Northwest Environmental Defense Center
Columbia Riverkeeper
Northwest Environmental Advocates

June 19, 2017

Stormwater Program Coordinator, 7th Floor
Department of Environmental Quality
700 NE Multnomah Street, Suite 600
Portland, OR 97232

Submitted via Email to: 1200zpubliccomment@deq.state.or.us

Re: Comments on the Department of Environmental Quality's Draft 1200-Z Industrial Stormwater General National Pollutant Discharge Elimination System Permit

Dear Stormwater Program Coordinator:

The Northwest Environmental Defense Center ("NEDC"), Columbia Riverkeeper, and Northwest Environmental Advocates ("NWEA") (collectively "Commenters") respectfully submit the following comments to the Oregon Department of Environmental Quality ("DEQ") on the Clean Water Act ("CWA") 1200-Z Industrial Stormwater General National Pollutant Discharge Elimination System Draft Permit (hereafter "draft permit"). NEDC and Columbia Riverkeeper submitted public comments during the March 2017 comment period. DEQ did not issue a response to comments; however, it does not appear that DEQ revised the permit in response to the vast majority of NEDC and Columbia Riverkeeper's comments. In turn, Commenters submit the following comments, which include many issues raised in March 2017.

Stormwater runoff is a significant threat to Oregon's waterways. As a result, the issuance of this permit provides an important opportunity to achieve real improvements in water quality through the implementation of protective terms and conditions that will direct how industrial facilities manage and treat stormwater runoff. Therefore, we strongly encourage DEQ to adopt a permit that recognizes and reduces stormwater runoff's considerable contribution to water pollution. To this end, federal and state law enable and require DEQ to protect Oregon's waterways to a significantly greater degree than DEQ's draft permit provides. We urge DEQ to exercise its existing legal authority to design a permit that achieves real results for Oregon's waterways.

Proper and effective management of stormwater runoff to protect water quality is both necessary and attainable in Oregon. DEQ must act to protect Oregon's water quality, iconic fish and wildlife populations, and the use and enjoyment of our streams and rivers, now and in the future. To accomplish these goals, DEQ must craft a permit that establishes specific, clear,

measurable, and enforceable terms detailing what is required to eliminate the discharge of pollutants from industrial sites, protect water quality, help recover the most imperiled streams and rivers, and implement management measures that achieve these goals. We believe that DEQ's draft permit falls short of the mark. Generally, as discussed in detail below, the permit fails to 1) include the detail necessary to ensure compliance with the requirements of the CWA, 2) ensure that the dischargers will use the best treatment and control technology, 3) ensure the protection of designated and existing uses, 4) protects water quality, 5) protect and restore already degraded waterbodies, and 6) require the necessary and appropriate monitoring and reporting requirements. As drafted, the permit reflects DEQ's lack of resources to oversee the industrial stormwater program, not the requirements of federal and state law.

STORMWATER IS A PRIMARY CAUSE OF WATER QUALITY IMPAIRMENT

Stormwater runoff is one of the largest, if not *the* largest, threats to water quality in Oregon. In addition to carrying "conventional" pollutants (*e.g.* increased temperature, pH, low dissolved oxygen, and turbidity), stormwater runoff also contains large loads of toxic pollutants such as heavy metals, oil and grease, pesticides, and organic compounds. Stormwater runoff from residential, commercial, and industrial areas is responsible for 21 percent of impaired lakes and 45 percent of impaired estuaries in the United States. These impacts are caused by both the types of materials carried in runoff and the quantity of runoff, as a high volume of flow contributes to erosion and sedimentation, and affects aquatic habitats. Of the 11 pollution source categories listed in EPA's National Water Quality Inventory: 2000 Report to Congress, urban runoff storm sewers was ranked as the fourth leading source of impairment in rivers, third in lakes, and second in estuaries.

In particular, stormwater runoff from roads contains "a complex mixture" of chemical pollutants from motor vehicles "in the form of exhaust, leaking crankcase oil and wearing of [brake pads and tires]." Julann A. Spromberg et al., *Coho salmon spawner mortality in western US urban watersheds: biolinfiltration prevents lethal storm water impacts*, 53 J. Applied Ecology 398, 405 (2016) (Exhibit 1). Pollution from stormwater runoff degrades water quality, impairs beneficial uses, and damages aquatic ecosystems. Of particular concern in Oregon, stormwater runoff from developed areas has been directly linked to recurring, acute mortality events in salmonid populations, the recurrence of which is known as "mortality syndrome" or "urban stream syndrome." Spromberg, *supra*, at 405. A study on the effects of salmonid exposure to highway stormwater runoff revealed that, regardless of variations rainfall conditions and water chemistry, urban highway runoff was "100% lethal to otherwise healthy adult [salmonids]." *Id*. at 402. Adult salmonids exposed to untreated runoff became symptomatic or died within hours of exposure to unfiltered runoff, and those that survived the initial exposure died within 24 hours. *Id.* at 402-404.

Dissolved copper is "worthy of particular scrutiny" because it is "highly toxic to broad range of aquatic species," including multiple species of fishes and invertebrates. Scott A. Hecht et al., *An overview of sensory effects on juvenile salmonids exposed to dissolved copper: Applying a benchmark concentration approach to evaluate sublethal neurobehavioral toxicity*, 7

(Oct. 2007) [hereinafter *White Paper*] (Exhibit 2).[1] In 2012, the National Marine Fisheries Service issued a jeopardy decision under the Endangered Species Act, finding that Oregon's 2004 chronic aquatic life water quality standard for copper would jeopardize the continued existence of endangered species in Oregon. Copper is commonly introduced to the aquatic ecosystem through runoff containing pollutants from "[v]ehicle emissions and brake pad dust," as well from mining and industrial processes. *Id.* at 7. Copper pollution is of particular concern to Oregon's salmon populations because, even at low concentrations, dissolved copper is a "potent neurotoxicant" that causes direct damage to salmonids' sensory functions. *Id.* at 7. Sensory damage caused by exposure to dissolved copper includes impairment of sensory neurons in the noses of salmonids and of juvenile predator detection and avoidance behaviors. *Whitepaper, supra*, app. at 22. Copper exposure in salmonids also reduces homing abilities and disrupts both upstream and downstream spawning and migration in both adults and juveniles, resulting in reduced reproductive success. *Id.* at 25-27. Further negative effects of salmonid exposure to copper include "decreased immune function and disease resistance, increased susceptibility to stress, liver damage, reduced grown, impaired swimming performance, weakened eggshells, and direct mortality. *Id.* at 29.

The impacts of pollution from stormwater runoff can be, and should be, managed to protect water quality in Oregon. Stormwater management techniques such as bioinfiltration, soil columns, and other low impact and green stormwater infrastructure (GSI) technologies are an inexpensive, promising solution to improving water quality. Spromberg, *supra*, at 405. When used to treat pre-treat runoff, GSI soil bioinfiltration "effectively prevented the acutely lethal toxicity" of highway stormwater. *Id.* at 406. Although infiltration did not completely remove the measured contaminants, the treatment "completely prevent[ed] the lethal effects and sublethal symptomology caused by untreated [stormwater runoff]." *Id.* at 402 (salmonids "exposed to filtered run-off survived and showed no behavioral symptoms at either 4 or 24 h[ours after exposure]"). As such, GSI technologies possess great potential for effective, inexpensive measures to improve water quality and protect aquatic ecosystems.

THE CLEAN WATER ACT

Since 1972, the Clean Water Act has regulated discharges of pollutants from point sources into waters of the United States through the National Pollutant Discharge Elimination System (NPDES) permitting program. The NPDES permitting framework has proven both extraordinarily effective, and extraordinarily flexible, in regulating a vast range of pollutant sources. If DEQ were to finally regulate stormwater discharges as Congress intended, the

[1] (unpublished technical white paper, prepared by Off. Protected Res., Nat'l Marine Fisheries Serv.) (white paper available at http://www.ecy.wa.gov/programs/wq/stormwater/industrial/iswgpdraftpubcom/2007/nmfscopper2.pdf) (attachment to Letter from Steven W. Landino, Wash. St. Dir. Habitat Conservation, Nat'l Marine Fisheries Serv. to Mike Gearhard, Dir., Off. Water and Watersheds, U.S. Envtl. Prot. Agency, Region 10 (May 4, 2007) (letter available at http://www.ecy.wa.gov/programs/wq/stormwater/industrial/iswgpdraftpubcom/2007/nmfs.pdf))

NPDES permit program would be equally effective in reducing the harmful effects of these discharges.

The CWA prohibits any person from discharging pollutants from a point source into waters of the United States except as authorized by a permit issued pursuant to Section 402 or 404 of the CWA. 33 U.S.C. § 1311(a). Section 402 of the CWA establishes the NPDES permitting scheme for discharges of pollutants, and thus establishes the framework under which discharges of oil and grease, heavy metals, and other pollutants from stormwater would be regulated. Substantively, the NPDES program requires dischargers to meet both technology-based effluent limitations and any more stringent effluent limitation necessary to meet water quality standards. 33 U.S.C. §§1311(b)(l)(a)-(c).[2]

Specifically, each discharger must meet minimum technology-based treatment requirements. Section 402 states that all permits must meet all applicable requirements under CWA section 301. 33 U.S.C. § 1342(a)(1). Section 301, in turn, requires all discharges to achieve, at a minimum, best practicable control technology ("BPT"). 33 U.S.C. § 1311(b)(1)(a). Discharges of toxic pollutants must be treated pursuant to the best available technology (BAT), 33 U.S.C. § 1311(b)(2)(A), and other pollutant discharges must comply with best conventional technology ("BCT"). 33 U.S.C. § 1311(b)(2)(E). Each of these treatment categories is translated into effluent limitations, which must be reflected in permits as restrictions on rates, quantities, and concentrations of pollutants.

EPA has primary responsibility for identifying BPT, BCT, and BAT and converting these technology controls into numeric effluent limitation guidelines for particular categories of industrial point sources. *See* 33 U.S.C. § 1314(b). In developing these guidelines, EPA must consider the cost of the application of the particular technology in relation to pollutant reductions that will be achieved, as well as the age of the facilities involved, the processes used, engineering processes, and other relevant factors. *Id*. Once EPA establishes effluent limitation guidelines for a particular industrial point source category, permitting agencies must apply any applicable guidelines to all point source discharges within that category. As a result of this process, certain industrial dischargers benefit from uniform technology-based controls and effluent limitations throughout the country.

EPA has not yet established effluent limitation guidelines for all categories and classes of industrial point sources, however. Where no such uniform guidelines exist, permitting agencies establish technology-based effluent limitations based on the agency's "best professional judgment." *See* 33 U.S.C. § 402(a)(1)(B); 40 C.F.R. § 125.3. As with EPA's development of effluent limitation guidelines, the establishment of effluent limitations based on BPJ includes a consideration of the cost of the application of the particular technology in relation to pollutant reductions that will be achieved, as well as the age of the facilities involved, the processes used, engineering processes, and other relevant factors. 40 C.F.R. § 125.3(d). These requirements

[2] An effluent limitation is "any restriction established by a State or the Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters . . .." 33 U.S.C. § 1362(11)

ensure that facilities are, on a case-by-case basis, subject to the most appropriate treatment controls.

In addition to implementing technology-based controls, each point source discharger must achieve "any more stringent limitation necessary to meet water quality standards, treatment standards, or schedules of compliance, established . . . or required to implement any applicable water quality standard established pursuant to this chapter." 33 U.S.C. § 1311(b)(1)(C); 33 U.S.C. § 301(b)(1)(C). Water quality standards establish the water quality goals for a water body. 40 C.F.R. § 131.2. They serve as the regulatory basis for the establishment of water quality-based controls over point sources, as required under § 301 and § 306 of the CWA. Water quality standards must include three elements: (1) one or more designated "uses'' of a waterway; (2) numeric and narrative "criteria" specifying the water quality conditions, such as maximum amounts of toxic pollutants, maximum temperature levels, and the like, that are necessary to protect the designated uses; and (3) an antidegradation policy and implementation methods that ensure that "[e]xisting instream water uses and the level of water quality to protect the existing uses [will] be maintained and protected" and that high quality waters will be maintained and protected. 33 U.S.C. §§ 1313(c)(2), 1313(d)(4)(B); 40 C.F.R. Part 131, Subpart B. Once water quality standards are established for a particular water body, any NPDES permit authorizing discharges of pollutants into that water body must ensure that the applicable water quality standard will be met.

The process of establishing effluent limitations that are then incorporated into NPDES permits allows industrial dischargers to have a clear, quantifiable understanding of the pollutant reductions they must achieve. The inclusion of objective, numeric limits also allows for easy enforcement of the CWA.

While the substantive requirements of the NPDES permit system form the heart of the CWA, the Act also establishes a transparent permitting and compliance process that empowers citizens and states to play an active role in protecting their environment. The CWA's emphasis on disclosure of public information also provides added incentive to industrial dischargers to remain in compliance with the law and to take steps to reduce their pollution.

The CWA emphasizes citizen participation at all phases of its implementation, and most particularly during the permitting process. Section 402 of the CWA requires, as a precondition to state assumption of the CWA's permitting program, that each state will provide for members of the public to receive notice of each permit application and have the opportunity for a public hearing before the state rules on the application. 33 U.S.C. § 1342(b)(3). States must make available to the public copies of each permit application and permit. 33 U.S.C. § 1342(j). Citizens may also challenge the terms of any permit issued by a delegated state. Citizens are thus given a significant role in the permitting process and, through that role, are provided the opportunity to influence the terms of any NPDES permit that may be issued. This role is meaningful, however, only where state agencies provide adequate information to citizens to enable them to comment effectively on proposed permit conditions.
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In addition to establishing a role for the public in the permitting process. Congress also recognized that regular monitoring and reporting requirements would ensure compliance with the CWA's substantive requirements. The CWA thus directs EPA to establish regulations necessary to determine whether permittees are complying with effluent limitations, standards or permit conditions. 33 U.S.C. § 1318(a)(2). To accomplish these goals, EPA must require point source owners or operators to establish and maintain records and reports, sample effluent, and allow entry by EPA or the state permitting agency, all for the purpose of ensuring compliance with the CWA. 33 U.S.C. § 1318(a)(2). In addition, any reports submitted by permittees must be available to the public. 33 U.S.C. § 1318(b). The public's right to this information, when combined with the right to enforce violations, has made the CWA one of the most successful environmental laws in the United States.

DISCUSSION

A. The Permit Must Include Clear, Measurable and Enforceable Effluent Limits

DEQ must revise the draft permit to include enforceable effluent limits. In place of technology-based and water quality-based effluent limitations, DEQ instead uses broad narrative limits, permittee-chosen Best Management Practices ("BMPs") identified in a Stormwater Pollution Control Plan ("SWPCP"), and benchmarks which are theoretically designed to determine whether BMPs work. The benchmark values, however, have no relationship to the BMPs' adequacy. Nor, in many instances, are the benchmarks set at levels that will ensure compliance with Oregon's water quality standards. The CWA, however, mandates that DEQ include technology-based and water quality-based effluent limitations in NPDES permits. Thus, the unenforceable "target concentrations" and BMP requirements proposed by DEQ do not comply with the CWA.

1. The Permit Must Include Technology Based Effluent Limits

a. DEQ Must Establish Technology-Based Numeric Effluent Limits

An overview of the statutory scheme shows that Congress intended for NPDES permits to contain enforceable effluent limitations. Prior to 1972, the CWA relied only on water quality standards. But the particular approach to water quality-based regulation at that time proved to be unworkable, as it was based not on individual discharge limits, but instead on state enforcement against a source after establishing that the sources was responsible for decreasing water quality. In place of this approach, the 1972 amendments instructed EPA to regulate the discharge of pollutants from sources by setting "effluent limitations" based on the leading technology and irrespective of the receiving water s quality.[3]

[3] As discussed further below, although the 1972 CWA amendments represented a shift to technology-based regulation, water quality standards remain an integral part of the regulatory scheme. To be sure, water quality standards may demand effluent limitations even more stringent than technology-based effluent limitations. *See* 33 U.S.C. §§ 301(b)(1)(C), 302(a), 33

In Section 301 of the Act, Congress established a scheme where those limitations were to become more stringent over time. Beginning in 1977, EPA was to set "effluent limitations" for existing sources based on "the best practicable control technology currently available." 33 U.S.C. § 1311(b)(1)(A). By 1989, existing source "effluent limitations" were to be based on the "best available technology economically achievable." 33 U.S.C. § 1311(b)(2)(A). Section 301(e) plainly states that "[e]ffluent limitations established pursuant to this section or section 1312 of this title shall be applied to all point sources of discharge of pollutants[.]" 33 U.S.C. § 1311(e). Thus, Section 301 clearly demonstrates that Congress envisioned technology-based controls to be applied through effluent limitations. This position is bolstered by reading Section 301 together with Section 304(b)'s direction to EPA to establish effluent guidelines based on varying levels of control technology. *See* 33 U.S.C. § 1314(b).

The legislative history of these provisions shows that Congress intended EPA to translate technology-based controls to numeric effluent limitation, rather than establish a set of practices to guide behavior. None of the standards described above "prescribe[s] a specific design or process in order to meet the requirements of best... technology[,] but instead [EPA] shall set out effluent limitations which are consistent with such . . . technology[.]" *See* H.R.Rep. No. 92-911, at 108 (1972), reprinted in 1 Comm. on Public Works, 93d Cong., A Legislative History of the Water Pollution Control Act Amendments of 1972, at 795 (Comm. Print 1973); *see also* S. Conf. Rep. No. 92-1236, at 128 (1972), reprinted in Legislative History, supra, at 311, U.S.C.C.A.N. 3776; *Natural Res. Def Council, Inc. v. U.S. EPA*, 822 F.2d 104, 108-10 (D.C. Cir.1987) (describing CWA legislative and regulatory history, and noting that the relevant CWA programs "impose effluent limitations"). Thus, Congress intended EPA to review the state of technology, determine what it required, and translate those requirements into effluent limitations. Congress did not intend, as DEQ has proposed, the techniques and practices themselves (i.e., the BMP provisions) to be the enforceable standards.

The CWA provisions regarding toxic pollutants also specifically mandate the use of effluent limitations in NPDES permits. Section 307 of the CWA sets requirements for discharges of toxic pollutants. Congress created a list of toxic pollutants regulated under this section and directed EPA to publish and revise the list from time to time. 33 U.S.C. § 1317(a)(1). Section 307(a)(2) states, in no uncertain terms, that each pollutant on the list of toxic pollutants ''*shall be subject to effluent limitations* resulting from the application of the best available technology economically achievable for the applicable category or class of point source established in accordance with sections 1311(b)(2)(A) and 1314(b)(2)" of the CWA. 33 U.S.C. § 1317(a)(2) (emphasis added). Thus, the Congressional mandate to use effluent limitations in permits could not be any clearer as it applies to toxic pollutants.

DEQ suggests that its reliance on narrative limits, and BMPs, is "consistent with the CWA and regulations for implementation of control measures contained in 40 CFR 122[.44](k)(4)." PER, Sec. 2.1. This assertion is dubious. The regulation DEQ cites allows for

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U.S.C. §§ 1311(b)(1)(C), 1312(a); *EPA v. State Water Res. Control Bd.*, 426 U.S. 200, 205 n. 12 (1976).

the use of BMPs in permits when "[t]he practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA." 40 C.F.R. § 122.44(k)(4). Thus under this regulation, BMPs, or a requirement that the permittee develop BMPs, may be included as a permit term or condition when doing so is necessary to ensure the permittee will comply with established effluent limits—they cannot stand in place of effluent limits. Therefore, this regulation does not relieve DEQ of the obligation to craft the limits in the first place, as it seems to suggest. Further, to the extent that the identification of the necessary BMPs, or the need to develop BMPs, to "carry out the purposes and intent of the CWA" does not change this analysis. The development of numeric effluent limits is mandatory, the use of BMPs to augment, and ensure that those limits are met, is permissive. 40 C.F.R. § 122.44(a)(1).

The question is then whether DEQ's narrative limits are sufficient. The answer is no. As discussed above, the CWA and its implementing regulations call for the development of numeric effluent limits. There is a limited exception to this requirement in EPA's regulations where the development of such limits is infeasible. 40 C.F.R. § 122.44(k)(2). This exception is not applicable here, as DEQ has demonstrated. And if it were applicable, DEQ would have to respond to that infeasibility finding in other ways, namely by establishing required BMPs. *Natural Res. Defense Council v. U.S. EPA*, 808 F.3d 556, 579 (2d Cir. 2015) ("*NRDC*"). In fact, DEQ has already begun establishing technology-based limits, albeit for the wrong reasons and applying the wrong standards. As discussed more below, DEQ development of the proposed copper benchmark for this permit demonstrates that it can create numeric effluent limits.

Indeed, the time has come for DEQ to embrace numeric effluent limits in its stormwater permits. Numeric effluent limits will provide the clarity and certainty that all interested parties want out of a permit. For the regulated community, permittees will know precisely what is expected of them, but they will be given the flexibility on how best to comply with the permit's requirements. For the public, numeric limits will provide certainty that if the permit is followed water quality will be protected. In addition, it will allow DEQ and citizens to understand better whether a facility is in fact complying with its permit, and to take the appropriate steps when a violation is observed. For DEQ, moving to numeric effluent limits will simplify the permit and the oversight obligations. Over the past two decades DEQ and the regulated community have gained considerable expertise in managing stormwater. As DEQ notes under the previous iterations of the permit, the community has regularly met the benchmarks. It is incumbent on DEQ analyze the technologies used to achieve those results and distil that information into numeric effluent limits.

b. The Permit Must Include Appropriate Technology-Based Effluent Limits

Regardless of the form of the effluent limits ultimately chosen, the permit must include a clear requirement that dischargers will comply with the Best Available Technology Economically Achievable ("BAT") and the Best Conventional Pollution Control Technology ("BCT") standards. The draft permit fails to impose, or even reference, these requirements.

Indeed, the draft permit removes the only language that acknowledged these standards. The new draft, proposes instead the following language:

> For technology based effluent limits that require permit registrants to minimize pollutants in the discharge, permit registrants must reduce or eliminate pollutants to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice.
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> * * *
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> The term 'minimize' means" [sic] reduce or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practice. The term 'infeasible' means not technologically available or not economically practicable and achievable in light of best industry practice.

Permit, Sch.A.1 and A.3.b. These provisions are inconsistent with the Clean Water Act's definitions of BAT and BCT. By failing to require compliance with BAT and BCT, the permit replaces the statutory criteria mandated to implement and achieve BAT and BCT with a truncated and subjective evaluation by individual dischargers of what pollution reduction is "achievable" with BMPs. The focus on BMPs rather than BAT and BCT appears designed to suggest to dischargers that they can comply with the permit without actually implementing the best technologies.

The Act sets forth the specific criteria that DEQ or, in the case of the proposed stormwater permit, individual dischargers, must take into account when determining BAT and BCT. 33 U.S.C. § 1314(b)(2)(B). As for BAT:

> Factors relating to the assessment of best available technology shall take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, the cost of achieving such effluent reduction, non-water quality environmental impact (including energy requirements), and such other factors as the Administrator deems appropriate.

Id. *See also* 40 C.F.R. § 125.3(c)(3). Unlike the lesser standard of best practicable control technology established for the early years of implementation of the Clean Water Act, a BAT-based effluent limitation does not take into account any cost-benefit analysis. *See American Paper Institute v. Train*, 543 F.2d 328, 346 (D.C. Cir. 1976). "[T]he reasonableness of what is 'economically achievable' should reflect an evaluation of what needs to be done to move toward the elimination of the discharge of pollutants and what is achievable through the application of available technology - without regard to cost." *American Frozen Food*, 539 F.2d at 120-21.

Likewise, the Clean Water Act establishes very specific criteria for determining BCT. BCT is only relevant to five pollutants: TSS, O&G, pH, BOD and fecal coliform. 40

C.F.R. § 401.16. The factors that must be considered to determine BCT include:

> [C]onsideration of the reasonableness of the relationship between the costs of attaining a reduction in effluents and the effluent reduction benefits derived, and the comparison of the cost and level of reduction of such pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources, and shall take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, non-water quality environmental impact (including energy requirements), and such other factors as the Administrator deems appropriate.

33 U.S.C. § 1314. *See also* 40 C.F.R. § 125.3.

In the absence of any BCT determination by the DEQ (or EPA), it is left to each discharger to apply the BCT criteria. In doing so, each facility must determine that its BCT implementation "will directly - not just incidentally - reduce [the relevant pollutant] and do so better than any other pollutant control technology." *Waterkeeper Alliance, Inc. v. United States EPA*, 399 F.3d 486, 519 (2d Cir. 2005).

Even assuming the permit language is based on best professional judgment, which requires DEQ to evaluate the BAT and BCT criteria set forth in the Clean Water Act and implementing regulations, here the Fact Sheet makes clear that DEQ has not done any analysis that supports altering in any way Congress' BAT and BCT criteria, or how those criteria might be applied to industrial stormwater discharges on a facility-by-facility basis. As a result, the permit's effluent limitations must clearly require each discharger to implement BAT and BCT. Any alteration in those criteria would be inconsistent with the Clean Water Act and invites dischargers to randomly select BMPs based on their subjective notion of "best industry practice" and some loose consideration of "technological availability" and "economic achievability."

At no point does DEQ address how the draft permit will ensure compliance with these standards. In fact, the draft permit removes the only language that referenced the appropriate factors to be considered when selecting the appropriate technology for eliminating stormwater runoff. To correct this DEQ must ensure the permit expressly requires the development of a pollution control plan that reflects the BAT and BCT requirements. This will require the permittee to identify not only the measures that will be implemented, but also identify and justify each minimum BMP or applicable advanced BMP not being implemented at the facility because they do not reflect best industry practice considering technological availability and economic achievability and are not necessary to implement BAT and BCT at the facility.

2. The Permit Must Include Water Quality-Based Effluent Limits

"No permit may be issued: . . . [w]hen the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States." 40 C.F.R. § 122.4(d). Thus, NPDES permits must include effluent limits for all pollutants that are or may be

discharged at a level "which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." 40 C.F.R. § 122.44(d)(1)(i); *id*. § 122.44(d)(1)(vii)(A) (WQBELs must be "derived from" and comply with all applicable water quality standards); *see also NRDC,* 808 F. 3d at 498 ("EPA acted arbitrarily and capriciously in issuing the WQBELs because they violate section 1342's requirement that NPDES permits ensure compliance with the CWA. *Cf. Waterkeeper All*., 399 F.3d at 498.").

a. DEQ Must Complete a Reasonable Potential Analysis Before it Issues the Permit

DEQ must complete a reasonable potential analysis ("RPA"). An RPA assesses whether a particular discharge has the potential to cause or contribute an excursion above applicable water quality standards. This analysis allows the permit writer to assess whether a permit must include water quality-based effluent limitations. Without this information, DEQ cannot adequately regulate stormwater discharges. The Permit Evaluation Report does not mention whether an RPA was conducted or will be conducted on point sources discharging under the 1200-Z Permit.

The Ninth Circuit has held that the Clean Water Act requires the EPA to include in permits whatever effluent limitations it determines are necessary to achieve the state water quality standards. *Trustees for Alaska v. Environmental Protection Agency*, 749 F.2d 549, 557 (9th Cir. 1984). DEQ must use the RPA to determine what effluent limitations are needed to achieve the water quality standards set forth for the water bodies covered by the permits.

b. A Blanket Narrative Condition and Corrective Action Requirement is Not a Water Quality-Based Effluent Limit that Ensures Compliance with Water Quality Standards

In Schedule A.4 of the draft permit, DEQ proposes a blanket narrative condition that the discharge "must not cause or contribute to a violation of water quality standards" and that in the event that the discharge does cause or contribute to a violation of standards the permit registrant "must take [] corrective actions." Permit, Sch.A.4. While this narrative condition does state the law, it does not *ensure* that discharges authorized by this permit will comply with water quality standards. *See* 40 C.F.R. § 122.4(d) (No permit may be issued "[w]hen the imposition of conditions cannot *ensure* compliance with the applicable water quality requirements of the affected States[.]") (emphasis added). *See NRDC*, 808 F.3d at 578 (simple narrative condition does not ensure compliance with water quality standards because it fails to give specific guidance on discharge limits). In *NRDC*, the Second Circuit also found that a requirement to take corrective action after a violation, as found in Schedule A, failed to meet the law's requirement that a permit prevent discharges that violate water quality standards before they happen. *Id*. DEQ's proposed permit fails to meet federal and state requirements for NPDES permits to ensure authorized discharges comply with water quality standards.

c. The Permit Must Ensure Compliance with all Water Quality Criteria

Regardless of the form of the permit's effluent limits ultimately take, the permit must ensure compliance with all applicable water quality criteria.

i. Human Health Criteria

In 2011, the State of Oregon adopted the most protective water quality standards for toxics in the nation, the so-called "fish consumption rulemaking." This historic decision to revise Oregon's human health criteria water quality standards followed years of hard work by Columbia River tribes and others to convince the Environmental Quality Commission and DEQ to do the right thing for people who rely on our rivers for sustenance. The draft permit ignores the human health criteria. In so doing, DEQ misses an opportunity to monitor and reduce pollutants that threaten public health.

DEQ should reconsider its decision to exclude the human health criteria in developing permit requirements. DEQ's permit evaluation fact sheet is silent on the topic of developing benchmarks based on human health criteria. However, in past permit iterations, DEQ provided rationale for ignoring human health criteria in permit development. Specifically, the agency reasoned: (1) stormwater discharges are intermittent and result in short-term exposures, (2) DEQ developed the human health criteria based on a 70 year exposure, and (3) compliance with the human health criteria is difficult to determine based on a single grab sample.

Each of these rationales fails to withstand any real scrutiny. First, in past responses to comments, DEQ failed to address why the intermittent nature of stormwater protects designated uses from persistent bioaccumulative toxic pollutants. DEQ must address how the industrial stormwater permit complies with human health criteria for persistent bioaccumulative toxic pollutants. Second, DEQ must explain how its rationale that human health criteria development are based on 70 year exposure squares with the fact that DEQ issues individual NPDES permits for a five year period. For example, if the 70 year exposure timeframe matters for applicability to industrial stormwater permits, why should the human health criteria apply to permits that authorize five years of discharge (*i.e.*, an individual NPDES permit)? Third, DEQ must explain, on a pollutant-by-pollutant basis, why compliance with the human health criteria is difficult to determine based on a single grab sample. In addition, DEQ must explain why compliance with water quality standards must meet a threshold test of only requiring a single grab sample.

DEQ should reevaluate its rationale for failing to require that permittees comply with the human health criteria by imposing numeric effluent limits or, at a minimum, benchmark requirements.

ii. Chronic Aquatic Life Criteria

Similarly, DEQ has not ensured the permit will result in compliance with chronic aquatic life criteria. Acute toxicity levels are inappropriate as the foundation for the benchmarks for two reasons. First, they fail to reflect the possible chronic effects of the frequent and long-term

stormwater events that often occur in Oregon. Second, they fail to recognize the potential for bioaccumulation of certain pollutants, which necessarily persist beyond the allegedly "short-term" occurrence of stormwater events.

DEQ provides no justification for setting benchmarks based on acute toxicity in the permit evaluation. In the past DEQ has claimed that the acute criteria are the appropriate target because those standards reflect the short-term nature of stormwater discharges. However, as should be apparent this winter, many parts of Oregon receive significant and frequent rainfall. Frequent, long-lasting storm events are likely to lead to chronic toxicity for many organisms even where stormwater discharges comply with the benchmarks. Therefore, DEQ's decision to base benchmarks on acute toxicity levels is inappropriate.

Moreover, DEQ's decision to use acute criteria fails to recognize that certain pollutants, such as lead, chromium, and other heavy metals, bioaccumulate in aquatic organisms. By definition, the effects of bioaccumulative pollutants persist beyond the immediate period of the discharge.

Commenters urge DEQ to evaluate biological opinions and National Marine Fisheries Service ("NMFS") public comments on the topic of industrial stormwater and aquatic life criteria. For example, public comments on the Washington Industrial Stormwater General Permit filed by NMFS address a copper benchmark that are *more protective* than those proposed in the draft permit, yet NMFS concludes that it does "not believe these proposed benchmark levels avoid more than minor detrimental effects to listed salmon and steelhead." Letter from NMFS to the Washington Department of Ecology at 2 (July 15, 2009) (Exhibit 3). Specifically, NMFS states:

> We have identified in the past through meetings, e-mails, and correspondence (between NMFS, EPA and Ecology) our concerns about copper and zinc levels allowed by this permit. Adverse effects of dissolved copper and zinc on listed salmon occur at very low levels (values ranging from 0.18 to 2.1 µg/L in freshwater for copper (Hecht et. al, 2007) and at 5.6 µg/L in freshwater for zinc (Sprague 1968)). Adverse effects of copper include interference with fish sensory systems and important behaviors that underlie predator avoidance, juvenile growth and migratory success. These effects occur at pollutant levels that are 6 to 77 times lower than the proposed benchmark level for total copper (14 µg/L). Similarly, adverse effects of zinc include altered behavior, blood and serum chemistry, impaired reproduction, and reduced growth. These effects occur at pollutant levels that are 35 and 45 times lower than the proposed total zinc benchmark levels (200 µg/L for Western Washington and 255 µg/L for Eastern Washington). In addition, the proposed benchmark level for zinc in this permit (200 and 255µg/L total Zn) is higher than the level proposed for the 2007 Industrial permit (115 µg/L total Zn). *We do not believe these proposed benchmark levels avoid more than minor detrimental effects to listed salmon and steelhead.*

Id. Commenters also note that the proposed Columbia Slough zinc benchmark of 0.24 mg/L is higher than the zinc benchmark NMFS concludes is not protective of listed species. We encourage DEQ to request NMFS's expert input on the draft permit based on the agencies comments on Washington state benchmarks similar to those proposed in the draft permit. NMFS's expert input on the Washington permit supports revising the draft permit to ensure compliance with chronic aquatic life criteria.

iii. Narrative Criteria

DEQ has failed to ensure the permit will comply with the Oregon's narrative water quality criteria. The permit evaluation report in fact fails to mention narrative criteria at all. This is patently unlawful. *See* 40 C.F.R. § 122.44(d)(1) (every NPDES permit must include the requirements necessary to "Achieve water quality standards established under section 303 of the CWA, *including State narrative criteria for water quality*.")(emphasis added).

Specifically, DEQ must ensure that "the highest and best practicable treatment and/or control of wastes, activities, and flows" have been used in this case "so as to maintain dissolved oxygen and overall water quality at the highest possible levels and water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor, and other deleterious factors at the lowest possible levels." OAR 340-041-0007(1). Similarly, DEQ must also address whether there are any "less stringent natural conditions" that "exceed[] the numeric criteria" for the waterbodies, and thus "supersede[] the numeric criteria and becomes the standard for that water body." OAR 340-041-0007(2). Finally, DEQ must ensure that the permit include limits necessary to prevent the creation of a condition that is deleterious to fish. OAR 340-041-0007(11).

d. DEQ Must Conduct a Lawful Antidegradation Review

As DEQ notes in the permit evaluation report, before it may issue a permit it must demonstrate that discharges will not lower water quality from the existing condition. Despite this acknowledgement, DEQ has wholly failed to make this showing. For all waters the"[e]xisting in stream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." 40 C.F.R. § 131.12(a)(1); 40 C.F.R. § 131.3(e) ("*Existing uses* are those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards."). This level of protection is the absolute floor of water quality. Questions and Answers on: Antidegradation, EPA Office of Water Regulations and Standards, August 1985, at 4. Oregon's antidegradation policy mirrors the federal language, requiring the protection of "all existing beneficial uses" from "point and nonpoint sources of pollution." OAR 340-041-0004(1).

The draft permit will unquestionably result in a measurable change in water quality *as compared to water not impacted by anthropogenic sources*. *See* DEQ, Antidegradation Policy Implementation Internal Management Directive for NPDES Permits and Section 401 Water

Quality Certifications, 16 (March 2001) (emphasis added) ("Antidegradation Policy IMD").[4] DEQ's analysis, however, fails to follow its regulations. At the heart of any antidegradation analysis will be a determination of whether the receiving water is an Outstanding Resource Water, a High Quality Water or a Water Quality Limited Water. Such a determination is made based, in part, on whether the water body is "water quality limited," as defined under OAR 340-041-0002(71). Based on this information, DEQ can then determine how to apply Oregon's antidegradation rule. For example when a waterbody is considered High Quality Water, because it is not in violation of water quality criteria, "that water quality must be maintained and protected." OAR 340-041-0004(6). Therefore, absent grounds for allowing an exception to the rule, DEQ must ensure that the action will not lower the existing water quality. As DEQ has stated, "[a] reviewer from DEQ may conclude that if a pollutant is in the pollutant stream, then the discharger/applicant/source has the burden of proof to show that there is no consequent lowering of water quality." Antidegradation Policy at 16. For Water Quality Limited Waters, in turn, no additional pollutant loading can be allowed, except in very limited circumstances. OAR 340-041-0004(7) ("Water quality limited waters may not be further degraded except" in limited circumstances). Thus, the antidegradation policy in this context should more appropriately be called a "non-degradation" policy, as it prohibits degradation.

First, DEQ has not implemented these standards. Instead, DEQ appears to conflate compliance with water quality criteria with compliance with the Antidegradation policy. Specifically, DEQ claims that "[b]enchmarks in the permit are established to ensure that water quality standards are met in receiving waters and designated beneficial uses are protected." Even if were true, which in many instances it is not, DEQ provides no evidence of how it reaches this conclusion.

Second, DEQ claims that "[b]enchmarks in DEQ's industrial stormwater general permits have become more stringent over time" and "[t]hus, for permit coverage that has already been assigned, there will be no lowering of water quality." This statement is also not accurate. As noted elsewhere, in several instances DEQ is proposing to raise the benchmarks in this permit. In those cases where DEQ has proposed to raise the benchmarks for some toxics, it is in fact more likely than not the proposed permit will result in the degradation of some waters.

Third, DEQ states that it "considers that use of less than 10% of assimilative capacity in a receiving water is considered de minimis and not a lowering of water quality and is thus not subject to a Tier 2 antidegradation review." This conclusion is confounding. This standard is not found in DEQ's regulations or even guidance. Thus, it is inapplicable here. Moreover, it appears to conflict with DEQ's regulations that state:

[4] Notably, in this instance DEQ may not rely on exclusively its Antidegradation Policy IMD. The Environmental Protection Agency has found that the IMD is inconsistent with federal law, in particular with regard to its application to general permits. *See* The EPA's Review of Portions of Oregon's March 2001 Antidegradation Policy Implementation Internal Management Directive for NPDES Permits and Section 401 Water Quality Certifications (August 8, 2013). To date, DEQ has not updated it IMD to comply with federal law.

> Oregon's water quality management policies and programs recognize that Oregon's water bodies have a finite capacity to assimilate waste. Unused assimilative capacity is an exceedingly valuable resource that enhances in-stream values and environmental quality in general. Allocation of any unused assimilative capacity should be based on explicit criteria.

OAR 340-041-0004(9)(c). There is no explanation of how DEQ developed its new 10 percent, de minimus standard, articulated here. Moreover, nothing in DEQ's proposed permit demonstrates how DEQ proposes to assess remaining assimilative capacity of the waters into which each of the permittees intends to discharge. Remaining assimilative capacity is not a fact that can be assumed; it must be measured and evaluated.

Moreover, DEQ claims that "[i]f an assignment of new permit coverage would result in use of greater than 10% of assimilative capacity for any pollutant, DEQ may require a Tier 2 antidegradation review or may require more stringent benchmarks to ensure that there is no lowering of water quality." It is unclear how DEQ would assess compliance with this standard, or where in the permit it has retained the authority to implement lower benchmarks for a new facility.

DEQ's "less than 10% of assimilative capacity" standard also runs counter to analogous attempts by Ecology to use risk analysis and dilution assumptions to develop permit targets. For example, in comments submitted by NMFS on the Washington Industrial Stormwater Permit, NMFS states:

> The proposed permit targets for the Industrial permit are based on a water quality risk evaluation that examines the risk of exceeding acute water quality standards (Herrera Environmental Consultants 2009). For this analysis, Ecology determined that the proposed benchmarks and action levels should be considered based on a dilution factor of 5 and a 10 percent risk for exceeding the applicable water quality standard for each metal. While this may be a viable approach for setting benchmark levels across a broad range of facility types and receiving waters, it is not an approach that provides adequate protection for listed salmon. We cannot accurately assume that a dilution factor of 5 will always be provided where listed salmon are present. Nor can we accurately assume that a 10 percent risk of exceeding applicable water quality standards will not have adverse effects on listed fish, particularly when we know that current water quality standards for some pollutants (particularly copper and zinc) already exceed levels that result in adverse effects for listed salmon and steelhead. Therefore, we do not believe more than minor detrimental effects to listed salmon and steelhead will be avoided.

Letter from NMFS to the Washington Department of Ecology at 3 (July 15, 2009) (Exhibit 3). DEQ should revise the permit and conduct a lawful antidegradation review.

Finally, DEQ asserts that the permit is consistent with the antidegradation policy because there "are a relatively consistent number of facilities operating under the permits at any time." Specifically, DEQ notes "[s]ince July 2011, the number of facilities under each permit has not varied over ± 3.5% of their respective averages." Based on this, DEQ concludes "[t]o the extent that there is any additional load from a net increase in facilities, it will be offset by the lowered benchmarks concentrations and the higher level of corrective actions in the new permits." Again, as discussed, this conclusion cannot be supported when DEQ has in fact proposed to increase benchmarks in some instances. Regardless, the number of permittees is not the correct measure of the potential impact to the environment. The size and types of facilities, the amount of impervious area, the types and concentration of pollutants, and the controls and measures implemented at the new facilities all are much more important factors in determining whether the permit conditions will protect existing water quality.

3. Copper, Lead, and Zinc

Based on the preceding analysis it is abundantly clear the approach to regulating copper pursed by DEQ is patently unlawful. As noted above, for every permit DEQ must first determine what technology based limits it must impose on each discharger. After that analysis is complete, DEQ must then determine if any more stringent limitations are necessary to ensure compliance with water quality standards. Based on the answers to those two questions, DEQ must set the permit terms to reflect the more protective of the two suites of controls. Here, DEQ turns this fundamental principle on its head. Specifically, the draft permit is proposed copper limits appear to be based on the weaker of the two potential standards.

In the previous iteration of the permit, DEQ refused to establish a water quality-based limit for copper, claiming that the dischargers would not be able to meet the requirements. This is not a lawful excuse for not including required permit limits. Not only is DEQ poised to repeat this mistake, it has gone one step further and has proposed to use the calculated water-quality based limit to abandon its technology-based limit for several areas in the state.

As DEQ notes, the water quality standard for copper was recently revised based on the biologic ligand model ("BLM"). To account for this change, DEQ claims to have *begun* the process of conducting "risk-based modeling" to develop water quality based copper benchmark concentrations. For this process, DEQ has divided the state into five georegions--Cascades, Coastal, Columbia River, Eastern, and Willamette Valley--and the Columbia Slough and Portland Harbor. DEQ then selected a subset of the available water quality data in those areas to run the BLM. Specifically, DEQ excluded information from "sites in remote mountain areas, or in areas that are primarily agricultural," as these areas "would not be representative of industrial stormwater receiving waters." After these areas were removed, DEQ was left with water quality data from sites on major rivers, sites on smaller creeks and channels in developed areas, and sites on smaller creeks and channels "that didn't fit into the above categories." DEQ, however, excluded information from this last category, claiming "statistical summaries of important parameters" demonstrated that "water quality in the first two categories was very similar, but different from water quality in the [final] categor[y]." What these differences were and why that warranted exclusion was not explained.

DEQ's restrictive analysis is troubling for several reasons. First, the draft permit, if issued, will be available to all eligible industrial facilities throughout the state. There is no limitation that those facilities be located only on major rivers or small creeks or channels in developed areas. As a result, by excluding other areas from the analysis, DEQ has likely drafted a permit that is not truly protective of water quality. Second, DEQ fails to explain how its analysis and proposed copper limits address the fact that the water quality on small streams and channels in undeveloped areas was "different." By expressly excluding these areas from the calculations, DEQ has failed to ensure that these waterbodies will be protected under this permit. As a result, DEQ cannot proceed until it has completed a thorough analysis of the potential receiving waters, and developed permit conditions that will ensure compliance with WQSs in all situations.

Setting this aside, what is even more concerning is what DEQ has proposed to do with the results of its analysis. As noted above, in the previous iteration of the 1200-Z permit, DEQ refused to set a water quality-based copper benchmark because it believed that "[a]ffordable and feasible treatment technologies are not readily available to meet the modeling results for copper of 6 µg/L for the 1200-Z permit." Instead, DEQ "[d]eveloped a technology based benchmark to increase the likelihood that facilities will succeed in meeting the new copper benchmark." That benchmark was set at 0.020 mg/L. The 1200-COLS permit included a water quality based benchmark of 0.036 mg/L.

For the new permit, DEQ calculated a copper benchmarks of 0.020 mg/L.

As discussed above, DEQ has the duty to ensure that the permittees will use the appropriate technology to reduce or eliminate the discharge of pollutants from industrial facilities. Here, DEQ has done the analysis and reduced this technology-based requirement to a numeric limit, 0.020 mg/L. Again, the imposition of the appropriate technology-based effluent limits is of primary importance under the NPDES permitting program. It would be wholly inconsistent with the statutory and regulatory scheme to fail to impose the necessary technology based limits. Thus, where DEQ has defined the appropriate limits, it must include those limits in the permit.

Turning to the other regions where DEQ determined the water quality based benchmark was below 0.020 mg/L, DEQ's re-imposition of the technology-based benchmark is patently illegal. Again, as discussed above, after the permitting authority determines the appropriate technology based limits, it must impose "any requirements in addition to or more stringent than promulgated effluent limitations guidelines or standards . . . necessary to [a]chieve water quality standards . . .." 40 C.F.R. § 122.44(d). There is no justification for DEQ's decision to ignore this explicit requirement. *NRDC* at 579 (a water-quality based effluent limit cannot be based on merely incorporating the requirements of a technology-based limit).

Finally, DEQ calculation of BAT for copper fails to comply with the statutory and regulatory requirements. Again, the BAT standard sets a high bar. Congress fully expected that, for any given category of dischargers, application of BAT would result in the closure of some

facilities. *American Iron & Steel Institute v. EPA*, 526 F.2d 1027, 1051-1052 (3d Cir. 1975) ("Congress clearly contemplated that cleaning up the nation's waters might necessitate the closing of some marginal plants."). Nor is the average performer within a category of dischargers representative of BAT. "[R]ather than establishing the range of levels in reference to the average of the best performers in an industrial category, the range should, *at a minimum*, be established with reference to the *best performer* in any industrial category." *American Paper Institute*, 543 F.2d at 346 (emphasis added). *See also American Meat Institute v. EPA*, 526 F.2d 442, 462-463 (7th Cir. 1975); *American Frozen Food Institute*, 539 F.2d at 120-21.[5]

Here, DEQ appears to search for a technology that all facilities could implement and uses that as the basis for the technology-based limit. Specifically, DEQ's analysis targeted ensuring that 75% of the facilities could meet the limit. This clearly misstates the goal of the BAT analysis. In addition, DEQ limited its analysis to only "media filters" as the control technology assessed. In doing so DEQ ignored the many other treatment options, including but not limited to biofilters, bioretention, detention basins, porous pavement, retention ponds, wetland basins, and wetland basin/retention pond, all of which have been summarized in the International Stormwater BMP Database. Moreover, DEQ ignores its own analysis demonstrating that on average the permitted facilities are discharging below 0.010 mg/L of copper. This demonstrates that the available technology can support at least this level of control.

To the extent that DEQ uses a similar approach to establish limits or benchmarks for zinc and lead, this of course would be unlawful. DEQ must determine both the technology-based limits, under the BAT factors, and the water quality-based limits, and use the more protective of the two as the effluent limit in the permit.

C. DEQ Must Protect Impaired Waters

In short, DEQ has failed to protect Oregon's already impaired waters. With stormwater pollutants commonly identified as one of the leading causes of water quality impairment across the United States, and the cause of numerous 303(d) listings and TMDLs in Oregon, it is incumbent upon DEQ to fulfill its obligations to protect these waters through the mandatory permitting restrictions.

Here, DEQ has in effect authorized discharges to water quality limited waters in contravention of the CWA's implementing regulations. 40 C.F.R. § 122.4(i). Under EPA's regulation, DEQ cannot authorize a discharge that will cause or contribute to violations of water

[5] Thus, even for a nation-wide BAT effluent limitation established by EPA, data from as little as three facilities employing an, at the time, state of the art, "experimental" technology, was sufficient for EPA to make an achievability finding for the entire industrial category (in that instance pulp mills). 543 F.3d at 348 ("[t]he industry has been experimenting with this technique in a number of locations on a pilot-plant scale. We [the D.C. Circuit Court of Appeal] would agree that based on the very limited testing that we have seen, that this level of percentage reduction is achievable[,]" upholding EPA's BAT limitation based on such data).

quality standards. *See Friends of Pinto Creek v. United States EPA*, 2007 U.S. App. LEXIS 23251, 65 ERC (BNA) 1289 (9th Cir. 2007)("The plain language of the first sentence of the regulation is very clear that no permit may be issued to a new discharger if the discharge will contribute to the violation of water quality standards. This corresponds to the stated objectives of the Clean Water Act 'to restore and maintain the chemical, physical, and biological integrity of the nation's waters.'"). Given the broad scope of facilities that will be operating under this permit, numerous water quality limited stream and rivers that will be receiving polluted stormwater under this permit, in many cases where the impairment is caused by stormwater pollutants. Thus, there can be no question that absent proper regulatory measures these discharges will cause or contribute to the further violations of water quality in these watersheds. Despite this, the permit fails to include the measures specifically targeted at effectively ensuring the prevention of further stormwater discharges to these impaired waterbodies.

All NPDES permits must contain requirements "consistent with the assumptions and requirements of any available wasteload allocation." 40 C.F.R. § 122.44(d)(1)(vii)(B); *see also id.* § 122.34(e)(1) (permittees "must comply with any more stringent effluent limitations in your permit, including permit requirements that modify, or are in addition to, the minimum control measures based on an approved total maximum daily load (TMDL) or equivalent analysis."). A TMDL represents the maximum amount of a pollutant that a waterbody can receive each day and meet water quality standards. 33 U.S.C. § 1313. Wasteload allocations ("WLAs") and load allocations ("LAs") are developed as part of a total maximum daily load ("TMDL") for an impaired water body. Point sources discharging to a water body with a TMDL are assigned WLAs and nonpoint sources are given LAs, which are the maximum amount of pollutant that each source can discharge into an impaired water per day. 40 C.F.R. § 130.2(h). Once a source, is assigned a LA or WLA, that allocation must be implemented through an NPDES permit. Furthermore, EPA guidance states [w]here the TMDL includes WLAs for stormwater sources that provide numeric pollutant loads, the WLA should, where feasible, be translated into effective, measurable WQBELs that will achieve this objective." EPA, Revisions to the November 22, 2002 Memorandum "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on LAs" (Nov. 26, 2014) (Exhibit 4). As EPA notes, "[t]his could take the form of a numeric limit, or of a measurable, objective BMP-based limit that is projected to achieve the WLA." *Id.*

Regardless of the form, however, the permit must be consistent with and implement the TMDL. This is where the proposed permit fails. Instead of implementing measures to protect these at risk waters, DEQ erroneously presumes that compliance with the terms of the permit constitutes compliance with Oregon's TMDLs. The presumption that "compliance with the terms and conditions of the permit complies with the [TMDLs]" is based on the false conclusion that implementing methods to achieve TMDLs will automatically create compliance with such TMDLs. While implementation of BMPs and benchmark guidelines is an approach to meeting the goals of the TMDL, it does not follow that implementing BMPs in compliance with the permit somehow constitutes compliance with the TMDLs established for an impaired water body. To the contrary, "[m]eeting waste load and load allocations will ensure water quality standards attainment." Willamette Basin TMDL: Overview, page 1-8, available at

http://www.deq.state.or.us/WQ/TMDLs/docs/willamettebasin/willamette/chpt1overview.pdf (last visited March 20, 2017). For example, the Columbia Slough TMDL for lead explains, "DEQ anticipates requiring implementation of BMPs through stormwater permits" for industrial stormwater permittees. Columbia Slough Total Maximum Daily Loads (TMDLs), September 1998, page 41, available at http://www.deq.state.or.us/wq/tmdls/docs/willamettebasin/columbiaslough/tmdl.pdf (last visited March 20, 2017). The analysis was not definitive, finding "BMPs should be developed based on land uses, but further delineation of sources based on land use must be done." *Id*. at 6. In addition, the water quality management plan for Willamette TMDLs explains that NPDES permits will "ensure that all 303(d) related issues and TMDL allocations are addressed in the permit." Willamette Basin TMDL: Water Quality Management Plan (WQMP), page 14-11. The WQMP does not contemplate that NPDES permits will certify compliance with TMDLs; rather, the WQMP expects NPDES permits to address TMDLs. The above analysis assumes industrial stormwater discharges were contemplated as a source in each TMDL analysis. If this assumption is false, any discharges to impaired water bodies from industrial stormwater discharges that include pollutant parameters for which there is an established TMDL likely violate that TMDL. DEQ may find exceptions if it determines the discharge is de minimis. Columbia Slough Total Maximum Daily Loads (TMDLs), page A-7 ("General permits apply to industrial categories that can meet general conditions assumed to cause negligible degradation of water quality.").

DEQ may not account for industrial stormwater discharges in the reserve capacity or margin of safety, however. Oregon defines "reserve capacity" as the "allocation for increases in pollutant loads from future growth and new or expanded sources," OAR 340-042-0040(k), and "includes that loading capacity that has been set aside for a safety margin and is otherwise unallocated." OAR 340-041-0002(49). The margin of safety component of reserve capacity "is not meant to compensate for a failure to consider known pollutant sources," and thus may not be relied on to cover industrial stormwater discharges containing pollutant parameters. *See* Willamette Basin TMDL, Overview at 1-11. Under either scenario, the permits cannot presume that compliance with BAT via BMPs and other permit requirements will constitute compliance with approved TMDLs.

In short, the presumption that permit compliance will result in compliance with TMDLs is circular: meeting the permit means complying with TMDLs because TMDLs say permits will require compliance with TMDLs. This is illogical and thus the presumption should be removed from the permit. Even if industrial stormwater discharges were considered in the TMDL analysis, DEQ failed to identify the control measures and conditions that will protect designated uses. Assuming industrial stormwater discharges were included as a source in the TMDL analysis, DEQ must identify the control measures and conditions it requires for discharges into impaired water bodies.

Waters that do not have a TMDL fare no better. There, DEQ's approach seems to suggest that simply monitoring impairment pollutants and taking future actions where a discharge is found to exceed some as yet defined reference level is sufficient to ensure compliance with the requirements and assumptions of the various applicable TMDLs. This

could not be further from the case. DEQ must revise the draft permit to comply with the CWA and restore impaired waterbodies.

D. DEQ must Ensure that all the Permit will result in Compliance with all CWA Requirements

DEQ may not issue the permit as drafted because it fails to ensure compliance with the CWA and its implementing regulations. During the permit development process DEQ has stated that it will not review, or make public, the SWPCPs for facilities that were covered under the previous iteration of the permit. This is not lawful. Because of the permit structure that DEQ is proposing, and the heavy reliance on the permittee-created SWPCPs in order to meet the requirements of the CWA, DEQ must review these plans and allow the public the opportunity to comment.

On January 6, 2016, EPA announced its proposed rules to, at long last, address the unlawful portions of its regulations governing permitting of small MS4 systems. 81 Fed. Reg. 415 (Jan. 6, 2016). These new regulations are relevant here because they address the specific issue raised here: Is DEQ required to review pollution control plans, where those plans are an essential component of the permit's framework? The answer is an unequivocal yes.

EPA's new MS4 Phase II rule was necessary because in 2003 the Ninth Circuit held that EPA's regulations were inconsistent with the CWA. *Environmental Defense Center, et al. v. EPA*, 344 F.3d 832 (9th Cir. 2003) ("*EDC*"). There, the court vacated several provisions in Phase II rules governing the federal small MS4 general permit program, including, specifically, provisions for agency review and public notice and participation procedures. The Ninth Circuit began by noting that small MS4 general permits typically ensure compliance with the CWA by requiring each discharger to implement "an individualized pollution control program that addresses each of the six general criteria specified in the Minimum Measures" and by explaining this individualized plan in its Notice of Intent ("NOI"). 344 F.3d at 853. Based on these requirements, the court concluded that the NOI "crosses the threshold from being an item of procedural compliance to being a substantive component of a regulatory regime" and is therefore "functionally equivalent to a detailed application for an individualized permit." *Id.* At the time, however, EPA's Phase II rules did not require a permitting agency to review MS4 NOIs or SWMPs to ensure compliance with CWA standards. This, the court concluded, amounted to impermissible self-regulation:

> Under the Phase II rule, in order to receive the protection of a general permit, the operator of a small MS4 needs to do nothing more than decide for itself what reduction in discharges would be the maximum practicable reduction. No one will review that operator's decision to make sure that is was reasonable or even in good faith. Therefore, as the Phase II Rule stands, EPA would allow permits to issue that would do less than require controls to reduce the discharge of pollutants to the maximum extent practicable.

Id. at 855. The court held that dischargers are not precluded from designing aspects of their own

stormwater programs, but only so long as self-designed programs are, "in every instance,[ ] subject to meaningful review by an appropriate regulating entity to ensure that each such program reduces the discharge of pollutants to the maximum extent practicable." *Id*. at 856. The Ninth Circuit further held that, for the same reasons, small MS4 NOIs are subject to the CWA's public availability and public hearings requirements. *Id*. ("clear Congressional intent requires that NOIs be subject to the Clean Water Act's public availability and public hearings requirement. ... Thus, if the Phase II Rule does not make NOIs 'available to the public,' and does not provide for public hearings on NOIs, the Phase II Rule violates the clear intent of Congress...").

Despite the Ninth Circuit's unambiguous rebuke of EPA's failure to ensure compliance with the law, and the EPA's recent steps towards correcting these shortcoming, the proposed permit allows for a patently unlawful self-regulatory scheme. As discussed in detail below the permit repeatedly calls on the permit registrant to determine what measures and controls are necessary to comply with the law and incorporate those elements in the SWPCP. As such, these plans constitute "effluent limitations," which the public has a statutory right to review and offer comment upon. *See* 33 U.S.C. 1342(b)(3), *see also EDC*, 344 F.3d at 856.

Although the permit and fact sheet are silent on this issue, it appears that DEQ intends to grant permit coverage immediately to any entity that has submitted its bare-bones application form. DEQ cannot simultaneously divest itself of review authority over permittees' SWPCP while failing to set meaningful standards in the permit itself. This is precisely the issue—creation of an "impermissible self-regulatory system"—that led to the rejection of the Phase II rules by the Ninth Circuit. *See EDC*, 344 F.3d at 854-56. As the Ninth Circuit aptly noted, the failure to include in the permit the necessary effluent limits and controls or to oversee individual stormwater programs, is flawed because "nothing prevents the operator of a [permittee] from misunderstanding or misrepresenting its own stormwater situation and proposing a set of minimum measures for itself that would reduce discharges by far less than the maximum extent practicable." *Id.* at 855. DEQ is preparing to make exactly this mistake.

E. DEQ Must Regulate All Pollutants Found in Stormwater Discharges

Although industrial facilities commonly discharge more than a dozen different heavy metals, in addition to other toxic pollutants, DEQ continues to establish benchmarks for only three metals: Total Copper, Total Lead, and Total Zinc. This is impermissible under the CWA. In addition, the rationale that DEQ has provided for limiting its benchmarks to only three metals is outdated and insupportable. DEQ must regulate all the pollutants that industrial facilities actually discharge.

DEQ has not explained why it proposes to establish benchmarks for only three metals. In 1997, DEQ provided an unsatisfactory reason for establishing benchmarks for only copper, lead, and zinc. Prior to that time, DEQ did in fact establish benchmarks for several additional heavy metals, including cadmium, mercury, and nickel. *See* DEQ, NPDES General Storm Water Discharge Permits, 1200 Series Renewal Fact Sheet (Jan. 31, 1997). In 1997, DEQ removed many of these benchmarks, asserting that its retention of only three metals was consistent with

EPA's "Executive Summary, Results of the Nationwide Urban Runoff Program," written in December, 1983. DEQ claimed that EPA's Urban Runoff Report found that copper, lead, and zinc were "the most prevalent priority pollutants" in urban runoff, and that this report justified DEQ's decision to eliminate benchmarks for several pollutants. This rationale is unsupportable as the CWA and its implementing regulations require DEQ to regulate all pollutants that are discharged from a point source. *See* 40 C.F.R. § 122.44(d)(1)(i).

The previous iteration of the permit required monitoring of cadmium, nickel, chromium, mercury, and PCBs. These efforts demonstrated two things. First, as DEQ notes it is not reasonable to use one of the existing parameters as an indicator or surrogate for these pollutants. As a result, DEQ must address these pollutants in the draft permit. Second, the data demonstrate that these pollutants are present in stormwater discharges, and are at concentrations that may cause or contribute to a violation of water quality standards, including the chronic aquatic life, human health, and narrative criteria. As a result, the permit must address these pollutants through effluent limits and monitoring requirements.

Similarly, several studies document that stormwater discharges contribute to high temperatures in receiving waterways. *See* U.S. General Accounting Office, Water Quality: Better Data and Evaluation of Urban Runoff Programs Needed To Assess Effectiveness Report to Congress at 19 (June 2001). The draft permit, however, does not establish effluent limitations—or even benchmarks—for temperature. This is impermissible, particularly since many of Oregon's water quality-limited waters suffer impairment due to high temperatures. DEQ must include temperature effluent limitations in the permit to comply with the CWA.

F. DEQ Must Require Monitoring for the Entire Permit Term

All NPDES permits must include monitoring and reporting requirements sufficient to ensure compliance with the permit's limitations. 40 C.F.R. § 122.44(i)(1). This must include monitoring on a schedule "dependent on the nature and effect of the discharge." *Id.* § 122.44(i)(4). In addition, industrial stormwater permits must requirement annual inspections, through which the permittee determine and must certify, "that the facility is in compliance with the plan and the permit, and identifying any incidents of non-compliance. *Id*. § 122.44(i)(4); *see also id*. § 122.44(i)(4)(iii) ("Such report and certification be signed in accordance with §122.22"). The draft permit fails to meet these requirements. Rather, the permit allows facilities to stop monitoring "[i]f the geometric mean of four consecutive qualifying samples is equal to or below the impairment reference concentration or statewide, geographic or sector specific benchmarks." Permit, Sch. B.4(a)(i)(1). This is inappropriate for several reasons.

First, consistent monitoring throughout the permit term is necessary to ensure compliance with the permit's terms and conditions. Because DEQ continues to rely on a BMP-based permitting structure and adaptive management approach, the monitoring of discharge and comparison to benchmarks is a necessary to ensure permit compliance. Without the feedback loop created by the regular measurement of discharge quality there is little or nothing in the permit that will ensure permittees will continue to implement and improve their operations. As DEQ often points out as a reason to not regulate stormwater more rigorously, the potential

variability in stormwater discharges is a storm reason to require facilities to monitor discharges consistently throughout the permit term. There is no evidence that the minimum four required monitoring events is sufficient to account for the variability in the discharge events.

Second, eliminating the monitoring requirement after only four samples will decrease the likelihood of finding benchmark exceedances and triggering actions. This in fact provides a strong incentive for facilities to "over do" compliance efforts in the first year of permit coverage to avoid the potential consequences of benchmark exceedances later in the permit terms. Considering that the facilities can meet the majority of technology-based BMP requirements with non-structural measures, it is conceivable that a facility would over-implement these measures before a test is conducted and then let those measures lapse after the monitoring requirement has been waived.

DEQ has no mechanism in place to ensure this does not occur. As DEQ admitted in a meeting with stakeholders, it has never sampled at a facility after granting a monitoring waiver to determine if it is still in compliance with benchmarks. Suggesting that one could look at the monitoring data at the beginning of the next permit cycle is dubious. There is no reason to believe that a facility would not simply recommit to dutifully implementing its BMPS for just long enough to reacquire the monitoring waiver.

The permit's inspection requirements also do not prevent these types of actions. First, there is no requirement that the inspection actually document compliance (or non-compliance) with the SWPCP. Second, the results of these inspections are not submitted to DEQ, or otherwise made public. As a result, absent a facility inspection during which DEQ specifically requests to review the inspection report, or an independent request for and review of these records by DEQ, the inspections are not an effective check on noncompliance.

Finally, because DEQ has to date failed to establish specific permit requirements that will otherwise ensure compliance with water quality standards, DEQ must require consistent monitoring so that the narrative water quality-based requirement can be enforced. In short, as drafted, the benchmarks are largely are not based on water quality standards. As a result, merely meeting benchmarks says little or nothing about whether the facility will be causing or contributing with water quality criteria. The facilities must, through effluent monitoring, continue to demonstrate compliance with this limitation throughout the term of the permit.

In sum, four sampling events per year is already a low frequency considering the potential risks of industrial stormwater discharge. Consistent monitoring should remain throughout the permit cycle in order to track trends and to adequately understand the discharge. *See e.g.*, *NRDC*, 808 F.3d at 580, 583 ("Thus, because the 2013 VGP [Vessel General Permit] does not contain a mechanism to evaluate compliance with the WQBELs, the monitoring requirements are arbitrary and capricious and not in accordance with the law. *See Waterkeeper All.*, 399 F.3d at 499 (failure of permit to include any mechanism for evaluating compliance with required technical standards rendered agency unable to ensure compliance with water quality standards).").

G. DEQ's Annual DMR Reporting Requirement Undercuts Agency and Public Oversight

As noted above, all NPDES permits must include monitoring and reporting requirements sufficient to ensure compliance with the permit's limitations. 40 C.F.R. § 122.44(i)(1). The draft permit requires that permittees submit discharge monitoring reports (DMR) one time per year. Annual reporting undercuts the agency's oversight of permit compliance and ability to prioritize inspections based on current DMR data. DEQ's lax reporting requirement also undercuts the public's ability to understand pollution discharges from an industrial facility and review permit compliance. Citizen action is a "proven enforcement tool" that "Congress intended [to be used…] to both spur and supplement government enforcement actions." CWA Amendments of 1985, Senate Environment and Public Works Comm., S.Rep. No. 50, 99th Cong., 1st Sess. 28 (1985). To the extent the DEQ cannot monitor and enforce permits issued by the State of Oregon, DEQ should not hinder the public's ability to enforce clean water laws by restricting DMR reporting to one time per year.

The draft permit requires that permittees submit DMR data one time per year—a marked departure from other industrial stormwater permits. *See* Schedule B.8. For example, EPA's Multisector General Permit ("MSGP") requires that permittees submit DMRs four times per year. EPA MSGP at 49 (issued June 4, 2015) (Exhibit 5). Specifically, EPA requires that permittees file DMRs no later than 30 days of receiving sampling results. Similarly, Washington State's Industrial Stormwater General Permit requires that permittees submit DMRs four times per year. *See* Washington State Industrial Stormwater General Permit at Schedule S9.A (issued Dec. 3, 2014) (Exhibit 6). The Permit Evaluation Report fails to discuss DEQ's decision to retain annual reporting in the draft permit and whether the agency considering increasing reporting frequency to quarterly. Commenters anticipates that DEQ's response to comments will note inadequate agency resources to handle and review quarterly DMR submittals. If this is the case, DEQ's decision to require annual reporting calls into question the agency's ability to oversee the delegated NPDES industrial stormwater program.

As DEQ notes throughout the Permit Evaluation Report, the draft permit's adaptive management scheme hinges on DMR data. Yet DEQ cannot ensure compliance with the program absent DMR data. For example, DEQ and the public cannot take action in a time-sensitive manner if a permittee fails to sample. Instead, DEQ and the public must wait a year to learn if a permittee has complied with the bedrock requirement to sample stormwater.

For the reasons explained above, Commenters request that DEQ revise the permit to require that permittees submit DMRs at least four times per year.

H. DEQ's Failure to Require Tier 1 Report Submittal to the Agency Undermines Agency and Public Oversight

DEQ shirks its duty to oversee permit compliance by not requiring that permittees submit Tier 1 Reports to the agency. DEQ must include monitoring and reporting requirements sufficient to ensure compliance with the permit's limitations. 40 C.F.R. § 122.44(i)(1). Failure

to require Tier 1 Report submittal undercuts DEQ's ability to triage permit compliance review. Furthermore, failure to require Tier 1 Report submittal undercuts the public's right to enforce the Clean Water Act when federal and state agencies, for whatever reason, fail to enforce the law. DEQ's Permit Evaluation Report notes that DEQ can request a Tier 1 Report. This is not sufficient to meet the requirements of 40 C.F.R. § 122.44(i)(1). For example, how will DEQ know when to request a Tier 1 Report given the agency's decision to require annual DMR reporting? Inspections occur infrequently and cannot substitute for compliance reporting by the permittee.

The lack of Tier 1 Report reporting requirements, failure to require quarterly DMR reporting, and lack of SWPCP review demonstrates DEQ's decision to craft a permit that fits the Oregon Legislature's decision to fund DEQ at inadequate levels, not compliance with federal and state law. Commenters urge DEQ to revise the permit to require that permittee's submit a Tier 1 Report within ten days of completing the report. If DEQ staff are not available to review those reports, at least the public will have access to the reports to protect the rivers they swim in, obtain water from, or catch fish in.

If the agency chooses to ignore Commenters input on Tier 1 Report reporting, the agency should explain the extent to which it is attempting to undercut the public's right to review important information on permit compliance. Administrative burden alone is not a sufficient answer in light of DEQ's historic failure to utilize modern technology for permit tracking. As a practical matter, industrial facilities benefit by keeping the public in the dark on whether they are completing Tier 1 Reports and, in so doing, meeting the permit's requirements. And, as a practical matter, water quality suffers as a result of cutting off public oversight of the NPDES industrial stormwater program. *See e.g. National Research Council, Urban Stormwater Management in the United States,* at 183, National Academies Press (2009) (explaining that industrial facilities are significant sources of heavy metals and organic toxics and noting that sampling drawn from EPA's MS4 monitoring and input into the National Stormwater Quality Database demonstrated the absolute highest metal concentrations in discharges were observed in industrial areas, and the median metal concentrations in industrial areas "were about three times the median concentrations observed in open-space and residential areas.").

CONCLUSION

With this permit DEQ has the opportunity to take a meaningful step forward in reducing the substantial impact for stormwater runoff on Oregon's streams and rivers. Reducing this pollutant load is essential to meeting the long awaited goal of the Clean Water Act to once again have safe, fishable and swimmable rivers throughout the state. Ensuring that the facilities regulated under this permit will meet the required pollutant reductions to help achieve these goals will only occur if DEQ adopts specific, clear, measurable, and enforceable terms and conditions requiring the use of the best treatment, control and management technologies, protect water quality, and mandate the collection and report of the information necessary to confirm compliance.

Thank you for considering our organizations' input on the draft permit. If you have any questions regarding issues raised in these comments, please contact Lauren Goldberg at (541) 965-0985.

Sincerely,

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