6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

[EPA-HQ-OW-2015-0668; FRL-9936-78-OW]

Notice of Opportunity to Provide Information on Existing Programs that Protect Water Quality from Forest Road Discharges.

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The Environmental Protection Agency (EPA) solicits public input and information on existing public and private sector programs that address stormwater discharges from forest roads. This information will assist EPA in responding to the remand in *Environmental Defense Center, Inc. v. U.S. EPA*, 344 F.2d 832 (9th Cir. 2003) that requires EPA to consider whether the Clean Water Act requires the Agency to regulate forest roads. This notice does not imply that EPA has made any decision to do so. EPA is considering the implementation, effectiveness, and scope of existing programs in addressing water quality impacts attributable to stormwater discharges from forest roads prior to making any decision. The Agency plans to assess a variety of existing programs, including federal, state, local, tribal, third party certifications, and combinations of these approaches, as well as voluntary best management practices (BMP)-based approaches. In preparing its response to the remand, EPA is coordinating with other federal agencies, and will assess whether any additional stormwater controls are called for, consistent with federal law, including the recent 2014 amendments to the Clean Water Act.

DATES: Comments must be received on or before [INSERT DATE 60 days after publication in the Federal Register].

ADDRESSES: Submit your comments, identified by Docket ID No. **EPA-HQ-OW-2015-0668,** to the *Federal eRulemaking Portal***:** http://www.regulations.gov. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit http://www2.epa.gov/dockets/commenting-epa-dockets.

FOR FURTHER INFORMATION CONTACT: Prasad Chumble, EPA Headquarters, Office of Water, Office of Wastewater Management via email at chumble.prasad@epa.gov or telephone at 202-564-0021.

SUPPLMENTARY INFORMATION:

I. General Information

Applicability

This notice does not impose requirements on any entity.

II. Background

A. Purpose

EPA is gathering information on existing programs addressing stormwater discharges from forest roads to determine what additional measures, if any, are necessary to protect water quality. As described below, section 402(p)(6) of the Clean Water Act (CWA) allows EPA to consider a range of regulatory and non-regulatory approaches, and determine which stormwater discharges (if any) need controls under 402(p)(6). Since EPA's last public notice on May 23, 2012 (77 FR 30473), in which the Agency also solicited comments on approaches for addressing water quality impacts associated with forest roads, a number of developments have occurred, including statutory and regulatory changes, collection of additional water quality data, results from new research, new information pertaining to effectiveness of BMPs, and updates to federal, state, local, tribal, and other programs. Therefore, the Agency seeks to obtain public input and updated information on the implementation, effectiveness, and scope of approaches and programs that are currently in place for addressing stormwater discharges from forest roads.

B. Legal Background

The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. 33 U.S.C. 1251(a). To that end, the CWA provides that the discharge of any pollutant by any person shall be unlawful, except in compliance with other provisions of the statute. The CWA provides for a permit program, in general, for the discharge of a pollutant from a "point source," which is defined in section 502 of the CWA as "any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be

discharged." 33 U.S.C. 1362(14). In 1987 Congress added section 402(p) to the CWA, which required National Pollutant Discharge Elimination System (NPDES) permits for certain specified stormwater discharges and provided EPA with discretion to determine whether and how discharges from other stormwater sources should be addressed "to protect water quality."

For the initial phase of stormwater regulation, section 402(p)(1) created a temporary moratorium on NPDES permits for point sources except for those listed in section 402(p)(2), which includes discharges already required to have a permit; discharges from municipal separate storm sewer systems serving population of 100,000 or more; and stormwater discharges "associated with industrial activity." Congress did not define discharges associated with industrial activity, allowing EPA to define the term. For other stormwater discharges, section 402(p)(5) directs EPA to conduct studies, in consultation with the states, for "identifying those stormwater discharges or classes of stormwater discharges for which permits are not required"; "determining to the maximum extent practicable, the nature and extent of pollutants in such discharges"; and "establishing procedures and methods to control stormwater discharges to the extent necessary to mitigate impacts on water quality." Section 402(p)(6) directs the Agency to issue regulations, in consultation with state and local officials, based on such studies. The section allows EPA flexibility in issuing regulations to address designated stormwater discharges and does not require the use of NPDES permits. Specifically, the section states that the regulations "shall establish priorities, establish requirements for state stormwater management programs, and establish expeditious deadlines" and may include "performance standards, guidelines, guidance, and management practices and treatment requirements, as appropriate." 33 U.S.C. 1342(p)(6). This flexibility is unique to stormwater discharges regulated under section 402(p)(6) and differs

from the requirement for NPDES permits for stormwater discharges listed in section 402(p)(2) of the Act.

Prior to the 1987 Amendments, there were numerous questions regarding the appropriate means of regulating stormwater discharges through the NPDES program. These questions stemmed from serious water quality impacts of stormwater, the variable nature of stormwater, the large number of stormwater discharges, and the limited resources of permitting agencies. EPA undertook several regulatory actions, which resulted in extensive litigation, in an attempt to address these unique discharges.

EPA's Silvicultural Rule (40 CFR 122.27) predates the 1987 amendments to the CWA that added section 402(p) for stormwater controls. The Agency defined silvicultural point source as part of the Silvicultural Rule to specify which silvicultural discharges were to be included in the NPDES program. The rule defines silvicultural point source to mean any "discernible, confined and discrete conveyance related to rock crushing, gravel washing, log sorting, or log storage facilities which are operated in connection with silvicultural activities and from which pollutants are discharged into waters of the United States," and further explains that "the term does not include non-point source silvicultural activities such as nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, or road construction and maintenance from which there is natural runoff."

In 1990, EPA promulgated the Phase I stormwater regulations (55 FR 47990)("Phase I Rule"), following the 1987 amendments which directed the Agency to develop regulations requiring permits for large and medium municipal separate storm sewer systems and stormwater "discharges associated with industrial activity." In the Phase I regulations EPA defined the term

"storm water discharge associated with industrial activity," which is not defined by the Act but was discussed in the legislative history to the 1987 amendments. In describing the scope of the term "associated with industrial activity," several members of Congress explained in the legislative history that the term would apply if a discharge was "directly related to manufacturing, processing or raw materials storage areas at an industrial plant." (Vol. 132 Cong. Rec. H10932, H10936 (daily ed. October 15, 1986); Vol. 133 Cong. Rec. H176 (daily ed. January 8, 1987)). The Phase I Rule provided the regulatory definition of "associated with industrial activity" by adopting the language used in the legislative history and supplementing it with a description of various types of areas (for example, material handling sites, sites used for the storage and maintenance of material handling equipment, etc.) that are directly related to an industrial process and to industrial facilities identified by EPA. The Phase I regulations define the term "storm water discharge associated with industrial activity" to include stormwater discharges from facilities identified in the rule by Standard Industrial Classifications (SIC) codes. 40 CFR 122.26(b)(14). The Phase I Rule does not include discharges from facilities or activities excluded from the NPDES program under other parts of EPA's regulations, including the Silvicultural regulations. *Id.* As discussed above, EPA had previously specified under the Silvicultural regulations which silvicultural discharges were to be included in the NPDES program. 40 CFR 122.27. EPA intended to regulate those same "silvicultural point source[s]" under the Phase I rule (i.e., rock crushing, gravel washing, log sorting, and log storage facilities) and to exclude from the Phase I regulation stormwater runoff from other silvicultural activities, consistent with the requirements of section 122.27.

In developing the second phase of stormwater regulations, EPA submitted to Congress in March 1995 a report that evaluated the nature of stormwater discharges from municipal and

industrial facilities that were not already regulated under the Phase I regulations (U.S. Environmental Protection Agency, Office of Water. *Storm Water Discharges Potentially Addressed by Phase II of the National Pollutant Discharge Elimination System Storm Water Program: Report to Congress*. Washington, D.C. EPA, 1995. (833–K–94–002)). On December 8, 1999, EPA promulgated the Phase II stormwater regulations to address stormwater discharges from small municipal separate storm sewer systems and construction sites that disturb one to five acres. 64 FR 68722. Under CWA sections 402(p)(2)(E) and 402(p)(6), EPA retains the authority to designate additional stormwater discharges for regulation.

The Phase II stormwater regulations were challenged in *Environmental Defense Center v. US EPA*, 344 F.3d 832 (9th Cir. 2003) (*EDC v. EPA*). In that case, petitioners contended that EPA arbitrarily failed to regulate discharges from forest roads under the Phase II rule. The court held that EPA failed to consider the petitioners' comments and remanded the issue to EPA "so that it may consider in an appropriate proceeding Petitioner's contention that section 402(p)(6) requires the EPA to regulate forest roads. The EPA may then either accept Petitioners' arguments in whole or in part, or reject them on the basis of valid reasons that are adequately set forth to permit judicial review." *Id.* at 863.

During several years following the decision in *EDC v. EPA*, EPA undertook research to improve the Agency's knowledge of forest road stormwater discharge impacts on water quality and what programs exist, whether voluntary or mandatory, to reduce those impacts. During the same period, the Northwest Environmental Defense Center initiated litigation concerning logging road stormwater discharges.

In 2011, the U.S. Court of Appeals for the Ninth Circuit issued a decision in *Northwest Environmental Defense Center v. Brown*, 640 F.3d 1063 (9th Cir. 2011) ("*NEDC"*), a citizen suit

alleging violations of the CWA for unpermitted discharges of stormwater from ditches alongside two logging roads in state forests. The court held that because the stormwater runoff from the two roads in question is collected by a system of ditches, culverts and channels and then discharged into waters of the United States, there was a point source discharge of stormwater associated with industrial activity for which an NPDES permit is required.

On May 23, 2012, EPA published a Notice in the Federal Register summarizing known water quality impacts related to forest roads and discussing existing state, tribal, and voluntary programs designed to address those impacts. (77 FR 30473). The Notice expressed EPA's intent to specify that only stormwater discharges associated with rock crushing, gravel washing, log sorting, and log storage are considered discharges associated with industrial activities, and that those would be the only discharges associated with silvicultural activity that would be subject to permitting under the stormwater regulations pertaining to industrial activity. The Notice also discussed the Agency's consideration of non-permitting approaches to address other stormwater discharges from forest roads.

On December 7, 2012, EPA promulgated a final rule (77 FR 72970) to specify that for the purposes of assessing whether stormwater discharges are "associated with industrial activity," the only facilities under the SIC code 2411 that are "industrial" are: rock crushing, gravel washing, log sorting, and log storage. This rulemaking clarified that, contrary to the Ninth Circuit's decision in *NEDC*, discharges of stormwater from silviculture activities other than the four specifically named activities identified above do not require an NPDES permit. On March 20, 2013, the U.S. Supreme Court reversed the Ninth Circuit's ruling in *NEDC*, holding that discharges of stormwater that ran off logging roads into ditches, culverts and channels did not

require an NPDES permit. *Decker, Oregon State Forester, et al. v. Northwest Environmental Defense Center*, 133 S.Ct 1326 (2013).

In 2014, Congress amended section 402(l) of the Federal Water Pollution Control Act to effectively prohibit the use of NPDES permits for the discharge of runoff "resulting from the conduct of the following silviculture activities conducted in accordance with standard industry practice: nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, or road construction and maintenance." 33 U.S.C. 1342(l). In addition, the amendment prohibits third party lawsuits authorized by section 505(a) for any non-permitting program established under 402(p)(6), or for any other limitations applied to silviculture activities.

In December 2014, EDC and the Natural Resources Defense Council filed a petition with the Ninth Circuit to compel EPA to respond, within six months, to the question remanded in the 2003 *EDC v. EPA* decision of whether section 402(p)(6) requires regulation of stormwater discharges from forest roads. Following execution of a settlement agreement that was filed with the court on August 26, 2015, the court entered an order establishing a schedule requiring EPA to issue a final determination by May 26, 2016.

III. Water Quality Impacts from Stormwater Discharges from Forest Roads

The Agency's May 23, 2012 Notice summarized the research EPA had collected to date on the water quality impacts resulting from stormwater discharges from forest roads. Much of this research was compiled in the 2008 report "National Level Assessment of Water Quality Impairments Related to Forest Roads and Their Prevention by Best Management Practices" prepared by the Great Lakes Environmental Center, Inc. (GLEC). This document is available in

the docket for today's notice and provides an extensive discussion on water quality impacts from forest road stormwater discharges, which are primarily erosion and sedimentation, but can also include changes in stream morphology, introduction of chemicals and other pollutants, and degradation of aquatic habitat.

EPA's research indicates that improperly designed, constructed, maintained, or decommissioned forest roads, as well as abandoned "legacy roads,"[1] can lead to a number of impacts. These impacts can include increased sediment load and changes in stream network hydrology, subsequently causing physical, biological, and ecological impacts to water quality. EPA also recognizes that not all forest roads cause water quality impacts and that within a basin the majority of the water quality impacts caused by discharges from forest roads may be attributed to a relatively small subset of forest roads (see, for example, Nelson et al., 2011; Fly et al., 2010; Luce and Black, 2001; Luce and Black, 1999).

The focus of this notice is to solicit input on the implementation and effectiveness of existing public and private programs, whether voluntary or legally binding and enforceable, in mitigating water quality impacts from stormwater discharges from forest roads, rather than to receive additional comments or materials on water quality impacts of these discharges. Specifically, EPA seeks input on the implementation, effectiveness, and scope of existing federal, state, local, tribal and private sector programs. The Agency also seeks input on additional approaches and regulations, if necessary, to mitigate negative impacts on water quality from forest road stormwater discharges.

[1] Abandoned or "legacy roads" refers to forest roads built prior to the establishment of current design standards, which are not being used but may still be sources of sediment.

IV. EPA's May 23, 2012 *Federal Register* Notice

On May 23, 2012, EPA published a Notice that sought comment on potential approaches for addressing water quality impacts resulting from stormwater discharges from forest roads. In response to that Notice, EPA received over 100 comment letters. Some comments pointed to existing programs suggesting that a national regulation addressing discharges from forest roads is unnecessary because existing state and tribal programs are sufficient. Others asserted that existing federal, state, and tribal programs are insufficient to protect water quality.

As discussed above, EPA is prohibited from requiring NPDES permits for stormwater discharges from forest roads associated with defined "silvicultural activities" as a result of the 2014 amendment to section 402(l) of the CWA. However, authority to regulate these discharges in other ways and using other methods remains, including under section 402(p)(6). As noted, section 402(p)(6) of the CWA allows EPA flexibility in issuing regulations to address designated stormwater discharges and does not require the use of NPDES permits. Specifically, the section states that the regulations shall establish priorities, establish requirements for state stormwater management programs, and establish expeditious deadlines and may include "performance standards, guidelines, guidance, and management practices and treatment requirements, as appropriate." 33 U.S.C. § 1342(p)(6).

In assessing whether regulation is required under section 402(p)(6) of the CWA, EPA is considering the effectiveness of existing programs in addressing water quality impacts attributable to stormwater discharges from forest roads, including federal, state, local, tribal, third-party certifications, and combinations of these approaches, as well as voluntary BMP-based approaches. In this notice, EPA requests information on these and other means currently in place for addressing the water quality impacts of stormwater discharges from forest roads or certain

portions of forest road s. EPA also requests information on implementation and lessons learned from experience with existing programs.

V. Key Considerations

In assessing how best to manage stormwater discharges from forest roads, EPA recognizes that any effective program should be informed by several considerations. It is EPA's view that there are four key considerations for managing stormwater discharges as described later in this notice: (1) the advantage of leveraging existing strategies that work, including existing effective federal, state, local, tribal, private, and voluntary BMP-based programs; (2) the utility of addressing site-specific factors; (3) the need to prioritize actions; and (4) the benefits of accountability measures.

Forest road stormwater management programs vary across the country in response to state or regional factors. EPA is working with federal agencies, states, and tribes as well as the private sector to understand their programs for managing stormwater discharges from forest roads. The Agency is interested in engaging other interested stakeholders in the process as well. EPA provided an overview of existing public and private programs to manage stormwater discharges from forest roads in its May 23, 2012 *Federal Register* Notice, but understands that there may have been improvements and additions since that time. With this Notice, EPA seeks updated information on existing programs.

A range of guidelines are available to assist forest owners, managers, and operators in designing and maintaining forest roads and selecting the appropriate BMPs to control stormwater discharges. For example, EPA has issued national guidance to assist forest owners and operators protect lakes and streams from polluted runoff that can result from forestry activity and, in

particular, from improperly built or maintained forest roads (USEPA, 2005). Other federal agencies as well as states have also developed guidance documents to protect water quality from forest road discharges (For example USFS (2012) and Georgia Forestry Commission (2009)). In addition, industry has developed standards for voluntary certification programs (For example, NCASI (2012) and SFI (2015)). BMP-based approaches allow forest road owners and operators to tailor management practices to site-specific factors such as topography, road design, soils, geologic factors, road use, and climate. The diversity of the forest road networks, the different classes of roads, the different local physical conditions, and the broad range of road conditions and uses indicate the importance of site-specific BMP selection and implementation to protect water quality.

EPA also intends to consider the complexity and vastness of the Nation's forest road network and diversity of the forested landscape. EPA seeks additional information that would assist the Agency in evaluating various approaches, including, for example: differences among forest uses; particularly vulnerable features of the road network (for example, stream crossings); critical phases (for example, road closure or decommissioning); ownerships of different forest tracts; types of ownership, including public, private, and tribal-owned lands; and forest road conditions, type, and usage. The selection of appropriate management strategies and BMPs can vary based on site-specific factors, including topography, road design, soils, geologic factors, road use, road maintenance schedule, and climate. EPA also would like information on the effectiveness of properly implemented BMPs in protecting water quality from forest road stormwater discharges. EPA solicits information on what approaches have been or could be applied nationally regardless of forest road type and ownership, as well as which approaches might be best targeted to specific

locations. For instance, performance-based management strategies may be more effective and less burdensome than approaches that rely upon prescriptive solutions.

EPA recognizes the importance of prioritization in allocating resources. For example, protecting beneficial uses such as fish spawning or public water supply may be a high priority in some areas while reducing impacts to waters listed as impaired or included in an existing Total Maximum Daily Load (TMDL) might be a high priority in other areas. EPA requests information on how existing programs identify and determine where to allocate resources to prioritize high quality, or pristine, waters or alternatively, impaired waters, or how to prioritize focus on certain forest roads that may be more problematic than others.

Finally, accountability is a key element of a successful approach ensuring stormwater discharges from forest roads are properly implemented and managed across the country and that reasonable progress is made in addressing inadequately managed stormwater discharges from forest roads. EPA seeks information regarding existing programs, such as adaptive management approaches, that include accountability measures such as monitoring, reporting, necessary updates, and consequences for failure to adhere to the objectives of the management program.

VI. Approaches for Managing Stormwater Discharges from Forest Roads

As described in further detail below, many owners and operators of forest lands are employing a variety of effective approaches to manage, operate, comply with and maintain forest roads to control stormwater discharges. Depending on the jurisdiction, owners or operators use federal requirements, BMP state program requirements, as well as tribal requirements, or follow the standards of voluntary programs, including forest stewardship and sustainability initiatives.

Some of these approaches are used in combinations that may provide a more holistic approach, which may be more protective and effective.

A. Examples of Existing State and Tribal Programs

Many states and some tribes have programs in place that function to prevent or minimize forest road stormwater discharge impacts on water quality. These programs generally establish standards for the design of forest roads and BMPs. State and tribal programs vary in their substantive level of protection, specificity and enforceability, and generally fall into three categories: regulatory, non-regulatory, and combination programs. Information available to EPA indicates that 15 states have established mandatory BMPs for forest roads and the remaining 35 states allow for voluntary implementation of BMPs to control stormwater discharges from forest roads (GLEC, 2008). In some cases the failure to implement voluntary measures can result in enforcement where noncompliance leads to a significant risk to water quality. For example, the California program resembles a permit program and is mandatory, whereas Florida relies primarily on voluntary compliance with state-approved road BMPs. The discussion below describes two existing state programs and briefly describes several existing tribal programs to illustrate the different approaches used to address forest road impacts.

Maine provides an example of a state that employs a non-regulatory forest management program. In a voluntary program, the state typically develops state-wide forestry BMPs (including measures for forest roads) and recommends that the forest owners implement the BMPs. Generally, there are no permit mechanisms or enforcement actions, but many states with voluntary programs use a hands-on approach that emphasizes education, outreach, and training for forest owners, loggers, and others (Maine DEC, 2012).

Maine's forestry BMP program is administered through the Maine Forest Service (MFS). Broadly, the program consists of voluntary BMPs implemented by the landowner, monitoring of the BMPs by MFS, and, if needed, a regulatory "safety net." The primary focus of the MFS program is training and outreach. MFS works to develop and revise BMPs, the most recent set being published in 2004. MFS then offers frequent training courses across the state and online to promote understanding of the principles and techniques in selecting and installing appropriate BMPs. Deficiencies in the implementation of BMPs (as identified by follow-up monitoring or other mechanisms) may lead to specialized training sessions (Maine DEC, 2012).

The MFS also conducts field monitoring of forestry BMPs. In collaboration with other stakeholders, a state-wide monitoring protocol was developed and has been implemented annually at selected sites since 2006. As noted in GLEC (2008), surveys have shown that BMPs are, for the most part, being consistently implemented and installation rates have improved substantially over time. When the need for improvements in BMP application are identified, MFS works cooperatively with the landowner to address the issue (Maine DEC, 2012).

Maine has a number of state laws that address sediment discharges to surface waters, including discharges due to timber operations. As needed, MFS works with other state agencies to identify problems and address them in a regulatory manner. Most issues are resolved cooperatively before a regulatory solution is needed (Maine DEC, 2012).

North Carolina has a combination approach for its forest management program, as it employs elements of both regulatory and non-regulatory programs. In 1990, the state developed administrative rules (*Forest Practice Guidelines Related to Water Quality (FPGs)*). Additionally, other state laws or interagency agreements can apply to forestry activities, including the location, construction, and maintenance of forest roads in wetlands (North Carolina FS, 2012).

The North Carolina Forest Service (NCFS) conducts thousands of forestry compliance inspections each year and has found high FPG compliance rates on a statewide basis. More focused implementation-specific monitoring has been conducted several times since 2000 by the NCFS and has also shown high implementation rates for forest road BMPs, despite their voluntary nature. State staff also provide technical assistance in designing and implementing BMPs and in assessing water quality. North Carolina revised its BMP manual in 2006 and included detailed discussions about all aspects of managing forest roads. The state has implemented a number of training and education programs in concert with demonstration projects to promote proper BMP usage. North Carolina agencies also coordinate to ensure that forestry operations are compliant with state requirements, that inspections are properly conducted, and that enforcement protocols are appropriately established (North Carolina FS, 2012).

Across the country, over 300 tribal reservations are significantly forested, and tribal lands include 17.9 million acres of forest land, including 7.7 million acres of productive timberland (ITC 2007). Tribal governments in partnership with the U.S. government dedicate substantial resources to improving tribal forest management. Much of the responsibility for managing forests on tribal lands across the country is carried out by the Bureau of Indian Affairs (BIA) with the involvement of tribal governments. The National Indian Forest Resources Management Act (NIFRMA), Title III, Public Law 101– 630, directs the Secretary of the Interior, in consultation with the affected tribes, to obtain an independent assessment of the status of forest resources on tribal lands and their management.

NIFRMA requires the development of forestry management plans under which the forests are managed in accordance with BMPs, as approved thorough an interdisciplinary team consisting of

forestry experts from academia, the private sector, forest–managing tribes and the U.S. Department of Agriculture Forest Service. The Tribal Forest Protection Act (Pub. L. 108–278) authorizes the Secretary of Agriculture and the Secretary of the Interior to enter into an agreement or contract with tribes to carry out projects to protect forests on tribal lands. Protection of such land is particularly important for tribes because they pass their land on from generation to generation. This helps to ensure future availability of natural resources, including healthy forests and clean water.

Many tribes have taken on significant roles in sustainable forest management. For example, the Menominee Indian Tribe of Wisconsin manages the forested portions of the reservation for long-term sustainability through the Menominee Tribal Enterprises (MTE), which has received certifications for sustainable management from the Forest Stewardship Council (FSC)-approved programs conducted by the Scientific Certification and the Rainforest Alliance. According the MTE Millwork Website,[2] certification is awarded to forest operations that are well managed in accordance with environmentally and socially responsible guidelines. The Northern Cheyenne Tribe requires that all new roads be obliterated and seeded after forest harvesting activities. Similarly, the Blackfeet Nation has a no net new road miles policy, which requires the closure of an existing road before a new forest road may be constructed.

EPA requests comments regarding the implementation, effectiveness and scope of state, local, and tribal programs, both mandatory and voluntary, in preventing or minimizing forest road environmental impacts on water quality. EPA also seeks feedback on which elements are regarded as necessary for an effective program (for example, an inventory of forest roads; logger training and outreach; technical assistance; requirements for best management practices for

[2] http://www.mtemillwork.com/

forest roads; guidelines for prioritizing and addressing water quality concerns related to stormwater discharges from existing forest roads; accountability measures; public involvement and the opportunity for public input into the development of the state program; a program for monitoring or auditing to assess program compliance; a program for monitoring the effectiveness of the roads program in minimizing water quality impacts; and an adaptive management process to revise BMPs based on effectiveness monitoring) and how much flexibility is appropriate for state and tribal programs.

B. Examples of Existing Federal Programs

Federal agencies, such as the U.S. Department of Agriculture Forest Service (FS) and the Bureau of Land Management (BLM), have established programs for the management of stormwater discharges from forest roads on federal lands. These agencies manage large tracts of forested lands, including lands that are actively being disturbed by road building, road maintenance, logging operations, unauthorized public and recreational use or other tasks, and have generally demonstrated sound environmental stewardship in managing these lands.

FS has developed a number of programs related to managing discharges from forest roads to improve water quality. For example, FS is revising its Forest Service Manual and Forest Service Handbook directives (FSM 2500[3] and FSH 2509-19[4]) on BMPs for water quality protection on National Forest Service lands. These revisions would establish national BMPs and associated monitoring protocols on National Forest Service lands. 70 FR 25824. As part of this effort, FS

[3] Watershed and Air Management, Chapter 2530 – Water Resource Management, 2532 – Water Quality Management.

[4] National Best Management Practices, Chapter 10 – National Core Best Management Practices.

has developed a National Core BMP Technical Guide[5] intended to improve FS performance and accountability in managing water quality consistent with the CWA and State water quality programs. This Guide establishes national core BMPs that address 11 subject areas affecting water quality, including "Road Management Activities." The Road Management Activities BMP provisions address: Travel Management Planning and Analysis; Road Location and Design; Road Construction and Reconstruction; Road Operations and Maintenance; Temporary Roads; Road Storage and Decommissioning; Stream Crossings; Snow Removal and Storage; Parking and Staging Areas; Equipment Refueling and Servicing; and Road Storm Damage Surveys. Each BMP draws on administrative directives that guide FS management of roads on NFS land. FS directives and BMP Guide allow for the use of state, tribal and local requirements and information to develop site-specific BMPs. They also provide monitoring of BMP implementation and effectiveness using national core BMP monitoring protocols and reporting systems. Based on monitoring results, these mechanisms provide for adaptive management in assessing implementation, effectiveness, and adjusting practices as needed to protect water quality. FS has enhanced its Road Preconstruction Handbook on Design (FSH 7709.59 Chapter 40) as well as the Transportation Structures Handbook on Hydraulics and Watershed Protection (FSH 7709.59b CH 60) to include design considerations for the construction and reconstruction of forest roads which minimize road and drainage impacts to the watershed. FS Technology and Development Centers have created a number of publications to assist designers when addressing road/water interactions http://www.fs.fed.us/eng/pubs/.

[5] National Best Management Practices for Water Quality Management on National Forest System Lands, Volume 1: National Core BMP Technical Guide, United States Department of Agriculture, Forest Service, FS-990a, April 2012.

FS has also created the Watershed Condition Framework, an approach to assessing watersheds in national forests and grasslands, implementing protective measures and providing for ongoing monitoring.[6] FS has developed another program, known as the Legacy Roads and Trails Program, to identify legacy roads in national forests and grasslands, and to minimize the discharge of stormwater by decommissioning or upgrading them.[7] FS also publishes documents for specific regions or types of forests that contain information on forest road construction and maintenance, as well as information on appropriate BMPs.[8]

FS has also developed a suite of tools for the identification and prioritization of road segments at risk for contributing to water quality problems.[9] These tools operate at scales of detail ranging from using corporate road databases and digital elevation data to using detailed GPS surveys. These tools have been applied in watershed sediment load reduction plans for waters listed as impaired under the CWA[10] and in forest restoration projects under the Collaborative Forest Landscape Restoration Program in the states of Idaho, Montana[11], and California. FS maintains an applied science program on road-related sediment risks to support all of the above efforts (see, for example, Luce et al., 2001; Switalski et al., 2004).

BLM is a significant owner and manager of forests and woodlands on federal lands as well, primarily in the western U.S. and Alaska. Similar to FS, a full suite of activities are authorized

[6] http://www.fs.fed.us/sites/default/files/Watershed_Condition_Framework.pdf

[7] http://www.fs.fed.us/restoration/Legacy_Roads_and_Trails/

[8] See, for example, http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5362512.pdf and http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5399662.pdf

[9] See, for example, http://www.fs.fed.us/GRAIP/

[10] See, for example, http://water.epa.gov/polwaste/nps/success319/id_bear.cfm

[11] See, for example, http://www.fs.fed.us/GRAIP/downloads/case_studies/WatershedStudies_LoloHelenaFlatheadNFs_SWCC_2014%20Final%20Report.pdf

and managed on BLM forests and woodlands, including timber harvesting, hazardous fuel reduction treatments, recreation, fish and wildlife conservation, oil and gas activities, and grazing. Authorized uses in forests and woodlands, such as timber harvesting, often include road construction and maintenance, which are broadly governed by policies, standards, and right of way agreements that ensure proper design and upkeep.[12] The BLM's Land Use Planning Handbook, which includes guidance for the development of BLM land use plans developed under section 202 of the Federal Land Policy and Management Act (FLPMA) and implementation of other BLM actions, provides broad agency direction for BLM to use BMPs to meet the standards and goals of the CWA, to address various protection measures to mitigate impacts to human health concerns, ecosystem health, riparian areas, and overall watershed conditions, and to meet state and local water quality requirements.[13] One recent example on how BLM has incorporated this guidance into the planning process for management of lands that include forest roads can be found in Appendix I of the recently released western Oregon Draft Resource Management Plan/Environmental Impact Statement (Appendix I).[14]

One example of multiple agencies coordinating to implement BMPs in a particular region of forests is the Northwest Forest Plan under the Aquatic Conservation Strategy. The recently released "*Northwest Forest Plan Interagency Regional Monitoring, 20-Year Report, Status and Trend of Watershed Condition*" summarizes the results of the 20-year interagency effort to implement an array of protective measures including BMPs to maintain watershed health in that

[12] http://www.blm.gov/wo/st/en/prog/more/forests_and_woodland.html

[13]http://www.blm.gov/style/medialib/blm/ak/aktest/planning/planning_general.Par.65225.File.dat/blm_lup_handbook.pdf

[14] http://www.blm.gov/or/plans/rmpswesternoregon/deis.php

region.[15] Finally, BLM has partnered with the Society of America Foresters (SAF) to foster proper forest management techniques on BLM lands nationwide.[16]

EPA welcomes comments on the implementation, effectiveness and scope of these federal programs and how they work in coordination with state and tribal programs to assist EPA in developing its response to the 2003 remand in *EDC v. EPA*, but emphasizes that this is not the forum for evaluating specific elements of FS or BLM programs.

C. Examples of Third-Party Certification Programs

In recent years, forestry organizations, such as the Sustainable Forestry Initiative (SFI) and Forest Stewardship Council (FSC), have developed non-governmental third-party certification programs to address water quality impacts from forest roads. A wide variety of certification programs exist worldwide, but most have common elements such as standards for responsible forest management and harvesting, third-party audits, documentation, and publication. These certification programs address many aspects of forest management, but they specifically include management practices for mitigating water quality impacts resulting from stormwater discharges from forest roads. Also, these programs typically avoid developing a single set of standards and acknowledge necessary regional variation in BMPs.

Certification programs are, at their core, market- or consumer-driven. Certification is incorporated into a chain-of-custody process that permits a producer of consumer products (for example, paper, lumber, and furniture) to apply a "green" or "eco-friendly" label to those products as recognition of responsible sourcing and to ultimately influence consumer purchasing

[15] http://www.reo.gov/monitoring/reports/20yr-report

[16] http://www.blm.gov/style/medialib/blm/wo/Planning_and_Renewable_Resources/0.Par.97719.File.dat/BLM_MOU_WO-200-2009-03.pdf

choices that translate into increased sales. Some producers of end products may *only* accept raw materials that meet certification program requirements; for example, a paper mill might not accept raw materials that do not have certification. The recent rise in prominence of certification programs coincides with other studies (for example, Ice et al., 2010) showing increases in the implementation rates of BMPs over the same period.

SFI grew out of a program developed by the American Forest & Paper Association and relies on a system of principles and objectives. A set of BMP-related requirements must be met for forest owners, loggers, and others to attain SFI's certification for forest fiber sourcing. Performance measures focus on adherence to applicable water quality laws and installation of BMPs, with performance criteria that include developing an overall program for certification and compliance, monitoring of BMPs during all phases of forestry activities, mapping of water resources, and recordkeeping. Third-party audits (typically conducted annually) verify the certification process. This program is also already a central element in many of the states' forestry training programs and also includes outreach to landowners and support for various research efforts.

FSC's program places an emphasis on conservation, as well as social and economic criteria. Similar to SFI, FSC's program relies on a series of overarching principles and more specific performance criteria. One such criterion specifies that forest owners must develop written plans to address erosion and other impacts associated with forest operations. Specific guidelines for forest roads include minimizing erosion, avoiding water crossings, and minimizing habitat fragmentation. FSC offers two types of certification: one for forest managers and another for entities involved in the intermediate and end uses of the wood products.

Like the state and federal programs, these programs are revised over time. For example, in 2015, SFI revised the standards that guide their certification program; the new standards specifically mention managing water quality impacts resulting from the construction and use of forest roads. Data also suggest that BMP implementation rates are substantially higher in forests that participate in certification programs (Texas Forest Service, 2011).

EPA requests comments on the implementation, effectiveness and scope of the elements of these third-party certification programs that address runoff from forest roads. EPA also welcomes comments from the organizations administering these programs. In particular, EPA seeks comment on how programs such as these fit with or complement other programs; for example, whether and to what extent these industry or non-governmental programs fill gaps in state and tribal programs.

VII. Request for Comments and Data

EPA encourages public comments to inform EPA's upcoming decision as to whether there is a need for additional regulation of stormwater discharges from forest roads. Requests for comment can be found throughout this notice in the sections where they are discussed. This section specifically requests comment on the issues below. To the extent possible, EPA requests that comments provide concrete examples or quantitative data.

1. For purposes of the discussion in this notice, EPA uses the term "forest road" to mean a road located on forested land, and the term "logging road" to mean a forest road that is used to support logging activities. That is, as used in this notice, logging roads are a subset of forest roads. However, the Agency has not established regulatory definitions of "forest road," "logging road," or "forested land" and welcomes comment on whether and

how EPA should define these terms. EPA is also interested in the way in which states, tribes, and other federal agencies currently define them. EPA recognizes that some forest roads are built initially to support logging activities but later serve other purposes that may or may not continue to include support for logging activities. EPA requests comment on the way in which states, tribes, and other federal agencies distinguish among such forest roads.

2. EPA seeks comment on the implementation, effectiveness, and scope of existing federal, state, local, tribal, and other programs in addressing stormwater discharges from forest roads. EPA encourages submittal of specific information (for example, BMP implementation rates, effectiveness of implemented BMPs to protect water quality, pollutant reduction studies, audit results, and examples of adaptive management).

3. EPA requests comments on what specific elements of a forest road program are most important to ensure it is effective and protective of water quality. For example, forest road programs may include an inventory of forest roads; a requirement for BMPs; a systematic planning process for prioritizing and addressing water quality concerns related to stormwater discharges from existing roads; an accountability measure; an opportunity for public involvement in the development and management of the program; water quality monitoring to assess effectiveness of the program; and/or an adaptive management process to revise BMPs based on effective monitoring.

4. EPA also invites comments on what additional measures, consistent with federal law, could be implemented in existing programs to increase water quality protection from forest roads stormwater discharges where necessary.

IX. References

A list of references cited in this notice is available at http://www.regulations.gov/ under

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