1.1.3 implements the C&D rule requirements to “control stormwater discharges ... to minimize erosion at outlets and to minimize downstream channel and streambank erosion,” “minimize the amount of soil exposed during construction activity,” and to “minimize the disturbance of steep slopes” in 40 CFR 450.21(a)(2), (3), and (4), respectively. By keeping the number of stream crossings to the minimum necessary to conduct construction, permittees will decrease downstream erosion, minimize soil exposure, and protect any steep sloped streambanks in areas that are easily erodible. This section also reinforces the sequence that permittees are required to follow with respect to wetland disturbances – they must first obtain coverage under a CWA Part 404 permit to authorize the discharge of dredged or fill material prior to obtaining coverage under the CGP.

**VII.1.2 Protection of Surface Waters: Natural Buffers and Equivalent Sediment Controls.  
(Part 2.1.2).**

Part 2.1.2 requires that in order to minimize sediment discharges, if any waters of the U.S. are located on or immediately adjacent to the site, the permittee must ensure that any discharges through the area between the disturbed portions of the site and the waters are treated by an area of undisturbed natural vegetation that alone or with additional sediment and erosion controls achieves a reduction in sediment load equivalent to that achieved by a 50-foot buffer of undisturbed natural vegetation. The draft permit includes a buffer guidance (Appendix M) to assist operators in complying with this requirement.

The permittee may choose to comply with this requirement in one of the following ways:

- a. Provide and maintain an undisturbed naturally vegetated, 50-foot buffer between the disturbed portions of the site and the waters of the U.S.; or
- b. Provide an undisturbed naturally vegetated buffer that is less than 50 feet between the disturbed portions of the site and the waters of the U.S. that is supplemented by additional sediment and erosion controls, which in combination achieve the equivalent sediment load reduction as a 50-foot buffer of undisturbed natural vegetation. Appendix M provides the sediment load reduction that the permittee is required to meet;
- c. If it is infeasible to provide an undisturbed naturally vegetated buffer of any size between the disturbed portion of your site and the waters of the U.S., implement sediment and erosion controls that achieve the equivalent sediment load reduction as an undisturbed naturally vegetated, 50-foot buffer. Appendix M provides the sediment load reduction that you are required to meet

The compliance alternative selected above must be maintained throughout the duration of permit coverage. If the permittee chooses compliance alternative a or b above, throughout the period of coverage under this permit he/she must keep the buffer naturally vegetated and no construction activities may be conducted in this area. All discharges through the buffer must be non-channelized or non-concentrated, and must first be treated by the site's sediment and erosion controls.

If the operator chooses either alternative b or c, above, the following additional requirements apply:

- a. Document in the SWPPP (a) if the buffer is less than 50 feet, the width of the buffer; and (b) information relied on to comply with (b) or (c), above; and
- b. For disturbances within the buffer area, meet stabilization deadlines that are tighter than the other areas of the site.

There are exceptions to the buffer requirement for the construction of water crossing and water-dependent structures, as well as for sites where no natural vegetation remains in the buffer area due to prior development. These exceptions apply on the condition that disturbance in the buffer area is minimized and vegetation is retained within the buffer outside the limits of disturbance. Permittees are also reminded of the need to comply with any state or local requirements affecting construction within the buffer.

- *Purpose:* The requirements in Part 2.1.2 implement the C&D rule's requirement to minimize the discharge of pollutants from the site by providing and maintaining "natural buffers around surface waters, unless infeasible." See 40 CFR 450.21 (a)(6). To arrive at the requirements in Part 2.1.2, EPA examined many different options. Ultimately, EPA felt it was important to provide a uniform buffer performance standard, but to allow permittees the flexibility to achieve this

standard without prescribing a minimum buffer width that must be complied with in all circumstances. The following details EPA's basis for determining the requirements that are proposed in Part 2.1.2

EPA first considered whether a buffer width would need to be specified at all in the permit, or whether the C&D rule language was sufficient. The C&D rule does not specify what size buffer is necessary to meet the requirement, but rather leaves this and other related determinations up to the permitting authority, including if a minimum buffer width is necessary at all. See 75 Fed. Reg. 63016-17. After considering the option of simply parroting the C&D rule language in the permit, EPA concluded that it would be appropriate to develop more specific language to be used as a permit condition. In EPA's view, to include no other requirements would leave the Agency with a permit requirement that would be difficult, if not impossible, to enforce, and would place the permittee in the position of having to guess what amount of a buffer is adequate to minimize the discharge of pollutants from the site, leading not only to uncertainty regarding compliance, but also inconsistencies among permitted sites. EPA believes that this permit should include at least some minimum requirements that specify how to comply with the C&D rule and the terms of the permit.

After determining that it is appropriate to add specificity to the permit requirement, EPA evaluated different ways to articulate the permit conditions. A number of issues presented themselves during this process, which included the following:

- How effective are buffers at removing sediment and other pollutants?
- What size buffers are necessary to provide high level pollutant removal?
- What types of local and state land use regulations already affect the buffer area?
- Is a uniform buffer width requirement appropriate?
- Are some sites so site-constrained that establishing a buffer of any size is infeasible?

EPA explored all of these issues in arriving at the proposed buffer requirements. Each are discussed in depth below.

#### *The Pollutant Removal Effectiveness of Naturally Vegetated Buffers*

EPA started by evaluating how effective buffers are at removing pollutants. To arrive at the minimum buffer width performance standard of 50 feet in Part 2.1.2, EPA undertook a comprehensive review of the scientific literature with the goal of assessing the relationship between pollutant removal efficiency and buffer width.

EPA was particularly interested in understanding the effectiveness of buffers at removing pollutants in construction site discharges. Sediment and turbidity are the most thoroughly documented pollutants associated with construction site stormwater discharges. Typical construction activities, such as clearing vegetation and excavating, moving, and compacting earth and rock increase the vulnerability of soil to the erosive powers of precipitation and stormwater runoff. Soil compaction reduces precipitation infiltration and increases overland water flow, thereby increasing the quantity of stormwater discharges available to erode soil. During precipitation events, the increased erosion can cause sediment to be discharged in stormwater from the site, which can lead to impairments of receiving waters. During the Phase I stormwater rulemaking, EPA

identified nonconventional and toxic pollutants of concern in discharges from construction sites, stating “[c]onstruction sites also generate other pollutants such as phosphorus, nitrogen, and nutrients from fertilizer, pesticides, petroleum products, construction chemicals, and solid wastes.” 55 Fed. Reg. 48033. These pollutants can derive from construction materials and equipment, historic site contamination, and natural soil and groundwater constituents, and may be carried in stormwater in solution or adsorbed to transported sediment particles. Although EPA's focus was in determining the pollutant removal effectiveness of the buffer for pollutant parameters related to sediment, EPA took into account the ancillary benefits of buffers at removing other pollutants found in construction site stormwater discharges, particularly nitrogen and phosphorus.

EPA found the scientific literature to widely support the pollutant-removal effectiveness of buffers (Wong & McCuen, 1982; Barling & Moore, 1994; Castelle et al., 1994; Schueler, 1995; Wenger, 1999; Correll, 2005; Mayer et al., 2005; Liu et al., 2008; Yuan et al., 2009). Buffers are particularly effective at removing sediment. Wenger found that riparian buffers reduce stream sedimentation through six different functions:

1. By displacing sediment-producing activities away from flowing water (setbacks);
2. By trapping terrestrial sediments in surface runoff;
3. By reducing the velocity of sediment-bearing storm flows, allowing sediment to settle out of water and be deposited on land;
4. By stabilizing streambanks, preventing channel erosion;
5. By moderating stream flow during floods, reducing bed scour; and
6. By contributing large woody debris (snags); these can trap considerable sediment, at least temporarily.

Sediment removal in buffers occurs by increasing the hydraulic roughness of the flow surface, which enhances sediment deposition and filtration by vegetation. As sediment-laden water flows through vegetation, the flow velocity is decreased and sediment is deposited (Barling & Moore, 1994). Coarser soil and organic particles settle more quickly than finer particles, which tend to stay in suspension. Sediment trapping performance was found to decrease as sediment particle size decreases. To capture fine suspended particles, buffers need to be wide enough to allow for infiltration (Wong & McCuen, 1982; Barling & Moore, 1994; Wenger, 1999; Liu et al., 2008). An early study on buffer sediment removal performance found the optimum distance for trapping sand, silt, and clay to be 3 m, 15 m, and 122 m, respectively (Wilson, 1967).

Because nutrients are often present in construction site stormwater discharges, EPA found it useful to understand the performance of buffers at removing nitrogen and phosphorus. Scientific literature supports the effectiveness of buffers at removing nutrients. Because phosphorus tends to attach to sediment or organic matter, buffer widths sufficient to remove sediment are generally sufficient to remove phosphorus from construction site stormwater discharges (Wenger, 1999). However, finer sediment particles have a greater capacity to hold phosphorus than coarser particles, and therefore buffers should be sized wide enough to allow for infiltration of smaller phosphorus-attached sediment particles (Barling & Moore, 1994). Buffers were also found to be effective at removing nitrogen (Wenger, 1999). Unlike phosphorus, nitrogen is soluble, and readily moves through groundwater. Buffers can remove nitrogen in surface flows

through uptake by vegetation, denitrification, soil storage, groundwater mixing, and microbial immobilization (Mayer et al., 2007; Wenger, 1999).

EPA found numerous studies that examined the relationship between buffer width and pollutant removal performance (Young et al., 1980; Dillaha et al., 1989; Magette et al., 1989; Sheridan et al., 1999; Abu-Zreig et al., 2004; Peterjohn and Correll; 1984; and others). The results of these studies ranged widely, with some reporting very high sediment removal performance (i.e., over 90 percent removal) at buffer widths less than 15 feet, while others found similar sediment removal performance at widths of 80 feet or more. Many of these studies examined the efficacy of buffers under site-specific conditions, and looked at the performance of highly engineered vegetation types, such as those found in installed vegetated filter strips. In Part 2.1.2, EPA does not require the installation of vegetation in the buffer area, but rather requires that the existing natural vegetation not be disturbed. EPA cannot therefore reasonably assume that a similar performance would be achieved in all vegetation types that exist in all the areas where this permit is in effect. Nor can EPA assume that buffers of a specific width will perform similarly under various soil types, slopes, and other differences in site-specific conditions. Therefore, while informative, EPA found it necessary to conduct further research given that these studies alone do not offer a clear choice on what size buffers will best achieve a consistent pollutant removal performance for the range of conditions where this permit is effective.

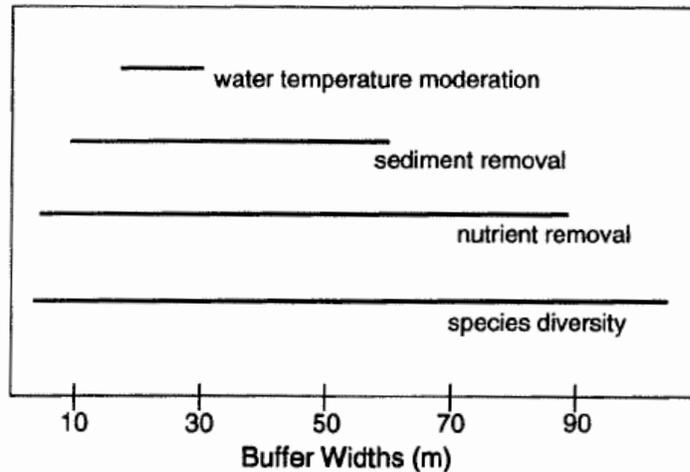
To determine a minimum buffer width to include in Part 2.1.2, EPA found it more useful to look at studies that performed an analysis on a range of buffer width studies to recommend a minimum width for pollutant removal. The studies EPA found to be particularly informative in terms of minimum buffer width requirements are included in Table 1, and are described below.

**Table 3 Summary of buffer widths or removal of sediment, nitrogen, and phosphorus from EPA's review of the scientific literature.**

<b>Study</b>	<b>Minimum Buffer Width for Sediment</b>	<b>Minimum Buffer Width for Nitrogen</b>	<b>Minimum Buffer Width for Phosphorus</b>	<b>Analysis Method</b>
Castelle et al. (1994)	33 - 200 ft	16 - 300 ft	16 - 300 ft	Reviewed range of buffer widths in scientific literature to determine minimum buffer size requirements.
Liu et al. (2008)	33 ft	-	-	Applied logarithmic regression model to results of over 80 studies and predicted sediment trapping efficacy to reach its maximum at 33 feet.
Wenger (1999)	50 - 100 ft	50 - 100 ft	50 - 100 ft	Reviewed range of buffer widths in scientific literature to determine minimum buffer width requirements.
Yuan et al. (2009)	>16 ft	-	-	Applied logarithm model to results of 80 studies and predicted that buffers of 16 feet or greater remove at least 80 percent of sediment.
Mayer et al. (2005)	-	>164 ft	-	Performed linear and non-linear regression models on data from 89 studies to determine nitrogen removal effectiveness.

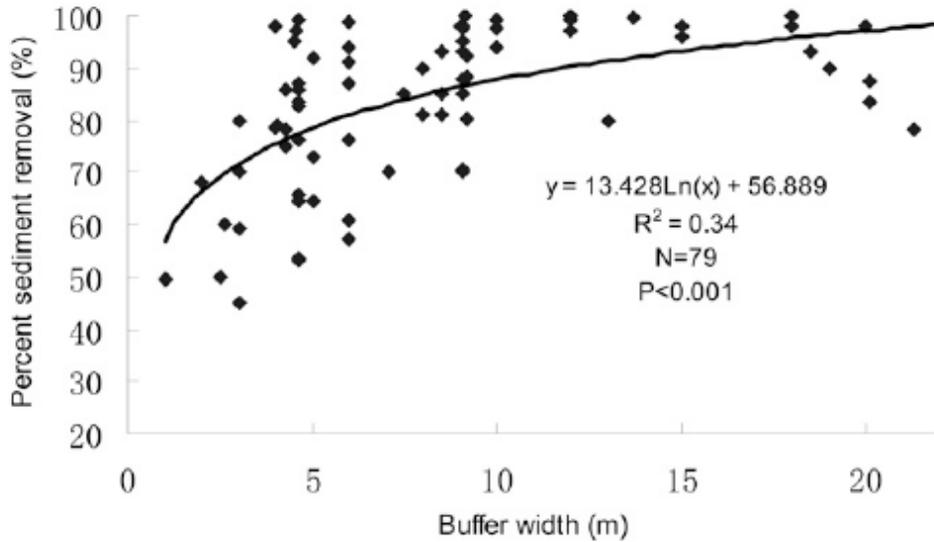
Castelle et al. reviewed studies that analyzed the scientific functions of buffers. Among the parameters examined were sediment and nutrients. The results in Figure 1 below indicate that recommended buffer widths for sediment and nutrients in the literature vary widely. Recommended widths for sediment removal range from 33 to 200 feet, and for nutrients 16 to 300 feet. The range of widths informed Castelle et al.'s overall recommended buffer widths of 50 feet for the maintenance of physical and chemical characteristics of aquatic resources, and 100 feet for the maintenance of the biological components of wetlands and streams.

**Figure 1 From Castelle et al. (1994), the range of buffer widths providing specific buffer functions.**



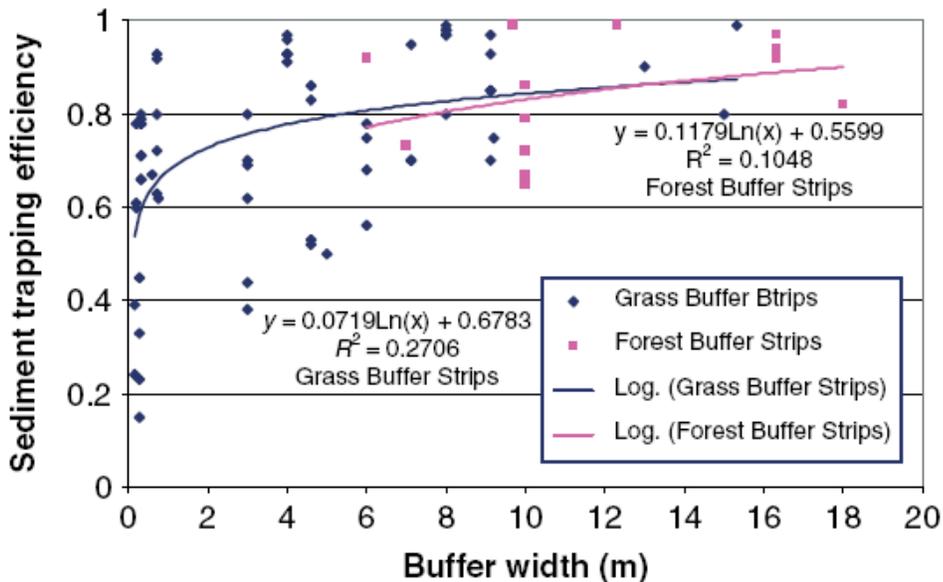
A study by Liu, Zhang, and Zhang examined the sediment removal efficacy of buffers by performing a meta-analysis on over 80 different experiments. Figure 2 shows the results of a logarithmic regression model on the experiments that were reviewed. Liu et al. found that increasing buffer width increases sediment removal. However, the relationship between buffer widths and sediment removal is not linear. According to Liu et al., as buffer widths reach 10 m, or 33 feet, the increased removal percentage diminishes. This is explained by the fact that buffers are effective at removing a substantial percentage of coarser sediment particles within the first few meters, but larger widths are necessary to remove suspended fine sediments through infiltration. These results indicate that to remove a high percent (i.e., 90 percent or more) of sediment particles, buffer widths must be sized at a widths ranging from 33 to 50 feet.

**Figure 2** From Liu et al. (2008), the relationship between buffer width and percent sediment trapping efficiency.



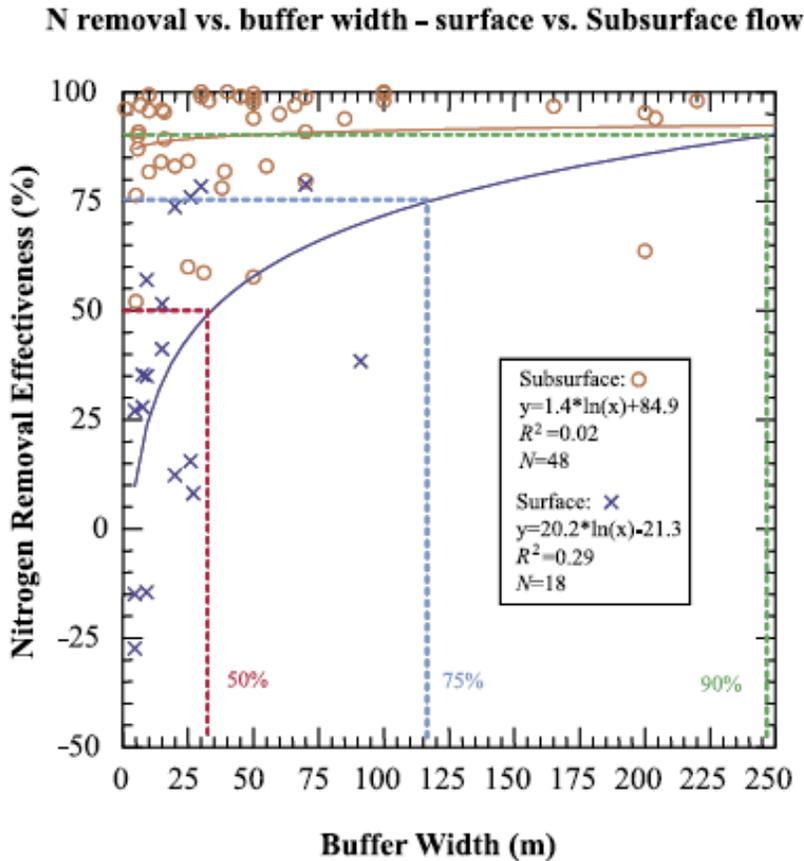
Yuan et al. (2009) similarly reviewed the available literature on the sediment removal performance of buffers and found that increasing buffer width increases sediment removal. Yuan et al. looked at the differences in buffer performance based on the type of vegetation in addition to width, as shown in Figure 3. Buffer sediment removal performance did not vary widely by vegetation type, but in general, forested buffers were found to be wider than grassed buffers. Yuan et al. found that buffers of at least 5 meters, or 16 feet, are necessary to remove 80 percent of sediment. According to Figure 3, to remove higher percentages of sediment (i.e. 90 percent or more), buffers widths of at least 15 meters, or 50 feet, are necessary.

**Figure 3** From Yuan et al. (2009), the relationship between buffer width, vegetation type, and percent sediment trapping efficiency.



In a 2005 report, EPA reviewed 89 riparian buffer studies to determine the relationship between nitrogen removal effectiveness and buffer width. It was concluded that nitrogen removal performance varied, but generally wider buffers (> 50 m, or 164 feet) more consistently remove more nitrogen than narrower buffers. Figure 4 shows the relationship between buffer width and nitrogen removal from surface flow. Buffers of 30, 115, and 250 meters (or 100, 380, and 820 feet) are shown to remove 50, 75, and 90 percent of nitrogen, respectively. These results indicate that while buffers are effective at removing nitrogen, wider widths are necessary to remove a significant percentage.

**Figure 4 From Mayer et al. (2005), the relationship between buffer width and percent nitrogen removal.**



Taking all of the above information into account, EPA concluded that buffers are effective at removing pollutants. However, because buffer performance varied from study to study, EPA found it challenging to determine the minimum width that would be adequate for removing construction site pollutants from stormwater for the majority of sites. Buffer pollutant removal performance is not only a function of buffer width, but is also a function of many other site-specific factors, including vegetation type, slope, soil type, and infiltration rate (Wenger, 1999). Despite this challenge, EPA believes it is appropriate to include a minimum fixed-width buffer requirement in Part 2.1.2 to both ensure that sufficient pollutant removal performance is achieved on all sites and to provide permittees with a sense of clarity about their requirements.

Most studies concluded that wider buffers consistently remove higher percentages of pollutants; however, EPA's aim was to determine the minimum width necessary to achieve an adequate removal of pollutants in most circumstances. EPA was primarily focused on determining the minimum buffer width that would remove a substantial majority of sediment particles (i.e. 90 percent or more), but also provide significant removal of nutrients. The recommended buffer widths EPA reviewed for sediment removal ranged from 16 to 200 feet, and for nutrients ranged from 16 to 300 feet (see Table 1). However, by reviewing analyses of multiple buffer studies, EPA was able to relate specific buffer widths to expected pollutant removal potential. Both Liu et al. and Yuan et al.'s analysis of over 80 buffer studies determined that 90 percent of sediment can be expected to be removed from buffers of 50 feet, which can also be assumed to be of sufficient width for removing a significant percentage of sediment-attached phosphorus. Mayer et al. found buffers of 50 feet to be capable of removing 35 percent of nitrogen from surface flows. EPA concluded from these analyses that 50-foot buffers generally remove most sediment from stormwater flows through buffers, and provide ancillary benefits by removing significant amounts of nutrients. Based on this assessment, EPA came to the conclusion that 50 feet would be an appropriate minimum buffer width performance standard to propose in the draft permit for sites where waters of the U.S. are located on or immediately adjacent to the site.

EPA recognizes that the pollutant removal performance of 50-foot buffers will vary from site to site, but based on the information reviewed, buffers of 50 feet are shown to consistently achieve significant pollutant removal benefits. Recognizing the need for flexibility, the 50-foot buffer does not represent a fixed width requirement for all sites, but rather represents a minimum pollutant removal performance that must be achieved on the sites. This minimum pollutant removal performance can be achieved by providing the minimum width of 50 feet, or by providing alternative controls, which could include providing a lesser buffer width and additional erosion and sediment controls, or, where providing any buffer is infeasible, relying exclusively on erosion and sediment controls, that achieve the equivalent performance as would be achieved by the 50 foot buffer based site-specific conditions. EPA arrived at the need for this flexibility through the consideration of additional issues, which are discussed below.

#### *State/Local Waterfront Zoning Requirements*

In addition to evaluating what the literature indicates about the effectiveness of buffers in reducing pollutant loads, EPA needed to understand the existing state or local restrictions that are already in place affecting the buffer area. EPA researched existing buffer requirements and other types of waterfront setback restrictions that construction sites are already subject to. This review helped EPA to determine how existing state or local buffer width requirements compare with the buffer widths that were under consideration for the proposed permit. Table 4 summarizes the existing buffer width or waterfront setback requirements found in areas where EPA is the permitting authority.

**Table 4 Buffer Requirements in EPA-Permitted Areas**

EPA-Permitted Area	Buffer Requirement	
District of Columbia	"Waterfront Setback" of 100 feet for buildings and structures	
Idaho	Bannock County	<ul style="list-style-type: none"> <li>Setback for all structures shall be 100' from any stream or riparian area</li> </ul>
	Blaine County	<ul style="list-style-type: none"> <li>75 ft setback for Class I streams</li> <li>50 ft setback for Class II streams</li> <li>25 ft setback for Class III and IV streams</li> </ul>
	City of Bellevue	<ul style="list-style-type: none"> <li>100 ft 'Riparian Protection Setback' from the mean high water mark of the Bigwood River</li> </ul>
	City of Boise	<ul style="list-style-type: none"> <li>75 ft 'Greenbelt Setback' for all structures, driveways, manicured landscaping and parking areas preserved for greenbelt purposes within the Boise River System</li> <li>10-20 ft 'Riparian Setback' for Tier 1 waterways</li> <li>25 ft 'Riparian Setback' for Tier 2 waterways and the Boise River</li> <li>Minimum 15 ft building setback from the edge of the 'Riparian Setback'</li> </ul>
	City of Coeur d'Alene	<ul style="list-style-type: none"> <li>Minimum 25 ft buffer for lots with frontage on sensitive waterbodies</li> </ul>
	City of Pocatello	<ul style="list-style-type: none"> <li>'Special Site Permit' required for ground disturbance of a natural vegetative buffer within 50 ft from wetlands or waterbodies</li> </ul>
	City of Twin Falls	<ul style="list-style-type: none"> <li>Canyon rim setback – 100 ft if no geologic report provided; 50 to 100 ft for different areas of Rock Creek Canyon and Snake River Canyon</li> </ul>
Massachusetts	Statewide	<ul style="list-style-type: none"> <li>200 ft 'Riverfront Area', except in densely developed areas</li> <li>25 ft in urban areas</li> </ul>
	Town of Falmouth	<ul style="list-style-type: none"> <li>Regulatory 100 ft buffer zone divided into 'No Disturbance Area' and the 'Outer Buffer Area'</li> </ul>

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EPA-Permitted Area	Buffer Requirement	
	Town of Sturbridge	<ul style="list-style-type: none"> <li>• 25 ft of no disturbance for new construction</li> <li>• 50 ft where no structures allowed for new construction</li> </ul>
New Hampshire	Statewide	<ul style="list-style-type: none"> <li>• Primary building line 50 ft</li> <li>• Natural woodland buffer must be maintained 150 ft</li> <li>• Limits to impervious surfaces within 250 feet</li> </ul>
	Town of Bow	<ul style="list-style-type: none"> <li>• 150 ft minimum for prime wetlands</li> <li>• 75 ft for surface waters, wetlands with poorly drained soils, and bogs</li> <li>• 50 ft for vernal pools and wetlands &gt;0.25 acre</li> <li>• 30 ft for other wetlands</li> </ul>
	Town of Concord	<ul style="list-style-type: none"> <li>• 50 ft minimum width for wetlands</li> <li>• 75 ft for all surface waters</li> </ul>
	46 additional municipalities throughout state	<ul style="list-style-type: none"> <li>• Adopted local regulations for shoreland and riparian protection</li> </ul>
New Mexico	Rio Arriba County	<ul style="list-style-type: none"> <li>• 300 ft around surface waters in Critical Management Areas</li> </ul>
	Santa Fe	<ul style="list-style-type: none"> <li>• 25 feet plus the depth of the arroyo channel for arroyos, streams, or watercourses that carry 100 cubic feet per second or more of stormwater flow in a 100 year, 24-hour storm event</li> </ul>
	Taos	<ul style="list-style-type: none"> <li>• For acequias, no development within the right of way</li> <li>• Width specified on a site-specific basis for properties traversed by watercourses, arroyos, ditches, channel, or stream</li> </ul>
Puerto Rico	Territory-wide	<ul style="list-style-type: none"> <li>• 5 meter requirement</li> </ul>

In summary, EPA found there to be district, state, and territory-wide buffer or waterfront setback requirements for surface waters in four of EPA's permitted states /territories: the District of Columbia, Massachusetts, New Hampshire, and Puerto Rico. EPA also found there to be existing local buffer or waterfront setback requirements in all of EPA's permitted states; however the prevalence of these requirements varied, with very few of such requirements existing in New Mexico and Idaho. Where buffer or waterfront setback requirements are in place, they vary widely from 25 feet to 300 feet, with the distances averaging around 75 feet. EPA assumes that where no buffer or waterfront setback requirements were found, new construction would be allowed up to the water's edge.

EPA also reviewed the extent to which other states have adopted buffer restrictions in their CGPs. As a result of this examination, EPA found that although most state CGPs do not currently include a buffer requirement, there are a select few that have adopted such provisions. Table 5 shows the buffer requirements EPA found in these state-issued CGPs.

**Table 5 Buffer Requirements in Non-EPA Issued Construction Permits**

Permit	Requirement
Alaska General Permit (draft)	<ul style="list-style-type: none"> <li>• 25 foot natural buffer areas or the width required by local ordinance.</li> <li>• Exceptions for water dependent activities, specific water access activities, or necessary water crossings.</li> </ul>
Georgia Construction General Permit	<ul style="list-style-type: none"> <li>• No construction activities allowed within a 25 ft buffer along the banks of all State waters, and within a 50 ft buffer for all State waters classified as 'trout streams.'</li> <li>• If discharging to or within 1 mile of impaired stream, permittee has an option to double the buffer width to 50 ft.</li> </ul>
Minnesota Construction General Permit	<ul style="list-style-type: none"> <li>• For discharges into special and impaired waters, a buffer zone of 100 ft must be maintained at all times.</li> </ul>
North Dakota Construction General Permit	<ul style="list-style-type: none"> <li>• Vegetated buffers must have a minimum width of 25 ft for every 125 ft of disturbed area which drains to the buffer. For each additional 5 ft of disturbance, an additional 1 foot width must be added. The land within the buffer must have a slope of 5 % or less, and the area draining to the buffer must have a slope of 6 % or less.</li> </ul>
Ohio Olentangy River Watershed and Big Darby Creek	<ul style="list-style-type: none"> <li>• Riparian setback requirements of varying distances based on stream type.</li> </ul>

Permit	Requirement
Oregon Construction General Permit	<ul style="list-style-type: none"> <li>If discharging to impaired waters, permittee has option to establish vegetated buffer sized at 50 ft plus 25 ft per 5 degrees of slope.</li> </ul>
Tennessee Construction General Permit (draft)	<ul style="list-style-type: none"> <li>30 foot natural riparian buffer zone applies to all streams adjacent to construction sites, with an exception for stream designated as impaired or Exceptional Tennessee waters.</li> <li>60 foot buffer zones required for streams designated as impaired or Exceptional Tennessee waters.</li> <li>Buffer widths can be averaged with a minimum width of 15 feet, or 30 feet for impaired/high quality waters.</li> </ul>
Vermont Construction General Permit	<ul style="list-style-type: none"> <li>If permittee establishes a 50 ft buffer, their risk evaluation score is reduced.</li> </ul>
Washington Construction General Permit	<ul style="list-style-type: none"> <li>Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize infiltration, unless infeasible.</li> </ul>

These state-issued CGP requirements show a range of options for implementing a buffer requirement in a permit. EPA notes that several of these permits impose buffer restrictions on sites that discharge to sensitive or impaired waters. EPA does not believe that limiting the implementation of the C&D rule buffer requirement in the Agency's CGP to only sensitive or impaired waters is appropriate given that the C&D rule's buffer requirement applies to all sites, not just those that discharge to impaired or sensitive waters.

*Federal Buffer Requirements and Guidance*

Although there is no comprehensive federal standard for buffer implementation, several federal agencies have issued either regulations or guidance concerning the use of buffers. In formulating requirements in Part 2.1.2, EPA felt it would be helpful to review the status of buffer-related requirements or guidance issued by federal agencies. The following summarizes the relevant information EPA found from varying federal agencies.

- EPA:** In both its *Aquatic Buffer Model Ordinance* (viewable at <http://www.epa.gov/owow/NPS/ordinance/mol1.htm>) and in the *Riparian/Forested Buffer Fact Sheet* (viewable at [http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet\\_results&view=specific&bmp=82](http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet_results&view=specific&bmp=82)) in its Stormwater Menu of BMPs, EPA has recommended a 100-foot buffer around surface waters to provide adequate stream protection. In the *Riparian/Forested Buffer Fact Sheet*, EPA recommends that the buffer be structured using a three-zone buffer system. EPA further elaborates that:

“the three-zone buffer system, consisting of inner, middle, and outer zones, is an effective technique for establishing a buffer. The zones are distinguished by function, width, vegetative target, and allowable uses. The inner zone protects physical and ecological integrity. It consists of a minimum of 25-feet plus wetland and critical habitats. The vegetative target consists of mature forest. Its allowable uses are very restricted (flood controls, utility right-of-ways, footpaths, etc.). The middle zone provides distance between upland development and the inner zone. It is typically 50 to 100 feet depending on stream order, slope, and 100-year floodplain. The vegetative target for this zone is managed forest. Usage is restricted to some recreational activities, some stormwater BMPs, and bike paths. The outer zone is the first zone to encounter runoff. It functions to prevent encroachment while slowing and filtering backyard runoff. The outer zone's width is at least 25 feet, and while forest is encouraged turf-grass can be a vegetative target. The outer zone's uses are unrestricted. They can include lawn, garden, compost, yard wastes, and most stormwater BMPs.”

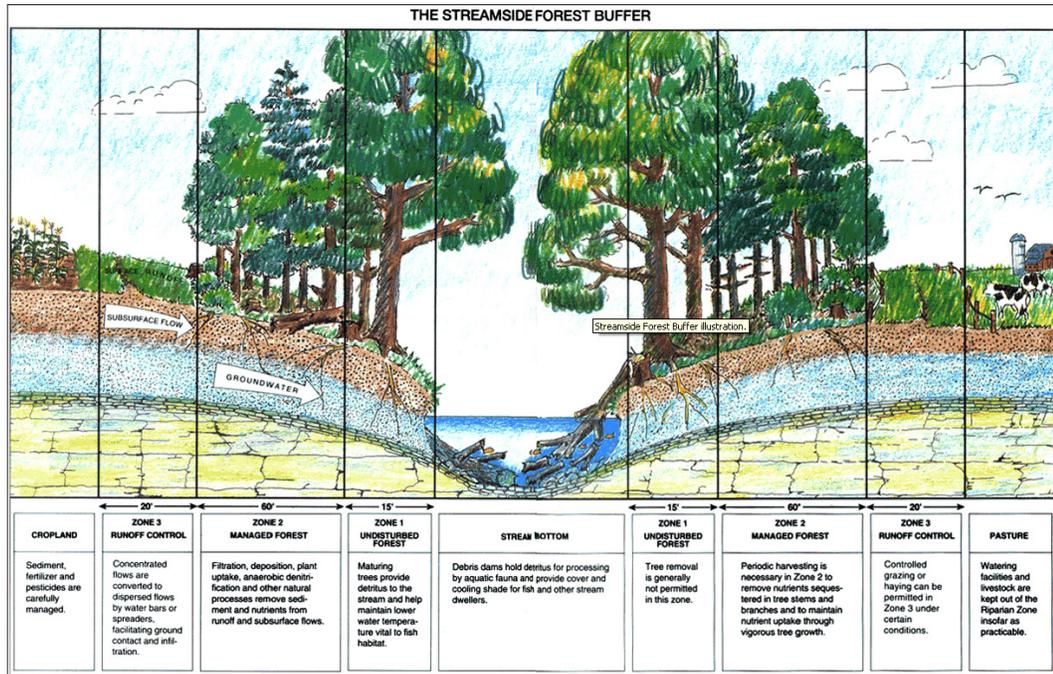
Additionally, the Concentrated Animal Feeding Operations (CAFO) NPDES regulations at 40 CFR 412.4(c)(5) require operators to not apply manure, litter, and process wastewater closer than 100 feet of any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface waters. Alternatively, CAFO operators may substitute a 35-foot buffer for the 100-foot setback, or use alternative practices that provide equivalent pollutant removal as the 100-foot setback.

- **U.S. Forest Service:** The U.S. Forest Service recommends a three zone structure for buffer establishment (similar to the three-zone buffer system in EPA's *Aquatic Buffer Model Ordinance*, described above), with varying widths depending on factors such as soil capability class and water type (Welsch, 1991). Figure 5 (below) shows an example of a three-zone buffer system, providing a total minimum buffer width of approximately 100 feet.
- **U.S. Department of Agriculture:** The Conservation Reserve Enhancement Program (CREP) provides financial incentives to farmers who agree to conserve a minimum of 35 feet of land surrounding streams and wetlands.
- **U.S. Department of the Interior:** The permit requirements for surface mining and reclamation at 30 CFR 780.28(c) impose additional mandates on surface mining activities that are proposed within 100 feet of any perennial or intermittent stream. The additional requirements include demonstrating why it is not reasonably possible to avoid disturbance within the 100-foot area, indicating what lesser buffer will be provided, and providing information on why it is believed that the lesser buffer combined with additional practices constitutes the best technology currently available.

These federal requirements are illustrative of the prevalence of buffer zone regulations or policies across different programs. EPA notes the significant support for a 100-foot buffer, but recognizes the need for flexibility inherent in imposing restrictions within such an area. These requirements all reflect the importance of identifying a minimum width that should be either protected or within which

activities should only be allowed where equivalent protections are provided (e.g., the CAFO and SMCRA regulations). EPA believes that these requirements indicate that the Agency’s proposed buffer requirement is reasonable and consistent with these other approaches. The proposed requirement recognizes the importance of the 50-foot buffer area (similar to the 100-foot or 35-foot buffers of the other programs) while it allows for flexibility for either restricting activity within the 50-foot buffer or providing an equivalent alternative.

**Figure 5 Three-zone buffer (Welsch, 1991).**



*Buffer Performance Considerations*

EPA understands from the scientific literature on buffers that their pollutant removal effectiveness depends heavily on site-specific factors, such as soil type, slope, vegetative cover, and runoff characteristics. EPA also acknowledges that buffer performance will vary even within a site depending on how these same variables change along the length of particular waterbodies. For instance, EPA would expect the filtering function of a natural buffer receiving multiple discharges from a construction site to differ in each location if there were only slight changes in the slope, soil type, vegetative cover, and runoff characteristics within the buffer. However, establishing a permit condition based on this variability is a challenge. The uniform buffer width requirement is the approach used by the vast majority of states and localities (within EPA’s area of permitting authority) that have buffer or waterfront setback requirements. The advantage of the uniform buffer width approach is that it is easier to implement and enforce. This approach is arguably easier to comply with from the permittee’s perspective because the permittee does not need to perform sites-specific calculations to determine the size of the applicable buffer. The proposed buffer requirement adopts a uniform width approach in the sense that all of the compliance options in proposed Part 2.1.2 provide the permittee with equivalent alternatives all based on the performance of a uniform 50-foot buffer around surface waters. EPA believes that the variability in buffer performance is accounted for in the proposed buffer requirement where the permittee chooses either of the two

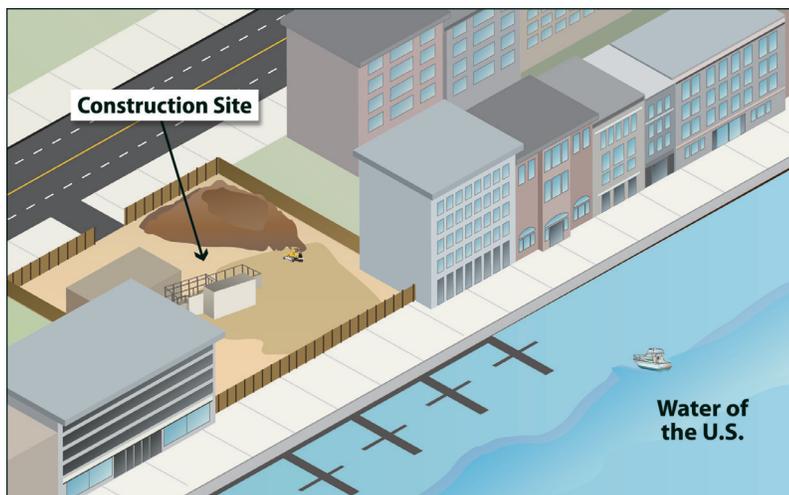
compliance alternatives requiring additional sediment and erosion controls because he/she will be able to estimate the expected site-specific buffer performance given local vegetation, soils, and precipitation patterns.

Buffer performance is also affected by the characteristics of the discharge flowing through the buffer area. In particular, stormwater discharges that enter the buffer as concentrated or channelized flow will receive minimal benefit from the buffer area in terms of pollutant reduction. Pollutant removal in the buffer depends in large part on the discharge being slowed down by the vegetation in the buffer and enabling the flow and suspended sediments to infiltrate to a large extent into the underlying soil layers. The more concentrated the flow of stormwater is in the discharge the higher its velocity, and the less likely the buffer area is to reduce any suspended sediment. For these reasons, EPA includes a requirement in Part 2.1.2 for any discharges through the buffer to be non-channelized and non-concentrated.

#### *Providing Buffers on Site-Constrained Properties*

Another issue for EPA to address was that of the circumstances under which providing a buffer would be “infeasible”, within the meaning of that term in the C&D rule, at individual sites. EPA can envision that there are a variety of such circumstances in which establishing a buffer of any width would be infeasible. For instance, construction could be taking place on a site where all vegetation within the buffer area was removed and replaced with impervious surfaces by prior development. See Figure 6 below. In such a circumstance, EPA would agree with a permittee who might claim that establishing a natural buffer is infeasible where no such area exists currently and in fact the draft permit provides an exception in Part 2.1.2.3.c for just such a scenario. By acknowledging that under this particular circumstance, providing a buffer is infeasible, EPA believes it is complying with the intention of the C&D rule infeasibility language. The Agency believes that the proposed buffer requirement, by providing an alternative for stormwater controls to be used that reduce sediment loads by the same amount as if an undisturbed, naturally vegetated buffer of 50 feet was established, offers a solution for facilitating the development of site-constrained sites without a buffer but requiring at the same time that the lost vegetative buffer functions be retained.

**Figure 6 Example of a site in which establishment of a buffer would be infeasible.**



*Rationale for Buffer Requirements in the Proposed CGP*

EPA's evaluation of the issues discussed above shaped today's proposed buffer requirement, which the Agency believes strikes the right balance between requiring the sites to use buffers to achieve scientifically-proven pollutant removal, while at the same time enabling permittees to meet this requirement in several different equivalent ways. From the scientific literature, EPA concluded that a 50-foot buffer width, if provided around surface waters on permitted sites, would generally achieve very high (often more than 90 percent) sediment load removals from site runoff. Translating a recommended 50-foot buffer to a permit requirement that would affect all permitted sites in close proximity to waters of the U.S. required EPA to understand numerous issues, including first and foremost the extent to which the buffer area is already subject to state or local restrictions. EPA assessed the zoning requirements that are in effect (or the absence of such requirements) in areas permitted by EPA, the buffer requirements included in other states' CGPs, and the recommendations by EPA and other federal agencies regarding buffer widths. From this assessment, EPA determined that while there is no consensus among these various agencies and jurisdictions regarding buffer width requirements, there are an array of different options for implementing a buffer requirement in the CGP, and in several areas within EPA's permitting area, construction operators are already accustomed to complying with such requirements.

In formulating the proposed buffer requirement, EPA also weighed the advantage of implementing a uniform buffer width approach, which is prevalent among local and state zoning requirements affecting the buffer. EPA found advantages to establishing a requirement based on the need to establish either a uniform width buffer (i.e., 50 feet) or the equivalent in terms of the sediment load reduction expected if that same buffer were provided. In other words, by allowing permittees to comply with the buffer requirement by providing a uniform 50-foot buffer or to provide some combination of a narrower buffer (or no buffer if establishing a buffer is infeasible) and stormwater controls that achieve an equivalent sediment load reduction as the 50-foot buffer, EPA has embraced the uniform width buffer approach. EPA believes this flexibility will benefit construction operators by giving them options for compliance while also ensuring conceptual consistency in the sediment load reduction regardless of the options chosen.

Another factor that EPA weighed in developing its draft buffer requirement was the need to account and provide flexibility for sites where providing a buffer would be infeasible. It is for this reason that EPA specifically acknowledges the existence of site constraints that make the establishment of any buffer infeasible (i.e., "If it is infeasible to provide an undisturbed naturally vegetated buffer between the disturbed portion of your site and any waters of the United States, implement sediment and erosion controls that achieve the equivalent sediment load reduction as an undisturbed naturally vegetated, 50-foot buffer."). This is consistent with the C&D rule requirement, which specifically provided an exception for infeasibility.

EPA notes that it has developed a buffer guidance appendix, Appendix M, to assist permittees with providing and maintaining natural buffers, and determining the expected sediment-removal achieved from a 50-foot buffer based on their site specific conditions (vegetation, soil type, slope, rainfall). EPA has also

developed examples to assist permittees with determining what supplemental controls can be used to achieve the performance of the buffer if the permittee decides to implement a buffer of less than 50 feet.

EPA is interested in feedback from the public on the proposed buffer requirements in Part 2.1.2, and whether additional flexibility is warranted for small sites who intend to implement the buffer alternative.

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## **REQUIREMENTS FOR DESIGNING, INSTALLING, AND MAINTAINING STORMWATER CONTROL MEASURES:**

### **VII.1.3 Requirements Applicable to All Construction Sites. (Part 2.1.3).**

Proposed Part 2.1.3 requires that the permittee design, install, and maintain stormwater erosion and sediment controls that minimize discharges of pollutants for any earth-disturbing activities. The proposed provision also specifies the requirements for designing, installing, and maintaining stormwater controls that all sites must comply with.

- *Purpose:* To establish requirements that implement the C&D rule's requirement at 40 CFR 450.21(a) to "design, install, and maintain effective erosion controls and sediment controls to minimize the discharge of sediment." The companion sections of the proposed permit within Part 2.1.3 include requirements that articulate what is expected of the CGP's permittees in order to comply with this effluent limitation established in the C&D rule.

**General design requirements.** (Part 2.1.3.1). All permittees would be required to comply with the following general design requirements:

1. **Required design factors.** The following factors must be accounted for when designing stormwater controls:
  - The expected amount, frequency, intensity, and duration of precipitation;
  - The nature of stormwater runoff at the site, including factors such as expected flow from impervious surfaces, slopes, and site drainage features; and
  - The soil characteristics at the site. Sediment controls must be designed with consideration of the range of soil particle sizes expected to be present on the site. If fine silts, clay or colloidal soils are present, then the use of enhanced sediment controls such as sand filtration and/or polymers or flocculants may be necessary
2. **Control stormwater discharges.** Design stormwater controls to control both peak flowrates and total stormwater volume to minimize erosion at outlets and to minimize downstream erosion.
3. **Use of vegetated areas for sediment control.** Discharges from stormwater controls must be directed to vegetated areas of the site, including any naturally vegetated buffers established under Part 2.1.2.1, unless infeasible. Level spreaders or other practices to establish a flow of stormwater through vegetated areas should be used.

4. **Routing of non-stormwater to sediment controls.** Allowed non-stormwater flow used at the site must be routed to sediment controls that are or will be installed on the site.
  - *Purpose:* The purpose of requiring design factors in (1) above is to establish overarching requirements that need to be accounted for in the design of stormwater controls installed at the site. Each of these specific design factors correspond to the C&D rule requirement at 40 CFR 450.21(a)(5), which requires that “the design, installation, and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity, and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site.”

Proposed Part (2) above includes the C&D rule requirement at 40 CFR 450.21(a)(2) that stormwater controls must be designed to control stormwater discharges to both control volume and to prevent erosion.

Proposed Part (3) above directly implements the C&D rule requirement to “... direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible.” EPA implements this requirement by requiring the use of level spreaders or other practices in order to minimize potential discharges of pollutants associated with erosive non-diffuse flows.

Proposed Part (4) above is included to minimize the potential for non-stormwater flows to discharge pollutants by directing them to sediment discharge controls. Because dry-weather discharges of allowed non-stormwater may erode soils and discharge sediment just as stormwater flows do, the proposed permit includes this requirement, which implements the C&D rule requirement to “minimize sediment discharges from the site.” It also implements the requirement to control dewatering discharges, since non-stormwater dewatering discharges are allowed under the proposed permit. See 40 CFR 450.21(a)(5) and (d), respectively.

**General installation requirements.** (Part 2.1.3.2). Under proposed Part 2.1.3.2, all permittees would be required to comply with the following installation requirements:

1. **Install stormwater controls before construction starts.** The permittee is required to install stormwater controls and make them operational before earth-disturbing activities commence. This requirement does not apply to earth disturbances related to initial site clearing and establishing entry, exit, and access of the site, which may require that stormwater controls be installed immediately after the earth disturbance.
2. **Install perimeter controls.** The permittee is required to install stormwater controls along all down slope areas of disturbance on the site, which includes areas to be used for stockpiling soils removed during construction, and alongside slope boundaries that will receive stormwater flow from disturbed areas of the site. All down slope sediment controls should be installed on the level contour of the site, in the flattest area possible on the site, at a distance down slope from the top of the slope, and with the ends of the control placed upslope from the rest of the control. Note that storm drain inlets that receive stormwater discharges from the construction site are considered part of your site's down slope control area. Examples of down slope controls are filter berms, silt fences, and temporary diversion dikes.

3. **Use good engineering practices and follow manufacturer's specifications.** The permittee is required to install all stormwater controls in accordance with standard industry and good engineering practices, and, where appropriate, manufacturer's specifications.

- *Purpose:* The proposed installation requirements in Part 2.1.3.2 implement the C&D rule requirement to "... install effective erosion and sediment controls."

The requirement in (1) above was included to make permittees aware that stormwater controls must be functional before earth-disturbing activities commence so that pollutants are not being discharged without control. The perimeter control installation requirements in (2) above instructs permittees as to where down slope sediment controls should be installed so that they are effectively situated to minimize the discharge of pollutants from the site. EPA included the proposed requirement in (3) above because sediment controls will not be "effective" unless properly designed and installed.

**Maintenance requirements.** (Part 2.1.3.3). The proposed permit requires permittees to comply with the following maintenance requirements:

1. **Keep stormwater controls in effective operating condition.** Proposed Part 2.1.3.3.a requires that stormwater controls remain in effective operating condition and are protected from activities that reduce their effectiveness.
  2. **Remove accumulated sediment.** Proposed Part 2.1.3.3.b requires that sediment controls be maintained. Permittees must remove sediment before it has accumulated to a height of ½ of any exposed silt fence fabric or ½ of the height of any filter berm. Removed sediment must be managed by spreading evenly over exposed areas of the site that have adequate stormwater controls in place, by utilizing as fill material, by stockpiling and stabilizing, or by disposing with other construction and domestic wastes
  3. **Take corrective actions.** Proposed Part 2.1.3.3.c requires that permittees take corrective actions under Part 6 to repair, replace, and/or supplement sediment and erosion controls.
- *Purpose:* Proposed Part 2.1.3.3 establishes procedures for permittees to maintain stormwater controls in effective operating condition and to prevent the potential for stormwater control failure, and the subsequent discharge of pollutants to surface waters. These requirements implement the C&D rule requirement to "... maintain effective erosion controls and sediment controls" at 40 CFR 450.21 (a).

**Good housekeeping requirements.** (Part 2.1.3.4). Proposed Part 2.1.3.4 describes the good housekeeping requirements that all sites must comply with, which include:

1. **Remove deposited sediment.** *The permittee is required to:*
  - Where track-out of sediment occurs at your site onto streets, sidewalks, and other paved areas, by the end of the same work day in which the track-out is discovered the permittee must sweep, shovel, or vacuum these surfaces to remove track-out material.
  - Immediately begin to remove sediment that has been deposited in or near any stormwater conveyance channel or storm drain inlet and complete the removal by the close of the next full work day.

- Manage removed sediment by: spreading evenly over exposed areas of the site; utilizing as fill material; stockpiling and stabilizing; or disposing of with other construction and domestic waste.
  - Do not wash sediment deposits or other debris, which have accumulated on the site, into stormwater conveyance channels, storm drain inlets, or waters of the U.S., including when cleaning stormwater controls
2. **Control discharges from stockpiled sediment or soil.** For any stockpiled or land clearing debris composed, in whole or part, of sediment or soil, the permittee must:
- Locate stockpiles outside of any buffers established consistent with Part 2.1.2.
  - Protect from contact with stormwater (including run-on) using a temporary perimeter sediment barrier such as berms, dikes, fiber rolls, silt fences, sandbag, gravel bags, or straw bale.
  - Provide cover or other appropriate temporary or permanent stabilization for stockpiled sediment or soil to avoid direct contact with precipitation or to prevent sediment discharge.
  - Do not hose down debris accumulated on pavement or other impervious surfaces.
  - To the extent possible, contain and securely protect from wind unless actively being used.
  - To the extent native topsoil is being removed, comply with the requirements for stockpiling and reapplying such material in Part 2.1.3.5.
3. **Minimize dust.** *In order to avoid pollutants from being discharged into waters of the U.S., the permittee must minimize the generation of dust and off-site tracking through the application of water or other dust suppression techniques.*
- *Purpose:* The proposed good housekeeping practices in Part 2.1.3.4 are intended to implement the C&D rule requirement to minimize the discharge of sediment. The requirement to remove deposited sediment in (1) above is intended to prevent sediment from being tracked off the site, or from being discharged in stormwater. The requirements in (2) above are intended to prevent the discharge of sediment from stockpiled soil and dirt on the site. The proposed dust minimization requirements in (3) above are intended to prevent sediment from leaving the site.

**Use of native topsoil.** (Part 2.1.3.5). Proposed Part 2.1.3.5 recommends that in areas where disturbance of native topsoil occurs, native topsoil should be stockpiled and reused in areas that will be stabilized with vegetation. To maximize the native topsoil's continued function, when stockpiling native topsoil, you should mound the soil and cover to prevent soil erosion and weed growth. As a guideline, soil should be mounded no higher than 4 feet and for less than 1 year, and preferably less than 6 months.

- *Purpose:* The proposed requirement in Part 2.1.3.5 is implementation of the C&D rule requirement to preserve topsoil, unless infeasible at 40 CFR 450.21(a)(7). The recommended procedures for mounding the stockpiled topsoil is based on a recommendation of the Center for Environmental Excellence within the American Association of State Highway and Transportation Officials (AASHTO). See Section 4.11.4 of the Center's Compendium of Environmental Stewardship Practices in

Construction and Maintenance (viewable at [http://environment.transportation.org/environmental\\_issues/construct\\_maint\\_prac/compendium/best\\_practices/](http://environment.transportation.org/environmental_issues/construct_maint_prac/compendium/best_practices/)).

**Minimize soil compaction.** (Part 2.1.3.6). Proposed Part 2.1.3.6 recommends the following to avoid soil compaction in areas of the site where vegetative stabilization will occur:

1. **Restrict vehicle / equipment use.** Restrict vehicle and equipment use in these locations to avoid soil compaction; or
2. **Use soil conditioning techniques.** Prior to seeding or planting areas of exposed soil that have been compacted, use techniques that condition the soils to support vegetative growth, if necessary. For example, techniques such as deep-ripping and decompaction or sub-soiling may be used to condition soils, except as otherwise prohibited by state or local regulations, or as otherwise necessary for load-bearing capability.
- *Purpose:* The proposed requirements in Part 2.1.3.6 implement the C&D rule requirement to “minimize soil compaction.” Restricting vehicle and equipment use in areas that will be stabilized, and requiring already compacted soil to be conditioned before implementing vegetative stabilization will minimize soil compaction. EPA provides examples in Part 2.1.3.6 of the types of soil conditioning techniques to make permittees aware of the specific types of activities EPA deems appropriate.

**Entrance and exit points.** (Part 2.1.3.7). The proposed permit requires compliance with the following requirements:

1. **Stabilize construction entrance and exit points.** Permittees are required to stabilize all construction entrance and exit points for a minimum of 50 feet from the point of entry/exit so that no soil is left exposed and no sediment is discharged during storm events. *Examples of stabilization techniques include use of a 6-inch thick pad of crushed rock, course aggregate, or stone (greater than 1.5 inches) with an underlying filter fabric*
2. **Eliminate track-out from vehicles.** Permittees are required to wash vehicle tires prior to vehicle exit or implement a similarly effective way of removing sediment from wheels and preventing track-out. No visible signs of tracking from vehicles should be present on public or private roadways exiting the site.
3. **Wheel washdown requirements.** If wheel washdown is performed, the following requirements apply:
  - Identify and designate wheel washdown areas to be used at your site, and clearly flag off such areas or mark them with signs;
  - Conduct wheel washdown outside of any buffers established consistent with Part 2.1.2;
  - Refrain from the use of soaps and solvents; and
  - Direct wash water into a sediment trap or alternative control that provides equivalent or better treatment prior to discharge.
- *Purpose:* By requiring construction access points to be stabilized, (1) above implements the C&D rule requirements to “minimize the amount of soil exposed during construction activity” and to “minimize sediment discharges from the site.” The requirement to eliminate the track-out from vehicles in (2) above further

implements the C&D rule requirement to “minimize sediment discharges” by eliminating the potential for sediment trapped on vehicles to leave the site, and to later be discharged in stormwater.

Proposed (3) above implements the C&D rule requirements to “minimize sediment discharges” and to “minimize the discharge of pollutants from equipment and vehicle washing ...” EPA includes additional requirements in (3) to specify what is meant by “minimize” in the C&D rule requirements. EPA requires wheel wash down areas to be clearly marked, and located outside of any buffer established in Part 2.1.2 to minimize the potential for pollutants in wash waters to be discharged directly to surface waters. EPA prohibits the use of soaps in solvents to eliminate the possibility of these specific pollutants being discharged to surface waters in conformance with the C&D rule’s prohibition at 40 CFR 450.21(e)(4) on discharging soaps or solvents used in vehicle and equipment washing. Also, EPA adds that the wash waters be directed to a sediment trap or alternative control to comply with the corresponding C&D rule requirement at 40 CFR 450.21(d)(1).

**Compliance with Safe Drinking Act underground injection control requirements for certain subsurface stormwater controls.** (Part 2.1.3.8). Proposed Part 2.1.3.8 requires that permittees that are using any of the stormwater controls described below comply with any applicable requirements for underground injection wells in the Safe Drinking Water Act and EPA’s implementing regulations at 40 CFR Parts 144-147:

1. Infiltration trenches (if stormwater is directed to any bored, drilled, driven, shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system);
  2. Commercially manufactured pre-cast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate stormwater; and
  3. Drywells, seepage pits, or improved sinkholes (if stormwater is directed to any bored, drilled, driven, shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system).
- *Purpose:* The purpose of including the proposed requirements in Part 2.1.3.8 is to make permittees aware that they are responsible for complying with the Safe Drinking Water Act requirements for underground injection wells. It is consistent with EPA’s June 2008 memorandum entitled *Clarification on which stormwater infiltration practices/technologies have the potential to be regulated as “Class V” wells by the Underground Injection Control Program* (viewable at [http://www.epa.gov/npdes/pubs/memo\\_gi\\_classwells.pdf](http://www.epa.gov/npdes/pubs/memo_gi_classwells.pdf)).

#### **VII.1.4 Requirements Applicable to Specific Stormwater Controls. (Part 2.1.4).**

Proposed Part 2.1.4 specifies the requirements that are applicable to specific stormwater controls. A detailed discussion is included below of each specific set of requirements.

**Constructed stormwater conveyance channels.** (Part 2.1.4.1). Proposed Part 2.1.4.1 specifies the following requirements for constructed stormwater conveyance channels:

1. **Design channels to avoid disturbed areas and to reduce erosion.** Channels must be designed to avoid disturbed areas and to reduce erosion. Concentrated flows of stormwater running onto the site and within the site must be diverted to avoid contact with exposed soils during construction, unless infeasible. Erosion of

channel embankments, outlets, adjacent streambanks, slopes, and downstream waters during discharge conditions should be prevented through the use of velocity dissipation devices.

2. **Stabilize stormwater conveyance channels.** Stormwater conveyance channels must be stabilized before the first predicted storm event, or within 7 days, whichever is sooner. The permittee is prohibited from applying mulch, hydromulch, tackifier, or similar erosion prevention practices that are not suitable for use in areas with concentrated or channelized flow in stormwater conveyance channels.
  - *Purpose:* The requirements in these proposed provisions implement the C&D rule requirements to “control stormwater volume and velocity within the site to minimize soil erosion”, to “control stormwater discharges... to minimize erosion at outlets and to minimize downstream channel and streambank erosion”, to “minimize the amount of soil exposed during construction activity,” and to “minimize the disturbance of steep slopes.” By requiring stormwater conveyance channels to be stabilized, the potential for channel erosion and resultant sediment discharge is minimized. The 7-day timeframe is required to emphasize the importance of stabilizing as soon as possible, and to be consistent with the stabilization requirements for other sensitive areas in Part 4.2.2.2. The purpose of the prohibition on the use of mulch, hydromulch, tackifiers, and other similar practices is to make permittees aware of the types of stabilization practices that are not appropriate for use in areas with concentrated or channelized flow.

**Steep slope controls.** (Part 2.1.4.2). The proposed permit requires the following controls if disturbances to steep slopes (i.e., slopes of 15% or greater) cannot be avoided or are otherwise inconsistent with the project:

1. **Divert flows around steep slope disturbances.** Divert concentrated or channelized flows of stormwater away from and around areas of disturbance to steep slopes;
2. **Use specialized controls.** Use specialized erosion and sediment controls for steep slopes, such as temporary and permanent seeding with soil binders, erosion control blankets, surface roughening, reducing continuous slope length with terracing or diversions, gradient terraces, interceptor dikes and swales, grass-lined channels, pipe slope drains, subsurface drains, level spreaders, check dams, seep berms, and triangular silt dikes;
3. **Stabilization requirements.** Stabilize exposed areas in accordance with specified deadlines that are tighter than for other areas of the site.
  - *Purpose:* Proposed Part 2.1.4.2 includes additional requirements that permittees must comply with if disturbances to slopes of 15 percent or greater cannot be avoided or are otherwise inconsistent with the project. These provisions implement the rule requirement to “minimize the disturbance of steep slopes.” Additionally, because of the increased potential for erosion and sediment discharges resulting from steep slope disturbances, the proposed permit requires additional erosion and stabilization requirements in order to comply with the C&D rule requirement to minimize erosion and sediment discharges from the site.

**Storm drain inlet protection.** (Part 2.1.4.3). Proposed Part 2.1.4.3 describes the requirements for protecting storm drain inlets that are located on the construction site or that receive stormwater discharges from the site, and for which you have access. The following requirements apply:

1. **Inlet protection measures.** Permittees are required to install inlet protection measures that remove sediment from discharges prior to entry into the storm drain inlet on any storm drain inlets located on the site or that receive stormwater discharges from the site and to which the permittee has access.
2. **Maintenance requirements.** Protection measures must be cleaned, or removed and replaced as sediment accumulates, the filter becomes clogged, and/or the performance is compromised. The protection measures must be serviced, cleaned, or removed and replaced when sediment has filled to one-half capacity of available storage.
  - *Purpose:* Proposed Part 2.1.4.3 implements the C&D rule requirement to “minimize sediment discharges from the site” by requiring stormwater inlets to be protected with sediment controls during construction. Inlet protection measures prevent sediment-laden stormwater from being discharged into storm drains, and ultimately waters of the U.S. The maintenance requirements support the need for the inlet measures to be kept in working condition so that they are effective at preventing the discharge of pollutants.

**Sediment basins and impoundments.** (Part 2.1.4.4). Proposed Part 2.1.4.4 requires permittees to comply with the following requirements if sediment basins or other impoundments are used:

1. **Design requirements.** Utilize outlet structures that withdraw water from the surface, unless infeasible.
2. **Maintenance requirements.** Remove accumulated sediment before it reaches ½ of the capacity of the sediment basin.
  - *Purpose:* The proposed design requirements in Part (1) above to “utilize outlet structures that withdraw water from the surface” is a direct implementation of the following C&D rule requirement: “When discharging from basins and impoundments, utilize outlet structures that withdraw water from the surface, unless infeasible.”

The maintenance requirements in Part (2) above implement the C&D rule requirement to “... *maintain* effective erosion controls and sediment controls to minimize the discharge of pollutants.”

**Chemical treatment.** (Part 2.1.4.5). Proposed Part 2.1.4.5 imposes requirements for permittees using chemical treatment to reduce sediment in stormwater prior to discharge. Permittees must provide appropriate cover and containment all of treatment chemicals stored onsite, and use treatment chemicals only in accordance with manufacturers' specifications or document any departures from the specifications where appropriate. In addition, Part 2.1.4.5 imposes restrictions on the use of such chemicals and disposal of residuals from the treatment process. EPA requests comment on the scope and breadth of these management requirements, particularly regarding whether it is necessary to require residual testing in connection with the use of chitosan, and whether a maximum dosage rate should be included in the permit.

- *Purpose:* EPA included the provisions of 2.1.4.5 to ensure that any chemical treatment technique used to address sediment in stormwater discharges from a construction site is used in an environmentally appropriate and responsible manner. The requirements implement the C&D rule requirements to minimize sediment discharge from the site, by providing reasonable controls on the storage and use of chemical additives for stormwater treatment, as well as addressing the disposal of resulting treatment residuals. In its rationale for the

C&D rule, EPA acknowledged the variety of polymers and/or other chemicals available to the construction site operator, and recognizes the merits of ensuring the proper use of such additives at the construction site. While there is a potential for environmental problems due to the improper application or management of treatment chemicals, EPA found many states where chemical treatment of stormwater is routinely and effectively used to reduce pollutants. This evidence demonstrates that, when properly used, chemical additives used for passive stormwater treatment do not result in negative environmental impacts. EPA states that NPDES permitting authorities may establish controls or other measures as appropriate. (See 74 FR 63007 – 63008, December 1, 2009.) The proposed requirements of Part 2.1.4.5 provide appropriate management controls on the use of chemical additives for stormwater treatment.

Some states, such as Oregon and Washington, require that construction operators intending to use chemical treatment on their site must obtain prior approval. For instance, Washington's Department of Ecology requires operators to first submit a "Request for Chemical Treatment" (<http://www.ecy.wa.gov/biblio/ecy070258.html>) that must be approved prior to its use. EPA chose instead to propose an approach that requires operators to inform the Agency in the NOI if chemical additives will be used, and, if so, to indicate in the NOI which chemicals will be used. The operator is then required to comply with the Part 2.1.4.6 requirements if the site becomes covered under the permit. For other state references, refer to Washington's "BMP C250: Construction Stormwater Chemical Treatment" (specifically pages 7-9) at [http://www.ecy.wa.gov/programs/wq/stormwater/wwstormwatermanual/final\\_bmp\\_c250\\_12\\_06.pdf](http://www.ecy.wa.gov/programs/wq/stormwater/wwstormwatermanual/final_bmp_c250_12_06.pdf), and Attachment F (Active Treatment System Requirements) of California's CGP at [http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/docs/const\\_permits/wqo\\_2009\\_0009\\_att\\_f.pdf](http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/const_permits/wqo_2009_0009_att_f.pdf).

**Dewatering practices.** (Part 2.1.4.6). Proposed Part 2.1.4.6 prohibits the discharge of groundwater or accumulated stormwater that is removed from excavations, trenches, foundations, vaults, or other points of accumulation associated with a construction activity unless such waters are first treated by an appropriate control for sediment. Appropriate controls include, but are not limited to, sediment basins or traps, dewatering tanks, tube settlers, weir tanks, or filtration systems (e.g., bag or sand filters) that are designed to remove sediment. Uncontaminated, non-turbid dewatering wastewater, such as well-point ground water, can be discharged without being routed to a control provided the dewatering flow complies with the velocity dissipation requirements of Part 2.1.4.1. The permittee must also meet the following requirements for dewatering activities:

**1. Discharge requirements.**

- a. Do not discharge floating solids or visible foam other than in trace amounts;
- b. Use an oil-water separator or suitable filtration device (such as a cartridge filter) that is designed to remove oil, grease, or other products if dewatering wastewater is found to contain these materials;
- c. Utilize vegetated areas of the site to infiltrate wastewater from dewatering activities, unless infeasible;

- d. Provide energy dissipation at all points where dewatering wastewater is discharged. Dewatering discharges must not cause erosion at the discharge point or scouring of the banks of the water of the U.S.;
  - e. With sediment that has been removed during the maintenance of a dewatering device, you must manage such sediment in accordance with Part 2.1.3.4.iii, above;
  - f. With backwash water, either haul away for disposal or return it to the beginning of the treatment process for another pass through the series of dewatering devices; and
  - g. Replace and clean the filter media used in dewatering devices when the pressure differential equals or exceeds the manufacturer's specifications.
2. **Treatment chemical restrictions.** Permittees using polymers, flocculants, or other treatment chemicals to treat dewatering wastewater must comply with the requirements in Parts 2.1.4.5.
- *Purpose:* To implement the C&D rule requirement that prohibits "discharges from dewatering activities, including discharges from dewatering of trenches and excavations" unless managed by "appropriate controls." The specific restrictions in proposed Part 2.1.4.6 provide the permit's interpretation of what is meant by "appropriate controls" in the C&D rule. These specific requirements, in part, also implement the C&D rule requirements to control peak flowrates and total stormwater volume (40 CFR 450.21 (a)(2)), to minimize sediment discharges (40 CFR 450.21 (a)(5)), and to direct stormwater to vegetated areas (40 CFR 450.21 (a)(6)).

## VII.2 Stabilization Requirements. (Part 2.2).

EPA provides a definition in the proposed permit for "stabilization" as "the process of covering exposed ground surfaces with vegetative or non-vegetative practices that reduce erosion and prevent sediment discharge from occurring." The proposed permit further defines "temporary stabilization" and "final stabilization" as follows:

- "Temporary stabilization" refers to the stabilization of exposed portions of the site in order to provide temporary cover (1) during the establishment and growth of vegetation, and/or (2) in areas where earth-disturbing activities will occur again in the future.
- "Final stabilization" refers to the stabilization of exposed portions of the site using practices that provide permanent cover and qualify the permittee for permit termination.

In the C&D rule, EPA emphasizes the importance of effective and speedy stabilization of soils exposed throughout the construction process. EPA indicates in the rule that initiating soil stabilization measures immediately after land has been disturbed and construction activity has ceased is an important non-numeric effluent limitation. EPA also states that it "sees no compelling reason why permittees cannot take action immediately to stabilize disturbed soils on their sites" (see 74 Fed. Reg. 63005, December 1, 2009). EPA also observes that erosion control measures, such as mulch, are readily available and permittees need only plan accordingly to have appropriate materials and laborers present when needed. Ibid.

Furthermore, “simply providing some sort of soil cover on these areas can significantly reduce erosion rates, often by an order of magnitude or more. Vegetative stabilization using annual grasses is a common practice used to control erosion. Physical barriers such as geotextiles, straw, rolled erosion control products and mulch and compost are other common methods of controlling erosion. Polymers (such as PAM) and soil tackifiers are also commonly used. These materials and methods are intended to reduce erosion where soil particles can be initially dislodged on a C&D site, either from rainfall, snow melt or up-slope runoff.” See 74 Fed. Reg. 63012.

The proposed permit carries forward these important principles and factors by incorporating specific provisions intended to implement the C&D rule's stabilization deadline requirements. The following section provides support for these proposed provisions.

### **VII.2.1 Deadlines for Initiating and Completing Stabilization. (Part 2.2.1).**

**Deadline to initiate stabilization.** (Part 2.2.1.1). The proposed permit specifies that the permittee must immediately initiate stabilization on exposed portions of the site where earth-disturbing activities have permanently or temporarily ceased, and will not resume for a period exceeding 14 calendar days. The permit also clarifies what is intended by the permanent or temporary cessations in earth-disturbing activities:

1. Earth-disturbing activities have temporarily ceased when clearing, grading, and excavation within any area of the construction site will not resume for a period of 14 or more days, or for a period of 7 or more days if any of the conditions in Part 2.2.1.3a apply to the site, but such activities will resume in the future.
  2. Earth-disturbing activities have permanently ceased when clearing and excavation within any area of the construction site has been completed, and final grade has been reached.
- *Purpose:* The requirement to immediately initiate stabilization following a period when disturbed soils are not being worked on for 14 or more days implements the C&D rule requirement with the same deadline. See 40 CFR 450.21 (b). EPA believes it is important to clarify the rule by specifying what it means to have earth-disturbing activities temporarily or permanently cease. It is important for construction operators to understand that stabilization must begin immediately when there is no justification for leaving areas exposed. For example, if 14 days will pass between the time when clearing and grading has been completed and further earth-disturbing activities will occur, there is no reason why the exposed portions of the site cannot be stabilized, even temporarily, to prevent erosion and sediment discharge. To further clarify what is intended with the definitions for temporarily ceasing and permanently ceasing earth-disturbing activities, EPA believes that simply running a shovel or equipment over an area or transferring of soil from one material storage pile to another does not constitute a continuation of earth-disturbing activities which would justify delaying the initiation of stabilization.

EPA proposes to require earlier stabilization deadlines as a water quality based effluent limitation for earth disturbances in certain areas considered more sensitive to water quality impacts. For these areas, such as sites discharging to impaired waters, stabilization must be initiated when an exposed area will be inactive for a period of 7 or more days, in comparison to the 14-day timeframe for all other sites. EPA believes that a stricter stabilization timetable is necessary to

minimize erosion and the discharge of sediment in these areas. The preamble to the C&D rule anticipated permitting authorities requiring stricter stabilization timeframes in their permits, consistent with the overall flexibility provided in the non-numeric limits of 40 CFR 450.21. In the preamble, EPA provided an example of how this flexibility may be utilized in the context of stabilization requirements: “the permitting authority may determine that it is necessary for permittees to initiate soil stabilization measures when construction activity has permanently or temporarily ceased and will not resume for a period exceeding 7 calendar days, as opposed to 14 calendar days ... or that additional erosion and sediment controls are necessary.” 74 Fed. Reg. 63016.

**Deadline to complete stabilization activities.** (Part 2.2.1.2). The proposed permit requires that within 7 calendar days of initiating stabilization on exposed portions of your site, the permittee is required to have completed: (a) for vegetative cover, all soil conditioning, seeding, watering, mulching, and any other required activities related to the planting and establishment of vegetation; and/or (b) for non-vegetative cover, the installation or application of all such non-vegetative measures.

- *Purpose:* The C&D rule, at 40 CFR 450.21 (b), requires that a deadline to complete stabilization be established by each permit authority. As the permit authority for this CGP, EPA is proposing what it believes to be a reasonable and unambiguous deadline for completing stabilization procedures. In arriving at the 7-day deadline, EPA gave consideration to the differences between vegetative and non-vegetative stabilization techniques. While it is infeasible to define with any certainty a deadline for when vegetative stabilization must be established and operating effectively, it is possible to require that some of the basic steps for planting vegetative cover in an area take place within a certain period of time, which is what EPA proposes in this section. By comparison to vegetative stabilization, it is feasible to define when non-vegetative practices must be installed and made operational, since the establishment of non-vegetative practices is typically more straightforward in terms of their application or installation.

**Stabilization criteria and deadlines for discharges/disturbances to sensitive areas.** (Part 2.2.1.3). As stated above, the proposed permit would establish faster stabilization timeframes for construction sites that are in areas of concern, such as sites that will conduct earth-disturbing activities within 50 feet of a water of the U.S. located on or immediately adjacent to the site, will discharge to sediment or nutrient-impaired waters, or to Tier 2, Tier 2.5, or Tier 3 waters, and will cause disturbances to steep slopes of 15 percent or greater. Under these circumstances, the permit would impose a requirement to immediately initiate stabilization if work on the exposed areas is permanently or temporarily ceased for 7 or more days. Within 3 work days of initiating stabilization, the permittee must complete vegetative and/or non-vegetative stabilization, whichever applies.

- *Purpose:* To provide for as short a time period as possible during which soils, disturbed in areas of special concern can be left exposed prior to initiating stabilization. EPA believes that discharges from these particular areas demand stricter controls given heightened concern about erosion and the impacts from sediment discharges from these areas.

**Deadlines for arid/semi-arid areas** (Part 2.2.1.4). The proposed permit provides flexibility in terms of the stabilization deadlines for sites located in arid areas (i.e., areas with an average annual rainfall of less than 10 inches) and semi-arid areas (i.e., areas with an average annual rainfall of 10 to 20 inches). If the project is located in one of these areas,

the permittee is required to initiate stabilization “as soon as practicable” following the temporary or permanent cessation of construction activities in lieu of meeting the deadlines in Parts 2.2.2.1 and 2.2.2.2.

- *Purpose:* To provide flexibility for arid and semi-arid areas where stabilization timeframes can be adjusted during comparably dry periods. In the C&D rule, EPA allowed for the fact that “alternative stabilization measures” could be used for arid and semi-arid areas. See 40 CFR 450.21 (b). This provision is consistent with the C&D rule.

### **VII.2.2 Criteria for Stabilization. (Part 2.2.2).**

The proposed permit includes criteria that must be met for sites to be considered stabilized.

There are two types of criteria proposed in this section that permittees can choose from for site stabilization: (1) the 70 percent vegetative cover criterion that was used in the 2008 CGP, and (2) criteria based on the cover management factor (C-factor) in the Revised Universal Soil Loss Equation (RUSLE). The 70 percent criterion will be discussed further below. For background, the discussion in these paragraphs will describe why the proposed permit chose to include the C-factor method as an option for site stabilization.

As will be discussed in greater detail below, the proposed permit requires that, in order to be considered stabilized, the permittee must use stabilization cover types that have been shown to be effective at minimizing soil loss after their application. These requirements are based on extensive studies, using approved research protocols (ASTM 6459), on the erosion control effectiveness of commonly-used cover methods. These studies rate each type of cover method according to its erosion control effectiveness, which is reflected in the soil loss “C-factor”. The derivation of the C-factor is the Revised Universal Soil Loss Equation (RUSLE), a regression formula that computes the average annual erosion from an acre of land. RUSLE has been used for many years to estimate the mass of soil that will erode from an earthen slope due to rainfall (USDA, 1997). Based on a wide array of soil erosion measurements, the RUSLE equation is expressed as:

$$A \text{ (tons of soil loss per year per acre)} = R * K * S * L * C * P$$

Where the six contributing factors are:

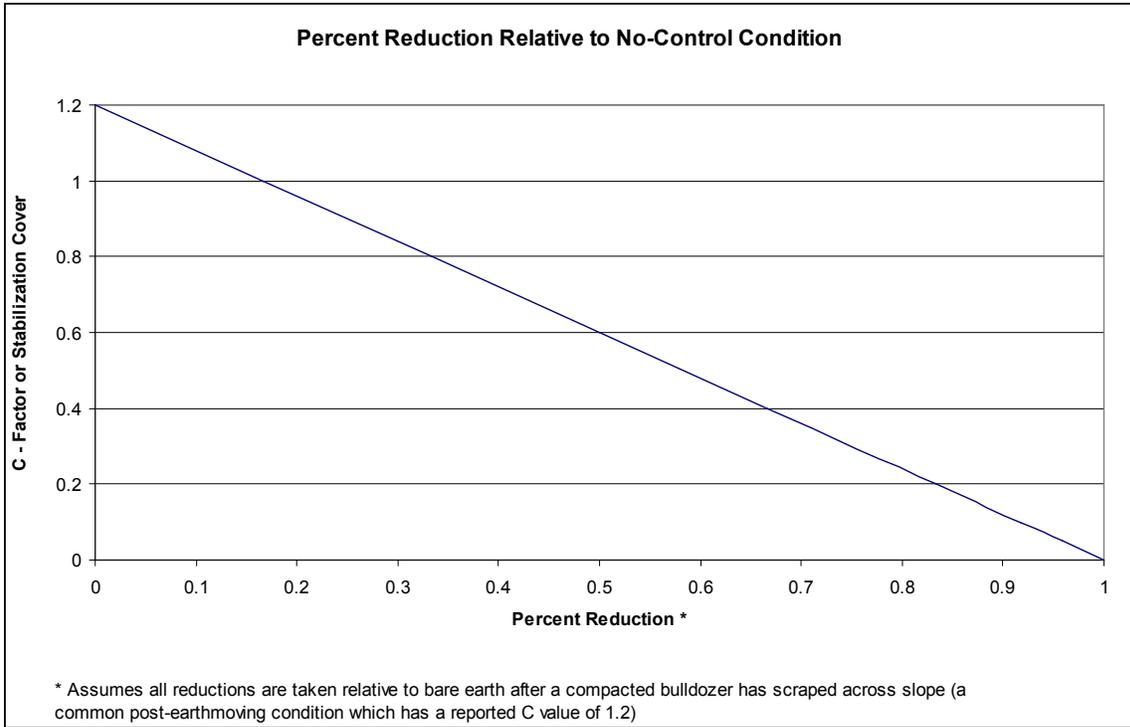
- 1) Rainfall-runoff erosivity factor (R)
- 2) Soil erodibility factor (K)
- 3) Slope-length factors (S and L)
- 4) Cover management factor (C)
- 5) Support practice factor (P)

C-factor values are assigned to various vegetative and non-vegetative cover types based on their effectiveness at preventing soil loss. Through C-factor studies, it has been shown that the higher the C-factor, the greater the amount of soil will be discharged from a construction site during rainfall events. For example, most earth-disturbing activities result in a denuded surface condition associated with a C-factor value between 0.9 and 1.2. Part 2.2.2 of this permit requires the permittee to install surface covers that significantly lower the site C-factor value in order to minimize soil erosion. In Part 2.2.2.2.a of this permit, the maximum C-factor values for cover methods used for *temporary stabilization* (using non-vegetative covers) are 0.1 for slopes less than

15 percent, and 0.3 for slopes 15 percent or greater. In comparison, cover methods used for *final stabilization* are to have a C-Factor value of less than 0.05 (vegetative or non-vegetative).

To illustrate how the proposed C-factor values correspond to erosion control effectiveness, the following tables compare C-factor values to the corresponding percent reduction in soil loss. For instance, the proposed permit's requirement to use stabilization measures that achieve a C-factor of 0.05 corresponds to a 96 percent reduction in soil loss as compared to an exposed site with no controls.

<b>C-factor</b>	<b>Percent reduction in soil loss*</b>
1.2	0%
1	17%
0.8	33%
0.6	50%
0.4	67%
0.2	83%
0.1	92%
0.05	96%
0	100%
* Assumes all reductions are taken relative to bare, compacted earth after a bulldozer has scraped across slope (a common post-earthmoving condition which has a reported C value of 1.2)	



EPA believes that the extensive research into the C-factor values of stabilization practices offers a good basis for establishing objective standards for stabilizing disturbed sites. In retrospect, the previous permits did not include an adequate acknowledgment of the fact that construction operators use non-vegetative controls to stabilize sites, often in combination with vegetative controls. The 2008 CGP's sole focus on vegetative stabilization, therefore, did not fully account for the fact that non-vegetative approaches are being used and, in many cases, are extremely effective at controlling erosion.

In order to make the proposed permit's C-factor approach easier to comprehend and work with, EPA has developed a specific appendix (Appendix H) to be used by permittees. Table H-1 of Appendix H includes a compilation of published C-factor values for commonly-used stabilization cover methods. Table H-1 is provided to permittees as a guide to utilize in selecting and applying appropriate covers with proven C-factor values. Table H-1 is intended to provide a good starting point for permittees needing to identify covers and cover material most appropriate for their location. The cover types referenced in Table H-1 are not exhaustive, and there are a variety of commercially-available stabilization covers that are not specifically listed in the table, either because they employ a combination of the types in Table H-1, or sufficient studies were not available for those cover types prior to the publication of this permit. In compiling Table H-1, EPA attempted to provide the range of probable C-factor values for the major cover types (e.g., erosion control blankets, straw, mulches), enabling the permittee to rapidly focus on the type(s) of covers that meets the Part 2.2.2 cover criteria.

**Vegetative Stabilization.** (Part 2.2.2.1). If the permittee chooses to use vegetative practices to stabilize the exposed portions of his/her site, the proposed permit specifies the minimum criteria to meet.

1. **70 percent vegetative cover criteria.** (Part 2.2.2.1.a). The proposed permit specifies that one of the two accepted ways of achieving vegetation stabilization on the site is to provide an established uniform perennial vegetative cover, which is evenly distributed without large bare areas, and covers 70 percent or more of the area covered by vegetation prior to commencing earth-disturbing activities. The permit provides variations on the 70 percent criterion for arid/semi-arid areas and for agricultural lands.
  - *Purpose:* To provide an objective standard by which to assess whether a site has been stabilized. This criterion is the same as the requirement included in the definition of "final stabilization" in Appendix A of the 2008 CGP.
2. **C-factor criteria.** (Part 2.2.2.1.b). As an alternative to the 70-percent cover method, permittees can also choose to provide vegetative cover that meets a minimum defined C-factor value. The proposed permit requires that permittees design, install, and maintain vegetative practices that have been shown to achieve a level of stabilization that equals, once established, a C-factor value of 0.05 or less. To achieve this C-factor value, the permittee must implement either:
  - a. One or a combination of cover methods described in Table H-1 of Appendix H, which have each been shown to achieve the 0.05 or less C-factor value; or
  - b. An alternative cover method that has been shown to achieve the 0.05 or less C-factor value
  - *Purpose:* To establish an objective standard by which to assess whether a site has been stabilized. The use of stabilization measures that achieve the 0.05 C-factor value corresponds with an estimated 96 percent reduction in soil loss from sites,

which roughly corresponds to the expected C-factor value achieved from using the 70 percent vegetative cover approach.

3. **Additional requirements.** (Part 2.2.2.1.c). If the permittee chooses the C-factor stabilization approach, he/she must also meet the following requirements:
  - a. If the permittee is relying on the C-factor values in Appendix H, the cover measures must be applied and maintained in accordance with the specifications in Table H-1 in Appendix H;
  - b. If soil compaction has occurred, use techniques that condition the soils in locations where soil compaction has occurred to support vegetative growth;
  - c. If vegetation will be established from seed, the permittee must (1) prior to application, roughen the area with furrows trending along the contours of the slope, water the area as applicable until the seeds germinate and grow, re-seed areas that failed to germinate, and protect seeded areas from disturbance; and (2) immediately after seeding, protect seeded areas with a temporary, non-vegetative cover (e.g., straw mulch, erosion control blankets, turf reinforcement matting), which has been shown to achieve a level of stabilization that equals a C-factor value of 0.1 for slopes less than 15%, or 0.3 for slopes of 15% or greater; and
  - d. If previously grown vegetation will be used, the permittee must continue to water, re-seed, and protect planted areas as needed to ensure the growth of vegetation complies with the stabilization criteria.
- *Purpose:* To provide clarification regarding what is required to ensure adequate vegetative stabilization. All of the requirements proposed in this section are considered standard industry practice in establishing vegetation in exposed areas, and in ensuring that planted areas will thrive. For further discussion on how these proposed requirements are intended to be implemented, see Appendix H.

**Non-Vegetative Stabilization.** (Part 2.2.2.2). If the permittee chooses to use non-vegetative practices (e.g., riprap, geotextiles, gravel) to stabilize the exposed portions of his/her site, the proposed permit specifies minimum criteria to meet.

1. **Temporary Stabilization.** (Part 2.2.2.2.a). The proposed permit requires the permittee to use one or a combination of practices that have been shown to achieve a level of stabilization that yields a C-factor value of no greater than 0.1 for slopes less than 15 percent, and no greater than 0.3 for slopes of 15 percent or greater. The permittee may choose to use one of the practices that meet the required C-factor criteria, or, use an alternative practice that has been shown to meet the applicable C-factor criterion.
- *Purpose:* To define what is required to ensure adequate non-vegetative stabilization where a disturbed area needs to be stabilized for a short period of time prior to final stabilization or re-disturbance. The C-factor values differ depending on the slope in order to account for the practical challenges related to erosion control on steep slopes.
2. **Final Stabilization.** (Part 2.2.2.2.b). To achieve final stabilization for the purposes of terminating permit coverage, the permittee is required to use one or a combination of practices that have been shown to achieve a level of stabilization that yields a C-factor value of 0.05 or less. The permittee may choose to use one of the practices that meet the required C-factor criteria, or, use an

alternative practice that has been shown to meet the applicable C-factor criterion.

- *Purpose:* To define what is required to ensure adequate non-vegetative final stabilization. As a pre-requisite to a construction operator leaving a site and terminating CGP coverage, it is required that any final stabilization practices used at the site perform at the required C-factor level. The proposed 0.05 C-factor value corresponds to a 96 percent reduction in soil loss from the site. The C-factor value assigned for final stabilization is necessarily stricter than the corresponding value assigned to temporary stabilization. This difference recognizes the fact that for temporary stabilization the important erosion control principle to follow is to quickly protect exposed areas from soil loss in an effective manner, while at the same time acknowledging that for areas that will be re-disturbed in the future, the controls used must be cost-effective. The justification for providing a slightly less stringent C-factor criterion for temporary controls is that the site will still be protected by other sediment controls in addition to the temporary stabilization controls while construction is active on the site, such as perimeter controls, buffers, and any in-channel controls that are used.
3. **Compliance with Design, Application, and Maintenance Specifications.** (Part 2.2.2.2.c). *The permit requires that, in order for the permittee to properly demonstrate compliance with the applicable non-vegetative C-factor criterion, he/she must apply and maintain the cover measures consistent with the specifications provided in Table H-1 of Appendix H*
- *Purpose:* To ensure that permittees are applying each non-vegetative control chosen in such a way that supports the demonstration in studies that the control has performed to the required C-factor level.

### **VII.2.3 Use of Site Stabilization to Reduce Disturbed Acres Counted Towards Application of Numeric Turbidity Limit. (Part 2.2.3).**

Proposed Part 2.2.3 provides that areas on the site that have met the applicable temporary or final stabilization requirements in Part 2.2.2 do not need to be included in the count of the total acreage disturbed at any one time. This count is used to determine if the turbidity limit applies to the site. If, however, at any time the total area of land disturbance exceeds the minimum acreage threshold for triggering the numeric turbidity limit, you are again immediately subject to the numeric turbidity limit and the requirements of this Part. Refer to Part 3 to determine your minimum acreage threshold for triggering the numeric turbidity limit.

- *Purpose:* The requirement in Part 2.2.3 encourages construction sites to sequence or phase their construction activities to limit the disturbance to less than the acreage threshold as an incentive for minimizing the time that areas are disturbed allowing them to comply with the rule without having to sample discharges and meet the numeric limitation.

The Agency believes that construction operators who are able to phase their disturbances so that they are always disturbing less than 10 acres at a time, or who stabilize exposed areas to lower their total disturbed acres to less than 10 acres, will significantly reduce their pollutant discharge. Phasing is a recognized means of limiting erosion and sediment discharges resulting from construction activity. The following are excerpts from the C&D rule preamble relating to the

water quality benefits of phasing, also referred to as “sequencing”, construction to limit the amount of land that is under construction at any one time:

“Decreasing the amount of land disturbed can significantly reduce sediment detachment and mobilization directly from ground disturbance or indirectly through changes in overland flows. Minimizing site disturbance by minimizing the extent of grading and clearing is the most effective means of reducing sediment yield. This approach not only maintains some site vegetative cover but also minimizes the temporary and permanent alteration of the natural hydrology of the site and the receiving waters, thereby reducing the susceptibility of the receiving waters to long-term changes in channel incision and expansion which affects the basin’s sediment regime. Short term reductions in sediment yield can also be accomplished by phasing construction so that only a portion of the site is disturbed at a time. Another effective approach is to schedule clearing and grading events to reduce the probability that bare soils will be exposed to rainfall. Many areas of the country have defined times during the year when the majority of rainfall (and hence erosion) occurs. By scheduling major earth disturbing activities outside of the rainy season, erosion can be significantly reduced.” See 74 FR 63011 (December 1, 2009).

“Site planning, sequencing of land-disturbing activities and phasing of construction activities are also important management practices. Limiting the amount of land disturbed at one time, as well as during the entire construction project, are perhaps some of the most effective practices to reduce the amount of sediment, turbidity and other pollutants in discharges. The longer exposed soil areas are left unprotected, the greater the chance of rainfall-induced erosion. Proper planning such that soil stabilization activities can occur in quick succession after grading activities have been completed on a portion of a site can greatly reduce the amount of sediment and turbidity discharged. In addition, limiting the amount of land that is “opened up” at one time to the minimum amount that is needed, as well as limiting soil compaction and retaining natural vegetation on the site, can greatly reduce erosion rates and help maintain the natural hydrology. Also, grading of the site to direct discharges to vegetated areas and buffers that have the capacity to infiltrate runoff can reduce the volumes of stormwater requiring management in sediment controls.” See 74 FR 63012 (December 1, 2009).

“The numeric limitation and monitoring requirements only apply when the total disturbed area is 10 or more acres. Therefore, when stabilization of disturbed areas reduces the amount of total disturbances to less than 10 acres, the numeric limitation no longer applies and monitoring of discharges is no longer required. This provision creates an incentive for large sites to stabilize disturbed areas as quickly as possible, thereby reducing the turbidity in stormwater discharges from the site. This is also an incentive to phase construction activities so that less than 10 acres are disturbed at any one time.” See 74 Fed. Reg. 63047 (December 1, 2009).

*The provision in Part 2.2,3 makes clear, however, that once the disturbed acreage threshold is exceeded, the requirements for complying with the numeric turbidity limit once again apply.*

### **VII.3 Pollution Prevention Requirements. (Part 2.3).**

Part 2.3 of EPA's proposed permit includes the requirements for pollution prevention and prohibited discharge, which implement 40 CFR 450.21 (d) and (e) of the C&D rule. Proposed Part 2.3 explains the general requirement for construction operators to design, install, and maintain effective pollution prevention measures in order to minimize or prohibit the discharge of pollutants. To meet this requirement, the operator is required to:

- Eliminate certain pollutant discharges from the site (see Part 2.3.1); and
- Comply with pollution prevention standards for pollutant-generating activities that occur at the site (see Part 2.3.2).

These requirements apply to all areas of the construction site and any support activities covered by this permit consistent with Part 1.4.1.

#### **VII.3.1 Prohibited Discharges. (Part 2.3.1).**

Proposed Part 2.3.1 identifies the types of discharges that are prohibited from the permittee's construction site. This list prohibits the following discharges:

1. Wastewater from washout of concrete;
  2. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
  3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;
  4. Soaps or solvents used in vehicle and equipment washing;
  5. Toxic or hazardous substances from a spill or other release; and
  6. Waste, garbage, floatable debris, construction debris, and sanitary waste from pollutant-generating activities.
- *Purpose:* Proposed Part 2.3.1 details the types of wastes and other pollutants that permittees are prohibited from discharging under this permit.

The requirement in proposed Parts (1) through (4) above implement prohibitions included in the new C&D rule at 40 CFR 450.21 (e). The requirement in Part (5) above to prohibit toxic or hazardous substances from a spill or other release corresponds to Part 3.1.I of the 2008 CGP ("you are not authorized to discharge hazardous substances or oil resulting from an on-site spill"). The requirement in Part (6) corresponds to the 2008 CGP requirements at Part 3.1.F.1-3 ("prevent the discharge of solid materials, including building materials", "minimize the exposure of construction and waste materials to stormwater", and "prevent litter, construction debris ... that could be exposed to stormwater from becoming a pollutant source in stormwater discharges"). This requirement also implements the C&D rule requirement to "minimize the exposure of building materials, building products, construction wastes, trash, landscape materials ... sanitary waste ... present on the site to precipitation and to stormwater." See 40 CFR 450.21 (d)(2). Applying a prohibition standard to this class of pollutants is appropriate given the fact that elimination of these pollutants is achievable with available and cost-effective controls and given the fact that effective construction site pollution prevention programs should prevent discharges of these pollutants.

### **VII.3.2 Pollution Prevention Standards. (Part 2.3.2).**

Proposed Part 2.3.2 requires permittees to comply with specific pollution prevention standards for the following pollutant-generating activities that may result in stormwater discharges:

1. Fueling and maintenance of equipment or vehicles;
  2. Washing of equipment and vehicles;
  3. Staging and storage of building materials, equipment, or vehicles;
  4. Washing of containers used for paint, concrete, or other materials; and
  5. Storage, handling, and disposal of construction waste.
- *Purpose:* Proposed Part 2.3.2 establishes a set of non-numeric effluent limitations requiring permittees to meet effective pollution prevention standards to minimize, control, or eliminate the discharge of pollutants (i.e., construction and demolition waste, solid waste, trash, and other pollutants) in stormwater and other wastewater from pollutant-generating activities that occur on-site or at an off-site location. The subparts of Part 2.3.2 include location restrictions, design requirements for stormwater controls, pollution prevention standards, and maintenance requirements.

**Fueling and maintenance of equipment or vehicles.** (Part 2.3.2.1). Where fueling and maintenance activities occur at the site or at an off-site location covered by this permit for construction activities, the following requirements apply:

1. **Location restrictions.** (Part 2.3.2.1.a). The following location restrictions apply
  - a. Locate any fueling and maintenance activities for equipment or vehicles outside of any buffers established consistent with Part 2.1.2; and
  - b. Clearly flag off and designate areas to be used for fueling and maintenance activities and conduct such activities only in these areas
- *Purpose:* To place limits on where fueling and maintenance activities may occur, given the risk of impact if spills, leaks, or other accidental discharges occur. This requirement implements the 40 CFR 450.21 (d)(3) requirement to “minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures” and the 40 CFR 450.21 (e)(3) requirement prohibiting the discharge of “fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance.”
2. **Design requirements for stormwater controls.** (Part 2.3.2.1.b). For any stormwater controls for fueling and maintenance operations, the permittee must provide secondary containment structures or similarly effective means to prevent the discharge of spilled or leaked chemicals from the area designated for this activity.
  - *Purpose:* To include specifications for stormwater controls used to meet the 40 CFR 450.21 (e)(3) prohibited discharge.
3. **Pollution prevention standards.** (Part 2.3.2.1.c). To comply with the prohibition against discharging fuels, oils, or other pollutants used during fueling and maintenance, the proposed permit requires compliance with the following:
  - a. Do not allow spilled or leaked chemicals to reach stormwater conveyance channels, storm drain inlets, or waters of the U.S.;

- b. Ensure adequate supplies are available at all times to handle spills (e.g., spill kits), leaks (e.g., drip pans), and disposal of used liquids;
  - c. Use drip pans and absorbents under or around leaky vehicles;
  - d. Do not clean surfaces by hosing the area down;
  - e. Dispose of oil and oily wastes, such as crankcase oil, cans, rags, and paper dropped into oils and lubricants in proper receptacles or recycle them; and
  - f. Clean up spills or contaminated surfaces immediately, using dry clean up measures.
- *Purpose:* To specify requirements for materials handling and clean-up to implement the prohibition against discharging fuels, oils, or other pollutants in Part 2.3.1.3. The greater specificity is needed in order to make it clear what actions permittees must take to meet the prohibition.
4. **Maintenance requirements.** (Part 2.3.2.1.d). *The proposed permit requires an inspection at least once per week of all construction vehicles and equipment for signs of leaks, spills, and other releases of pollutants, and corrective action to repair of the applicable vehicle or piece of equipment if such leaks, spills, or other releases are detected. If a leak, spill, or other release is detected, take the corrective action required in Part 6.3.2.*
- *Purpose:* To include specific requirements for the maintenance of vehicles and equipment to prevent leaks, spills, and other releases. This provision implements 40 CFR 450.21(d)(3) and (e)(3).

**Washing of equipment or vehicles.** (Part 2.3.2.2). Where equipment and vehicle washing occurs at the site or at an off-site location covered by this permit for construction support activities, the following requirements apply:

1. **Location restrictions.** (Part 2.3.2.2.a). The following location restrictions apply.
  - a. Locate any washing activities for equipment outside of any buffers established consistent with Part 2.1.2; and
  - b. Clearly flag off and designate areas to be used for washing activities and conduct such activities only in these areas
- *Purpose:* To place limits on where washing activities may occur, given the types of pollutants (e.g., sediment, metals, oil and grease) that will be removed during washing operations. This requirement implements the 40 CFR 450.21(d)(1) requirement to “minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters.”
2. **Design requirements for stormwater controls.** (Part 2.3.2.2.b). For any stormwater controls for washing operations, the permittee must install secondary containment structures or similarly effective means to eliminate the potential discharge of pollutants in wash waters from the area designated for this activity.
  - *Purpose:* To include specifications for stormwater controls used to meet the 40 CFR 450.21(d)(1) standard.
3. **Pollution prevention standards.** (Part 2.3.2.2.c). To comply with the prohibition against discharging soaps or solvents from washing operations, and to be consistent with the eligibility conditions that make allowance under the permit for the discharge of wash waters that do not contain soaps, solvents, or detergents, the proposed permit prohibits such discharges.

- *Purpose:* To implement the 40 CFR 450.21 (e)(4) prohibition against discharging soaps or solvents, and to be consistent with the eligibility condition that allows the use of non-stormwater wash waters as long as they do not contain soaps, solvents, or detergents.
- 4. **Maintenance requirements.** (Part 2.3.2.2.d). *At least once per week, the proposed permit requires that the permittee inspect and, as necessary, maintain and repair containment devices to ensure their structural integrity to prevent discharges.*
- *Purpose:* To include specific requirements for inspection and maintenance of secondary containment structures. This provision implements 40 CFR 450.21 (d)(1) and (e)(4).

**Staging and storage areas.** (Part 2.3.2.3). For staging and storage areas for building materials, equipment, or vehicles on site, the proposed permit requires the following:

1. **Location restrictions.** (Part 2.3.2.3.a). The proposed permit requires that areas to be used for staging and storage be located outside of any buffers established consistent with Part 2.1.2. The permit also requires that any areas to be used for staging and storage be clearly flagged off and designated.
  - *Purpose:* To place limits on where staging and storage areas may be located, given the variety of pollutants that are expected to be exposed to stormwater and the importance of minimizing the possibility of their discharge. This requirement implements the 40 CFR 450.21 (d)(2) requirement to “minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents ... present on the site to precipitation and to stormwater.”
2. **Design requirements for stormwater controls.** (Part 2.3.2.3.b). The permittee is required to provide secondary containment structures or similarly effective means to prevent discharges from these areas.
  - *Purpose:* To require that the design of stormwater controls be consistent with meeting the 40 CFR 450.21 (d)(2) standard.
3. **Pollution prevention standards.** (Part 2.3.2.3.c). The proposed permit requires the permittee to:
  - a. Protect exposed construction materials with plastic sheeting or temporary roofs to prevent contact with rainwater, or provide secondary containment structures designed to eliminate the potential discharge of runoff from these areas;
  - b. For pesticide, herbicide, insecticide, and fertilizer storage, handling, use, and disposal: (1) Prevent exposure of these chemical storage areas to stormwater; and (2) Comply with all application and disposal requirements included on the registered pesticide, herbicide, insecticide, or fertilizer label;
  - c. Store diesel fuel, oil, hydraulic fluids, other petroleum products, chemicals, and other materials that could contaminate stormwater in covered, water-tight containers, or provide secondary containment;
  - d. Label all containers that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur; and

- e. Clean up spills or contaminated surfaces immediately, using dry clean up measures. Stabilize exposed construction materials with plastic sheeting or temporary roofs to prevent contact with rainwater, or provide secondary containment structures designed to eliminate the potential discharge of runoff from these areas.
- *Purpose:* To implement the 40 CFR 450.21 (d)(2) standard for minimizing the discharge of pollutants from staging and storage areas.
- 4. **Maintenance requirements.** (Part 2.3.2.3.d). *The proposed permit requires the permittee to, at least once per week, inspect any containers, coverings, or secondary containment structures to ensure their structural integrity and to check for leaks. If there are signs of a leak or of holes or other gaps in the containers that could lead to a spill or leak, take the corrective action required in Part 6.3.2 of the proposed permit.*
  - *Purpose:* To include specific requirements for inspection and maintenance of containers, coverings, or secondary containment structures. This provision implements 40 CFR 450.21 (d)(2).

**Washing of applicators and containers used for paint, concrete, or other materials.** (Part 2.3.2.4). Where paint, concrete, and other washout activities are conducted on site, the proposed permit requires the following:

1. **Location restrictions.** (Part 2.3.2.4.a). The permittee must:
  1. Locate such activities outside of any buffers established consistent with Part 2.1.2; and
  2. Clearly flag off and designate areas to be used for such washing activities and conduct such activities only in these areas.
  - *Purpose:* To place limits on where these washing activities may occur, given the types of pollutants (e.g., sediment, metals, oil and grease) that will likely be removed during the washing. This requirement implements the 40 CFR 450.21 (d)(2) requirement to “minimize the discharge of pollutants from ... other wash waters”, and the prohibition against discharging “wastewater from washout of concrete, unless managed by an appropriate control” (40 CFR 450.21 (e)(1)) and discharging “wastewater from washout and cleanout of stucco, pain, form release oils, curing compounds, and other construction materials” (40 CFR 450.21 (e)(2)).
2. **Design requirements for stormwater controls.** (Part 2.3.2.4.b). The permittee is required to:
  - a. Direct all wastewater into a leak-proof container or pit; and
  - b. Design washwater containers or pits so that no overflows can occur during rainfall or after snowmelt.
  - *Purpose:* To require that the design of stormwater controls be consistent with meeting the prohibited discharge standards in 40 CFR 450.21 (e)(1) and (2).
3. **Pollution prevention standards.** (Part 2.3.2.4.c). The proposed permit requires the permittee to:
  - a. Refrain from dumping of liquid wastes in storm sewers;
  - b. Dispose of liquid wastes in accordance Part 2.3.2.5; and

- c. Remove and dispose of hardened concrete waste consistent with the handling of other construction wastes in Part 2.3.2.5.
- *Purpose:* To implement the requirements of 40 CFR 450.21 (d)(1), (e)(1), and (e)(2).
4. **Maintenance requirements.** (Part 2.3.2.4.d). The proposed permit requires the permittee, at least once per week, to inspect any containers or pits to ensure their structural integrity, holding capacity, and to check for leaks. If there are signs of a leak or of holes or other gaps in the containers or pits that could lead to a discharge, repair them prior to further use, and take the corrective action required in Part 6.3.2. For concrete washout areas, the permittee is required to remove hardened concrete waste whenever necessary to avoid overflows, such as whenever the hardened concrete has accumulated to a height of ½ of the container or pit.
  - *Purpose:* To include specific requirements for inspection and maintenance of containers or pits. This provision implements 40 CFR 450.21 (d)(1), (e)(1), and (e)(2).

**Storage, handling, and disposal of construction waste.** (Part 2.3.2.5). For the storage, handling, and disposal of construction waste, the proposed permit requires:

1. **Location restrictions.** The proposed permit requires permittees to identify and locate areas dedicated for management or disposal of land clearing and demolition debris, construction and domestic waste, hazardous or toxic waste, and sanitary waste (e.g., toilet facilities), in a convenient location, and outside of any buffers established consistent with Part 2.1.2.
  - *Purpose:* To place limits on where construction waste may be stored, handled, and disposed of, given the variety of pollutants that are expected to be exposed to stormwater and the importance of minimizing the possibility of their discharge. This requirement implements the 40 CFR 450.21 (d)(2) requirement to “minimize the exposure of ... construction wastes, trash ... sanitary waste, and other materials present on the site to precipitation and to stormwater”, and the 40 CFR 450.21 (d)(3) requirement to “minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.”
2. **Design requirements for stormwater controls.** (Part 2.3.2.5.b). The permittee is required to meet the following design standards for different types of construction wastes, including construction and domestic waste (e.g., packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam), hazardous or toxic waste (e.g., paints, solvents, petroleum-based products, pesticides, roofing tar), and sanitary waste.
  - a. **Construction and domestic waste.** The proposed permit requires the permittee to:
    - i. Provide waste containers of sufficient size and number to contain construction and domestic wastes;
    - ii. Ensure waste containers have lids or covers that can be placed over the container to prevent loss of wastes during rainy and/or windy conditions; and
    - iii. Store wastes that cannot be disposed of in a container under cover or indoors.

- b. **Hazardous or toxic wastes.** The proposed permit requires the permittee to:
    - i. Store waste in sealed containers constructed of suitable materials. Label all containers that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur. Label containers as follows: "Hazardous/Toxic Waste", or as otherwise required by federal, state or local requirements;
    - ii. Store sealed containers outside of any buffers established consistent with Parts 2.1.2;
    - iii. Separate storage of hazardous or toxic waste from construction and domestic waste; and
    - iv. Provide secondary containment to prevent spills from being discharged.
  - c. **Sanitary waste.** The proposed permit requires the permittee to stabilize portable toilets so that they are secure, and will not be tipped or knocked over.
- *Purpose:* To require that the design of stormwater controls be consistent with meeting the 40 CFR 450.21 (d)(1) and (3) standards.
3. **Pollution prevention standards.** (Part 2.3.2.5.c). The permittee is required to meet the following pollution prevention standards for different types of construction wastes, including construction and domestic waste, hazardous or toxic waste, and sanitary waste.
    - a. **Construction and domestic waste.** The proposed permit requires the permittee to comply with the following:
      - i. On a daily basis, clean up and dispose of waste in designated waste containers;
      - ii. Clean up immediately if containers overflow;
      - iii. Do not hose down spilled waste; and
      - iv. Do not dispose of hazardous or toxic materials in areas designated for construction and domestic wastes.
    - b. **Hazardous or toxic wastes.** The proposed permit requires the permittee to comply with the following:
      - i. On a daily basis, clean up hazardous or toxic waste and place it in applicable containers required in Part 2.3.2.5bii;
      - ii. Do not hose down waste that has spilled onto pavement or other impervious surfaces. Use dry clean-up methods, and dispose of used materials properly; and
      - iii. Dispose of hazardous or toxic waste in accordance with the manufacturer's recommended method of disposal, where appropriate, or federal, state, or local requirements.
    - c. **Sanitary waste.** The proposed permit requires the permittee to eliminate the discharge of sanitary wastes.
- *Purpose:* To implement the 40 CFR 450.21 (d)(2) and (d)(3) standards.
4. **Maintenance requirements.** (Part 2.3.2.5.d). *The proposed permit requires the permittee to, at least once per week, inspect all containers or other devices used*

for the collection, storage, detention, and/or disposal of wastes for leaks or overflows, and take corrective action required in Part 6.3.2.

- *Purpose:* To implement the 40 CFR 450.21 (d)(2) and (d)(3) standards.

### **VII.3.3 Emergency spill notification. (Part 2.3.3).**

The proposed permit prohibits permittees from discharging toxic or hazardous substances from a spill or other release, consistent with Part 2.3.1.5. Furthermore, where a leak, spill, or other release contains a toxic or hazardous substance in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302 during a 24-hour period, the permittee is subject to federal reporting requirements of 40 CFR Part 110, Part 117, and Part 302 relating to spills or other releases of oils or hazardous substances.

- *Purpose:* To prohibit the discharge of toxic or hazardous substances from a spill or other release and to require permittees to comply with federal reporting requirements of 40 CFR Part 110, Part 117, and Part 302 in the event that a leak, spill, or other release contains a toxic or hazardous substance in an amount equal to or in excess of a reportable quantity.

Part 2.3.3 bears similarity to 3.1.1 of the 2008 CGP, which also required that for releases containing hazardous substances or oil in an amount equal to or in excess of a reportable quantity, the permittee provide notice to the appropriate authorities.

### **VII.3.4 Fertilizer discharge restrictions. (Part 2.3.4).**

Part 2.3.4 requires permittees to minimize discharges of fertilizers containing nitrogen and phosphorus. The following requirements must be complied with:

1. Apply at a rate or amount based on manufacturer's specifications, or document departures from the manufacturer specifications where appropriate in Part 8.2.8.2 of the SWPPP;
  2. Apply at the appropriate time of year based on your location, and preferably timed to coincide as closely as possible to the period of maximum vegetation uptake and growth;
  3. Avoid applying before heavy rains;
  4. Never apply to frozen ground;
  5. Limit application on steep slopes;
  6. Never apply to stormwater conveyance channels; and
  7. Follow other state or local requirements regarding fertilizer application.
- *Purpose:* The fertilizer discharge restrictions in Part 2.3.4 are included to prevent the discharge of nutrients in stormwater. EPA includes specific guidelines to follow regarding fertilizer application which are meant to minimize any potential discharge of excess or improperly applied fertilizers.

### **VIII. Numeric Turbidity Limit and Sampling Requirements. (Part 3).**

The requirements in Part 3 correspond to the publication on December 1, 2009 of the C&D rule. See 74 Fed. Reg. 62996 (December 1, 2009) and <http://www.epa.gov/guide/construction/> for a full copy of the rule and related materials. The C&D rule included non-numeric requirements for erosion and sediment control, stabilization, and pollution prevention (see 40 CFR 450.21 (a) thru (f)), and for the first time, included a numeric limitation on the discharge of turbidity from certain large active construction sites (see 40 CFR 450.22). The numeric limit for turbidity applies to certain large construction sites. EPA phased in the numeric effluent limit over 4 years to allow the regulated community time to prepare for compliance with the numeric effluent limit. Construction sites that disturb 20 or more acres at one time were required to conduct monitoring of discharges from the site and comply with the numeric effluent limit beginning August 1, 2011. Construction sites that disturb 10 or more acres of land at one time were required to monitor discharges from their site and comply with the numeric effluent limit beginning February 2, 2014. Sites that must comply with the requirements in Part 3 must comply with these requirements until permit termination or until one of the exceptions in Part 3.1.3 is met.

- *Purpose:* The NPDES regulations, specifically 40 CFR 122.44(a)(1), require that all permits incorporate effluent limitations guidelines that are currently in effect and that apply to the particular industrial category. Because the 2008 CGP expires on June 30, 2011, after the February 1, 2010 effective date of the C&D rule, EPA is required to incorporate any effective numeric turbidity limit in the C&D rule into its next CGP.

Since the promulgation of the C&D rule, EPA discovered that the data used to calculate the numeric limit for turbidity were misinterpreted, and that proper interpretation of this data will likely result in a different numeric limit for turbidity than was promulgated in December of 2009. EPA has stayed the current numeric limit in order to correct the underlying errors made in calculating it. The stay withholds the numeric limit from the C&D rule until it can be replaced by the recalculated limit. For this reason, Part 3 of the proposed permit includes a placeholder for the final, recalculated numeric turbidity limit in 40 CFR 450.22, rather than the current 280 NTU limit. If EPA promulgates the recalculated numeric limit prior to the date of issuance for the new CGP, EPA will replace this placeholder with the final turbidity limit. If EPA is not able to promulgate the recalculated numeric limit prior to the date of issuance for the final CGP, then the new CGP will not include a numeric limit. This section of the fact sheet discusses all the proposed corresponding requirements for complying with the turbidity effluent limit, including sampling and reporting.

#### **VIII.1 Applicability of Numeric Turbidity Limit. (Part 3.1).**

##### **VIII.1.1 Types of construction activities whose discharges are covered by the numeric turbidity limit. (Part 3.1.1).**

Table 3-1 of the permit explains which projects would be subject to the numeric turbidity limit. Based on Table 3-1, if the site can be characterized as either a new source or an existing unpermitted discharger, and meets either (1) or (2) below, then it would have to comply with the numeric turbidity limit:

1. **20-acre land disturbances:** Any construction activities that will commence between August 1, 2011 and before February 2, 2014, and will disturb 20 or more

acres of land at one time, including non-contiguous land disturbances that take place at the same time and are part of a larger common plan of development or sale; and

2. **10-acre land disturbances:** Any construction activities that will commence on or after February 2, 2014, and will disturb 10 or more acres of land at one time, including non-contiguous land disturbances that take place at the same time and are part of a larger common plan of development or sale.
  - *Purpose:* To explain which construction site activities would be subject to the numeric effluent limit if finalized in time for inclusion in the CGP. Table 3-1 shows which sites, by virtue of the amount of land they are disturbing would be required to comply with the numeric turbidity limit at 40 CFR 450.22(a)(1) as well as the corresponding requirements relating to sampling.

### VIII.1.2 Exceptions to the application of the numeric turbidity limit. (Part 3.1.2).

Part 3.1.2 provides an exception to the requirement to comply with the numeric turbidity limit in any the following circumstances:

1. **Storms larger than the local 2-year, 24-hour storm.** If the permittee determines that the stormwater discharges in any day are generated by a storm event in that same day that is larger than the local 2-year, 24-hour storm, the permittee is not required to comply with the numeric turbidity limit for that day. To determine if you are eligible for an exception to the numeric turbidity limit, refer to Appendix I for maps depicting the volume of rain that equates to your area's local 2-year, 24-hour storm. In order to demonstrate that you qualify for this exception following a particular storm event, you must record the amount of rainfall (in inches) that occurred at your site using a rain gauge or similar device, or you must use data from other sources that are not more than 5 miles from your site.

To clarify this exception, if the total precipitation in any one day is greater than the local 2-year, 24-hour storm event, then permittees would still need to sample (because they wouldn't know in advance whether the precipitation on that day was going to exceed the storm size threshold) but the numeric effluent limitation would not apply to discharges for that day. However, the numeric effluent limitation is applicable to all discharges from the site on subsequent days if there is no 2-year, 24-hour storm event during those days. (EPA requests comment on this interpretation of the 2-year, 24-hour storm exception.) Even when total precipitation during the day exceeds the local 2-year, 24-hour storm permittees must comply with the non-numeric effluent limitations § 450.22(c) through § 450.22(h).

2. **Disturbed areas are less than the threshold for application of numeric turbidity limit.** If as a result of meeting the requirements for temporary or final stabilization in Part 2.2.2, the total disturbed portions of the site are less than the threshold area needed to require compliance with the numeric turbidity limit, the numeric limit would not apply to discharges from the site. For instance, if site stabilization reduces the total amount of disturbed acres to below 20 acres (and assuming the project takes place between August 1, 2011 and February 2, 2014), the site no longer meets the minimum applicability requirements in Part 3.1.1 and the numeric limit and associated monitoring would no longer apply to discharges from the site.

3. **Construction of interstate natural gas pipelines.** Any discharges from the construction of interstate natural gas pipelines that are under the jurisdiction of the Federal Energy Regulatory Commission (FERC) are not subject to the numeric turbidity limit requirements in Part 3.

- *Purpose:* Part 3.1.2 provides a set of limited exceptions to the application of the numeric turbidity limit. Each exception is discussed separately as follows:

*Storms larger than the local 2-year, 24-hour storm exception:* This same exception is included in the C&D rule at 40 CFR 450.22(b). It is intended to acknowledge the fact that passive controls, which EPA used as the basis for setting the turbidity limit, can only be expected to consistently meet a numeric limitation to the level that they are designed to function. Typically, construction site controls are designed to manage stormwater up to a certain design storm event. For larger storm events, basins will likely overflow. Likewise, channels and conveyances will overtop and may begin to erode unless they are armored with materials such as flexible channel liners. EPA selected the 2-year, 24-hour storm event as the triggering event for this exception because it provides a reasonable compromise between designing for a larger storm (at more expense) and allowing multiple discharges per year to potentially exceed the limitation (as would be the case with a smaller storm exception).

*Disturbed areas are less than threshold for application of numeric turbidity limit exception:* This exception is based on the following discussion in the C&D rule preamble: "... when stabilization of disturbed areas reduces the amount of total disturbances to less than 10 acres, the numeric limitation no longer applies and monitoring of discharges is no longer required. This provision creates an incentive for large sites to stabilize disturbed areas as quickly as possible, thereby reducing the turbidity in stormwater discharges from the site. This is also an incentive to phase construction activities so that less than 10 acres are disturbed at any one time. EPA recognizes that as construction activity progresses, less area of the construction site will consist of disturbed land. At present under the EPA CGP, the Agency regulates stormwater discharges associated with construction activity until the owners or operators file a Notice of Termination to cease permit coverage. Often owners or operators must stabilize the construction site before a Notice of Termination is submitted to terminate permit coverage. Therefore, EPA is applying the numeric limitation to sites that disturb 10 or more acres at one time until such time as the site has stabilized disturbed areas bringing the total disturbance below 10 acres, recognizing that discharges may continue after this time. The non-numeric effluent limitations, at 40 CFR 450.21, of this rule would still apply to any continuing discharges. With this threshold, EPA expects that the turbidity limitation may not apply at some sites during some periods of construction activity when less than 10 acres are disturbed at one time." See 74 Fed. Reg. 63047-63048 (December 1, 2009). EPA notes that between August 1, 2011 and February 2, 2014, this exception applies to disturbances of 20 or more acres, consistent with Part 3.1.1, but that on or after February 2, 2014, this exception applies to disturbances of 10 or more acres.

*Construction of interstate natural gas pipelines exception:* This exception is derived from EPA's decision in the C&D rule to exempt construction from interstate natural gas pipelines subject to FERC regulation. The following discussion is from the preamble to the C&D rule, which supported EPA's decision: "Based on the unique regulatory circumstances of interstate natural gas pipeline construction projects EPA has chosen not to have the numeric limitation and

monitoring requirements at 40 CFR 450.22(a) apply to the discharges associated with the construction of natural gas pipelines. This exemption only applies to discharges associated with construction of interstate natural gas pipelines that are under the jurisdiction of the Federal Energy Regulatory Commission (FERC). EPA determined this was appropriate due to the comprehensive regulatory program that FERC requires and enforces for the construction of these projects. Through its program, FERC requires a variety of erosion and sediment controls to be implemented during construction, some of which are more stringent than those contained in today's rule. FERC conducts site-specific reviews to establish the allowable area of disturbance for project construction and dictates the manner in which construction of these projects can proceed. Typical requirements would include minimizing the amount of time that soils are allowed to be exposed, managing the discharges from trench dewatering, limiting the amount of vegetation that can be cleared adjacent to streams and wetlands, and requiring successful revegetation of project areas. FERC has been requiring these projects to implement its erosion and sediment control program since 1989. Thus, it is a well-developed regulatory program that includes stringent requirements, oversight, public participation, and onsite inspection. EPA does not want to limit the flexibility of FERC to implement its program by imposing numeric limitations on these unique projects." See 74 Fed. Reg. 63006 (December 1, 2009).

#### **VIII.1. Numeric Effluent Limit. (Part 3.2).**

Part 3.2 specifies that discharges from construction projects subject to the numeric limit because of the amount of land disturbed at any one time may not exceed any daily maximum value for turbidity that is established by EPA prior to the finalization of this permit.

- *Purpose:* To specify the exact limit by which compliance will be measured for those projects subject to the numeric turbidity limit. In the proposed permit, EPA is leaving a placeholder for the recalculated daily maximum turbidity value. As stated in Part VIII. of the fact sheet discussion, EPA is recalculating the numeric limit promulgated in § 450.22(a)(1). If the recalculated numeric limit is finalized in time to be included in the final CGP, EPA will include the new daily maximum value for turbidity in Table 3-2 of the finalized CGP, and sites that are subject to the numeric turbidity limit according to Table 3-1 will have to comply with the value in Table 3-2.

#### **VIII.3 Sampling Requirements. (Part 3.3).**

This Part of the permit specifies how permittees subject to the numeric turbidity limit are required to demonstrate compliance through sampling of their discharges. All requirements in this Part are based on EPA's interpretation, as the relevant permitting authority, of how best to implement the C&D rule requirement to "conduct monitoring consistent with requirements established by the permitting authority. Each sample must be analyzed for turbidity in accordance with methods specified by the permitting authority." See 40 CFR 450.22(a)(2).

- *Purpose:* To specify requirements for conducting sampling for the turbidity limit in Part 3-2 to comply with the C&D rule requirement in 40 CFR 450.22.(a)(2).

### VIII.3.1 When to Sample. (Part 3.3.1)

**Types of discharge conditions requiring sampling.** (Part 3.3.3.1). The permittee is required to take samples at any time in which discharges are occurring from the site, whether the discharge is caused by a storm event or snowmelt, or it is a discharge of allowable non-stormwater. A discharge of stormwater or allowable non-stormwater for the purposes of this permit exists if there is a discernible, channelized flow of stormwater that leaves the construction site.

- *Purpose:* This provision specifies EPA's expectations with respect to the types of discharge events requiring sampling. EPA's proposed requirement that any conditions leading to a discharge, whether the discharge is caused by storm-related flows or by it is a discharge of allowable non-stormwater, must trigger the need to take samples is based on the following statement in the C&D rule preamble: "It is EPA's general view that any storm event or snowmelt that generates a discharge from the construction site should be monitored since this is the surest way to determine the effectiveness of the site's passive controls during all phases of active construction." See 74 Fed. Reg. 63049 (December 1, 2009).

This proposed provision further clarifies what type of flow from the site must be monitored by indicating that such flows are characterized as being "a discernible, channelized flow of stormwater that leaves the construction site." This clarification is based on the requirement that the construction site "discharge" for any one day meet the average turbidity value listed in Table 3-2. The use of the phrase "a discernible, channelized flow" is based on the regulatory definition of "discharge of pollutant", which includes "surface runoff which is collected or channeled by man", and the definition of "point source", which is "any discernible, confined, and discrete conveyance ... ." (emphasis added). See 40 CFR 122.2.

**Site conditions not requiring sampling.** (Part 3.3.1.2). *The permittee is not required to take samples of stormwater flow that exits the site in a non-discernible, non-confined, and non-discrete form. For example, if stormwater enters an infiltration device and is allowed to completely infiltrate, then no sampling would be required.*

- *Purpose:* In the preamble to the C&D rule, EPA states that: "... diffuse stormwater, such as non-channelized flow through a silt fence or other perimeter control that infiltrates into a vegetated area, and does not then discharge to surface waters, would not generally require sampling. EPA is encouraging (although not requiring) permittees to utilize dispersion of stormwater to vegetated areas and infiltration of stormwater instead of discharging it from the site. EPA encourages increased usage of such techniques, where appropriate. This is consistent with the concept of Low Impact Development (LID) techniques as well as the zero discharge goal of the Clean Water Act." See 74 Fed. Reg. 63049. Consistent with these statements, the permit specifies that no sampling is required where stormwater flow is allowed to completely infiltrate into the soil subsurface.

**Time of day.** (Part 3.3.1.3). The permittee is only required to take samples during normal working hours. For the purposes of this permit, normal working hours are Monday through Friday, between the hours of 8 am and 6 pm, unless the site's working hours are different. Working hours must be documented in the SWPPP in Part 8.2.12.2. If sampling is discontinued due to the end of normal working hours, the permittee is required to resume sampling the following morning or the next morning of the next working day following a weekend or holiday as long as the discharge continues.

- *Purpose:* To clarify that EPA does not expect permittees to conduct monitoring of discharges outside of normal working hours. This clarification is based on the following statements in the C&D rule preamble: "... the permit could specify that sampling must begin within one hour of the start of the discharge, and must continue until the discharge ends or until the end of the working day.... If, at the start of the next working day, there continues to be a discharge, then sampling should resume until the discharge ends or until the end of the working day." See 74 Fed. Reg. 63048-49 (December 1, 2009). In addition, EPA stated as follows: "... it is EPA's general view that sampling should be conducted, at a minimum, during normal business hours at a project. This can generally be considered to be between the hours of 6 a.m. and 6 p.m., or when workers are normally present on the construction site." See 74 Fed. Reg. 63050 (December 1, 2009).

**Unsafe storm conditions under which sampling is not required.** (Part 3.3.1.4). The permittee is only required to take samples during conditions that are safe for sampling personnel. Where the site is experiencing, or will imminently experience, conditions such as high winds, lightning, or intense rainfall, which would cause a reasonable person to believe that the safety of the members of the stormwater team taking samples would be in jeopardy, the permittee is relieved from sampling during those conditions. However, the permittee must take samples from the discharge as soon as such unsafe conditions are no longer present or threatening, as long as at that time a discharge continues to occur.

- *Purpose:* To explain that it is not EPA's expectation that the permittee have its personnel conduct sampling during conditions that are unsafe. EPA's intention with respect to unsafe conditions was made clear in the C&D rule preamble as follows: "The exception [to the requirement to take samples during normal working hours] would be if unsafe conditions, such as heavy rain or lightning, would cause a reasonable person to determine that sampling would be dangerous." See 74 Fed. Reg. 63050.

### **VIII.3.2 Sampling frequency. (Part 3.3.2).**

The permittee is required to conduct the first sample within the first hour that the discharge begins. Following the first sample, the permittee is required to take a minimum of 2 additional samples (a total of 3 samples) during the remaining hours of the work day (for normal working hours) that the discharge continues. The 3 samples must be distributed in such a way that the beginning, middle, and end of the discharge for that day are represented. If the discharge continues on the subsequent day(s), the permittee must take a minimum of 3 samples per day that there is a discharge. If the permittee is unable to conduct the required minimum number of samples in any one day, he/she must notify EPA of this fact when the monthly report is submitted and indicate the reason why the 3 samples were not taken. In addition, the draft permit indicates that the permittee may take more than 3 samples in a given day provided the samples, taken as a whole, are representative of the discharge for that day, and all valid sample results are used in calculating compliance with the numeric limit.

- *Purpose:* To explain to the permittee when sampling must begin once there is a discharge, and to specify what additional samples are required during normal working hours of a construction site from which a discharge occurs. The C&D rule left to permitting authorities discretion to specify a sampling frequency, including when to initiate sampling during a discharge event and how many additional samples were required. With respect to the derivation of the requirement to take

the first sample within the first hour, EPA deferred in part to an example provided in the C&D rule preamble, as follows: "... the permit could specify that sampling must begin within one hour of the start of the discharge, and must continue until the discharge ends or until the end of the working day." See 74 Fed. Reg. 63048.

The Agency also indicated that it expects that, at a minimum, three samples per day will need to be collected at each discharge point while a discharge is occurring. Based on these statements and reasoning, EPA found it reasonable and representative of the discharge to require 3 samples be taken for every day of a discharge.

EPA requests comments on the above sampling frequency and on the alternative option of requiring samples to be taken once every 2 hours following the first sample.

### **VIII.3.3 Sampling location. (Part 3.3.3).**

Part 3.3.3 requires the permittee to take samples of all discharge points where stormwater or allowable non-stormwater is discharged off the site, except for linear projects, as defined in Appendix B, which are authorized to take representative samples in accordance with Part 3.3.3.4. The permittee must also meet the following requirements relating to the location where samples are taken:

1. Prior to taking the first sample, clearly mark all discharge points on the site with flags, stakes, tape or other visible markers that will last for the duration of the construction activity.
  2. Position sampling points downstream from disturbed portions of the site and downstream from any stormwater controls installed on the site in compliance with this permit.
  3. If the discharge enters a storm drain inlet to which the permittee has access, take samples from the point where stormwater flow enters the inlet.
  4. If the permittee is required to comply with the numeric turbidity limit for a linear project, and has two or more discharge points that discharge substantially identical effluents, based on the similarities of the exposed soils, slope, and type of stormwater controls used, the permittee may take samples of the discharge from just one of the discharge points and report that the results also apply to the substantially identical discharge point(s). If the project continues for more than one year, you must rotate once per year the location where samples are taken so that a different discharge point is sampled every year. As required in Part 8.2.12.2.a, the SWPPP must identify each outfall authorized by this permit and describe the rationale for any substantially identical outfall determinations.
- *Purpose:* To specify where samples must be taken for permittees subject to the numeric turbidity limit. The requirement to take samples at the point of discharge stems from the application of the numeric turbidity limit to "discharges from C&D sites." 74 FR 63049 (December 1, 2009). Part 3.3.3 also includes more specific requirements, which are discussed as follows:
    - Mark all discharge points: EPA proposes to require this marking so that it is clear to all sampling personnel, as well as to EPA, State, or local inspectors conducting samples of a site's discharge, where compliance monitoring will be conducted at the site. This is important to ensure a consistent

location for taking samples, and to reinforce the need for samples to be reproducible and comparable to one another.

- Position sampling point downstream from earth disturbances and from stormwater controls: This proposed requirement is intended to reinforce the fact that in order for samples to be representative of the discharge, samples must be taken after stormwater has flowed downstream of any disturbed soils and of any stormwater controls installed to treat that flow. For instance, if the discharge occurs after stormwater and/or authorized non-stormwater flows into a sediment basin, and the sediment basin is the last stormwater control prior to discharging from the site, the sampling point will be from the basin outfall.
- Sampling at storm drain inlets: The proposed permit clarifies that the discharge point into a storm sewer inlet is an appropriate location to take samples.

Regarding the availability of representative monitoring for linear projects, in the C&D rule preamble EPA explained that it believed that permitting authorities could determine it appropriate to allow discharges from linear construction projects, which are subject to the numeric turbidity limit, to utilize representative sampling at certain discharge locations that are representative of the discharge characteristics of other locations. EPA further explained that "EPA views the use of representative sampling points as being acceptable for linear projects due to the potential unique nature of these projects. Because of the size of linear projects, there may be dozens or more discharge points spaced over a large geographic area. In addition, accessing certain areas of the project during a storm event (such as areas that have recently been stabilized) may not be possible without significant disruption of the stabilization measures in place (such as might occur if it would be necessary to drive a vehicle over an area that has been recently stabilized in order to access the discharge point)." 74 FR 63049 (December 1, 2009). The proposed approach in Part 3.3.3 is similar to the representative sampling language used in EPA's 2008 MSGP. See Part 6.1.1.

#### **VIII.3.4 Sampling discharges consisting of stormwater originating outside the construction site. (Part 3.3.4).**

The permit specifies that *if prior to discharging, stormwater flow commingles with sources of stormwater that originate outside of the construction site, on property that is not owned or operated by the permittee, the following requirements apply:*

1. Samples must be taken of any discharges that come into contact with earth-disturbing activities on the site and that consist in part of stormwater that originates outside of the construction site from property that is not owned or operated by the permittee; and
  2. Samples are not required of stormwater discharges from the site that derive from sources of stormwater that originate outside of the construction site from property that is not owned or operated by the permittee, but which do not come into contact with earth-disturbing activities associated with the project.
- *Purpose*: EPA is aware that discharges are often a result of the flow that in part originates outside of the permittee's property. Since promulgation of the C&D rule, the question of how to comply with the sampling requirements for these commingled discharges has come up frequently. Issues surrounding sources of

“run-on” and what stormwater discharges are subject to the effluent limit were not specifically addressed in the C&D rule. The proposed requirements in Part 3.3.4 address the need to clarify when sampling is required in these circumstances.

### **VIII.3.5 Sampling protocols. (Part 3.3.5).**

The proposed permit requires the permittee to adhere to the following sampling procedures:

1. Grab samples: The permittee must take either manual or automated grab samples.
2. Representative sample requirements: *To ensure that each sample is representative of the flow conditions and other characteristics of the discharge, the following is required:*
  - a. Take samples from the horizontal and vertical center of the stormwater outfall channel(s) or other sources of concentrated or channelized flow;
  - b. Avoid stirring the bottom sediments in the stormwater channel in which samples are taken by not walking through the areas of stormwater flow or disturbing the sediment with the sampling device;
  - c. Hold sampling container so that the opening faces the upstream direction of the stormwater channel in which samples are taken;
  - d. Do not overfill the sampling container; and
  - e. Keep the samples free from floating debris.
- *Purpose*: To explain to permittee EPA's expectations with respect to proper sampling procedure, which ensures that the sample will be representative of the flow conditions and other characteristics of the discharge. The C&D rule was silent regarding the specific sampling protocols that should be followed, and left to the permitting authority the discretion to specify what it believes to be the most appropriate protocols to require. In developing the proposed requirements in this part, EPA consulted other State permitting requirements and sampling guidance. In particular, EPA found helpful the State of Vermont Department of Environment Conservation's *Monitoring of Turbidity in Stormwater Runoff from Construction Activities* (February 2008), downloadable at [http://www.anr.state.vt.us/dec//waterq/stormwater/docs/construction/sw\\_turbidity\\_monitoring\\_guidance.pdf](http://www.anr.state.vt.us/dec//waterq/stormwater/docs/construction/sw_turbidity_monitoring_guidance.pdf) and the stormwater sampling requirements in the construction permits of California, Georgia, Oregon, Vermont, and Washington.

### **VIII.3.6 Sample Analysis. (Part 3.3.6).**

The proposed permit requires certain minimum protocols for the analysis of the turbidity samples. The permittee must meet the following requirements:

1. Begin sample analysis as soon as possible after sample collection;
2. If analysis will be performed on site, use a field-calibrated nephelometer or turbidity meter (also referred to as a “turbidimeter”);
  - a. To ensure proper calibration, recalibrate the nepelometer or turbidity meter prior to each day's use of the device;

- b. Maintain the nephelometer in proper operating condition. Do not subject the nephelometer to mechanical shock, extreme heat, or humidity. Prevent moisture or dust from entering and accumulating inside the nephelometer; and
3. Comply with additional requirements in accordance with 40 CFR Part 136 procedures and manufacturer's specifications.
  - *Purpose:* To ensure that the analysis of turbidity samples is done in accordance with methods that are generally practiced and relatively clear to follow.

#### **VIII.3.7 Recording of Sample Results. (Part 3.3.7).**

The proposed permit requires that the value of all turbidity samples taken must be recorded in a sampling log. The following must be recorded:

1. Results of the sample(s) for each day in nephelometric turbidity units (NTUs);
2. Arithmetic average of the samples for each day;
3. If the arithmetic average exceeds the daily maximum value listed in Table 3-2, then indicate "exceedance" in the inspection log;
4. Date, name of discharge point, and time of sample;
5. Name(s) of the individual(s) who performed the sampling and analysis; and
6. Analytical technique used.

The permittee is required to keep a current copy of the sampling log at the site or at an easily accessible location, such as a downloadable file, so that it can be made available at the time of an onsite inspection or upon request by EPA.

- *Purpose:* All NPDES permits require as a standard condition that certain minimum monitoring records be kept. See 40 CFR 122.41 (j) (3). This proposed permit condition conforms to these minimum requirements.

#### **VIII.3.8 Actions required if there is a violation of the numeric turbidity limit. (Part 3.3.8).**

If the average value of any day's turbidity samples exceeds the daily maximum value listed in Table 3-2, the permittee must conduct the corrective actions required in Part 6.3.2 and document all related findings in accordance with that Part.

- *Purpose:* Sampling results that exceed the daily average turbidity limit listed in Table 3-2 constitute a violation of the permit. To address the violation, and correct any problems leading to the higher level of turbidity, the permittee is required to take certain minimum actions described in the corrective action section of the permit. EPA solicits comments on whether the permit should require an immediate notification (e.g., 24 hours) to EPA for extremely high turbidity levels (e.g., 2 times the numeric turbidity limit).

#### **VIII.3.9 Reporting Turbidity Sample Results to EPA. (Part 3.3.9).**

For each discharge point on the site, the permittee is required to report the sampling results for the period beginning 30 days after the first day of the next full month following the notice of coverage under this permit, and every 30 days thereafter, as long

as the permittee is required to conduct sampling of that discharge point. The following requirements apply to the reporting of turbidity results:

1. **Report all sampling data through the eNOI system.** Submit all sampling results electronically through the eNOI system, unless your EPA Regional office specifically authorizes you to use a paper form;
2. **Report “no discharge” periods.** If there is no discharge from a particular discharge point, report that no discharge occurred and the particular discharge point to which that applies;
3. **Contents of sampling reports.** For each discharge point, the permittee must include the following information:
  - a. Identification of the discharge point. If the discharge point is from a linear project and is representative of one or more substantially similar discharge points, include the names or locations of the discharge points;
  - b. Date sample(s) taken;
  - c. Arithmetic average of samples taken on each day of discharge, or, if there was no discharge during the sampling period for that discharge point indicate “no discharge”. The permittee must also indicate in the report if there were days when a discharge occurred, but you were not able to take the minimum required 3 samples; and
  - d. If there is an exception for storms greater than the 2-year, 24-hour storm, indicate the amount of rainfall that occurred.
- *Purpose:* NPDES regulations require permittees to report sampling data at intervals specified in the permit. See 40 CFR 122.41 (l)(4). EPA proposes that sampling data be reported once per month, and that these reports include certain minimum specified information. EPA believes that this reporting frequency is reasonable. The administrative burden of submitting the data using the eNOI process is minimal. Additionally, EPA believes that any less frequent reporting will undermine the Agency's ability to oversee compliance with the numeric effluent limit in a timely manner.

## **IX. Water Quality-Based Effluent Limitations. (Part 4).**

This proposed permit includes water quality-based effluent limits (WQBELs) to control discharges as necessary to meet applicable water quality standards. The provisions of Part 4 constitute the WQBELs of this permit, and supplement the permit's technology-based effluent limits in Parts 2 and 3.

### **IX.1 General Effluent Limitation to Meet Applicable Water Quality Standards. (Part 4.1)**

The proposed permit requires discharges of stormwater to be controlled as necessary to meet applicable water quality standards, including meeting any specific water quality-based conditions or limits required by states, tribes, and U.S. territories in Part 10.

In the absence of information demonstrating otherwise, EPA expects that compliance with the conditions in this permit will result in stormwater discharges being controlled as necessary to meet applicable water quality standards. If at any time the

permittee becomes aware, or EPA determines, that the discharge is not being controlled as necessary to meet applicable water quality standards, the permittee must take corrective action as required in Part 6.3.2, document the corrective actions as required in Part 6.4, and report the corrective actions to EPA as required in Part 6.6.

EPA may also impose additional water quality-based limitations on a site-specific basis, or require the permittee to obtain coverage under an individual permit, if information in the NOI, required reports, or from other sources indicate that discharges are not controlled as necessary to meet applicable water quality standards.

- *Purpose:* To require that all permittees control their stormwater discharges as necessary to meet applicable water quality standards, consistent with 40 CFR 122.44(d)(1). In the absence of information demonstrating otherwise, EPA expects that compliance with the conditions and effluent limitations in this permit will result in stormwater discharges being controlled as necessary to meet applicable water quality standards. If at any time the permittee becomes aware, or EPA determines, that the discharge is not being controlled as necessary to meet applicable water quality standards, the permittee is required to take corrective action as required in Part 6.3, document the corrective actions as required in Part 6.4, and report the corrective actions to EPA as required in Part 6.6.

To support EPA's expectation that compliance with the conditions and effluent limitations in this permit will result in discharges that meet applicable water quality standards is valid, the permit includes additional water quality-based effluent limitations, which, in combination with the technology-based effluent limits in Part 2, EPA expects to be as stringent as necessary to achieve water quality standards. These additional WQBELs apply in the proposed permit where EPA has determined that discharges from construction sites may contribute to exceedances of applicable water quality standards, such as when a waterbody is impaired for sediment or nutrients, which are parameters associated with stormwater discharges from construction sites. The fact sheet will discuss these additional requirements below in Section IX.2.

## **IX.2 Discharge Limitations for Impaired Waters. (Part 4.2).**

The proposed permit clarifies that permittees will be considered to have a discharge to an impaired water if the first water of the U.S. to which there is a discharge from the construction site is listed as impaired on the state's most recent approved Section 303(d) list. Where the discharge first enters a storm sewer system, there is a discharge to an impaired water if the first water that receives the stormwater discharge is impaired, as defined above.

If the permittee discharges to an impaired water that is impaired for sediment or a sediment-related parameter, such as total suspended solids (TSS) or turbidity, and/or nutrients, including impairments for nitrogen and/or phosphorus, the permittee is required to comply with the requirements in Part 4.2.2.

If the permittee discharges to an impaired water that is impaired for a parameter other than a sediment-related parameter or nutrients, he/she is required to comply with the stormwater control requirements in Part 4.2.3. EPA will inform the permittee if any additional limits or controls are necessary for the discharge to be consistent with the assumptions of any available wasteload allocation in the TMDL, or if coverage under an individual permit is necessary in accordance with Part 1.5.6.

If during coverage under a previous permit, the permittee was required to install and maintain stormwater controls to meet the requirements of an EPA-approved or established TMDL (for any parameter), the permittee must continue to implement such controls as part of this permit.

- *Purpose:* To clarify when discharges from construction sites are discharging to an impaired water, therefore potentially triggering additional requirements in the permit. EPA considers such a clarification to be necessary due to the considerable amount of uncertainty that exists among the regulated community as to how to determine whether a site discharges to an impaired water. EPA requests comment on whether the permit should specify that the identification of the first water as the waterbody for the construction operator to examine for determining whether an impaired water discharge exists is an initial, threshold determination. If such a clarification was made in the permit itself, EPA would be making clear, consistent with its regulatory authority, that it can later determine that, despite the discharger's initial assessment that there is no discharge to an impaired water using the permit's standard, such a discharge exists due to further examination of the site's hydraulic connection to a downstream water segment that is impaired.

The purpose of this provision is also to include permit requirements consistent with the assumptions in a TMDL and to clarify for the operator how they will know when such requirements apply. These provisions are intended to implement the requirements of 40 CFR 122.44(d)(1)(vii)(B), which requires that water quality based effluent limits in permits be "... consistent with the assumptions and requirements of any available wasteload allocation for the discharge ..." and of 40 CFR 122.4(i), which creates conditions for the issuance of permits for new sources and existing unpermitted dischargers.

Where the project is an existing permitted discharger, EPA will assess whether the TMDL includes specific WLAs that apply to the project, and notify the permittee of any additional requirements. Where the project is a new source or existing unpermitted discharger, and therefore the operator is seeking coverage for a site for the first time, the permit requires the operator to maintain any stormwater controls that enabled the discharger to be eligible under Part 1.3.3. EPA believes that involving the Agency in determining which permitted ongoing sites require additional conditions is appropriate given the fact that existing permittees operate projects that are significantly under way and the operator may not understand the requirements of the new CGP. Furthermore, EPA is often in a better position than the permittee to judge whether discharges from the site may cause or contribute to an exceedance of an applicable water quality standard. Where the existing permittee has already been required to implement additional controls to meet applicable WLAs under the previous permit, the proposed permit would require that those additional controls continue to be implemented.

EPA notes that, with respect to discharges from construction activities in the District of Columbia, ongoing efforts at EPA Region 3 may affect future requirements in this permit regarding the discharge of sediment to Chesapeake Bay tributaries. The proposed Chesapeake Bay Watershed TMDL includes a sediment allocation of 11.16 million pounds per year for District discharges to the Potomac River and its tributaries. EPA is required to ensure, through its backstop wasteload allocations, that the necessary reductions are obtained through NPDES permits. EPA requests comment on including provisions in the permit,

which provide additional water quality-based, sediment reduction requirements specifically for construction activities located in the District.

#### **IX.2.1 Identify Whether the Site Discharges to an Impaired Water. (Part 4.2.1).**

For operators that determine they have a discharge to an impaired water, based on the standard for making such determinations in Part 4.2, the proposed permit requires that the permittee provide the following information on the NOI:

1. The latitude and longitude of the discharge point(s);
2. A list of all impaired waters to which the permittee discharges;
3. The pollutant(s) for which the water of the U.S. is impaired;
4. Whether a TMDL has been approved or established by EPA for that pollutant; and
5. If so, the title or reference of the TMDL document.

If the operator indicates in the NOI that his/her site does not discharge to an impaired water, EPA may determine, based on additional information, that the site does in fact discharge to an impaired water. If this is the case, the permittee will be notified of EPA's determination, and provided with an opportunity to comply with additional requirements as a condition of permit coverage, consistent with Part 4.2.2.

- *Purpose:* To require operators to report in their NOIs whether they have a discharge to an impaired water, and to provide additional information regarding their discharge. As discussed above in the "purpose" part of Section IX.2, above, EPA reserves the authority to later determine that, despite an operator's initial NOI indication that it does not discharge to an impaired water, a discharge to an impaired water does in fact exist.

The paper NOI form for the 2008 CGP required operators to identify any waters of the U.S. to which they would discharge, and whether the discharge would be consistent with the assumptions and requirements of EPA approved or established TMDLs. In order to know whether, under the 2008 CGP, a discharge will be controlled consistent with any existing TMDLs, the operator would need to determine not only whether there is a discharge to an impaired water, but also if any EPA approved or established TMDLs apply to the discharge. Part 4.2.1 of the proposed permit merely makes this requirement explicit.

#### **IX.2.2 Requirements for Discharges to Sediment or Nutrient-Impaired Waters. (Part 4.2.2)**

For discharges to an impaired water (as defined in Part 4.2) that is impaired for sediment, nutrients, or related pollutants, including impaired waters for which a TMDL has been approved or established for the impairment, the proposed permit requires compliance with specific stormwater controls, which will be discussed in detail in this section. These stormwater control requirements, along with the provision at Part 4.1, constitute the applicable WQBELs and conditions of the draft permit. The proposed permit also requires the operator to comply with any additional state or tribal impairment-related requirements included in Part 10.

**Water Quality Benchmark Monitoring.** (Part 4.2.2.1). The proposed permit requires that, for construction activities that disturb 10 or more acres of land at any one time, permittees must conduct water quality benchmark monitoring for the sediment and/or nutrient parameter(s) for which the receiving water is impaired during the period of time when the project disturbs 10 or more acres. The permittee may discontinue benchmark

sampling when an area of land sufficient to reduce the total amount of disturbed land to less than 10 acres has been stabilized in compliance with the criteria in Part 2.2.2.

- *Purpose:* To assist permittees and EPA in determining whether discharges from certain large construction projects are controlled sufficiently to meet applicable water quality criteria and therefore do not contribute to an existing impairment, and identify situations where further controls may be necessary to comply with this requirement. The following discussion provides a further elaboration of the rationale supporting this proposed provision.

### **The Need for Monitoring**

EPA is obligated to ensure that discharges authorized under its permits are controlled as necessary to meet water quality standards. Where such standards have been found by a state or tribe to already be exceeded, the permit may only allow such discharges that are controlled as necessary to meet water quality standards. Monitoring can provide the advantage of further assurance that sites discharging to impaired waters will not contribute to such impairments, and of additional information from which EPA can use to ensure that the discharge is adequately controlled. Monitoring can also be used to inform EPA about the necessity of additional controls on a site-specific basis to ensure that the facility has implemented controls as necessary to meet water quality standards.

Monitoring as part of the CGP is appropriate because pollutants commonly associated with construction stormwater continue to cause a large number of impairments to U.S. waters, suggesting that additional mechanisms are needed to help restore such waters. EPA has singled out sediment and turbidity, as well as nitrogen and phosphorus, which are all present in construction stormwater discharges, as appropriate for further scrutiny under this permit. The following is a relevant discussion from the C&D rule preamble:

“EPA’s *Wadeable Streams Assessment* (2006) is a statistical survey of the smaller perennial streams and rivers that comprise 90 percent of all perennial stream miles in the coterminous United States. Excess nitrogen, phosphorus, and streambed sedimentation are among the most widespread stressors examined in the survey. According to the survey, 25 percent of streams have “poor” streambed sediment condition, 31 percent have “poor” phosphorus condition, and 32 percent have “poor” nitrogen condition relative to reference streams. The risk of having poor biological condition was two times greater for streams scoring “poor” for nutrient or streambed sediment condition than for streams that scored “good.”

In addition, EPA’s Assessment TMDL Tracking and Implementation System (ATTAINS) provides information on water quality conditions reported by the states to EPA under Sections 305(b) and 303(d) of the Clean Water Act. According to ATTAINS (as of September 17, 2009), turbidity contributes to impairment of 26,278 miles of assessed rivers and streams, 1,008,276 acres of assessed lakes, and reservoirs, and 240 square miles of assessed bays and estuaries. The total area of impaired surface waters due to turbidity is probably underestimated due to the low percentage of surface waters that have been assessed.”

74 Fed. Reg. 63042-63043.

Another reason to adopt a monitoring requirement at this time is that EPA's other national stormwater permit has adopted monitoring requirements for impaired waters, and some state permits are starting to require monitoring as well. In EPA's 2008 multi-sector general permit (2008 MSGP) for stormwater discharges associated with industrial activities, permittees discharging to impaired waters are required to take samples of their discharge for the impairment pollutant. See Part 6.2.4 of the 2008 MSGP. In addition, the states of Oregon, Washington, Georgia, Vermont, and California have monitoring requirements in their CGPs. The following is a short summary of these states' permit requirements:

- Washington CGP: requires turbidity monitoring for sites discharging to waters impaired for turbidity, fine sediment, or phosphorus. See Section S.8 of Washington's current CGP, viewable at <http://www.ecy.wa.gov/programs/wq/stormwater/construction/>.
- Georgia CGP: provides options for permittees to demonstrate they are not causing or contributing to certain impairments, including the option of conducting turbidity and TSS samples of their stormwater discharges. See Section III.C.2.f of the Georgia CGP, viewable at [http://www.gaepd.org/Files\\_PDF/techguide/wpb/FINAL\\_StormWater\\_NPD\\_ES\\_Permit\\_StandAlone\\_GAR100001\\_Y2008.pdf](http://www.gaepd.org/Files_PDF/techguide/wpb/FINAL_StormWater_NPD_ES_Permit_StandAlone_GAR100001_Y2008.pdf).
- Vermont CGP: requires turbidity monitoring for discharges that appear to be visibly discolored. See Section 6.3.C-F of the Vermont CGP, viewable at [http://www.vtwaterquality.org/stormwater/docs/construction/sw\\_cgp\\_amended\\_final.pdf](http://www.vtwaterquality.org/stormwater/docs/construction/sw_cgp_amended_final.pdf).
- California CGP: requires turbidity and pH monitoring for high risk sites, in which the determination of risk levels for a particular site is in part related to whether the receiving water is impaired. See Section V.B and C of the California CGP, viewable at [http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/docs/constpermits/wqo2009\\_0009\\_dwa.q.pdf](http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/wqo2009_0009_dwa.q.pdf).

Based on these reasons, it is EPA's view that it is appropriate to establish as part of its CGP that sites discharging to waters impaired for pollutants commonly associated with construction activities be required to conduct discharge monitoring.

### **Benchmark Monitoring vs. Compliance Monitoring**

Apart from the decision to propose monitoring requirements for discharges to impaired waters, EPA also considered what type of monitoring would be suitable for this permit. The two types of monitoring that EPA has implemented in its stormwater permits are compliance monitoring and benchmark monitoring. The intent of compliance monitoring is to collect samples to determine whether a permitted site is discharging in compliance with a numeric effluent limitations guideline or other type of numeric effluent limit. If any individual sample or average of the daily or monthly samples, depending on the way the limit is expressed, exceeds the relevant effluent limit, this is considered a violation of the permit. By comparison, benchmark monitoring is conducted to provide the permittee with a gauge on how well his/her stormwater controls are working with respect to a numeric threshold, which is typically relevant for assessing discharges with respect to a state or federal water quality standard. The major difference between compliance monitoring and benchmark monitoring is that if a

discharge exceeds the applicable benchmark, no violation of the permit results. Rather, if an exceedance occurs, further action by the permittee is required in order to assess the effectiveness of stormwater controls at the site and perform corrective action where necessary.

EPA believes that benchmark monitoring is the appropriate type of monitoring for this permit. First, EPA's primary objective in requiring monitoring is to provide permittees with a mechanism by which they can assess the level of impairment pollutants in their discharge, and respond to any elevated levels by fixing or enhancing their suite of controls. EPA feels that this objective can be accomplished without the threat of a permit violation for samples in excess of the benchmark. EPA notes that although an exceedance of the benchmark would not constitute a violation under the proposed permit, the failure of the permittee to take the required corrective actions by the deadlines in the permit would constitute a violation. Second, EPA does not have the record basis at this time to develop numeric "pass or fail" type WQBELs based on the state and tribal water quality standards, sufficient to support the adoption of a compliance monitoring approach. Third, because monitoring requirements are new to the CGP, EPA is interested in first gaining a sense of how its sampling requirements work during the permit term. With this in mind, using a benchmark monitoring approach will enable the Agency to learn in subsequent permit terms how to better improve the sampling protocols. Furthermore, there is some precedent for using benchmark monitoring in EPA permits. The concept of benchmark monitoring has been used in EPA's past MSGPs. See Part 6.2.1 of the 2008 MSGP, which is viewable at [http://www.epa.gov/npdes/pubs/msgp2008\\_finalpermit.pdf](http://www.epa.gov/npdes/pubs/msgp2008_finalpermit.pdf). The states, too, have chosen to largely utilize benchmark type monitoring, with the exception of California's CGP, which, like this CGP, does include both benchmark and compliance monitoring. See Section VIII.3, above, for a discussion of the draft permit's compliance monitoring requirements.

#### **Use of State/Tribal Water Quality Criteria for Benchmarks**

In exploring what type of benchmark threshold to employ in the proposed permit, EPA came to the conclusion that using the applicable water quality criteria adopted by the state or tribe was the best way to assess whether discharges are protective of local water quality. Use of these criteria offers the best available method of reflecting the state or tribe's standards for protecting the impaired water. These criteria are compiled in Table J-1 in Appendix J.

Part of the challenge of using these water quality criteria is that they are expressed in a number of different ways and they require some level of interpretation to determine what the applicable benchmark should be. For instance, some criteria for turbidity are expressed as a single limit, such as 25 NTU, whereas other criteria are expressed as a certain amount above background levels of turbidity, such as 5 NTU above background. It is for this reason that EPA provided in Table J-1 its own determination of the benchmarks that correspond to each criterion. The following is a short-hand description of how EPA translated individual criterion to benchmarks:

- If the water quality criterion is expressed as a concentration limit (e.g., 100 mg/l, 1000 ppm), mass limit (1000 mg/day), or NTU limit for turbidity (e.g., 100 NTU), no translation is needed and your benchmark level is established at the same level as the criterion.

- If the water quality criterion is expressed as a “no discharge” limit, the applicable benchmark level is 0.
- If the water quality criterion is expressed as a value above “natural background” levels of the pollutant in the receiving water (e.g., 10 NTUs above background levels of turbidity), the applicable benchmark corresponds to the value that is specified in the criterion (e.g., in the example, the benchmark would be 10 NTU).
- If the water quality criterion is expressed in narrative form only, no benchmark is assigned, and the permittee is merely required to conduct monitoring and report the results to EPA.

EPA requests comment on this approach for determining benchmarks.

### **10-acre Disturbance Threshold**

EPA proposed that the benchmark monitoring requirement apply only to construction projects that disturb 10 or more acres at any one time, rather than requiring monitoring for all projects that discharge to a sediment or nutrient-impaired water. EPA estimates that on an annual basis roughly 41 sites, which discharge to sediment or nutrient-impaired waters, and that disturb 10 or more acres at a time, will be affected by the 10-acre threshold. See Appendices 2 and 3 of the Economic Analysis for the proposed permit.

EPA believes it is appropriate for sites that disturb less than 10 acres at a time to avoid being required to conduct benchmark monitoring. As discussed in VII.2.3, the agency believes that construction operators who are able to phase their disturbances so that they are always disturbing less than 10 acres at a time, or who stabilize exposed areas to lower their total disturbed acres to less than 10 acres, will significantly reduce their pollutant discharge.

By providing an incentive for operators to keep the amount of soil exposure to less than 10 acres at any one time, the permit proposes to use the proven concept of phasing to further protect impaired waters. The choice of (less than) 10 acres as the cap for the area of simultaneous land disturbance hopefully accommodates the amount of land that must be concurrently disturbed at most, if not all, types of construction projects, while also having the benefit of restricting areas exposed at any one time on a site.

This requirement was not included in the 2008 CGP. The proposed inclusion of this requirement is meant to further clarify what EPA means by the 2008 CGP's requirement in Part 3.4 to “select, install, implement, and maintain control measures at your site that minimize pollutants in the discharge as necessary to meet applicable water quality standards.”

- **Benchmark levels.** (Part 4.2.2.1.a). The benchmark level that applies to the discharge is the water quality criterion that has been established for the pollutant(s) for which the receiving water is impaired by the state, tribe, or territory/protectorate where your construction project is located. To determine the water quality criteria that apply to each discharge for any and all impairment pollutants, the permittee should consult Table J-1 of Appendix J, which is a compilation of the existing water quality criteria for all of the states, tribes, and territories/protectorates that are covered by this permit, and a translation of those criteria to benchmark levels. Where further clarification of a water quality criterion is required in order to establish your benchmark level, the permittee

should contact the state, tribe, or territory/protectorate that applies or consult their applicable websites.

- *Purpose:* To include instructions to the permittees on how to convert the applicable water quality criterion to a benchmark level. The benchmark level is based on the water quality criterion for the sediment and/or nutrient-related pollutant for which the waterbody is impaired. Using the criteria as the benchmark is appropriate because they have been established for the particular waterbody, and it is likely that the impairment status of the waterbody is based on exceedances of these criteria. Requiring that benchmark samples be compared with the criteria as the threshold also enables EPA to support its determination that the permit is protective of water quality standards as is required by 40 CFR 122.4(i) and 122.44(d)(1).
2. **Benchmark monitoring requirements.** (Part 4.2.2.1.b). The requirements that apply to benchmark monitoring, in terms of how, where, and how frequently permittees are required to sample, are specified below:

- a. **When samples are required to be taken.** (Part 4.2.2.1.1.i). The proposed permit requires the permittee to comply with the same requirements as in Part 3.3.1 regarding when to take benchmark samples.
- b. **Sampling frequency.** (Part 4.2.2.1.b.ii). The permittee is required to monitor the discharge once per week at a minimum, unless there is no discharge from the site during that week.

The permittee must collect his/her first sample within the first hour that the discharge begins. After the first sample, the permittee must take a minimum of 2 additional samples (a total of 3 samples) during the remaining hours of the work day (normal working hours, unless the permittee chooses to conduct sampling outside of normal working hours) that the discharge continues. The 3 samples must be distributed in such a way that the beginning, middle, and end of the discharge for that day are represented. If the permittee is unable to conduct the required minimum number of samples in any one day, the permittee must notify EPA of this fact when the monitoring report is submitted.

- c. **Sampling location.** (Part 4.2.2.1.b.iii). The permittee is required to comply with the requirements of part 3.3.3 with respect to where samples must be taken.
- d. **Representative sampling for linear projects.** (Part 4.2.2.1.b.iv). For linear projects subject to the benchmark sampling requirement, sampling may be conducted on a representative basis, in accordance with Part 3.3.3.4.
- e. **Sampling discharges consisting of stormwater originating outside your construction site.** (Part 4.2.2.1.b.v). If prior to discharging, stormwater flow commingles with sources of stormwater that originate outside of the permittee's construction site, on property that is not owned or operated by the permittee, he/she must comply with the requirements in Part 3.3.4.
- f. **Sampling protocols.** (Part 4.2.2.1.b.vi). The permittee is required to comply with Part 3.3.5 with respect to the sampling protocols that apply to benchmark monitoring requirements required under Part 4.2.2.1.
- g. **Sample analysis.** (Part 4.2.2.1.b.vii). If the permittee is taking benchmark samples for turbidity, he/she must comply with the requirements in Part 3.3.6 with respect to the proper procedures for analyzing samples. For all other pollutants, the permittee must analyze corresponding samples consistent with

40 CFR Part 136 analytical methods and using test procedures with quantitation limits at or below benchmark values for all benchmark parameters for which he/she is required to sample.

- *Purpose:* To provide the permittee with specific protocols to follow in conducting the required benchmark monitoring. The only difference between the requirements in this Part and that of Part 3.3 (for turbidity monitoring) is in the frequency of monitoring. For benchmark monitoring, the permittee would be expected to monitor once per week as compared to the requirement to monitor during any day in which there is a discharge.
3. **Recording of monitoring results.** (Part 4.2.2.1.c). The proposed permit requires the permittee to record the value of all samples taken. For each discharge point from which the permittee took samples, the permittee is required to record in a monitoring log, which is to be kept in the same location as the SWPPP or at an easily accessible location (such as a downloadable file), the following:
- a. Results of the sample(s) for each day in units that are the same as your applicable water quality criterion (e.g., NTUs for turbidity);
  - b. Arithmetic average of the samples for each day;
  - c. If the arithmetic average exceeds your water quality benchmark, then indicate "exceedance" in the monitoring log;
  - d. Date, name of discharge point, and time of sample;
  - e. Name of the individual who performed the sampling and analysis; and
  - f. Analytical technique used.
- *Purpose:* All NPDES permits require as a standard condition that certain minimum monitoring records be kept. See 40 CFR 122.41(j)(3). This proposed permit condition conforms to these minimum requirements.
4. **If samples exceed the benchmark, conduct corrective action.** (Part 4.2.2.1.d). If the average value of your benchmark samples in any day exceed the applicable benchmark level, you must implement the corrective actions required in Part 6.3.1. Note that an exceedance of a benchmark does not constitute a violation of the permit. However, a violation would result if you fail to implement the required corrective actions in Part 6.3.1.

If the permittee is subject to both the numeric turbidity limit in Part 3.2, and the benchmark requirement in this Part, the following applies, assuming the numeric turbidity limit is a higher turbidity value than the benchmark level. If the sample results indicate that the permittee has exceeded both the numeric turbidity limit and the benchmark level, the permittee will still be considered to have violated the turbidity limit and exceeded the benchmark level. If the permittee has exceed the benchmark level, but the turbidity levels are below the numeric limit, the permittee will only have exceeded the benchmark level, and no violation will have occurred.

- *Purpose:* To require the permittee to examine his/her stormwater controls and pollutant sources to determine the probable cause of exceedances of the benchmark and to address any problems found, in compliance with Part 6.3.1.
5. **Reporting benchmark monitoring results to EPA.** (Part 4.2.2.1.e). For each discharge point on the site, the proposed permit requires the permittee to report monitoring results to the EPA Regional Office on a quarterly basis. The following is

a list of the 3-month intervals to be used for this permit's reporting quarters and the deadline for submitting the reports to EPA that correspond to each quarter:

Quarter	Reports Must be Submitted to EPA No Later Than ...
January 1 – March 31	April 30
April 1- June 30	July 31
July 1 – September 30	October 31
October 1 – December 31	January 31

The permittee must submit sampling results within 30 days of the end of each quarter. If the permittee has just received coverage under the permit, the date of coverage will determine which quarter the permittee will use for reporting. For example, if the permittee receives coverage under this permit on July 4, the first reporting period would be for samples taken starting during the first full week after July 4 and the report will be due on October 31.

- a. **Report sampling data to EPA Regional Office.** The permittee must submit all sampling results to your applicable EPA Regional Office.
  - b. **Contents of sampling reports.** For each discharge point, the permittee must include the information recorded in Part 4.2.2.1c for all samples for which the permittee has received results from that quarter.
  - c. **Report “no discharge” periods.** If there was no discharge from particular discharge points on your site for any particular week, the permittee must report that no discharge occurred and the particular discharge point(s) to which that applies.
- **Purpose:** NPDES regulations require permittee to report sampling data at intervals specified in the permit. See 40 CFR 122.41 (l) (4). EPA proposes that benchmark sampling data be reported once per quarter, and that these reports include certain minimum specified information. EPA believes that this reporting frequency is reasonable. The administrative burden of submitting the data to the EPA Regional Office is minimal. Additionally, EPA believes that any less frequent reporting will undermine the Agency's ability to oversee compliance with the benchmark sampling requirements in a timely manner.

**Stabilization requirements.** (Part 4.2.2.2). Sites that discharge to sediment or nutrient-impaired waters are subject to stricter stabilization timeframes than other sites. Whereas the proposed permit requires for the typical site that they immediately initiate stabilization in areas where work will cease for more than 14 days and to complete initial installation within 7 days after initiation, for sites discharging to impaired waters, the deadline to immediately initiate stabilization applies where construction has ceased for more than 7 days, and the deadline for completing installation is within 3 work days of initiation. These requirements replace the stabilization timeframes that apply to sites in Part 2.2.

- **Purpose:** To restrict the amount of time that areas exposed during construction on sites that discharge to sediment or nutrient-impaired water are left unstabilized. EPA believes that, in waters already degraded for pollutants associated with construction activities, further reducing the amount of time that exposed soil is left in an unstabilized state is especially important for limiting the sediment and/or nutrient load to these waters. The proposal to require faster stabilization for areas discharging to sediment and nutrient-impaired waters is

designed to minimize the mass erosion and sedimentation that is associated with large, exposed areas.

EPA specifically anticipated that a stricter stabilization timeframe would be within the permitting authority's discretion in implementing the 40 CFR 450.21 (b) requirement of the C&D rule. In the preamble to the C&D rule, EPA explained that "the permitting authority may determine it necessary for permittees to initiate soil stabilization measures when construction activity has permanently or temporarily ceased and will not resume for a period exceeding 7 calendar days, as opposed to 14 calendar days ...."

**Site inspection requirements.** (Part 4.2.2.3). The proposed permit would require that sites discharging to sediment or nutrient-impaired waters would undergo more frequent inspections. These requirements are proposed as follows:

1. **Weekly site inspections.** (Part 4.2.2.3.a). The permittee would be required to conduct site inspections once every 7 calendar days at a minimum, and within 24 hours of a storm event of 0.25 inches or greater or within 24 hours of a discharge caused by snowmelt, instead of the frequency specified in Part 5.1.2.
  2. **Daily visual examination.** (Part 4.2.2.3.b). In addition, the permittee would be required to conduct a daily visual examination of certain portions of the site. During the daily visual inspection, the permittee would be required to, at a minimum, check (1) whether all stormwater controls are installed, appear to be operational, and are working as intended to remove sediment prior to discharge, determine if any stormwater controls need to be replaced, repaired, or maintained, and, as necessary, initiate corrective action under Part 6.2.1; and (2) check for the presence of deposited sediment, and initiate corrective action under Part 6.3 as necessary.
- *Purpose:* To require that sites discharging to waters impaired for sediment and/or nutrients be inspected more frequently. EPA believes that these modified inspection requirements will enhance the permittee's ability to find and correct problems before a discharge occurs.

#### **IX.2.4 Requirements for Discharges to Waters Impaired for Other Pollutants. (Part 4.2.3).**

The proposed permit provides that if the permittee discharges to an impaired water that is impaired for a pollutant other than sediment or nutrient-related parameters, EPA will inform the permittee if he/she is required to comply with additional limits or controls that are necessary for the discharge to be controlled as necessary to meet applicable water quality standards, or that are necessary to be consistent with the wasteload allocations in an approved or established TMDL, or if coverage under an individual permit is necessary.

- *Purpose:* To specify that EPA will consider the need for additional limits or controls on a site-specific basis for sites that discharge to a water impaired for pollutants that are not commonly associated with construction activities, and for which a TMDL has not been approved or established.

**IX.3 Discharges to Waters Identified as Tier 2, Tier 2.5, or Tier 3. (Part 4.3).**

**IX.3.1 Identification of Discharges to a Tier 2, Tier 2.5, or Tier 3 Water. (Part 4.3.1).**

The proposed permit requires the permittee to identify in the NOI if his/her site discharges to a water identified as Tier 2, Tier 2.5, or Tier 3. A discharge to such a water occurs if the first water of the U.S. to which you discharge is identified by a state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3.

- *Purpose:* To clarify when discharges from construction sites are discharging to Tier 2, Tier 2.5, or Tier 3 water for antidegradation purposes.

For the permittee's assistance, EPA has provided a list of all Tier 2, Tier 2.5, and Tier 3 waters that occur within the areas covered by the CGP. See Appendix F.

**IX.3.2 Requirements for New Discharges to Tier 2, 2.5, or 3 Waters. (Part 4.3.2).**

The proposed permit requires sites discharging to Tier 2, Tier 2.5, or Tier 3 waters to comply with the requirements in Parts 4.2.2.2 and 4.2.2.3. In addition, EPA may notify the permittee that additional analyses, stormwater controls, or other permit conditions are necessary to comply with the applicable antidegradation requirements, or notify the permittee that an individual permit application is necessary in accordance with Part 1.5.6.

- *Purpose:* This provision implements applicable antidegradation requirements. For background, state and tribal water quality standards are required to contain an antidegradation policy pursuant to 40 CFR 131.12. In addition, each state and tribe is required to identify implementation methods that, at a minimum, provide a level of protection that is consistent with the federal antidegradation provisions. Waters designated as "Tier 2" by states and tribes can generally be described as follows: Tier 2 maintain and protects "high quality" waters -- water bodies where existing conditions are better than necessary to support CWA § 101(a)(2) "fishable/swimmable" uses. (Note that some states have designated waters using criteria that EPA considers to be more stringent than the federal Tier 2 designation, but less stringent than the federal Tier 3 designation. EPA uses the term "Tier 2.5" to describe such waters.) Water quality may be lowered in such Tier 2 or Tier 2.5 waters where "allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located." See 40 CFR 131.12(a)(2). The process for making this determination is what is commonly known as "Tier 2 review." The essence of a Tier 2 review is an analysis of alternatives to the discharge. 63 Fed. Reg. 36,742, 36,784 (col. 1)(July 8, 1998). In no case may water quality be lowered to a level that would interfere with existing or designated uses. See 40 CFR 131.12(a)(1), 122.44(d). States have broad discretion in identifying Tier 2 waters. 63 Fed. Reg. at 36,782-83. In addition, states and tribes may adopt what is known as a "significance threshold." A "significance threshold" is a *de minimis* level of lowering of water quality below which the effects on water quality do not require Tier 2 review. *Id.* at 36,783.

Tier 3 provides a high level of water quality protection for outstanding national resource waters (ONRWs) designated by states and tribes, which are generally the highest quality waters of the United States. However, the ONRW classification also offers special protection for waters of exceptional ecological significance,

i.e., those that are important, unique, or sensitive ecologically, but do not necessarily have high water quality.

Except for certain temporary changes, water quality cannot be lowered in such waters. See 40 CFR 131.12(a)(3). EPA expects few industrial stormwater discharges into ONRWs will be covered under an NPDES permit. For example, for the five primary states covered by this permit (Alaska, Idaho, Massachusetts, New Mexico, and New Hampshire), New Mexico is the only state with identified ONRWs. Appendix F includes a full listing of New Mexico's Tier 3 waters.

The proposed permit establishes a process for EPA to determine and specify further actions for new or increased discharges to Tier 2, Tier 2.5, and Tier 3 waters rather than leaving it to the construction operator to interpret what it means to comply with each state's or tribe's antidegradation policies. EPA has found in the process of issuing other stormwater permits (e.g., the 2008 MSGP) that facilities have often not understood how to apply these antidegradation requirements. As such, EPA believes that it is appropriate for the Agency, as the permitting authority, to assume responsibility for identifying any specific, more stringent requirements for these discharges, including the possibility of denying coverage under this permit.

In Part 4.3.2, if a new discharge to a Tier 2, Tier 2.5, or Tier 3 water will occur, EPA may still authorize the discharge under the CGP without necessarily going through Tier 2 or Tier 3 review. Such authorization is permissible if EPA determines that a new or increased discharger's compliance with the stringent limits and conditions of this permit will minimize the level of pollutants in the stormwater discharge to such a degree that the effects on water quality will be *de minimis*, and thus would not require Tier 2 or Tier 3 review. EPA believes that the proposed imposition of requirements to stabilize exposed areas faster and to conduct more site inspections than other sites, should result in the majority of sites meeting the *de minimis* threshold for water quality changes.

As stated above, the Tier 2 and Tier 3 approach used in this permit relies on an expectation that the effluent limits and permit conditions in the CGP will be sufficient to protect the quality of Tier 2, Tier 2.5, and Tier 3 waters. Thus, EPA has determined that compliance with the CGP generally will be sufficient to satisfy Tier 2 (or 2.5) and Tier 3 antidegradation requirements because the controls will not result in a lowering of water quality, making individualized Tier 2 or Tier 3 review unnecessary, assuming of course that the discharger is in compliance with any other applicable state or tribal antidegradation conditions that are included in Part 10 of the permit. Alternatively, the controls in the permit are sufficiently stringent that they satisfy the requirement at the heart of Tier 2 or Tier 3 review, that the discharge is necessary to accommodate important economic and social development in the area where the discharge is located. This is because the controls already required in Part 2 of this permit have been identified by EPA in its effluent limitations guideline for the construction and development category as the level of pollutant abatement that is the best available technology economically achievable, and the Part 4.3.2 requirements will require even more stringent controls. However, in cases where information submitted with the NOI, or available from other sources, indicates that further Tier 2 or Tier 3 review and/or conditions are necessary, EPA will conduct this review and require any appropriate additional controls.

The conclusion that compliance with the CGP will generally meet the Tier 2 and Tier 3 antidegradation requirements depends on several key aspects of the

permit. First, all construction sites subject to this permit are required to meet the stringent technology-based effluent limits set out in Part 2. Through compliance with these limits alone, EPA expects that the discharge of pollutants will be reduced and/or eliminated so that there should not be a lowering of water quality. EPA bases this conclusion in part on the fact that the limits in this permit are based on the nationally-developed effluent limitations guidelines process that defined the BAT/BCT/BPT and NSPS level of control. EPA also is imposing on these sites the requirement to meet even more stringent controls defined in 4.2.2.2 (stricter stabilization deadlines) and 4.2.2.3 (more targeted and frequent inspections). Furthermore, once installed and implemented, the permittee is obligated to maintain these controls and to correct deficiencies where inspection determines that deficiencies exist. Where EPA determines through its oversight activities (e.g., onsite inspection) that a discharger is not meeting its limits, such a deficiency will constitute a violation of the permit and will require follow-up corrective action pursuant to Part 3.1.

Second, there may very well be individual cases where EPA determines that further controls are necessary or that coverage under the CGP is no longer appropriate to protect the Tier 2, 2.5, or 3 status of the receiving water. For this reason, EPA has included the following language in Part 4.3.2: "EPA may notify you that additional analyses, stormwater controls, or other permit conditions are necessary to comply with the applicable antidegradation requirements, or notify you that an individual permit application is necessary in accordance with Part 1.5.6." It is anticipated that if EPA decides to require a Tier 2 or Tier 3 review for a particular new or increased discharger, EPA may either change the terms of coverage or terminate CGP coverage and require an individual permit.

**Note about alternate antidegradation designations used by some States:** Some states have adopted alternative approaches to designating Tier 2 or Tier 3 waters. These are collectively referred to as "Tier 2.5" waters since they fall between Tiers 2 and 3 in terms of characteristics and regulations supporting them. Tier 2.5 waters are commonly described as providing protection more stringent than Tier 2 but allowing some added flexibility that a Tier 3-designated water (Outstanding National Resource Water) would not. Refer to *Memorandum from William Diamond (Former Director, Standards and Applied Science Division) to Victoria Binetti (Chief, Region III, Program and Support Branch)*, June 13, 1991. Examples of Tier 2.5 waters exist in Massachusetts, which designates "outstanding resource waters" (ORWs). These waters have exceptional sociologic, recreational, ecological and/or aesthetic values and are subject to more stringent requirements under both the Massachusetts Water Quality Standards and the Massachusetts Stormwater Management Standards. ORWs include vernal pools certified by the Natural Heritage Program of the Massachusetts Department of Fisheries and Wildlife and Environmental Law Enforcement, all Class A designated public water supplies with their bordering vegetated wetlands, and other waters specifically designated. All of the provisions in the CGP pertaining to Tier 2 waters apply equally to Tier 2.5 waters. And, where there is a reference in this fact sheet to Tier 2 waters, the reader should infer that EPA intends to include Tier 2.5 waters as well.

These requirements were not included in the 2008 CGP. However, the permit required implementation of control measures that would "minimize pollutants in the discharge as necessary to meet applicable water quality standards", and several of the states, tribes, and territories/protectorates included requirements to

meet applicable water quality standards, which include the antidegradation policies.

**X. Inspections (Part 5).**

**X.1 Site Inspections. (Part 5.1).**

**X.1.1 Person(s) Responsible for Inspecting Site. (Part 5.1.1).**

Part 5.1.1 requires the permittee to conduct inspections of the site, and clarifies that the person(s) inspecting the site may be a person on the project staff or a third party hired to conduct such inspections. Whoever is charged with conducting the inspections must be a “qualified person”, who is knowledgeable in the principles and practice of erosion and sediment controls, and pollution prevention, who possesses the skills to assess conditions at the construction site that could impact stormwater quality, and the skills to assess the effectiveness of any stormwater control measures selected to control the quality of stormwater discharges from the construction activity.

- *Purpose:* Part 5.1.1 clarifies that it is the permittee who is responsible for ensuring that a person is charged with conducting the inspections required under Part 5, and that this person, whether he/she is a member of the project staff or a third party, must be a “qualified person.”

**X.1.2 Frequency of Inspections. (Part 5.1.2).**

Part 5.1.2 establishes the required minimum inspection frequency. The permittee is required to conduct a site inspection once every 14 calendar days and within 24 hours of the end of a storm event of 0.25 inches or greater and within 24 hours of a discharge generated by snowmelt. If the storm event of 0.25 inches or greater, or snowmelt, causes the site to discharge, within 24 hours of the end of the storm event or the beginning of the snowmelt discharge, the permittee must conduct a site inspection when the discharge is occurring and comply with the requirements of Part 5.1.4.3. If the storm event does not cause the site to discharge or if the site did not discharge within 24 hours of the end of the storm event, the permittee must conduct a site inspection that complies with the requirements of Part 5.1.4.2. If there is a discharge from the site on multiple days, the permittee is required to conduct an inspection within 24 hours of the end of the storm.

- *Purpose:* This provision proposes to replace the existing permit's choice between the weekly inspection and bi-weekly inspection frequency, with a single requirement to perform bi-weekly inspections, and to require inspections within 24 hours of a 0.25 inch storm. EPA determined that providing a choice between 2 different inspection frequencies is both confusing to the permittee and challenging to enforce. EPA hopes that by adopting a single inspection frequency, one that applies the less frequent of the 2 current choices and retains the post-storm inspection requirement, the permittee will have an easier time understanding and complying with the self-inspection requirements.

With respect to the post-storm inspection requirement, EPA proposes to change the current 0.5 inch storm trigger for conducting inspections to a 0.25 inch storm threshold. The primary reason for this change is that EPA found in looking at the precipitation data for the areas covered by this permit that the 0.5 inch threshold accounts for an inadequate number of discharge-generating storms at sites

covered under this permit, thereby undermining the extent to which inspections would be achieving the type of performance evaluation that were intended under the 2008 CGP. For instance, based on current National Oceanic and Atmospheric Administration (NOAA) precipitation data, EPA estimates that the 0.5 inch storm threshold would cover only 14 percent of storms in New Hampshire, 2 percent of storms in Idaho, and 11 percent of storms in New Mexico. See the table below summarizing the percentage of storms greater than several storm event thresholds.

**Percentages of Storms with Rainfall Amounts Greater than the Specified Volume** (for years with rainfall amounts similar to long-term averages)

	Threshold (Inches)				
	0.1	0.25	0.5	1	1.5
<b>NH</b>	77%	47%	24%	10%	3%
<b>ID</b>	28%	10%	2%	0%	0%
<b>NM</b>	51%	27%	11%	4%	1%

By modifying the permit to require inspections within 24 hours of 0.25 inch storms, the table indicates that a greater number of storms in areas where the permit is effective will require an inspection, including an estimated 47 percent of storms in New Hampshire, 10 percent of storms in Idaho, and 27 percent of storms in New Mexico. EPA considered whether it was necessary to further lower the storm event threshold to 0.1 inch storms, which, by expanding the number of storms covered by the inspection requirement, would provide better water quality protection. However, EPA determined that, based on its estimation, 0.1 inch storms typically do not produce enough rainfall volume to generate a discharge from the site. EPA estimates that compared to the 0.50 inch storm threshold for conducting inspections, the 0.25 inch proposed threshold would result in an increase of 5,424 additional inspections annually, or 2.3 additional inspections annually per permittee.

**X.1.3 Reductions in Inspection Frequency. (Part 5.1.3).**

Part 5.1.3 provides two different ways to reduce the frequency of inspections.

**Reduction in Inspection Frequency for Stabilized Areas.** (Part 5.1.3.1). The proposed permit would enable the permittee to reduce the frequency of inspections to once per month in areas of the site where the permittee has either:

1. Initiated vegetative stabilization consistent with Part 2.2.2.1, including having completed the initial seeding or planting, and provided protection with non-vegetative cover pursuant to Part 2.2.2.1.c.iii; or
2. Installed temporary, non-vegetative stabilization that meet the criteria in Part 2.2.2.2. If construction activity resumes in this portion of the site at a later date, the permit would require the inspection frequency to return to that specified in Part 5.1.2.

- *Purpose:* Part 5.1.3.1 provides the opportunity for permittees to reduce their inspection frequencies, in any areas of the site that have achieved temporary or final stabilization as required in Part 2.2.2.2. EPA expects that, especially for larger projects, where construction activities may take place in different phases in separate locations of the site, reducing site inspection frequency where areas have been stabilized will encourage stabilization to take place closer to the time that active disturbances have ended. EPA also hopes that the reduction in inspection frequency will provide a benefit in reduced administrative burden to the permittee.

**Reduction in Inspection Frequency for Arid and Semi-Arid Areas.** (Part 5.1.3.2). The permit would enable permittees to reduce their inspection frequency to once per month if the project is located in an arid area (i.e., areas with an average annual rainfall of less than 10 inches) or semi-arid area (i.e., areas with an average annual rainfall of 10 to 20 inches).

- *Purpose:* To provide permittees whose construction projects occur in areas considered arid or semi-arid to reduce the frequency of inspection to account for the comparatively lower amounts of rainfall.

The 2008 CGP includes language in Part 4.B.3 allowing a once-per-month inspection frequency if construction occurs during seasonal arid periods in arid or semi-arid areas; the proposed permit's language merely specifies when the permit considers those periods to occur.

#### **X.1.4 Requirements for Inspections (Part 5.1.4).**

**Areas That Need to be Inspected.** (Part 5.1.4.1). The proposed permit specifies which areas of the site need to be inspected during each site inspection, which includes:

1. All areas that have been cleared, graded, or excavated;
  2. All stormwater controls, installed and maintained at the site to comply with this permit;
  3. Areas where sediment and other pollutants may have accumulated or deposited, including locations of on-site and off-site material, waste, borrow or equipment storage and maintenance areas;
  4. All areas where stormwater typically flows within the site, including drainageways designed to divert, convey, and/or treat stormwater;
  5. All points of discharge from the site; and
  6. All locations where stabilization measures have been initiated.
- *Purpose:* To describe the areas on the site that need to be inspected.

The 2008 CGP included many of the same specific areas to be inspected in Part 4.E. In a few areas, the proposed permit elaborates on the provisions of the 2008 CGP, for instance by including a specific requirement to inspect areas where stormwater flows within the site and locations where stabilization measures have been initiated.

**Inspections Requirements When No Discharge Is Occurring.** (Part 5.1.4.2). If during the inspection, no discharge is occurring, the proposed permit requires the inspector to:

1. Check whether all stormwater controls are installed, appear to be operational, and are working as intended to remove pollutants prior to discharge. Determine if any stormwater controls need to be replaced, repaired, or maintained. As necessary, initiate corrective action under Part 6.3;
2. Check for the presence of sediment that is deposited in sufficient quantities and in locations on the site, such as roadways or parking lots, drainageways, sewer inlets, or discharge points, which, if left there, would likely be discharged. As necessary, initiate corrective action under Part 6.3;
3. Check for the presence of conditions that could lead to spills, leaks, or other accumulations of pollutants on the site, which, if left as they are, would likely lead to a discharge of pollutants. As necessary, initiate corrective action under Part 6.3;
4. Describe areas of visible erosion that have occurred in any portion of the site, at points of discharge, and on the banks of any waters of the U.S. flowing within the property boundaries or immediately adjacent to the property;
5. Identify any locations where new or modified stormwater controls are necessary to meet the requirements of Parts 2, 3, and/or 4;
6. Identify any incidents of noncompliance observed; and
7. Document progress made on completion of any corrective actions.
  - *Purpose:* To include specific requirements regarding the focus of the inspection when no discharge is occurring.

**Inspection Requirements During Discharge Conditions.** (Part 5.1.4.3). The proposed permit includes additional inspection requirements for sites during a stormwater discharge. The following additional requirements are included:

1. Observe and document the visual quality of the discharge, and take note of the characteristics of the stormwater discharge, including color, odor, floating, settled, or suspended solids, foam, oil sheen, and other obvious indicators of stormwater pollutants;
2. Identify all points of the property in which there is a discharge; and
3. Document whether the stormwater controls are operating effectively, and describe any such controls that are clearly not operating as intended or are in need of maintenance.
  - *Purpose:* To include specific requirements regarding the focus of the inspection when a discharge is occurring. The requirement to visually observe the quality of the discharge is a modification of the requirement in the 2008 CGP to describe “any discharges occurring at the time of the inspection.” See Part 4.H.4.

#### **X.1.5 Recordkeeping Requirements. (Part 5.1.5).**

**Requirement to Keep Inspection Log.** (Part 5.1.5.1). The proposed permit requires that the permittee maintain an inspection log that records findings from all site inspections. The permittee is required to keep a current copy of the inspection log at the site or at an easily accessible location, such as a downloadable file, so that it can be made available at the time of an onsite inspection or upon request by EPA.

- *Purpose:* To provide a consistent means of documenting the results of each inspection.

Part 4.H of the 2008 CGP requires, similar to the concept of a log book, that an inspection report be completed for each inspection. EPA believes that by requiring a log book be kept will improve the organization of the inspection-related records, and make it easier for permittees to keep track of their findings from inspection to inspection.

**Required Inspection Records.** (Part 5.1.5.2). The proposed permit requires the permittee to record in the log book within 24 hours of completing the site inspection the following information:

1. The inspection date; and
2. Summary of findings covering all information required in Part 5.1.4.

- *Purpose:* To provide a consistent record of each site inspection.

**Signature and 3-Year Record Retention Requirements.** (Part 5.1.5.3). The proposed permit requires that each inspection record be signed in accordance with Appendix L, Part L.11, and that all inspection records be kept at least 3 years from the date that permit coverage expires or is terminated.

- *Purpose:* The requirement to retain all reports a minimum of three years comes from the standard permit condition requirements at 40 CFR 122.41(j)(2).

## **X.2 Inspection Requirements for Sites Discharging to Impaired Waters. (Part 5.2).**

The proposed permit includes different requirements for sites that discharge to waters impaired for sediment or a sediment-related pollutant, or for nutrients, including nitrogen and/or phosphorus. These requirements are included in Part 4.2.2.3 of the proposed permit. Refer to Section VIII.2.3 of the fact sheet for a detailed discussion of these requirements.

## **X.3 Inspections by EPA or Applicable Local Government Authority. (Part 5.3).**

Part 5.3 requires the permittee to allow an authorized representative of the EPA, or other federal, state, or local agency to:

1. Enter onto the premises, at reasonable times, where a regulated construction activity is being conducted (or has been temporarily ceased) or where records are kept under the conditions of this permit;
  2. Access and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  3. Inspect at reasonable times the complete construction site, including any off-site staging areas or material storage areas, and any stormwater controls installed and maintained at the site; and
  4. Sample or monitor, at reasonable times, for the purpose of ensuring compliance.
- *Purpose:* To inform the permittee of its obligations with respect to providing access to EPA (or other federal, state, or local agency) in order to conduct site inspections of its own for the purposes of determining compliance with this permit.

This same authority is included in Appendix G, Part 9 of the 2008 CGP as a

standard permit condition based on 40 CFR 122.41 (j). This authority is based on section 308 of the Clean Water Act. EPA believes it was appropriate to place this same language in the inspection part so that it is more visible to the permittee.

## **XI. Corrective Actions (Part 6).**

### **XI.1 “Corrective Actions” Defined. (Part 6.1).**

Part 6.1 explains that a corrective action constitutes any action the permittee takes to:

1. Repair, modify, or replace any stormwater control used at the site;
  2. Clean up and dispose of spills, releases, or other deposits found on the site; and
  3. Remedy a permit violation.
- *Purpose:* To explain in general terms what a corrective action is.

### **XI.2 Site Conditions Requiring Corrective Action. (Part 6.2).**

Part 6.2 lays out the conditions that trigger corrective actions and the corresponding deadlines for taking such actions. The following describes each of these conditions.

#### **XI.2.1 Condition A. (Part 6.2.1).**

The proposed permit would require corrective action whenever the permittee's stormwater controls are not designed, installed, and/or maintained as required in Part 2.1.3. The proposed permit also includes specific corrective action triggers for Condition A, including:

1. A required stormwater control was never installed, was installed incorrectly, or not in accordance with the requirements in Part 2 and/or 4 (e.g., controls for washout of concrete, paint, etc. were insufficiently sized to contain typical washout volume), or was installed in a prohibited location;
2. A stormwater control is malfunctioning;
3. A stormwater control has not been maintained in effective operating condition, was not maintained as specified in this permit, or is in need of repair (e.g., a sediment control requires removal of accumulated sediment before it can be returned to proper function);
4. Sediment or other pollutants have been tracked out onto roadways or parking lots, or have visibly accumulated in or near any stormwater conveyance channels, in the immediate vicinity of the stormwater controls, or at outfall locations or entry points into the storm sewer system;
5. The stormwater discharge from the site appears excessively muddy or cloudy;
6. **[PLACEHOLDER]** If the site is using a treatment chemical that contains chitosan, residual testing detects chitosan in the discharge; or
7. If the permittee is subject to the benchmark sampling requirements in Part 4.2.2.1, samples indicate that a discharge exceeds the applicable benchmark level.

- Purpose: Part 6.2.1 explains what conditions found on the site trigger corrective action for stormwater controls that are not designed, installed, and/or maintained as required.

Part 6.2.1 is similar to the 2008 CGP's Part 3.6.A, which required permittees, if an inspection found that the site's stormwater controls are not operating effectively, to "perform maintenance as soon as possible and before the next storm event whenever practicable to maintain the continued effectiveness of the stormwater controls." Part 6.2.1 is also similar to Part 5.10.B of the 2008 CGP, which required modifications where an inspection determined that "the existing stormwater controls are ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the construction site." Part 6.2.1 provides greater specificity regarding the types of problems that trigger condition A corrective actions.

### **XI.2.2 Condition B. (Part 6.2.2).**

The proposed permit would require corrective action if a prohibited discharge of the type specified in Parts 2.3.1, 3.3.7.3, or 4.1 is occurring, or will occur if effective corrective actions are not taken, as evidenced by the fact that:

1. One of the prohibited discharges in Part 2.3.1 is occurring or has occurred;
  2. If applicable to the site, turbidity samples indicate that a discharge exceeds the numeric turbidity limit in Part 3.2; or
  3. The stormwater controls you have installed and are maintaining are not effective enough for the discharge to meet applicable water quality standards or applicable requirements in Part 4.1.
- Purpose: Part 6.2.2 explains what conditions found on the site trigger corrective action for discharges that are prohibited under the permit and therefore must be eliminated. By comparison to Condition A, if any of the Condition B conditions are found at a site, these are clearly linked to problems that must be fixed at the site, whereas further assessment is needed to determine the cause of the Condition A conditions.

Part 6.2.2 is similar to both Part 3.6.B and C of the 2008 CGP, which requires the permittee to take action to correct stormwater controls that are not operating effectively, and Part 5.10.B of the 2008 CGP, which required modifications where an inspection determined that "the existing stormwater controls are ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the construction site." With respect to the first triggering condition ("one of the prohibited discharges ... is occurring or has occurred") (Part 6.2.2.1), the 2008 CGP (Part 3.1.1) also prohibited the discharge of hazardous waste or oil released from an oil spill, which are included as prohibited discharges in Part 2.3.1.3 and 2.3.1.5 of the proposed permit. The other prohibited discharges are not specifically included in the 2008 CGP, however the current permit was issued prior to the promulgation of the C&D rule's prohibited discharges. The inclusion of the additional prohibited discharges as triggering conditions is tied to the promulgation of the C&D rule. There is no counterpart in the 2008 CGP for the second triggering condition, the exceedance of the numeric turbidity limit, because this provision is included solely as a result of the C&D rule's inclusion of a numeric turbidity limit. With respect to the second triggering condition (Part 6.2.2.3), Part 3.4 of the 2008 CGP similarly requires corrective actions if it is found that a permittee's discharges are not controlled adequately to meet applicable

water quality standards. And, with respect to the third triggering condition (Part 6.2.2.4), Part 3.1.B of the 2008 CGP similarly requires the permittee to minimize off-site vehicle tracking of sediments onto paved surfaces and to remove any accumulations sufficient to minimize off-site impacts.

### **XI.3 Required Corrective Actions and Applicable Deadlines. (Part 6.3).**

The proposed permit requires permittees to perform corrective actions when Condition A or B conditions occur at their site in accordance with the deadlines specified in Parts 6.3.1 and 6.3.2. However, if based on further analysis of the site conditions, the permittee finds that the source of the problem or violation is unrelated to the construction activity, the permittee does not have to comply with the following required corrective actions and deadlines, and must document the reasons supporting your conclusion in Part 6.4.2.3.

#### **XI.3.1 Deadlines for Correcting Condition A. (Part 6.3.1).**

The proposed permit specifies that if condition A problems occur at the site:

1. The permittee must initiate work to fix the problem immediately after discovering the problem, and complete such work by the close of the next full work day, if the problem can be easily fixed through a quick repair or the performance of regular maintenance of the stormwater control or pollution prevention measure;
2. If installation of a new stormwater control is needed, or an existing control requires significant redesign and reconstruction or replacement, the permittee must install the new or modified control, and make it operational, by no later than 7 days from the time of discovery of this condition at your site. In such a situation, the permittee must take immediate action to temporarily control stormwater discharges in this area until a permanent solution is installed; or
3. [PLACEHOLDER:If residual chitosan testing detects the presence of chitosan in the discharge, the permittee must report the positive test to EPA within 24 hours of learning of the results, and must immediately take action to reduce residual levels in the discharge. The permittee must continue to conduct residual testing once per hour until residual levels are below the detection level of the residual test, at which point testing must be conducted once every 2 hours during normal working hours until the discharge ends.]

Where the corrective actions result in changes to any of the stormwater controls or procedures documented in the SWPPP, the permittee is required to modify its SWPPP accordingly within 7 days of completing corrective action work.

- *Purpose:* To specify what actions are required and the applicable deadlines for correcting condition A problems found at the site.

In general, the requirements and deadlines of this part, correspond to the provisions in the 2008 CGP, which included similar corrective action requirements. In the 2008 CGP, in terms of the deadlines for taking corrective action, EPA required that any modifications be made “before the next storm event whenever practicable ... or as soon as possible” (Part 3.6.C) and that the SWPPP be modified within 6 calendar days following the inspection (Part 5.10.D). By comparison, Part 6.3.1 specifies that condition A problems must be corrected either within 1 day of finding them, or by no later than 7 days of finding them if

installation of a new stormwater control is needed or significant redesign and reconstruction or replacement is needed. EPA believes the timeframes proposed are more understandable to the permittee because they are more definitive, and they are reasonable. With respect to the Part 6.3.1.3 requirement to correct for the residual presence of chitosan, this requirement is not included in the 2008 CGP.

The proposed requirement to modify a SWPPP within 7 days following the completion of work to correct condition A problems is consistent with the 2008 CGP's 5.10.B requirement to complete SWPPP revisions within 7 days following the inspection. EPA believes that using the completion of work, rather than the discovery of the condition, as the applicable triggering event from which to apply the SWPPP modification deadline is appropriate because it provides permittees the opportunity to finalize site modifications before updating the SWPPP.

### **XI.3.2 Deadlines for Correcting Condition B. (Part 6.3.2).**

The proposed permit specifies that if condition B problems occur at the site, the permittee must:

1. Make every effort to minimize the prohibited discharge.
2. Initiate work to fix the problem immediately after discovering the problem, and complete such work by the close of the next full work day, if the problem can be easily fixed through a quick repair or the performance of regular maintenance of the stormwater control or pollution prevention measure (e.g., accumulated sediment on roads not swept up, perimeter controls knocked down, piles of graded or discarded soil left unstabilized or uncontained, spent fuels/oils dumped in leaky construction waste bin);
3. Upon discovery of any surfaces contaminated with pollutants or where there has been an accumulation of pollutants, immediately clean and dispose of pollutants and contaminated cleaning supplies using approved disposal procedures; or
4. When installation of a new stormwater control is needed, or an existing pollution prevention measure requires significant redesign and reconstruction or replacement, install the new or modified control, and make it operational, by no later than 7 days from the time of discovery of this condition at the site.

Where the corrective actions result in changes to any of the stormwater controls or procedures documented in the SWPPP, the permittee is required to modify its SWPPP accordingly within 7 days of completing corrective action work.

- *Purpose:* To specify what actions are required and the applicable deadlines for correcting condition B problems found at the site.

Part 6.3.2 provides greater specificity than the 2008 CGP does in terms of the specific actions to be taken to correct these problems and the deadlines that apply. The proposed modifications amount to clarifications of the 2008 CGP's Part 5.10.B requirement to modify stormwater controls in response to inspections or investigations conducted by local, state, tribal or federal officials, and the Appendix G, Part 4 requirement to mitigate or prevent discharges in violation of the permit that have a reasonable likelihood to impact human health or the environment. EPA believes these deadlines will be more readily understandable to the permittee, and are reasonable timeframes for correcting these types of problems.

The proposed requirement to modify the SWPPP within 7 days following the completion of work to correct condition B problems is consistent with the 2008 CGP's 5.10.B requirement to complete SWPPP revisions within 7 days following the inspection. EPA believes that using the completion of work, rather than the discovery of the condition, as the applicable triggering event from which to apply the SWPPP modification deadline is appropriate because it provides permittees the opportunity to finalize site modifications before updating the SWPPP.

#### **XI.4 Corrective Action Records. (Part 6.4).**

##### **XI.4.1 24-hour Corrective Action Requirements (Part 6.4.1).**

Within 24 hours of one of the triggering conditions (either Condition A or B) occurring at a permittee's site, the proposed permit requires that a record must be provided of the following:

1. Which condition was identified at the site;
2. The nature of the condition identified; and
3. The date and time of the condition identified and how it was identified;

##### **XI.4.2 14-day Corrective Action Requirements (Part 6.4.2).**

Within 14 days of discovering the occurrence of one of the Part 6.2 triggering conditions, the permittee is required to record the following:

1. Any follow-up actions taken, including the dates such actions occurred, to review the design, installation, and maintenance of stormwater controls, and the nature of the condition identified on your site;
2. A summary of stormwater control modifications taken or to be taken, including a schedule of activities necessary to implement changes, and the date the modifications are completed or expected to be completed; and
3. Notice of whether SWPPP modifications are required as a result of the condition identified or corrective action.

If the permittee concludes, based on further analysis of the site conditions, the source of the problem or violation is unrelated to the construction activity, the permittee must document this fact and the reasons supporting the conclusion.

Each new record of a triggering condition and any updates to those records for corrective actions taken must be signed and certified in accordance with Appendix L, Part L.11 of this permit. The permittee is required to keep a current copy of these corrective action records at the site or at an easily accessible location, such as a downloadable file, so that it can be made available at the time of an onsite inspection or upon request by EPA. These records must be retained for at least 3 years from the date that permit coverage expires or is terminated.

- *Purpose:* To establish documentation for the conditions found on the site that trigger corrective action and for the completion of such actions.

Part 6.4 is similar to the requirement in Part 4.H.9 of the 2008 CGP, which required inspection reports to include "corrective action(s) required including implementation dates", and Parts 4.H.5 through 8, which required the inspection report to include locations of sediment or pollutant discharges from the site, locations where stormwater controls need to be maintained or where they failed

to operate as designed, and locations where additional stormwater controls are needed that did not exist at the time of the inspection. In addition, Part 5.10.C of the 2008 CGP required the SWPPP to “properly document additional or modified BMPs designed to correct problems identified.” Part 6.4 clarifies these earlier requirements by requiring a more specific accounting of all corrective actions taken and the reasons they were required. The proposed 3-year record retention requirement is the same as the Part 5.9 requirement to retain records of “any actions taken in accordance with Part 4 (inspections) for at least 3 years from the date of that permit coverage expires or is terminated.

#### **XI.4 Compliance Implications of Corrective Actions. (Part 6.5).**

Part 6.5 of the proposed permit indicates that if the condition identified in Part 6.2 constitutes a permit violation (e.g., evidence of tracked out sediment, excessively muddy discharge, occurrence of a prohibited discharge, exceedance of an applicable water quality standard), correcting it does not remove the original violation. Additionally, failing to take corrective action in accordance with Part 6.3 is an additional violation. The proposed Part 6.5 indicates that EPA will consider the appropriateness and promptness of the corrective action in determining enforcement responses to permit violations.

- *Purpose:* Part 6.5 provides clarification regarding the effects of taking corrective action on the permittee's compliance status. One of the underlying purposes behind Part 6.5 is to make the explicit connection between the occurrence of permit violations and the advantage of returning to compliance through corrective action as quickly as possible.

Although not spelled out in the 2008 CGP, Part 6.5 of the draft CGP makes explicit the current permit's inspection, SWPPP, and standard “duty to comply” requirements. See Appendix L, Part (1) requirements.

#### **XI.6 Reporting to EPA. (Part 6.6).**

Part 6.6 of the proposed permit requires permittees to notify the applicable EPA Regional Office by the end of the next full work day after discovering any of the following conditions at the site:

1. [PLACEHOLDER: Detection of chitosan in the discharge (Part 2.1.4.6.d)]; or
2. Occurrence of any of the conditions in Part 6.2.2.

The permittee is required to submit the notification through EPA's electronic NOI system, or “eNOI”, at [www.epa.gov/npdes/eNOI](http://www.epa.gov/npdes/eNOI), using the NOI tracking number, assigned to the permittee upon permit authorization, to upload a fillable notification form, which will ensure that EPA properly receives and processes the notice.

- *Purpose:* To require that the discovery of certain conditions at a permitted site be made known to EPA.

#### **XII. Staff Training Requirements. (Part 7).**

Part 7 of the draft CGP describes the training requirements for all members of the stormwater team to ensure they understand the permit requirements and their specific

responsibilities with respect to those requirements. The requirements in this Part do not apply to emergency-related construction activities that are eligible for permit coverage under Part 1.3.2.

- *Purpose:* The purpose of the proposed staff training requirements in Part 7 is to ensure that all members of the stormwater team understand their particular responsibilities relating to permit compliance.

#### **XII.1 Person(s) Requiring Training. (Part 7.1).**

Part 7.1 requires the following members of the stormwater team to receive training:

1. Personnel preparing and/or modifying the SWPPP for the project;
  2. Personnel who are responsible for the design, installation, maintenance, and/or repair of stormwater controls;
  3. Personnel who are responsible for conducting inspections as required in Part 5.1.1;
  4. Personnel who are responsible for taking corrective actions as required in Part 6; and
  5. If applicable, personnel who are responsible for taking turbidity samples as required in Parts 3.3 and 4.2.2.1.
- *Purpose:* The purpose of the proposed requirements in Part 7.1 is to specify which members of the stormwater team are required to receive the applicable training.

#### **XII.2 When Training is Required. (Part 7.2).**

Part 7.2 requires that members of the stormwater team must receive training, at a minimum:

1. Prior to the commencement of earth-disturbing activities or pollutant-generating activities, whichever occurs first; and
  2. If the stormwater team member is a new employee, who starts after the commencement of earth-disturbing or pollutant-generating activities, prior to assuming their particular erosion or sediment control or pollution prevention responsibilities related to compliance with this permit.
- *Purpose:* The purpose of the proposed provisions in Part 7.2 is to provide notice and to specify when applicable members of the stormwater team must receive the training required in Part 7.

Part 3.7 of the 2008 CGP was silent with respect to the timing of the training. However, the proposed requirement to have training completed prior to the commencement of earth-disturbing activities, except for new employees, is a logical extension of the requirement in Part 3.7 for applicable employees and subcontractors to understand their respective responsibilities with respect to the site's control measures in advance of the time when that knowledge would need to be employed to conduct maintenance and inspection activities, in particular when construction begins. In this respect, Part 7.2 of the proposed permit simply provides clarification of what was already intended by the 2008 CGP.

### **XII.3 What Training Must Include. (Part 7.3).**

Part 7.3 specifies that the content and extent of training must be tailored to match the stormwater team member's duties and responsibilities related this permit's requirements. At a minimum, training must enable the applicable stormwater team member to understand:

1. The location of all stormwater controls on the site required by this permit, and how they are to be maintained;
  2. The proper procedures to follow with respect to the permit's pollution prevention requirements;
  3. When and how to conduct inspections, record applicable findings, take corrective actions, and, where appropriate, report violations to EPA; and
  4. When and how to take effluent samples, record the results, and submit reports to EPA.
- *Purpose:* The purpose of the requirements in Part 7.3 are to specify the minimum understanding that applicable members of the stormwater team should have with respect to the pertinent aspects of permit compliance. All of the above listed areas that are required to be understood by stormwater team members relate to specific proposed permit provisions in the proposed CGP.

Part 3.7 of the 2008 CGP required broadly that each employee or subcontractor be made aware of the control measures implemented at the site. This requirement is functionally equivalent to the proposed Part 7.3. The proposed provision provides greater clarification with respect to what EPA meant by requiring an understanding of what the 2008 CGP referred to as "control measures." EPA believes that the specificity provided in Part 7.3 was implied in Part 3.7 of the 2008 CGP.

Part 3.7 of the 2008 CGP did not make explicit the requirement that the permittee's employees and subcontractors be trained in how to conduct inspections. However, the 2008 CGP required training on the "control measures" and required each permittee to conduct inspections of, among other things, the site's control measures. The requirement in the proposed Part 7.3 to ensure that applicable stormwater team members understand how to conduct proper inspections is a logical extension of the Part 3.7 training requirement in the 2008 CGP and that permit's inspection requirements.

The proposed sampling training requirements in Part 7.3 are new to the CGP, and are included to support the new proposed requirements for turbidity and benchmarking monitoring. Correspondingly, EPA believes that it is important that permittees be trained in how to conduct benchmark sampling, and thus is proposing to include this requirement in Part 7.3 of the CGP.

### **XII.4 Training Documentation. (Part 7.4).**

Part 7.4 requires the permittee to keep records of the following related to training of the stormwater team members:

1. Date of the training;
2. Names and titles of persons trained; and
3. Summary of the information covered in the training.

- *Purpose:* The purpose of the proposed requirements in Part 7.3.5 is to specify what records the permittee is required to keep of training activities.

Part 3.7 of the 2008 CGP required training of personnel and subcontractors, but did not specify what records should be kept of the training that occurred. EPA assumes that many operators keep at least minimal records of any training activities that they carried out. However, even for those operators who did not previously keep such records, EPA maintains that the documentation required in Part 7.3.5 is minimal and not burdensome to provide.

### **XIII. Stormwater Pollution Prevention Plan (SWPPP). (Part 8).**

Part 8 of the proposed CGP describes the requirements for developing and maintaining a Stormwater Pollution Prevention Plan (SWPPP).

#### **XIII.1 General Requirements. (Part 8.1)**

Part 8.1 describes the general requirements for developing and maintaining a SWPPP.

##### **XIII.1.1 Requirement to Develop SWPPP. (Part 8.1.1).**

Part 8.1.1 requires that the stormwater pollution prevention plan (SWPPP) describe, at a minimum:

1. The construction activities, including the physical attributes of the site, the nature of construction activities, certain characteristics of the stormwater discharge, and the people responsible for implementation activities under this permit; and
2. The selection, design, installation, and maintenance of stormwater control measures used to control pollutants in discharges from the site in order to satisfy the effluent limitations in Parts 2, 3, and 4 of this permit.

At a minimum, the SWPPP must include the information required in Part 8.2. The SWPPP does not contain narrative or numeric effluent limits. Rather, it documents how the operator will comply with the effluent limitations in Parts 2, 3, and 4. You must also update the SWPPP as required in Part 8.4.

- *Purpose:* The proposed requirements in Part 8.1.1 describe to permittees the requirements to develop a SWPPP and provide a general description of what the SWPPP must include.

##### **XIII.1.2 Person(s) Responsible for Developing SWPPP. (Part 8.1.2).**

Part 8.1.2 requires that any operator who seeks coverage under this permit develop a SWPPP. Part 8.1.2 provides the option of developing a group SWPPP in situations where there are several operators who will be engaged in construction activities at the site. For instance, if the construction site has a “primary operator” and at least one “secondary operator” (see Part 1.5.3), the primary operator may be the party responsible for SWPPP development, and the secondary operator(s) can choose to use this same SWPPP, as long as the SWPPP addresses all of the secondary operator(s) scope of construction work.

- *Purpose:* Part 8.1.2 of the proposed CGP assigns responsibility for who specifically is responsible for developing a SWPPP. EPA proposed to require that any operators covered by the permit be responsible for developing their own SWPPP, except in situations where several operators are working at the same construction site, in which case they may develop a group SWPPP. The proposed requirement in Part 8.1.2 provides clarification to spell out that the “operator” is responsible for SWPPP development, and also clarifies that multiple operators working on the same project may develop a group SWPPP.

### **XIII.1.3 Requirement to Develop SWPPP Prior to Submitting Your NOI. (Part 8.1.3).**

Part 8.1.3 describes the requirement that the site's SWPPP must be developed prior to submitting the NOI. If the permittee prepared a SWPPP for coverage under a previous version of this NPDES permit, the permittee must review and update the SWPPP to ensure that this permit's requirements are addressed prior to submitting the NOI. For emergency-related construction activities eligible for permit coverage under Part 1.3.2, the SWPPP must be developed within 7 days of the operator submitting the NOI.

- *Purpose:* The purpose of the proposed requirements in Part 8.1.3 is to specify to permittees that the SWPPP must be completed before the NOI is submitted for permit coverage. Part 8.1.3 also provides permittees notice that any SWPPPs developed under a previous version of this NPDES permit must be updated to reflect the new permit requirements prior to submitting the NOI.

### **XIII.2 SWPPP Contents. (Part 8.2).**

Part 8.2 includes the minimum requirements that must be included in the SWPPP, as follows.

#### **XIII.2.1 Stormwater Team. (Part 8.2.1).**

Part 8.2.1 requires that a qualified individual or team of individuals be identified in the SWPPP as responsible for developing and revising the facility's SWPPP. The operator must assemble a “stormwater team” to oversee the development of the SWPPP and compliance with this permit.

Stormwater team members should be chosen for their expertise in the relevant construction stormwater management activities required to be documented in the SWPPP to ensure that all aspects are considered in developing the plan. The SWPPP must not only identify the members that are part of the stormwater team, but also clearly describe their individual responsibilities. Each stormwater team member must have ready access to a copy of the SWPPP as well as other documents or information that must be kept with the SWPPP.

- *Purpose:* Part 8.2.1 provides assurance that specific staff members are identified as responsible for overseeing the development of the SWPPP and are responsible for ensuring compliance with the permit requirements. Identification of staff members on the stormwater team in the SWPPP provides notice and clarification to facility staff and management (e.g., those responsible for signing and certifying the plan) of the responsibilities of certain key staff for following through on compliance with the permit's conditions and limits.

The requirement to assemble a “stormwater team” to oversee the development of the SWPPP and to ensure permit compliance is a clarification of Part 5.2.A of the 2008 CGP, which required the SWPPP to “identify all operators for the project site, and the areas of the site over which each operator has control.” This requirement is also a logical extension of the need for the operator to designate personnel (whether or not they are members of the operator's staff or a subcontractor's) that are assigned the responsibility of carrying out the permit's requirements related to preparing the SWPPP, installing and maintaining stormwater control measures, conducting inspections, taking samples (if required), and implementing corrective actions. EPA has also, in past CGPs, required that operators name a “SWPPP contact” in the NOI and the SWPPP itself.

### **XIII.2.2 Nature of Construction Activities. (Part 8.2.2)**

Part 8.2.2 requires that the SWPPP describe the nature of the construction activities taking place on the construction site, including the size of the property (in acres), the total area expected to be disturbed by the construction activities (in acres), and the maximum area expected to be disturbed at any one time.

- *Purpose:* The purpose of requiring a description of the nature of the construction activities taking place on the construction site is to provide general information about the construction project, which can be readily understood by an EPA inspector or other third party who may be unfamiliar with the purpose and general layout of the project. Identification of the total area expected to be disturbed by construction activities and the soil types provides the permittee, among other things, with information about properly designing and installing stormwater control measures to minimize the discharge of pollutants, as well as information about the placement and type of stabilization practices that should be implemented to minimize the discharge of pollutants in stormwater.

### **XIII.2.3 Identification of Other Site Operators. (Part 8.2.3).**

Proposed Part 8.2.3 requires that the SWPPP identify a list of all other operators involved with construction activities and list the areas of the site over which each operator has control.

- *Purpose:* The purpose of requiring identification in the SWPPP of other site operators in Part 8.2.3 of the proposed CGP is to provide both staff members and EPA notice of any other parties that are responsible for specific areas of the construction site and other parties that are responsible for permit compliance.

### **XIII.2.4 Sequence and Estimated Dates of Construction Activities (Part 8.2.4)**

Proposed Part 8.2.4 requires that the SWPPP include a description of the intended sequence of construction activities, including an estimate of the start dates and the duration of the activities. The SWPPP must document the start dates and the duration for each of the following activities:

1. Flagging or marking off of no disturbance areas (see Part 2.1.1.1), including all buffers (see Part 2.1.2) and steep slope areas and of setbacks for pollutant-generating activities (see Part 2.3.2);
  2. Installation of stormwater control measures, and when they will be made operational;
  3. Commencement and duration of earth-disturbing activities, including clearing and grubbing, mass grading, site preparation (i.e., excavating, cutting and filling), final grading, and creation of soil and vegetation stockpiles requiring stabilization;
  4. If applicable, estimated dates when total disturbances occurring at one time will require compliance with the numeric turbidity limit in Part 3.2;
  5. Cessation, temporarily or permanently, of construction activities on the site, or in designated portions of the site;
  6. Final or temporary stabilization of areas of exposed soil. The dates for stabilization must reflect the applicable deadlines to which you are subject to in Part 2.2.1.3 or Part 2.2.1.4; and
  7. Removal of temporary stormwater conveyances/channels, other stormwater control measures, and construction equipment and vehicles, and cessation of any pollutant-generating activities.
- *Purpose:* The purpose of requiring documentation of the sequencing of construction activities is to assist permittees with planning their construction activity sequencing in conjunction with the control measures they intent to use to meet the effluent limitations in this permit. Proper construction site planning limits the amount of land disturbed at one time and limits the exposure of unprotected soils through rapid stabilization, which in turn reduces the amount of sediment that gets discharged from the construction site. This requirement will provide permittees a better understanding of the site runoff characteristics throughout all phases of construction activity, which will help them to plan for the types of stormwater control measures necessary to meet effluent limitations.

The requirement for documentation in the SWPPP of the sequencing and major dates of construction activity was included in Part 5.2.B of the 2008 CGP. In Part 8.2.4 of the proposed CGP EPA requires greater specificity relating to the construction activities that must be described, including such additional documentation requirements as a description of the sequence of the installation of stormwater control measures, as well as a description of when areas disturbed by construction will be inactive and when they will be stabilized. EPA believes this greater specificity will help permittees to minimize earth disturbances to the extent necessary for the construction activity, which will also minimize pollutants discharged in stormwater.

#### **XIII.2.5 Site Map. (Part 8.2.5).**

Proposed Part 8.2.5 requires that the SWPPP contain a site map or a series of maps. In the proposed permit, EPA divided the Site Map requirements from Section 5.2.C of the 2008 CGP into sub-categories to provide greater clarity for the various site map requirements. The fact sheet discussion in this section follows the organization of the site map sub-categories as follows:

**Boundaries of the property and the locations where construction activities will occur.**

(Part 8.2.5.1). The proposed permit requires the following to be documented on the site map:

1. Locations where earth-disturbing activities will occur, noting any phasing of construction activities;
  2. Approximate slopes before and after major grading activities. Note areas of steep slopes (i.e., greater than 15 percent) both before and after grading;
  3. Locations where sediment, soil, or other construction materials will be stockpiled;
  4. Locations of structures and other impervious surfaces upon completion of construction; and
  5. Locations of off-site construction support activities.
- *Purpose:* A detailed site map that identifies the overall property boundaries, and the specific locations of all earth-disturbing activities, areas of steep slope, stockpiled materials, impervious cover, and off-site construction support activities, is designed to provide construction operators with a “big picture” understanding of the areas impacted by construction within their larger property area. This part of the site map should also assist permittees with selecting and designing the stormwater control measures necessary to meet the various erosion and sediment, stabilization, and pollution prevention requirements.

With the exception of the requirement to include locations where steep slopes occur on the property and where sediment, soil, or other construction materials will be stockpiled, all of these requirements correspond to Part 5.2.C, the site map section of the 2008 CGP. EPA proposes to include the areas of steep slope on the site map to help implement the C&D rule requirement (40 CFR 450.21 (a) (4)) to minimize disturbances to steep slopes. EPA proposes to require the locations of stockpiled materials in the site map because it will help permittees, and any inspectors, locate where the site materials will be stockpiled and, thus, require protection from erosion.

**Locations of all waters of the U.S., including wetlands, that exist within or in the immediate vicinity of the project site. The site map must indicate which waterbodies are listed as impaired, and which are identified by a State, Tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 waters.** (Part 8.2.5.2).

- *Purpose:* The requirement in Part 8.2.5.2 compels permittees to develop an understanding of the location of any waters flowing through or near the property where the construction will take place. Requiring a visual showing these waters will provide permittees with information necessary to comply with the requirements for impaired waters (Parts 4.2.2 and 4.2.3), and Tier 2, 2.5, and 3-protected waters (Part 4.3). Identifying the location of these waters on the site map will also help permittees comply with the Erosion and Sediment Control requirements for avoiding sensitive areas and establishing buffers (Part 2.1), and Pollution Prevention requirements regarding pollution prevention setbacks (Part 2.3.2).

**Areas protected by the buffer requirements in Part 2.1.2.** (Part 8.2.5.3). The proposed permit requires that the site map show the boundary line of all buffers (i.e., either the 50-foot buffer or other buffer areas retained on site).

- *Purpose:* Requiring a visual showing of areas to be protected as buffers.

The requirement in Part 8.2.5.3 to document areas protected by the buffer requirements in the site map was not included in the 2008 CGP, but is included in the proposed permit to help permittees implement the C&D rule requirement to “Provide and maintain natural buffers.”

**Topography of the site** (Part 8.2.5.4). The proposed permit requires the site map to show the topography of the site, existing vegetative cover, and drainage pattern(s) of stormwater and authorized non-stormwater flow onto, over, and from the site property before and after major grading activities.

*Purpose:* The requirement to map the flow of stormwater on the property will give operators an understanding of how stormwater moves onto, through, and from the property, which will in turn provide valuable information to assist with planning, designing, and installing the appropriate stormwater control measures necessary to meet the permit's requirements regarding erosion and sediment control, pollution prevention, and stabilization. Specifically it will also assist the permittee with complying with the proposed requirements in Part 2.1.4.1.a to “Design channels to avoid disturbed areas and to reduce erosion,” and in Part 2.1.4.2.a to “Divert flows around steep slopes disturbances,” among others.

**Stormwater discharge locations.** (Part 8.2.5.5). The proposed permit requires the site map to show information pertaining to the flow of stormwater onto, through, and from the property, including:

1. Locations of any inlets to municipal separate storm sewer systems (MS4s); and
  2. Locations where stormwater discharges and/or authorized non-stormwater are discharged to waters of the U.S. (including wetlands).
- *Purpose:* To inform the operator and to document for EPA's purposes where stormwater discharges will occur. There are multiple uses for this information, among which include: (1) learning where sewer inlet protections will need to be installed prior to commencing construction disturbances, (2) determining where sampling may need to take place, where applicable to comply with the numeric turbidity limit or benchmark monitoring requirements; and (3) helping to plan stormwater controls that will reduce the erosive force of the discharge.

**Locations of all pollutant-generating activities.** (Part 8.2.5.6). The proposed permit requires identification in the site map of all potential pollutant-generating activities identified in Part 8.2.8.

- *Purpose:* The requirement to identify the locations of all pollutant-generating activities on the site map will provide operators with an understanding of how the location of their various pollutant-generating activities will correspond to the areas of disturbance at the site, the potential impacts of where these activities are located on the discharge pollutants, and the ideal locations for stormwater control measures to reduce or eliminate such discharges. This information will be used to comply with the pollution prevention requirements in Part 2.3 of the proposed CGP.

The requirement for permittees to document the location of potential pollutant-generating activities sources corresponds, in part, to Part 5.2.C.5 of the 2008 CGP, which required the site map to include off-site material, waste, borrow or equipment storage areas. However, the requirement to identify on-site pollutant-generating activities is new, and corresponds with the proposed Part 2.3, which implements the pollution prevention requirements of the C&D rule (see specifically 40 CFR 450.21 (d) and (e)).

**Locations of stormwater control measures.** (Part 8.2.5.7). The proposed permit requires documentation in the site map of the location of stormwater control measures.

- *Purpose:* The requirement to show on the site map the location of stormwater control measures is intended to provide a spatial correlation between pollutant sources on the site, the flow of stormwater through and from the site, and the location of waters of the U.S.

The requirement to document the location of stormwater control measures and locations where exposed soils will be stabilized correspond to Part 5.2.C.3, 4, and 8 of the 2008 CGP. In Part 8.2.5.6 of the proposed CGP, EPA requires more specificity about the location of any stormwater control measures for managing stormwater discharges from developed sites that will or already are installed, and any other items necessary to depict site-specific conditions.

EPA believes that by requiring such information on the site map, the permittee will be better able to locate stormwater control measures strategically so as to comply with the permit's requirements for erosion and sediment and pollution prevention in proposed Parts 2.1 and 2.3. The requirement to show on the site map where areas of exposed soil will be stabilized, or that have already been stabilized, provides permittees with a visual helping them to comply with the temporary and final stabilization requirements in proposed Part 2.2.

***If applicable, sampling locations if the project is subject to the Part 3 numeric turbidity limit and/or to the benchmark sampling requirements in part 4.2.2.1. For linear projects, indicate the sampling location(s) and all discharge points, and indicate which sampling locations are considered "substantially identical", in accordance with Part 3.3.3.4.*** (Part 8.2.5.8). The proposed permit requires the site map to show sampling locations related to the turbidity limit and/or to benchmark sampling requirements.

- *Purpose:* The requirement to document on the site map sampling locations was not included in the 2008 CGP, but is being included in the draft CGP to implement the C&D rule requirements for monitoring and to implement new water-quality based requirements for benchmark monitoring. Documenting sampling locations on the site map will more easily enable permittees to comply with the corresponding permit requirements for sampling.

***Locations where non-stormwater discharges specifically allowed under Part 1.4.1.4 will be discharged.*** (Part 8.2.5.9). The proposed permit requires the site map to show the locations where non-stormwater discharges will occur.

- *Purpose:* The requirement in Part 8.2.5.9 will help permittees to minimize the discharges of pollutants in their non-stormwater discharges by providing them with a visual for planning for the routing of the non-stormwater discharges to appropriate sediment controls, as required in proposed Part 2.1.3.1.d.

Although the 2008 CGP did not require the site map to depict locations of non-stormwater discharge use, it did require documentation of such discharges in the SWPPP. EPA is requiring documentation on the site map in the proposed CGP to provide permittees with an accurate visual representation on their map of all the discharges, both stormwater and non-stormwater, that require stormwater control measures.

### **XIII.2.6 Site Planning Documentation. (Part 8.2.6).**

Part 8.2.6 requires the SWPPP to document the following with regard to disturbances to steep slopes and top soil:

**Steep slopes disturbances** (Part 8.2.6.1). If avoidance of disturbance to steep slopes is infeasible, or inconsistent with requirements of the project, the permittee must document in the SWPPP compliance with the proposed requirements in Part 2.1.4.2 applicable to steep slopes disturbances.

- *Purpose:* The proposed requirement to document in the SWPPP steep slopes disturbances was not included in the 2008 CGP, but is being proposed in the draft CGP to facilitate compliance with the C&D rule requirement to “Minimize the disturbance to steep slopes” and the corresponding proposed CGP requirements in Part 2.1.4.2. Part 8.2.6.1 assists permittees with determining and demonstrating the measures they will take to comply with the permit requirements, and provides inspectors with compliance information concerning steep slope disturbances in Part 2.1.4.2.

**Native topsoil disturbances** (Part 8.2.6.2). If disturbance to native topsoil is necessary, the permittee must document in the SWPPP compliance with the proposed Part 2.1.3.5 requirements applicable to stockpiling and reapplication of the removed native topsoil.

- *Purpose:* The proposed requirement to document in the SWPPP native topsoil disturbances was not included in the 2008 CGP, but is being proposed in the draft CGP to facilitate compliance with the C&D rule requirement to “...unless infeasible, preserve topsoil.” Part 8.2.6.2 assists permittees with determining and demonstrating the measures they will take to comply with the permit requirements, and provides inspectors with compliance information concerning native topsoil disturbances and preservation in Part 2.1.3.5.

**Buffer establishment** (Part 8.2.6.3). If the permittee is required to comply with the requirements in Part 2.1.2 because a water of the U.S. is located on or immediately adjacent to the site, and the permittee chooses to implement the buffer alternative in Part 2.1.2.1b or 2.1.2.1c he/she must include the documentation described in Appendix M.

- *Purpose:* To document how the permittee will implement the buffer alternative in Part 2.1.2.1b or 2.1.2.1c, and to generally aid in implementing the C&D rule requirement to provide and maintain a natural buffer, unless infeasible.

### **XIII.2.7 Compliance with Impaired Waters and Antidegradation Requirements. (Part 8.2.7).**

If applicable to the site, Part 8.2.7 requires documentation of compliance with the requirements of Part 4.2.2 for discharges to impaired waters and antidegradation requirements.

- *Purpose:* The proposed requirements in Part 8.2.7 assist permittees with determining and demonstrating the measures they will take to comply with the permit requirements for discharging to impaired waters and to Tier 2, 2.5, or 3 waters in Part 4.2.2, and provides inspectors with compliance information concerning these requirements.

In Part 5.6 of the 2008 CGP, EPA required documentation regarding eligibility for discharging to waters with an EPA-established or approved TMDL. In Part 8.2.7,

EPA similarly requires documentation with regard to discharges to impaired waters, but the requirement applies to impaired waters with or without an EPA-approved or established TMDL, and also requires documentation with regard to sites that discharge to Tier 2, 2.5, or 3 waters. The required documentation of these provisions in the SWPPP is included in the proposed CGP to facilitate the compliance with the corresponding permit requirements.

### **XIII.2.8 Construction Site Pollutants. (Part 8.2.8).**

Part 8.2.8 requires permittees to identify in the SWPPP all pollutants expected to be found at the construction site that could be discharged from the site. The SWPPP must list and describe all pollutant-generating activities. The following must be documented in the SWPPP to demonstrate compliance with the permit requirements:

**Pollutant-generating activities at the site.** (Part 8.2.8.1). Part 8.2.8.1 requires permittees to include a list and description of all the pollutant-generating activities on the site, including, but not limited to: paving operations; concrete, paint and stucco washout and waste disposal; solid waste storage and disposal; and dewatering activities.

- *Purpose:* Identification in the SWPPP of all potential pollutant-generating activities on the site will assist permittees in understanding the potential sources of pollutants so that stormwater control measures can be located and designed in a way that best achieves the required reduction or elimination of the discharge of such pollutants.

In Part 8.2.8.1, EPA proposes to require a more comprehensive list of pollutant-generating activities to be documented in the SWPPP than was required in the 2008 CGP. The reason for the greater level of specificity is to account for EPA's growing understanding of the different types of activities at construction sites that potentially lead to pollutant discharges. In addition, this requirement is necessary to provide operators with sufficient information to comply with the permit's requirements on pollution prevention in the proposed Part 2.3 of the CGP, which in turn are based on the C&D rule's new requirements in 40 CFR 450.21 (d) and (e).

**Pollutants.** (Part 8.2.8.2). Part 8.2.8.2 requires permittees to provide an inventory of pollutants or pollutant constituents (e.g., sediment, fertilizers, and/or pesticides, paints, solvents, fuels) that will be exposed to rainfall, snowmelt, or authorized non-stormwater on the site, and discharged from the site. The permittees must also take into account potential spills or leaks that could discharge pollutants in stormwater. The permittee must also document any departures from the manufacturer's specifications for applying fertilizers containing nitrogen and phosphorus, as required in Part 2.3.4.1.

- *Purpose:* Documentation of pollutants or pollutant constituents that result from pollutant-generating activities will assist permittees in understanding the potential pollutants associated with the pollutant-generating activities at the site so that stormwater control measures can be located and designed in a way that best achieves the required reduction or elimination of the discharge of such pollutants.

EPA is proposing to require a greater level of specificity in this permit than was required in the corresponding section in the 2008 permit in order to better inform permittees of the types of pollutants they should be concerned about. EPA sees this documentation requirement as critical for planning purposes when the operator is selecting and installing pollution prevention control measures. This

provision helps implement the pollution prevention provisions of Part 2.3, which is based on the C&D rule requirements in 40 CFR 450.21 (d) and (e).

### **XIII.2.9 Non-Stormwater Discharges. (Part 8.2.9).**

Part 8.2.9 requires the SWPPP to identify all allowable sources of non-stormwater discharges listed in Part 1.4.1.4, and to describe the measures taken to route non-stormwater discharges to sediment controls, as required in Part 2.1.3.1d.

- *Purpose:* The proposed requirements in Part 8.2.9 require permittees to create a comprehensive list of all non-stormwater discharges expected to be present on the site and to document compliance with the proposed requirements in Part 2.1.3.1.d to route non-stormwater discharges to sediment controls. Documentation in the SWPPP of all non-stormwater discharges on the site provides permittees with information that will help them to minimize non-stormwater associated pollutant discharges. Such documentation will assist with compliance with the proposed requirement in Part 2.1.3.1.d to direct the discharge of any allowed non-stormwater discharges on the site to sediment controls.

### **XIII.2.10 Description of Stormwater Control Measures. (Part 8.2.10).**

Part 8.2.10 requires permittees to provide a description in the SWPPP of the stormwater control measures to be implemented on the site. The following must be documented in the SWPPP to demonstrate compliance with the permit requirements:

***Stormwater control measures to be used during construction activity.*** (Part 8.2.10.1). Part 8.2.10.1 requires permittees to document all stormwater control measures that are or will be installed and maintained at the site to meet the requirements in Parts 2, 3, and 4. The SWPPP must identify:

1. The type of stormwater control measures to be installed and maintained;
2. If sediment basins or other impoundments will be used, and it is infeasible to utilize outlet structures that withdraw water from the surface, documentation as to why this is the case;
3. If it is infeasible to direct discharges from stormwater controls to vegetated areas of the site, documentation as to why this is true;
4. If the permittee will use polymers, flocculants, or other treatment chemicals to treat stormwater discharges, copies of jar test reports or other documentation provided by the chemical supplier or laboratory indicating the chemical formulations to be employed and the dosage or application rates, as well as copies of the Material Safety Data Sheets (MSDS) for the treatment chemicals;
5. Description of the locations on the site where polymers, flocculants, or other treatment chemicals will be applied, the periods of construction activity during which chemical treatments will be applied, and expected duration of the chemical treatments;
6. The name of the operator(s) or stormwater team member responsible for installation and maintenance of these control measures; and
7. Any manufacturer's specifications for installation or maintenance.

- *Purpose:* Requirements (1) through (3) of the proposed requirements listed above document in the SWPPP compliance with important erosion and sediment control requirements in Part 2.1 of the proposed CGP. Requirement (4) and (5) above provide documentation in the SWPPP of adherence to requirements for the use of chemical treatment in Part 2.1.4.5 of the proposed CGP. Requirement (6) above is included as a proposed requirement to provide notice to all members of the stormwater team indicating who is responsible for the installation and maintenance of specific stormwater control measures. Requirement (7) above provides documentation in the SWPPP that the permittee has executed the requirement in Part 2.1.3.2.c to use good engineering practices and follow manufacturer's specifications with regard to stormwater control measures. EPA is proposing to require documentation of the above in the SWPPP because EPA believes such documentation will allow permittees to make certain they fulfilled important permit requirements and will allow inspectors to confirm that the permittees are in compliance with the permit.

**Stabilization practices.** (Part 8.2.10.2). Part 8.2.10.2 requires that the SWPPP document the specific vegetative practices and/or non-vegetative practices that will be used to achieve temporary and final stabilization on the exposed portions of the site as required in Part 2.2.

- *Purpose:* Part 8.2.10.2 of the proposed CGP corresponds to Part 5.3.B of the 2008 CGP. In the proposed permit, EPA requires greater specificity regarding the use of vegetative and/or non-vegetated controls, and the use of such controls for both temporary and final stabilization. EPA proposes to include such specificity so that documentation in the SWPPP corresponds to the permit requirements for stabilization in Part 2.2 of the proposed CGP.

The proposed requirements in Part 8.2.10.2 will provide the permittee the opportunity to support its compliance with the stabilization requirements in Part 2.2 of the proposed CGP in the SWPPP. Such documentation will also provide inspectors with verification that the permittee has complied with the permit's stabilization requirements.

### **XIII.2.11 Pollution Prevention Procedures. (Part 8.2.11).**

Part 8.2.11 requires permittees to develop and include in the SWPPP procedures for the following activities:

**Spill prevention and response procedures** (Part 8.2.11.1). Part 8.2.11.1 requires permittees to include in the SWPPP procedures that will be followed in the event of a spill or a leak, including:

1. Procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases. Identify the name or title of the employee(s) responsible for detection and response of spills or leaks; and
  2. Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity consistent with Part 2.3.3 and established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302, occurs during a 24-hour period.
- *Purpose:* The purpose of the proposed requirement to document spill prevention and response procedures is to provide the permittee an opportunity to develop a

response plan for preventing spills from occurring and, if they do occur, a plan for responding to them in order to minimize the potential discharge of any pollutants from the site. The documentation in the SWPPP of spill prevention and response procedures also demonstrates to inspectors the permittee's compliance with the spill prevention and response procedures of the proposed Pollution Prevention section in Part 2.3 of the proposed CGP.

The proposed requirements in Part 8.2.11.1 includes more details than the 2008 CGP, which reflects the need to require the permittee to document his/her plans for compliance with the spill prevention and response requirements in Part 2.3 of the CGP, which derive from the C&D rule requirements in 40 CFR 450.21 (d)(2) and (e).

**Procedures for the clean-up of sediment.** (Part 8.2.11.2). Part 8.2.11.2 requires permittees to document in the SWPPP procedures for:

1. Sweeping or removing of sediment and other debris that has been tracked or deposited onto streets and other paved surfaces;
  2. Removing of sediment or other pollutants that have accumulated in or near any sediment control measures, stormwater conveyance channels, storm drain inlets, or water course conveyance within or immediately outside of the construction site; and
  3. Removing accumulated sediment that has been trapped by sediment control measures, in accordance with the maintenance requirements in Part 2.1.3.3(b), and if applicable Parts 2.1.4.5 and 2.1.4.6.
- *Purpose:* The proposed SWPPP documentation requirement in Part 8.2.11.2 allows permittees to develop response plans for sediment clean-up and provides documentation to inspectors demonstrating permittee compliance with the requirement in Part 2.1.3.4.a of the proposed CGP to remove accumulated sediment and other pollutants before they can be discharged.

The proposed requirements in Part 8.2.11.2 bear similarity to requirements in the 2008 CGP, but include greater specificity because of the new, more specific sediment control requirements in Part 2.1.3.3(b) that correspond to the new C&D rule requirements at 40 CFR 450.21 (a).

**Waste management procedures.** (Part 8.2.11.3). Part 8.2.11.3 requires permittees to document in the SWPPP procedures for handling and disposing of waste on their site, including clearing and demolition debris or other sediment removed from the site, construction and domestic waste, hazardous or toxic waste, and sanitary waste.

- *Purpose:* The proposed requirements in Part 8.2.11.3 allow permittees the opportunity to develop procedures for waste management, and provide documentation to inspectors demonstrating compliance with the pollution prevention requirements relating to the management of construction wastes.

This proposed requirement corresponds to Part 3.1.F (prevent the exposure of construction and waste materials to stormwater) and Part 5.3.C (description of control measures) of the 2008 CGP. The proposed requirements in Part 8.2.11.3 included more specificity, which EPA believes is warranted because of the new, more specific pollution prevention requirements in Part 2.3.2.5 of the proposed CGP that correspond to the new C&D rule requirements at 40 CFR 450.21 (d).

**XIII.2.12 Procedures for Inspection, Maintenance, Corrective Action, and Monitoring. (Part 8.2.12).**

**Inspection, Maintenance, and Corrective Action** (Part 8.2.12.1). Part 8.2.12.1 requires permittees to document in the SWPPP procedures for inspection, maintenance, and corrective actions, in accordance with Parts 2.1.3.3.a, 2.3, 5, and 6 of this permit. The SWPPP must include:

1. Personnel responsible for conducting inspections;
  2. How this personnel will be notified when a storm event that meets the minimum 0.25 inch requirement for conducting inspections has occurred or is occurring;
  3. Specific schedules to be followed for conducting inspections and routine maintenance, including any higher frequency inspections consistent with Parts 2.1.2.1.b.i(4), 2.1.4.2c, and 4.2.2.2;
  4. Any inspection or maintenance checklists or other forms that will be used; and
  5. Specific procedures for taking corrective action in accordance with Part 6.
- *Purpose:* The proposed requirements in Part 8.2.12.1 allow permittees the opportunity to develop and document their procedures for inspections, maintenance activities, and corrective actions, and will allow permittees to demonstrate their compliance with the permit requirements corresponding to this documentation.

The requirements in the proposed Part 8.2.12.1 that are more specific than those that were included in the 2008 CGP are necessary to clarify what SWPPP documentation is required as a result of the modified permit language in the proposed permit relating to inspections, maintenance, and corrective actions.

**Monitoring (if applicable)** (Part 8.2.12.2). The proposed permit requires that where a site is required to comply with the numeric turbidity limit and/or to take water quality benchmark samples, the SWPPP must document the following procedures related to monitoring:

1. Locations where samples will be collected. For linear projects, document which locations are considered substantially identical under Part 3.3.3.4, and why they are substantially identical;
  2. Personnel responsible for taking and handling samples, analyzing samples for turbidity, and recording the results;
  3. The normal working hours associated with the project (see Part 3.3.1.3);
  4. Equipment to be used for taking samples and for analysis;
  5. Procedures to be followed for ensuring that samples are taken in compliance with Part 3.3; and
  6. Procedures for notifying and activating the sampling team when a discharge is occurring or is expected to occur.
- *Purpose:* To require the documentation of sampling procedures that adhere to the requirements in Part 3.3.

### **XIII.2.13 Training. (Part 8.2.13).**

Part 8.2.13 requires permittees to document in the SWPPP procedures to comply with the training requirements in Part 7, including procedures for:

1. How the training will be conducted (e.g., who will conduct the training, where will it take place);
  2. What members of the stormwater team or what positions will receive training; and
  3. Approximate dates of training.
- *Purpose:* The proposed requirements in Part 8.2.13 allow permittees the opportunity to develop and document their training procedures, and to demonstrate compliance to inspectors with the corresponding permit requirements.

### **XIII.2.14 Documentation to support eligibility considerations under other federal laws. (Part 8.2.14).**

Part 8.2.14 requires permittees to include in the SWPPP documentation to support eligibility considerations under other federal laws, including:

**Documentation Regarding Endangered Species.** (Part 8.2.14.1). Part 8.2.14.1 requires the SWPPP to include documentation supporting eligibility with respect to Part 1.3.1.5 (Endangered and Threatened Species and Critical Habitat Protection). Appendix D contains information about required documentation.

- *Purpose:* The purpose of requiring documentation with regard to endangered species in Part 8.2.14.1 of the proposed permit is to provide the permittee the opportunity to document their compliance with Part 1.3.1.5 of the proposed CGP, and to provide anyone who inspects the SWPPP the opportunity to review such compliance.

**Documentation Regarding Historic Properties.** (Part 8.2.14.2). Part 8.2.14.2 requires the SWPPP to include supporting eligibility with respect to Part 1.2.1.6 (historic properties).

- *Purpose:* The purpose of requiring documentation in the SWPPP with regard to historic properties in Part 8.2.14.2 of the proposed permit is to provide the permittee the opportunity to document their compliance with the National Historic Preservation Act, and the related requirements in the proposed CGP.

In Part 1.3.C.7 of the 2008 CGP, EPA required that sites comply with applicable state, local, and tribal laws regarding the protection of historic properties and places; however, it did not require documentation in the SWPPP. In the proposed permit, EPA requires documentation of compliance in the SWPPP to correspond to greater specificity of eligibility requirements regarding historic properties in the proposed permit. Documentation in the SWPPP will help permittees with determining if their stormwater discharges comply with the requirements for Historic Properties Preservation and the corresponding permit requirements.

### **XIII.2.15 SWPPP Certification. (Part 8.2.15).**

Part 8.2.15 requires that the SWPPP be signed and dated in accordance with Appendix L, Part L.11. In addition, all modifications made to the SWPPP consistent with Part 8.4 must be authorized by a person identified in Appendix L, Part L.11.b.

- *Purpose:* This requirement is consistent with standard NPDES permit conditions described in 40 CFR 122.22 and is intended to ensure that the permittee understands their responsibility to create and maintain a complete and accurate SWPPP. Permittees are allowed to appoint an authorized representative consistent with the regulations. Therefore, if a facility feels it is more appropriate for a member of the stormwater team to sign the documentation, that option is available under the permit. The signature requirement includes an acknowledgment that there are significant penalties for submitting false information.

#### **XIII.2.16 Post-Authorization Additions to SWPPP. (Part 8.2.16).**

Part 8.2.16 requires the following to be included once the permittee is notified of coverage under this permit:

1. A copy of the NOI submitted to EPA along with any correspondence exchanged with EPA related to coverage under this permit;
  2. A copy of the acknowledgment letter received from the NOI Processing Center or eNOI system assigning the permit tracking number; and
  3. A copy of this permit (an electronic copy easily available to SWPPP personnel is also acceptable).
- *Purpose:* The proposed requirement in Part 8.2.16.1 to provide with the SWPPP documentation of the NOI, EPA authorization, and copy of the permit assists facility personnel and EPA (and other agency) inspectors in determining that the permit has been authorized for the construction site.

#### **XIII.3 On-Site Availability of the SWPPP. (Part 8.3).**

Part 8.3 requires that a current copy of the SWPPP be kept at the site or at an easily accessible location, such as a downloadable file, so that it can be made available at the time of an onsite inspection or upon request by EPA; a state, tribal, or local agency approving stormwater management plans; the operator of a storm sewer system receiving discharges from the site; or representatives of the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS).

EPA may provide access to portions of the SWPPP to a member of the public upon request. Confidential Business Information (CBI) will be withheld from the public, but may not be withheld from EPA, USFWS, or NMFS. (Note: Information covered by a claim of confidentiality will be disclosed by EPA only to the extent of, and by means of, the procedures set forth in 40 CFR Part 2, Subpart B. In general, submitted information protected by a business confidentiality claim may be disclosed to other employees, officers, or authorized representatives of the United States concerned with implementing the Clean Water Act. The authorized representatives include employees of other executive branch agencies, who may review CBI during the course of reviewing draft regulations.)

If an onsite location is unavailable to keep the SWPPP when no personnel are present, notice of the plan's location must be posted near the main entrance of the permittee's construction site.

- *Purpose:* The purpose of Part 8.3 is to require permittees to retain copies of their SWPPP on site, and to make the document available to EPA or the Services

immediately upon request. If a member of the public wishes to have access to the non-CBI portions of the permittee's SWPPP, they must first contact EPA. EPA may require that a copy be sent to the Agency so that it can be provided to the requestor. The mechanism for providing EPA with a copy of the SWPPP is at the discretion of the operator (e.g., web-based, hard copy), though EPA strongly encourages that SWPPPs be provided electronically.

#### **XIII.4 Required SWPPP Modifications (Part 8.4).**

##### **XIII.4.1 Modify the SWPPP, including the site map(s), in response to any of the following conditions: (Part 8.4.1).**

1. Whenever new operators become active in construction activities on the site, or changes are made to the construction plans, stormwater control measures, pollution prevention measures or other activities at the site that are no longer accurately reflected in the SWPPP. This includes changes made in response to corrective actions triggered under Part 6. Note that the permittee is not required to modify the SWPPP if the estimated dates provided for Part 8.2.4 change during the course of construction;
  2. To reflect areas on the site map where operational control has been transferred (and the date of transfer) since initiating permit coverage;
  3. If inspections or investigations by site staff, or by local, state, tribal, or federal officials determine that SWPPP modifications are necessary for compliance with this permit;
  4. When EPA determines it is necessary to impose additional requirements on your discharge. The following must be included in the SWPPP:
    - a. A copy of any correspondence describing such requirements; and
    - b. A description of the stormwater control measures that will be used to meet such requirements.
  5. To reflect any revisions to applicable federal, state, tribal, or local requirements that affect the stormwater control measures you implemented at the site; and
  6. If applicable, if a change in chemical treatment methods is made, including use of a different treatment chemical, different dosage or application rate, or different area of application.
- *Purpose:* The proposed requirement in Part 8.4.1 to maintain a modified SWPPP under any of the conditions listed above provides assurance that the SWPPP will be updated to accurately reflect the conditions on the construction site. It is important that the SWPPP be accurate in terms of changes to construction plans, stormwater controls, changes in operational control, and other important changes on the site, so that the facility personnel have access to a SWPPP that is current, and so that inspectors are provided with accurate site information for compliance purposes.

In Part 8.4.1 of the proposed CGP, EPA added additional specificity than was in the 2008 CGP to include additional circumstances requiring an updated SWPPP, which reflects additional permit provisions that were not included in the 2008 CGP.

#### **XIII.4.2 Log of SWPPP Modifications (Part 8.4.2).**

Part 8.4.2 requires the permittee to maintain a log showing the dates of all SWPPP modifications, which must include the name of the person authorizing each change (see Part 8.2.15) and a brief summary of all the changes.

- *Purpose:* The proposed requirement to log all SWPPP modifications is to ensure that a record of all of the changes to the SWPPP is kept. Keeping a record of such changes will help facility personnel stay current with the changes that have been made to the SWPPP, and will allow inspectors to determine if appropriate modifications were made to the SWPPP under the required circumstances.

In the proposed permit, EPA proposes to require more detail than was required in the 2008 CGP concerning SWPPP modifications, including the dates of all modifications and the person authorizing each change, along with the summary. EPA believes this requirement will assist permittees with keeping staff updated on the details of any changes to the stormwater pollution prevention plan.

#### **XIII.4.3 Deadlines for SWPPP Modifications. (Part 8.4.3).**

Part 8.4.3 requires the permittee to complete revisions to the SWPPP within 7 calendar days following the occurrence of any conditions listed in Part 8.4.1.

- *Purpose:* The purpose of requiring any SWPPP revisions to be complete within seven days in Part 8.4.3 of the proposed CGP is to ensure that any necessary revisions made to the SWPPP are incorporated in a timely matter so that the SWPPP is kept up to date.

#### **XIII.4.4 Required Notice of Other Operators. (Part 8.4.4).**

Part 8.4.4 requires permittees to notify any other operators that may be covered under their permit of any changes to the SWPPP that may impact the operators.

- *Purpose:* The proposed requirement in Part 8.4.4 ensures that any other operators covered under the permit are kept up to date on the SWPPP so that they can comply with the modifications to the pollution prevention plan.

#### **XIV. How to Terminate Coverage. (Part 9).**

Part 9 of the proposed CGP details the requirements that must be met before an operator of a construction project may be authorized to terminate coverage under the permit. Although this section has been reorganized from prior permits, many of the requirements for coverage and the process to be followed for seeking coverage remain unchanged. Part 9 reminds the permittee that until permit coverage is terminated, the permittee is required to comply with all conditions and effluent limitations in the permit. Permit coverage is not terminated until EPA has received a complete and accurate Notice of Termination (NOT), certifying that the requirements for termination in Part 9 are met.

#### **XIV.1 Minimum information required in NOT. (Part 9.1).**

Part 9.1 of the proposed CGP lists the minimum information that is required to be provided in the NOT, which includes:

1. NPDES permit tracking number provided by EPA when you received coverage under this permit;
  2. Basis for submission of the NOT (see Part 9.2);
  3. Operator contact information;
  4. Name of project and address (or a description of location if no street address is available); and
  5. NOT certification.
- *Purpose:* The purpose of the proposed requirements in Part 9.1 is to inform permittees of the required information to be included in their NOT.

#### **XIV.2 Conditions for terminating permit coverage. (Part 9.2).**

Part 9.2 describes the triggering conditions for terminating permit coverage, which include:

1. The permittee has completed all earth-disturbing activities at the project site and, if applicable, construction support activities permitted under Part 1.1, and has met the following requirements:
  - For any areas that (1) were disturbed during construction, (2) are not covered over by permanent structures, and (3) over which the permittee had control during the construction activities, the permittee has met the requirements for final vegetative or non-vegetative stabilization in Part 2.2;
  - The permittee has removed and properly disposed of all construction materials, waste, and waste handling devices, and removed all equipment and vehicles that were used during construction, unless intended for long-term use following termination of permit coverage;
  - The permittee has removed all stormwater controls that were installed and maintained during construction, except those that are intended for long-term use following termination of permit coverage;
  - The permittee has removed all potential pollutants and pollutant-generating activities associated with construction, unless needed for long-term use following termination of permit coverage;
  - The permittee must identify who is responsible for ongoing maintenance of any stormwater controls left on the site for long-term use following termination of permit coverage; or
2. The permittee has transferred control of all areas of the site for which they are responsible under this permit to another operator, and that operator has submitted an NOI and obtained coverage under this permit; or
3. Coverage under an individual or a different general NPDES permit has been obtained.

- *Purpose:* The proposed requirements in Part 9.2 provide permittees a list of all of the conditions for terminating permit coverage. These conditions must be triggered before an NOT can be filed and permit coverage terminated.

The proposed conditions for terminating permit coverage in Part 9.2 correspond to requirements in Part 6.2 in the 2008 CGP; however, additional requirements have been included to emphasize the importance of leaving the site not only stabilized, but also in a condition that no longer requires temporary stormwater controls or pollution prevention practices. The addition of 1.e above was necessary to ensure that the responsibility for stormwater controls designed to treat stormwater from several different construction projects is known and understood.

#### **XIV.3 Submit NOTs through eNOI system. (Part 9.3).**

Part 9.3 describes the process for submitting a Notice of Termination. In this section, information about EPA's electronic NOI system, or "eNOI" system is provided. EPA requires the use of the eNOI system for preparing and submitting NOTs, unless the permittee's EPA Regional office specifically authorizes the use of a paper NOT form. The permittee's tracking number must be used to upload the fillable NOT form, which will ensure that EPA properly record the permittee's termination of coverage.

- *Purpose:* In Part 9.3, EPA proposes to require that permittees file an electronic Notice of Termination (NOT) to notify EPA that it has met the conditions for terminating permit coverage under Part 9.2, unless use of a paper form is authorized by the EPA Regional Office.

#### **XIV.4 Deadlines for submitting NOTs. (Part 9.4).**

Part 9.4 requires that the NOT be submitted within 30 days of the occurrence of any one of the triggering conditions listed in Part 9.2.

- *Purpose:* Part 9.4 of the proposed CGP provides the permittee with a deadline for when the NOT must be submitted following the occurrence of any of the triggering conditions in 9.2. The purpose of requiring a deadline for filing an NOT is to ensure that permittees do not remain covered under the CGP for a long period of time after reaching a condition for permit termination.

#### **XIV.5 Effective date of termination of coverage. (Part 9.5).**

Part 9.5 informs permittees that permit termination becomes effective at midnight of the day that a complete NOT is processed and posted on EPA's website at [www.epa.gov/npdes/noisearch](http://www.epa.gov/npdes/noisearch).

- *Purpose:* Part 9.5 of the proposed CGP specifies to permittees when their permit termination becomes effective and therefore when they are no longer responsible for complying with the permit. EPA notes that if the Agency determines that the NOT is incomplete or the permittee has not satisfied one of the conditions in Section 9.2 for being able to submit a Notice of Termination, then the NOT is not valid, and the permittee must continue to comply with the conditions of the permit.

## **XVI. Permit Conditions Applicable to Specific States, Indian Country Lands, or Territories**

This part of the permit will be completed as the states, Indian Country Lands, and U.S. territories complete their Section 401 certifications for this permit.

## **XVII. Appendices.**

### **XVII.A. Definitions and Acronyms. (Appendix A).**

Appendix A of the proposed permit includes definitions of terms and a list of acronyms used throughout the permit.

- *Purpose:* To provide a reference tool for terms and acronyms used throughout the permit.

The following definitions were added to the terms defined in the 2008 CGP:

1. "Action Area"
2. "Agricultural Land"
3. "Antidegradation Policy"
4. "Arid Areas"
5. "Bank"
6. "Benchmark Monitoring"
7. "Bluff"
8. "Borrow and Fill Areas"
9. "Buffer"
10. "C-Factor"
11. "Commencement of Pollutant-Generating Activities"
12. "Construction Activities"
13. "Construction Site"
14. "Construction Support Activities"
15. "Construction Waste"
16. "Conveyance Channel"
17. "Corrective Action"
18. "Critical Habitat"
19. "Dewatering"
20. "Discharge of a Pollutant"
21. "Discharge Point"
22. "Discharge-Related Activity"
23. "Discharge to an Impaired Water"
24. "Domestic Waste"
25. "Drainageway"

26. "Earth-Disturbing Activity"
27. "Effluent Limitations Guideline (ELG)"
28. "Electronic Notice of Intent (eNOI)"
29. "Endangered Species"
30. "Entrance and Exit Points"
31. "Ephemeral Stream"
32. "Existing Permitted Discharger"
33. "Existing Unpermitted Discharger"
34. "Exposed Soils"
35. "Footprint"
36. "Hazardous Waste"
37. "Impaired Water"
38. "Impervious Surface"
39. "Install" or "Installation"
40. "Intermittent (or Seasonal) Stream"
41. "Jar test"
42. "Landward"
43. "Large Construction Project"
44. "Level Spreader"
45. "Linear Project"
46. "Material handling and Staging Areas"
47. "Material Washout Area"
48. "Minimize"
49. "National Pollutant Discharge Elimination System"
50. "Native Topsoil"
51. "Native Vegetation"
52. "Nephelometer"
53. "New Operator of a New Source or Existing Permitted Discharger"
54. "New Source"
55. "New Source Performance Standards (NSPS)"
56. "Non-Stormwater Discharges"
57. "Notice of Intent (NOI)"
58. "Notice of Termination (NOT)"
59. "NTU (Nephelometric Turbidity Limit)"
60. "Operational"

61. "Outfall"
62. "Perennial Stream"
63. "Permitted Ongoing Project"
64. "Permitting Authority"
65. "Pollutant-Generating Activities"
66. "Pollution Prevention Measures"
67. "Polymers"
68. "Primary Operator"
69. "Prohibited Discharges"
70. "Run-On"
71. "Sampling Point"
72. "Secondary Operator"
73. "Sheet Flow"
74. "Snowmelt"
75. "Spill"
76. "Stabilization"
77. "Steep Slopes"
78. "Stormwater Inlet"
79. "Stormwater Team"
80. "Storm Event"
81. "Storm Sewer"
82. "SWPPP"
83. "Temporary Stabilization"
84. "Threatened Species"
85. "Tier 2 Waters"
86. "Tier 2.5 Waters"
87. "Tier 3 Waters"
88. "Toxic Waste"
89. "Turbidimeter"
90. "Turbidity"
91. "Upland"
92. "Unpermitted Ongoing Project"
93. "Water-Dependent Uses"
94. "Water Quality Standards"

The following acronyms were added to the list that appears in the 2008 CGP:

1. C&D
2. eNOI
3. NRC
4. NRCS
5. NTU
6. SPCC
7. USGS

**XVII.B Permit Areas Eligible for Coverage. (Appendix B).**

Appendix B specifies in what areas of the country the proposed permit would apply, and includes specific corresponding permit numbers.

- *Purpose:* To specify the areas where the permit is effective.

The permit is now available in Region 4, and Denali National Park and Preserve in Region 10, and is no longer available in Alaska because the state has been delegated NPDES program responsibilities. Otherwise, no changes were made to the corresponding 2008 CGP appendix.

**XVII.C Small Construction Waivers and Instructions. (Appendix C).**

Appendix G provides information to construction operators on the application of permit waivers for rainfall erosivity (App. G, Sec. A), TMDLs (App. G, Sec. B), and equivalent analysis (App. G, Sec. C).

- *Purpose:* To provide information to prospective applicants for these three regulatory waivers.

**XVII.D Endangered Species Act Requirements. (Appendix D).**

Appendix D specifies the proposed eligibility criteria related to the protection of endangered species and critical habitat. Each operator is required to certify that they have met one of the 5 possible eligibility criteria.

Operators who cannot certify to one of the endangered species eligibility criteria cannot submit an NOI to gain coverage under the CGP; instead they must apply to EPA for an individual NPDES permit. As appropriate, EPA will conduct ESA section 7 consultations when issuing individual permits. If there are concerns that CGP coverage for a particular facility may result in adverse effects to listed species or critical habitat, EPA may hold up discharge authorization until such concerns are adequately addressed. Regardless of an operator's eligibility certification under one of the six criteria, EPA may require an application for an individual permit on the basis of adverse effects to species or habitat.

- *Purpose:* Consistent with Section 7(a)(2) of the Endangered Species Act (ESA), EPA has initiated and is in the process of consulting with the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS), both collectively

known as the “Services.” Appendix D provides the proposed eligibility language for determining which criterion operators may meet. EPA notes that the consultation process with the Services is ongoing, and the Agency may decide to change the eligibility criteria and the eligibility-determination procedure as a result of this consultation.

For background, the FWS and NMFS are responsible for developing and maintaining the list of protected species and critical habitat. Once listed as endangered or threatened, a species is afforded the full range of protections available under the ESA, including prohibitions on killing, harming or otherwise taking a species. In certain instances, the FWS or NMFS may establish a critical habitat for a threatened or endangered species as a means to further protect those species. Critical habitat is an area determined to be essential for the conservation of a species and need not be in an area currently occupied by the species. Some, but not all, listed species have designated critical habitat. Exact locations of such designated critical habitat are provided in the Services regulations at 50 CFR Parts 17 and 226.

Operators have an independent ESA obligation to ensure that any of their activities do not result in prohibited “take” of listed species. Section 9 of the ESA prohibits any person from “taking” a listed species, e.g., harassing or harming it, with limited exceptions. See ESA Sec 9; 16 U.S.C. § 1538. This prohibition generally applies to “any person,” including private individuals, businesses and government entities. Many of the requirements and procedures in the CGP to protect species may also assist operators in ensuring that their construction activities do not result in a prohibited take of species in violation of section 9 of the ESA. Operators who intend to undertake construction activities in areas that harbor endangered and threatened species may seek protection from potential “take” liability under ESA section 9 either by obtaining an ESA section 10 permit or by requesting coverage under an individual permit and participating in the section 7 consultation process with the appropriate FWS or NMFS office. Operators unsure of what is needed for such liability protection should confer with the appropriate Services.

EPA proposes to modify the 2008 CGP corresponding appendix to identify the type of documentation that must be kept in support of the eligibility determination, and to add a few related questions to the NOI, in order to improve compliance in this area. EPA is proposing a change in Part 1.5.3 to extend the “waiting period” during which the Services have the opportunity to request a hold on permit authorization from 7 days to 30 days. This change is proposed in order to address complaints by the field offices of the Services that 7 days was inadequate to provide for sufficient review of individual project locations. EPA believes that this change is reasonable, and consistent with other local or state timeframes under which operators are required to work in the development process.

#### **XVII.E Historic Properties Requirements. (Appendix E).**

Appendix E includes proposed eligibility criteria related to minimizing impacts to historic properties. Because EPA’s consultation with the Advisory Council on Historic Preservation (ACHP), the State Historic Preservation Offices (SHPOs), and the Tribal Historic Preservations Offices (THPOs) is ongoing, these eligibility criteria may change.

- *Purpose:* Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to take into account the effects of federal “undertakings” on

historic properties that are listed on, or eligible for listing on, the National Register of Historic Places. The term federal “undertaking” is defined in the NHPA regulations to include a project, activity, or program under the direct or indirect jurisdiction of a Federal agency including those requiring a federal permit, license or approval. See 36 CFR 800.16(y). Historic properties are defined in the NHPA regulations to include prehistoric or historic districts, sites, buildings, structures, or objects that are included in, or are eligible for inclusion in, the National Register of Historic Places. See 36 CFR 800.16(l).

EPA's issuance of the CGP is a federal undertaking within the meaning of the NHPA. To address any issues relating to historic properties in connection with issuance of the permit, EPA plans to include criteria for certifications by applicants that potential impacts of their covered activities on historic properties have been appropriately considered and addressed. These criteria are currently being developed in consultation with the ACHP, SHPOs, and THPOs. The proposed criteria are included for comment, and are based on the Agency's 2008 MSGP.

#### **XVII.F List of Tier 3, Tier 2, and Tier 2.5 Waters. (Appendix F).**

Appendix F provides a list of Tier 3, Tier 2, and Tier 2.5 waters to assist construction operators in determining eligibility for coverage under Parts 1.2.4 and 1.2.5, and in complying with any applicable requirements in Part 4.3.

- *Purpose:* To provide information to operators to support their compliance with applicable antidegradation requirements.

#### **XVII.G Notice of Intent (NOI) Form and Instructions. (Appendix G).**

Part 1.4.2 requires operators to use the electronic NOI system, or “eNOI” system, to prepare and submit NOIs. However, where an operator requests and receives approval from his/her EPA Regional Office, the operator is authorized use the paper NOI form included in Appendix G.

- *Purpose:* The following additional information are proposed to be included in the NOI form:
  1. Are you a “secondary operator on a site at which a “primary operator” is already covered under this permit?
  2. Are you an operator of an “emergency-related project”?
  3. Estimated total area of the project/site
  4. Maximum estimated area to be disturbed
  5. Does your project/site discharge stormwater to an MS4?
    - Provide contact information for the MS4
    - Specify the latitude and longitude location of the MS4's outlet(s) from which discharges from the site will be discharged
  6. For sites not discharging solely to an MS4, indicate the latitude and longitude of any discharge point(s) from the site
  7. For sites choosing to determine using their own information if they discharge to impaired waters, and therefore to not rely on the mapping

tool that EPA is developing that will allow operators to use an internet-based tool to determine if their site's location corresponds to an impaired watershed, indicate:

- The latitude and longitude of any discharge point(s) from the site
  - Methods used to determine if the receiving water is impaired
  - For any impaired waters, fill out a table with the name(s) of the impaired waters, names of any pollutants causing the impairment, and whether a TMDL has been approved or established
8. Are any of your discharges into any portion of a receiving water designated by the state or tribal authority under its antidegradation policy as a Tier 2 (or tier 2.5) or Tier 3 water?
9. Do any waters of the U.S. exist within or immediately adjacent to the site?
- If yes, indicate whether a 50-foot naturally vegetated buffer from the edge of these waters will be provided.
  - If no, can the project be characterized as the construction of a water crossing or a water-dependent structure, or as development of a site where no naturally vegetated buffer area exists due to prior disturbances?
  - If no to both of the questions above, provide the width of vegetation to be retained in the buffer area, and describe controls to be used to treat stormwater discharges on the site to achieve the equivalent sediment load reduction of the 50-foot buffer.
10. Will you employ sediment controls enhanced with polymers, flocculants, or other treatment chemicals at your construction site?
- If yes, indicate which chemicals will be used on-site.
11. Endangered Species Protection – If you select criterion C from Appendix D:
- What federally-listed species or federally-designated critical habitat is in your "action area"?
  - List the pollutants expected to be present in your discharge.
  - Attach documentation supporting criterion Eligibility.
12. Historic Properties Preservation – Using the instructions in Appendix E of the CGP, under which criterion listed in Appendix E are you eligible for coverage under this permit?

The additional questions are proposed to be added to correspond to the new or modified requirements in Parts 1, 2, and 4 of the CGP, many of which directly result from the requirement to incorporate the C&D rule requirements.

#### **XVII.H Compliance with the C-Factor Stabilization Criteria. (Appendix H).**

Appendix H provides information to assist permittees in complying with the C-factor stabilization criteria in proposed Part 2.2.2. More specifically, Appendix H provides a compilation of published C-factor values for commonly-used stabilization cover methods. See Table H-1. Table H-1 is provided as a guide for use in selecting and applying appropriate covers with proven C-factor values. Table H-1 is intended to provide a good starting point for permittees needing to identify covers and cover material most appropriate for their location. The cover types referenced in Table H-1 are not exhaustive, and there are a variety of commercially-available stabilization covers that are not specifically listed in the table, either because they employ a combination of the types in Table H-1, or sufficient studies were not available for those cover types prior to the publication of this permit. In compiling Table H-1, EPA attempted to provide the range of probable C-factor values for the major cover types (e.g., erosion control blankets, straw, mulches), enabling the permittee to rapidly focus on the type(s) of covers that meet the Part 2.2.2 cover criteria. Appendix H also includes 2 construction site examples to portray how to comply with the stabilization criteria using Table H-1 as a guide.

- *Purpose:* To provide guidance to permittees on how to comply with the proposed Part 2.2.2 stabilization criteria.

Appendix H is not included in the 2008 CGP. Its inclusion supports the implementation of the stabilization requirement in the C&D rule. See 40 CFR 450.21 (b).

#### **XVII.I Precipitation Frequencies (Appendix I)**

Appendix I provides a guide to permittees to determine the volume of precipitation associated with their local 2-year, 24-hour storm event. If the permittee is subject to the numeric turbidity limit in Part 3 of the permit, the C&D rule and Part 3.1.3.1 of the permit provide an exception for storms that are larger than the 2-year, 24-hour storm event during which the limit does not apply. In order to claim this exception during permit coverage, the permittee is required to record and document the amount of rainfall that fell on the site (in inches) either by using a rain gauge or precipitation data from another source within 5 miles of the site. If the volume of rainfall for a particular storm exceeds the 2-year, 24-hour storm volume for the area, then any exceedance of the turbidity limit measured during or after the storm is not considered a violation of the limit.

- *Purpose:* To provide a guide to permittees on how to claim the numeric limit exception for storms that are larger than the local 2-year, 24-hour storm event.

#### **XVII.J Requirements for Impaired Waters. (Appendix J).**

Appendix J includes information to assist the permittee in determining whether he/she discharges to an impaired water. If the permittee is required to conduct benchmark monitoring in accordance with Part 4.2.2.1, Appendix J provides the applicable benchmark to be used and information relating to compliance with the benchmark monitoring requirements.

- *Purpose:* To provide guidance to permittees to determine whether they are discharging to an impaired water, and whether they are subject to the

benchmark monitoring requirements. Appendix J specifically describes how to use the benchmark tables for the areas covered by the permit with sediment or nutrient-impaired waters. The appendix includes a specific description of how EPA chose the applicable benchmark levels, which were based on the impaired waterbodies' underlying water quality standards. EPA also requests comment on alternative approaches to selecting benchmarks.

**XVII.K Notice of Termination (NOT) Form and Instructions. (Appendix K).**

Part 9.3 requires the permittee to use the electronic NOI system, or “eNOI” system, to prepare and submit the NOT when any of the conditions in 9.2 have been met. However, where the EPA Regional Office specifically authorizes the permittee to use a paper NOT form, that permittee is required to complete and submit the paper form included in Appendix K.

- *Purpose:* To provide pre-approved operators with a paper NOT form to use for seeking coverage under the CGP if the Regional EPA Office approves, and to provide potential operators with an idea of what types of questions to anticipate when completing the NOT.

The proposed NOT form includes modified reasons for termination. These modifications were considered necessary to reflect the changes made to the conditions for terminating permit coverage in Part 9.2.

**XVII.L Standard Permit Conditions. (Appendix L).**

Appendix L includes the standard NPDES permit conditions consistent with 40 CFR 122.41.

- *Purpose:* To include as part of the permit the required standard permit conditions for all NPDES permits.

No significant changes were made to the 2008 CGP's standard permit conditions other than to add a standard severability clause (Appendix C, Part C.17).

**XVII.M Buffer Guidance. (Appendix M).**

Appendix M provides guidance to operators on how to establish the 50-foot buffer and, if they choose to implement one of the two alternatives in Part 2.1.2.1.b or c, specifies the sediment removal efficiency that is assigned to their site for the purposes of achieving equivalent load reductions.

- *Purpose:* To provide information to assist permittees in complying with Part 2.1.2.1. This appendix was developed for the draft permit to help implement the C&D rule requirement at 40 CFR 450.21 (a)(6) to “provide and maintain natural buffers around surface waters ... unless infeasible.”