

NO. 42411-8-II

**COURT OF APPEALS, DIVISION II OF THE STATE OF
WASHINGTON**

THE BOEING COMPANY,

Petitioner,

v.

STATE OF WASHINGTON, POLLUTION CONTROL HEARINGS
BOARD, and DEPARTMENT OF ECOLOGY,
Respondents;

COPPER DEVELOPMENT ASSOCIATION, INC., THE NATIONAL
COPPER ASSOCIATION, LTD., OLYMPIANS FOR PUBLIC
ACCOUNTABILITY, PUGET SOUNDKEEPER ALLIANCE,
COLUMBIA RIVERKEEPER, and ARTHUR WEST. Appellants Below;
PORT OF OLYMPIA, Respondent Below; and WEYERHAEUSER NR
COMPANY, Intervenor Below.

**BRIEF OF PUGET SOUNDKEEPER ALLIANCE, COLUMBIA
RIVERKEEPER and OLYMPIANS FOR PUBLIC
ACCOUNTABILITY**

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I. INTRODUCTION

The Boeing Company appeals two well-founded aspects of the Pollution Control Hearings Board's decision on the 2010 Industrial Stormwater General Permit in an attempt to weaken water quality protections below the minimum standards set by federal law. Boeing's interpretation of a state statute that affords Industrial Stormwater General Permit holders a presumption of compliance with water quality standards ignores the plain language of the statute, conflates distinct technology-based standard and water quality-based standard mandates, and violates the federal Clean Water Act principle that permits ensure compliance with water quality standards. Boeing also asks the Court to require the Department of Ecology to perform redundant studies of fecal coliform-laden stormwater discharges to imperiled water bodies, with the unfounded hope that such studies will relax applicable water quality protections. The Court should uphold the Pollution Control Hearings Board's order on these issues and reject Boeing's assignments of error.

II. LEGAL BACKGROUND

A. Standard of review

A court "should overturn an agency's factual findings only if they are clearly erroneous" and the court is "definitely and firmly convinced that a

mistake has been made." *Port of Seattle v. Pollution Control Hearings Board*, 151 Wn.2d 568, 588, 90 P. 3d 659 (Wash. 2004) (“*Port of Seattle v. PCHB*”) (internal quotations omitted). Courts do “not weigh the credibility of witnesses or substitute [their] judgment for the PCHB's with regard to findings of fact.” *Id.* “Where a party challenges the PCHB's application of the law to a particular set of facts, the factual findings of the agency are entitled to the same level of deference which would be accorded under any other circumstance.” *Id.* (internal quotations omitted). Questions of law and application of the law to the facts is subject to de novo review. *Id.*

“A court must give great weight to the statute's interpretation by the agency which is charged with its administration, absent a compelling indication that such interpretation conflicts with the legislative intent.” *Marquis v. City of Spokane*, 130 Wn. 2d 97, 111, 922 P. 2d 43 (1996). The Department of Ecology is the agency charged with administering the statutes at issue here, and therefore great deference to Ecology's interpretation is warranted. *Port of Seattle v. PCHB*, 151 Wn.2d at 593.

B. The Clean Water Act and NPDES program

With the goal of eliminating the discharge of pollutants to the Nation's waters by 1985, 33 U.S.C. § 1251(1), the federal Clean Water

Act prohibits the discharge of pollutants to navigable waters, except in accordance with a permit, 33 U.S.C. §§ 1311, 1342. The United States Environmental Protection Agency (“EPA”) and authorized states issue discharge permits under the National Pollution Discharge Elimination System (“NPDES”) program. 33 U.S.C. § 1342.

NPDES permits control polluted discharges through “effluent limitations.” The Clean Water Act broadly defines an effluent limitation as: “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, the waters of the contiguous zone, or the ocean, including schedules of compliance.” 33 U.S.C. §1362(11).

Consistent with the Clean Water Act’s pollution elimination goals, the “most significant” requirement for NPDES permits imposed by the Clean Water Act is to ensure that the authorized discharge meets “all applicable requirements under sections 1311, 1312, 1316, 1317, 1318, and 1343” of the Act. 33 U.S.C. §§ 1251(a)(1) and 1342(a)(1); *Natural Resources Defense Council, Inc. v. Costle*, 568 F.2d 1369, 1381 (D.C. Cir. 1977). The baseline requirements of section 1311 are implementation of “best practicable control technology,” “best conventional pollutant control

technology” and “best available technology,” 33 U.S.C. § 1311(2), collectively known as technology-based effluent limitations.

1. Permits must require strict compliance with water quality standards

In 1972 Congress amended the Clean Water Act with the express goal of supplementing technology-based limitations with water quality-based effluent limitations “so that numerous point sources, despite individual compliance with effluent limitations, may be further regulated to prevent water quality from falling below acceptable levels.” *EPA v. California*, 426 U.S. 200, 205 n.12 (1976). Thus, in addition to requiring compliance with effluent limitations derived from the technology standard, an NPDES permit must require the permittee to attain compliance with “any more stringent limitation, including those necessary to meet water quality standards ... established pursuant to any State law or regulations.” 33 U.S.C. § 1311(b)(1)(A) and (C). In determining effluent limitations to protect water quality, “economic and technological restraints are not a valid consideration.” *Ackels v. EPA*, 7 F.3d 862, 865-66 (9th Cir. 1993).

Water quality standards consist of a designated use or uses of a water body, e.g., fishing and swimming, and water quality criteria designed to provide for those designated uses. 33 U.S.C. § 1313; 40

C.F.R. § 131.3(i). EPA defines water quality criteria as “elements of State water quality standards, expressed as constituent concentrations, levels, or narrative statements, representing a quality of water that supports a particular use.” 40 C.F.R. § 131.3(b).

EPA has incorporated into its regulations the Clean Water Act requirement for all NPDES permits to include conditions mandating compliance with water quality standards. Under these, “[e]ach NPDES permit shall include” any requirement necessary to “[a]chieve water quality standards established under section 303 of the Clean Water Act, including State narrative criteria for water quality.” 40 C.F.R. § 122.44(d)(1). EPA also prohibits the issuance of an NPDES permit “[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). Under 40 C.F.R. § 122.44(d)(1)(i), NPDES permits must include conditions necessary to “[a]chieve water quality standards established under section 303 of the Clean Water Act, including State narrative criteria for water quality.” These provisions apply equally to general permits. 40 C.F.R. § 122.28(a)(3); 61 Fed. Reg. 65268, 65272 – 73 (Dec. 11, 1996); 65 Fed. Reg. 30886, 30890 – 91 (May 15, 2000).

In *Defenders of Wildlife v. Browner*, 191 F.3d 1159 (9th Cir. 1999), the Ninth Circuit evaluated this requirement for water quality-based

effluent limits in the context of NPDES permits for stormwater.¹ The court confirmed that 33 U.S.C. § 1311(b)(1)(C), is specifically applicable to industrial stormwater permits, thus imposing on the permitting agency “a specific obligation to require that level of effluent control which is needed to implement existing water quality standards without regard to the limits of practicality.” *Defenders*, 191 F.3d at 1163 (citations omitted). The court held that “Congress expressly required *industrial* stormwater discharges to comply with the requirements of 33 U.S.C. § 1311. ... In other words, industrial discharges must comply strictly with state water-quality standards.” *Id.* at 1164-65 (italics in original, underline added). *See also, Northwest Environmental Advocates v. City of Portland*, 56 F.3d 979, 988 (9th Cir. 1995) (the NPDES permit process requires permittees to comply with water quality standards).

2. State implementation of the Clean Water Act

Washington is authorized to implement the Clean Water Act and does so through the Department of Ecology (“Ecology”). RCW 90.48.260. Ecology’s implementation must comply with the Clean Water Act and EPA’s regulations. *Puget Soundkeeper Alliance v. Department of Ecology*,

¹ The *Defenders* petitioners challenged EPA’s issuance of NPDES permits to five municipalities for discharges from their storm sewers on the grounds that the permits failed to include numeric effluent limitations. 191 F.3d at 1161. In denying the petition, the Ninth Circuit relied heavily on differences in the statutory approach to regulation of stormwater discharges from municipal systems and industrial stormwater discharges. *Id.* at 1164-5.

102 Wn. App. 783, 788, 9 P.3d 892 (Wash. Ct. App. 2000); 40 C.F.R. § 123.25. To implement the Clean Water Act’s mandate for technology-based limits, state law requires use of “all known available and reasonable [treatment] methods” (“AKART”) to control polluted discharges. *Id.* at 788-789 (quoting RCW 90.48.010). Washington separately and expressly requires that discharge permits prohibit violations of water quality standards, both generally and with particular regard to industrial stormwater general permits. RCW 90.48.520; RCW 90.48.555(1).

Ecology’s current industrial stormwater general permit (“ISGP” or the “Permit”) regulates stormwater through a variety of narrative and numeric effluent limits. Among these are requirements that permittees implement certain best management practices (“BMPs”), *see, e.g.*, App. B, Ex. B-1, at 16-20, corrective actions requiring escalating levels of BMPs in response to discharges in excess of numeric “benchmark” thresholds (Level 1, 2 and 3 responses), *id.* at 34-36, and compliance with narrowly-applicable numeric effluent limits, including limits on the concentration of fecal coliform facilities may discharge to fecal coliform-impaired water bodies, *id.* at 27, 30-33.

3. Impaired waters

Section 303(d) of the Clean Water Act directs states to identify waters bodies for which technology-based effluent limitations on dischargers are not stringent enough to achieve applicable water quality standards. 33 U.S.C. § 1313(d). Such water bodies are commonly referred to as “impaired waters” or “303(d) listed waters.”

Recognizing that “the permitting of new and existing dischargers into waters listed under 33 U.S.C. Sec. 1313(d) (section 303(d) of the federal clean water act) presents specific challenges and is subject to additional permitting restrictions under the federal clean water act,” RCW 90.48.555 Note 8, the state legislature amended RCW 90.48.555 to include subsection (7), which directs Ecology to reissue the “industrial storm water general permit to require compliance with appropriately derived numeric water quality-based effluent limitations for existing discharges to water bodies listed as impaired.”

III. ARGUMENT

A. The statutory presumption of compliance with water quality standards and the Clean Water Act require permittees to comply with the permit’s corrective action requirements

Boeing’s argument that compliance with a technology-based effluent limitation (implementing BMPs from Ecology’s stormwater management manuals or “SWMMs”) excuses compliance with water quality-based effluent limits (Level 3 corrective actions) contradicts the

plain language of the state statute. Moreover, if Boeing's interpretation is correct, RCW 90.48.555 impermissibly countermands the Clean Water Act by equating technology-based effluent limitations with water quality-based effluent limitations, and directing that permits actually fail to ensure compliance with water quality standards. Compliance with water quality standards concerns the actual, objective effects of a discharge on the physical, chemical, or biological characteristics of the waters of the state, not a discharger's implementation of any particular control practices or level of effort. 33 U.S.C. §§ 1251(a), 1311(b)(1)(C); *Environmental Protection Agency*, 426 U.S. at 205 n. 12. Construing RCW 90.48.555 in violation of the Clean Water Act goes against the legislature's intent that the state statute be consistent with federal law. *See* RCW 90.48.555(1). *See also, Anaya v. Graham*, 89 Wn. App. 588, 593, 950 P.2d 16 (1998) (Commission's intention that regulations be consistent with federal law supports a court's consistent interpretation).

1. The plain meaning of RCW 90.48.555(6) requires compliance with "all permit conditions," including corrective action requirements

RCW 90.48.555(6)(a) provides permittees with a rebuttable presumption of compliance with water quality standards when the permittee is "in full compliance with *all* permit conditions, including planning, sampling, monitoring, reporting, and record-keeping

conditions.” (emphasis added). Subsection (6)(a) does not exempt any permit conditions. Still, Boeing argues that subsection (6)(b)’s requirement that permittees also fully implement BMPs in approved storm water technical manuals to qualify for the presumption somehow implies an exception to the “full compliance with all permit conditions” requirement. Specifically, Boeing would have the Court imply an exception for the Level 3 corrective action requirement set forth in ISGP Condition S8.D. Nothing in the phrase “full compliance with all permit conditions” suggests the legislature intended such an exception. “To read an exception into the statute . . . would require that there be read into the statute words which are not there. This the court will not do.” *King County v. City of Seattle*, 70 Wn.2d 988, 991, 425 P.2d 887 (1967).

Subsection (6)(a) could not be much clearer in its requirement that only permittees that comply with *all* Permit conditions will qualify for the presumption of compliance with water quality standards. The legislature used the words “full” and “all” to describe the level of compliance required. “[A] statute which is clear on its face is not subject to judicial interpretation.” *Marquis v. City of Spokane*, 130 Wn.2d 97, 107, 922 P. 2d 43 (1996). Furthermore, the legislature clarified the only possible ambiguity by specifically requiring compliance with conditions “including planning, sampling, monitoring, reporting, and record-keeping conditions”

– conditions that are only indirectly related to water quality. RCW 90.48.555(6); *and see Marquis*, 130 Wn.2d at 107 (the word “include” is not limiting). This type of all-encompassing language leaves not even a mouse hole, much less the elephant-sized hole through which Boeing would fit an exemption from compliance with the permit’s core water quality protections.

RCW 90.48.555(6)(b) further requires that permittees implement all applicable BMPs from the stormwater management manuals (or demonstrably equivalent BMPs) to qualify for the presumption of compliance with water quality standards. Subsection (6)(b) then details the process by which permittees may demonstrate that alternative BMPs are equivalent to those contained in the stormwater management manuals. Subsection (6)(b) is an independent requirement that does not reference permit conditions in any way. It certainly does not exempt permittees from full compliance with the Permit or substitute for compliance with certain Permit conditions. Rather than creating a loophole in the subsection (6)(a) requirement of full compliance with all Permit conditions, as Boeing argues, RCW 90.48.555.(6)(b) adds a requirement on top of permit conditions. Again, exceptions are not to be read into statutes. *King County v. City of Seattle*, 70 Wn.2d at 991.

2. The SWMMs do not ensure compliance with water quality standards

Water quality standards comprise beneficial uses and numeric and other criteria objectively related to the physical, chemical, and biological integrity of water of the state. 33 U.S.C. § 1313; 40 C.F.R. §§ 131.3(b), 131.3(i). Implementation of any particular pollution control technology or any other metric based on a permittee's efforts is the appropriate focus of a technology-based effluent limitation, but cannot determine or define strict compliance with water quality standards. *Defenders*, 191 F.3d at 1163; *Ackels*, 7 F.3d at 865-66. Boeing's interpretation of the RCW 90.48.555 presumption of compliance would conflate two distinct NPDES mandates – best available technology and water quality-based effluent limits – in a manner that cannot be reconciled with federal law.

Furthermore, the SWMM for Western Washington itself disclaims any guarantee that the Manual will ensure compliance with water quality standards: "Application of appropriate minimum requirements and BMPs identified in this manual are necessary but sometimes insufficient measures to achieve the objective" of compliance with water quality standards. App. C, Ex. B-49B at 1-1 (emphasis added). This statement eviscerates Boeing's characterization of the SWMMs. Under Boeing's interpretation, a permittee could be entitled to a presumption of

compliance with water quality standards while it is discharging extremely high levels of pollutants; Boeing's presumption of compliance has no relation to water quality at all.

In support of its argument, Boeing cites Ecology's 2003 policy statement suggesting the BMPs in the stormwater management manuals "are presumed to protect water quality and satisfy the state AKART requirement." App. D at 1. Policy statements are weighed according to their "power to persuade," *White v. Salvation Army*, 118 Wn. App. 272, 277, 75 P.3d 990 (2003) (internal quotations omitted), and this policy statement is not persuasive for several reasons. First, as discussed above, technology-based standards cannot be presumed to protect water quality, as a matter of law. "[N]o deference is to be accorded to a policy that is wrong." *Id.* Second, the policy statement appears to *limit* the authority of the SWMMs: "the manual does not have any independent regulatory authority", App. D at 1, "it is not permissible or appropriate to include the minimum requirements . . . of this manual as permit conditions of use the manual as a review standard solely because they are published in the manual", *id.* at 3. Finally, this policy statement lacks persuasive weight because it refers to a 2001 stormwater management manual and various unspecified state and local permits, not the current SWMMs and Permit at issue here. *Id.* at 1-3.

3. The Permit ensures compliance with water quality standards through corrective action requirements

The Pollution Control Hearings Board concluded that the 2010 Permit complies with RCW 90.48.555(1) (requiring effluent limits as necessary to comply with federal law) and 40 C.F.R. § 122.44 (requiring effluent limits necessary to achieve water quality standards) by, as relevant here, requiring facilities that exceed benchmarks to implement escalating levels of BMPs up to and including Level 3. App. G at 50-51. According to testimony from Ecology’s stormwater permit writer, Jeff Killelea, without these corrective action requirements, the Permit would not ensure discharges do not cause or contribute to water quality standards. App. H at 156:19-157:14. The corrective action scheme is thus a “key narrative effluent limitation for the ISGP, requiring industrial facilities to take steps to ensure compliance with water quality standards.” App. G at 52. Boeing does not challenge these aspects of the Board’s order, yet Boeing would have this Court eliminate the means by which the Permit ensures compliance with water quality standards. This would result in a permit that violates the Clean Water Act and the legislature’s intent to comply with federal law.

Even more confounding, Boeing argues that the Permit cannot require more of facilities that implement BMPs from the SWMMs to

protect water quality. In fact, the permits *must* include whatever is necessary to ensure compliance with water quality standards. 40 C.F.R. § 122.44(d); *Defenders*, 191 F.3d at 1163. Boeing’s reading of RCW 90.48.555 creates an impermissible conflict between state and federal law.

Boeing notes that Ecology may require facilities to implement BMPs beyond those described in the SWMMs “separately from the ISGP.” Opening Brief of Petitioner The Boeing Company at 30 n.16. This cannot save Boeing’s interpretation of state law from an impermissible conflict with federal law. The Permit alone and on its face must ensure compliance with water quality standards. 40 C.F.R. § 122.4(d) (prohibiting issuance of an NPDES permit “[w]hen the imposition of conditions cannot ensure compliance with” water quality standards); *Port of Seattle v. PCHB*, 151 Wn.2d at 603 (“the NPDES permitting system . . . must ensure compliance with state water quality standards”).

4. The Permit must require strict compliance with benchmark provisions; facility-specific waivers are the only defensible “off-ramp”

The benchmark thresholds that provide the triggers for corrective actions are water-quality based. App. G at 9-10, 17-25; App. B at 51 (definition of “benchmark”). Specifically, a benchmark excursion indicates the discharge may cause or contribute to violation of water quality standards. App. G at 70; App. B at 51. The corrective actions

themselves are narrative water quality-based effluent limits with the benchmarks providing a numeric component. App. E at 19; App. G at 52. It is therefore mandated by the Clean Water Act that the Permit require corrective actions, unless and until the facility meets the benchmarks.

Boeing makes much of the potentially “endless cycle” of corrective actions the Permit requires of a facility that discharges elevated levels of pollution, and the lack of an automatic “off-ramp.” Opening Brief of Petitioner The Boeing Company at 19, 39, 40. In fact, the Permit does include a Level 2 and 3 corrective action waiver request procedure for permittees that can show that, despite exceeding benchmarks, their discharges do not actually cause or contribute to water quality standards violations². App. B at 35-36 (Permit conditions S8.C.4 and S8.D.4). The key difference between the waiver provisions and the provisions and interpretation that Boeing seeks is that the waiver provisions are not automatic and do require site-specific analysis. These safeguards are necessary for the Permit to comply with the Clean Water Act. If the Permit included an automatic “off-ramp” it would fail to ensure compliance with water quality standards. *See* App. G at 50-51 (Permit ensures water quality standards compliance through corrective actions);

² The Permit also provides a waiver for permittees that demonstrate the corrective action requirements are not “feasible.” App. B at 35-36. Puget Soundkeeper Alliance, Columbia Riverkeeper and Olympians for Public Accountability do not concede that this aspect of the waiver provision comports with federal law, but that issue is not before the Court.

App. H at 156:19-157:14 (without corrective actions, Permit would not ensure compliance with water quality standards).

The Level 4 provision in the draft ISGP favored by Boeing is an example of an automatic exemption from compliance with water quality-based limits. Boeing's Opening Brief at 20. Under the Level draft 4 provision, permittees that continued to exceed benchmarks after completing a Level 3 corrective action would have been enabled to sit by and do nothing until Ecology issued an order, yet still be in compliance with the permit. App. I at 95. In response to comments that the Level draft 4 provisions were vague, uncertain and illegal, Ecology did not include Level 4 provisions in the final Permit. App. J at 20-21.

Boeing claims the Board's interpretation transforms benchmarks into numeric effluent limits. It does not. An excursion of a benchmark, in and of itself, is not a permit violation. App. B at 24 (Permit condition S5.A.3), 51 (definition of "benchmark").

B. Ecology's fecal coliform effluent limitations are "appropriately derived" and no reasonable potential analysis is required

Here again, Boeing's interpretation of the law unnecessarily puts provisions of RCW 90.48.555 at odds with one another. Although RCW 90.48.555(7) directs Ecology to adopt numeric limits for discharges to impaired waters, Boeing argues that Ecology must first complete a

detailed analysis to determine if numeric limits are necessary. The legislature did not intend for Ecology to waste its resources on such a redundant exercise.

1. RCW 90.48.555(7) obviates the need for a reasonable potential analysis

RCW 90.48.555(7) requires:

By November 1, 2009, the department shall modify or reissue the industrial storm water general permit to require compliance with appropriately derived numeric water quality-based effluent limitations for existing discharges to water bodies listed as impaired according to 33 U.S.C. Sec. 1313(d) (Sec. 303(d) of the federal clean water act, 33 U.S.C. Sec. 1251 et seq.)

The statute is clear that Ecology must adopt numeric limits for existing industrial stormwater discharges to impaired water bodies. The Board found this obvious, concluding “RCW 90.48.555(7) *clearly and unambiguously* requires Ecology to include numeric water quality-based effluent limitations for discharges to impaired water bodies in the ISGP.” App. E at 14 (emphasis added).

The phrase “appropriately derived” modifies “numeric water quality-based effluent limitations.” RCW 90.48.555(7). Accordingly, RCW 90.48.555(7) requires two things: first, Ecology *must* develop numeric water quality-based effluent limits, and second, those limits must be appropriately derived. While the Ecology has some discretion as to how to develop numeric limits, RCW 90.48.555(7) leaves Ecology no

choice as to whether to adopt numeric limits for discharges to impaired water bodies.

Boeing's reading of the statute would have Ecology analyze whether discharges to impaired waters have a "reasonable potential" to cause or contribute to water quality standards violation, and whether nonnumeric limits are insufficient to meet water quality standards. The reasonable potential analysis, outlined at RCW 90.48.555(4) is explicitly designed to determine whether permits must "require compliance with numeric effluent discharge limits," RCW 90.48.555(3). Boeing's interpretation would require Ecology to perform an analysis to come to the same conclusion already announced in RCW 90.48.555(7) – the Permit must include numeric limits for discharges to the special class of impaired water bodies. This reading thus violates the canon of construction:

"Statutes must be interpreted and construed so that all the language used is given effect, with no portion rendered meaningless or superfluous."

Whatcom County v. City of Bellingham, 128 Wn.2d 537, 546, 909 P.2d 1303 (1996).

With the enactment of RCW 90.48.555(7) it is a foregone conclusion that discharges of industrial stormwater to impaired water bodies have a reasonable potential to violate water quality standards. As the Board held, "the statutory requirement in sub-section (7) embodies the

assumption that impaired water bodies do not meet water quality standards, and future discharges will continue to contribute to such impairment.” App. G at 57-58. Thus the legislature obviated the requirement for Ecology to conduct a “reasonable potential” analysis of discharges to impaired water bodies and RCW 90.48.555(3) does not come into play.

RCW 90.48.555(5) does direct Ecology to employ narrative effluent limits, unless one of the circumstances listed in subsection (3) applies. However, in the case of discharges to impaired water bodies, RCW 90.48.555(7) trumps RCW 90.48.555(5) because subsection (7) is highly specific to discharges to impaired waters, whereas subsection (5) is merely the general rule, subject to exceptions. The PCHB correctly held that “sub-section (7) is the more specific statute, and prevails in defining Ecology’s obligations to address effluent limitations for impaired water bodies.” App. E at 15 (citing *Wright v. Miller*, 93 Wn. App. 189, 198, 963 P.2d 934 (1998) (“[T]he rules of statutory construction give preference to the later-adopted statute and to the more specific statute if two statutes appear to conflict”)).

2. Appropriate derivation does not require Ecology to consider the reasonable potential analysis factors

While the statute mandates numeric limits for discharges to impaired waters, it does not proscribe the process for setting those limits, except that they shall be “appropriately derived.” The factors in RCW 90.48.555(4) are for a reasonable potential analysis, not for the appropriate derivation of numeric effluent limits for discharges to impaired waters. Boeing’s suggestion that the appropriate derivation of numeric effluent limits refers back to a procedure for assessing the impact of discharges in the absence of a numeric limit makes no sense. *See* RCW 90.48.555(3) (d)(ii) (requiring determination that nonnumeric limits are inadequate to protect water quality). The reasonable potential analysis factors listed at RCW 90.48.555(4) simply have no bearing on whether the numeric fecal coliform limits are “appropriately derived.”

3. The Permit’s fecal coliform effluent limits are appropriately derived

Boeing’s conflation of the “appropriately derived” analysis with the reasonable potential analysis leads it to demand Ecology consider factors that are inappropriate and unnecessary. Principally, Boeing demands an analysis of the effect of any dilution the receiving waters might provide to ameliorate fecal coliform-laden discharges. However, an impaired receiving water cannot dilute effluent to below the water quality

criteria because the receiving water itself exceeds the water quality criteria. Dilution is therefore irrelevant. Ecology accounted for this in the only way it could – applying the fecal coliform water quality criteria at the end of the pipe. App. K at 34 (“impaired water bodies have little or no dilution capacity with respect to the listed pollutants” thus the water quality criteria are appropriate numeric effluent limits).

Further, consideration of dilution in establishing water quality-based numeric effluent limits is only permissible where Ecology authorizes a mixing zone. *See Puget Soundkeeper Alliance v. Ecology*, PCHB Nos. 05-150, 05-151, 06-034, & 06-040, 2007 WA ENV LEXIS 3 at *68, (WA ENV January 26, 2007). The term "mixing zone" refers to the use of the assimilative capacity of receiving waters as part of a pollution control strategy. *Id.* at *69 n.10. The state statute governing mixing zones “consists of a fairly rigorous array of procedures and substantive provisions to ensure these zones are not used excessively to thwart the goals and policies of the Clean Water Act and the State Water Pollution Control Act.” *Puget Soundkeeper Alliance v. Ecology*, PCHB No. 02-162, Order granting partial summary judgment, at §XXV (June 6, 2003) (available at <http://www.eho.wa.gov/Decisions.aspx>). In 2003, the PCHB rejected Ecology’s use of a standard mixing zone in the ISGP for discharges to waters that were not listed as impaired. *Id.* at §§ XXIX-

XXXI . Here, Ecology has not even attempted to establish any fecal coliform mixing zones applicable to discharges to impaired waters authorized by the Permit.

Boeing's contention that Ecology should only apply the fecal coliform limits to industrial sectors that have particular sources of fecal coliform also finds no support in law or logic. RCW 90.48.555(7) requires Ecology to develop numeric effluent limits for all industrial stormwater discharges to all impaired waters. As the Board held, the statute "does not allow Ecology to exclude, based on the 'reasonable potential' language of an earlier section of the statute, certain types of discharges to impaired water bodies." App. E at 14.

Finally, Boeing's argument that Ecology failed to properly consider "non-point sources" of fecal coliform "such as birds" demonstrates a fundamental misunderstanding of state and federal law. Boeing's Opening Brief at 49-50. As already discussed, the reasonable potential analysis factors, including controls for non-point sources, are not required for "appropriately derived" limits on discharges to impaired water bodies. More fundamentally, whether it is birds or sewage, the origin of the fecal coliform that ultimately discharges via a permittee's stormwater outfall is not relevant because the mandate relates to the actual, objective water quality effects of a discharge. When an industrial

facility's stormwater system collects and conveys fecal coliform contained in bird droppings to navigable waters, that discharge is a point source for which the permittee is responsible.³ In response to similar arguments, the Ninth Circuit held "runoff from diffuse sources that eventually passes through storm sewer systems" is "subject to the NPDES permit program." *Natural Resources Defense Council v. EPA*, 966 F.2d 1292, 1295 (9th Cir. 1992). The Permit must therefore prohibit discharges of fecal coliform that violate water quality standards, irrespective of origin.

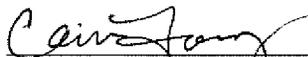
III. CONCLUSION

Boeing's attempts to weaken water quality protections are without merit. Boeing asks the Court to carve out exemptions from the Clean Water Act. Doing so would put the state law in violation of minimum federal requirements and go against legislative intent. For the foregoing reasons, Puget Soundkeeper Alliance, Columbia Riverkeeper and Olympians for Public Accountability respectfully request the Court uphold the Pollution Control Hearings Board's order and findings on the statutory presumption of compliance and the Permit's fecal coliform effluent limits.

³ For example, a permittee may need to eliminate materials that attract birds to its industrial facility.

RESPECTFULLY SUBMITTED this 26th day of March, 2012

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CERTIFICATE OF SERVICE

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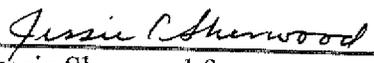
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APPENDIX A
RCW 90.48.555

RCW 90.48.555

Construction and industrial storm water general permits — Effluent limitations — Report. (Expires January 1, 2015.)

The provisions of this section apply to the construction and industrial storm water general permits issued by the department pursuant to the federal clean water act, 33 U.S.C. Sec. 1251 et seq., and this chapter.

(1) Effluent limitations shall be included in construction and industrial storm water general permits as required under the federal clean water act, 33 U.S.C. Sec. 1251 et seq., and its implementing regulations. In accordance with federal clean water act requirements, pollutant specific, water quality-based effluent limitations shall be included in construction and industrial storm water general permits if there is a reasonable potential to cause or contribute to an excursion of a state water quality standard.

(2) Subject to the provisions of this section, both technology and water quality-based effluent limitations may be expressed as:

- (a) Numeric effluent limitations;
- (b) Narrative effluent limitations; or
- (c) A combination of numeric and narrative effluent discharge limitations.

(3) The department must condition storm water general permits for industrial and construction activities issued under the national pollutant discharge elimination system of the federal clean water act to require compliance with numeric effluent discharge limits when such discharges are subject to:

- (a) Numeric effluent limitations established in federally adopted, industry-specific effluent guidelines;
- (b) State developed, industry-specific performance-based numeric effluent limitations;
- (c) Numeric effluent limitations based on a completed total maximum daily load analysis or other pollution control measures; or
- (d) A determination by the department that:
 - (i) The discharges covered under either the construction or industrial storm water general permits have a reasonable potential to cause or contribute to violation of state water quality standards; and
 - (ii) Effluent limitations based on nonnumeric best management practices are not effective in achieving compliance with state water quality standards.

(4) In making a determination under subsection (3)(d) of this section, the department shall use procedures that account for:

- (a) Existing controls on point and nonpoint sources of pollution;
- (b) The variability of the pollutant or pollutant parameter in the storm water discharge; and
- (c) As appropriate, the dilution of the storm water in the receiving waters.

(5) Narrative effluent limitations requiring both the implementation of best management practices, when designed to satisfy the technology and water quality-based requirements of the federal clean water act, 33 U.S.C. Sec. 1251 et seq., and compliance with water quality standards, shall be used for construction and industrial storm water general permits, unless the provisions of subsection (3) of this section apply.

(6) Compliance with water quality standards shall be presumed, unless discharge monitoring data or other site specific information demonstrates that a discharge causes or contributes to violation of water quality standards, when the permittee is:

- (a) In full compliance with all permit conditions, including planning, sampling, monitoring, reporting, and recordkeeping conditions; and
- (b)(i) Fully implementing storm water best management practices contained in storm water technical manuals approved by

the department, or practices that are demonstrably equivalent to practices contained in storm water technical manuals approved by the department, including the proper selection, implementation, and maintenance of all applicable and appropriate best management practices for on-site pollution control.

(ii) For the purposes of this section, "demonstrably equivalent" means that the technical basis for the selection of all storm water best management practices are documented within a storm water pollution prevention plan. The storm water pollution prevention plan must document:

(A) The method and reasons for choosing the storm water best management practices selected;

(B) The pollutant removal performance expected from the practices selected;

(C) The technical basis supporting the performance claims for the practices selected, including any available existing data concerning field performance of the practices selected;

(D) An assessment of how the selected practices will comply with state water quality standards; and

(E) An assessment of how the selected practices will satisfy both applicable federal technology-based treatment requirements and state requirements to use all known, available, and reasonable methods of prevention, control, and treatment.

(7)(a) By November 1, 2009, the department shall modify or reissue the industrial storm water general permit to require compliance with appropriately derived numeric water quality-based effluent limitations for existing discharges to water bodies listed as impaired according to 33 U.S.C. Sec. 1313(d) (Sec. 303(d) of the federal clean water act, 33 U.S.C. Sec. 1251 et seq.).

(b) The industrial storm water general permit must require permittees to comply with appropriately derived numeric water quality-based effluent limitations in the permit, as described in (a) of this subsection, by no later than six months after the effective date of the modified or reissued industrial storm water general permit.

(c) For permittees that the department determines are unable to comply with the numeric water quality-based effluent limitations required by (a) of this subsection, within the timeline established in (b) of this subsection, the department shall establish a compliance schedule as follows:

(i) Any compliance schedule provided by the department must require compliance as soon as possible, and must require compliance by no later than twenty-four months, or two complete wet seasons, after the effective date of the industrial storm water general permit. For purposes of this subsection (7)(c)(i), "wet seasons" means October 1st through June 30th.

(ii) The department shall post on its web site the name, location, industrial storm water permit number, and the reason for requesting a compliance schedule for each permittee who requests a compliance schedule according to this subsection (7)(c). The department shall post this information no later than thirty days after receiving a permittee's request for a compliance schedule under this subsection (7)(c). The department shall also prepare a list of organizations and individuals seeking to be notified when such requests for compliance schedules are made, and notify them within thirty days after receiving a permittee's request for a compliance schedule. Notification under this subsection may be accomplished electronically.

(d) The department shall report to the appropriate committees of the legislature specifying how the numeric effluent limitation in (a) of this subsection would be implemented. The report shall identify the number of dischargers to impaired water bodies and provide an assessment of anticipated compliance with the numeric effluent limitation established by (a) of this subsection.

(8)(a) Construction and industrial storm water general permits issued by the department shall include an enforceable adaptive management mechanism that includes appropriate monitoring, evaluation, and reporting. The adaptive management mechanism shall include elements designed to result in permit compliance and shall include, at a minimum, the following elements:

(i) An adaptive management indicator, such as monitoring benchmarks;

(ii) Monitoring;

(iii) Review and revisions to the storm water pollution prevention plan;

(iv) Documentation of remedial actions taken; and

(v) Reporting to the department.

(b) Construction and industrial storm water general permits issued by the department also shall include the timing and mechanisms for implementation of treatment best management practices.

(9) Construction and industrial storm water discharges authorized under general permits must not cause or have the reasonable potential to cause or contribute to a violation of an applicable water quality standard. Where a discharge has already been authorized under a national pollutant discharge elimination system storm water permit and it is later determined to cause or have the reasonable potential to cause or contribute to the violation of an applicable water quality standard, the department may notify the permittee of such a violation.

(10) Once notified by the department of a determination of reasonable potential to cause or contribute to the violation of an applicable water quality standard, the permittee must take all necessary actions to ensure future discharges do not cause or contribute to the violation of a water quality standard and document those actions in the storm water pollution prevention plan and a report timely submitted to the department. If violations remain or recur, coverage under the construction or industrial storm water general permits may be terminated by the department, and an alternative general permit or individual permit may be issued. Compliance with the requirements of this subsection does not preclude any enforcement activity provided by the federal clean water act, 33 U.S.C. Sec. 1251 et seq., for the underlying violation.

(11) Receiving water sampling shall not be a requirement of an industrial or construction storm water general permit except to the extent that it can be conducted without endangering the health and safety of persons conducting the sampling.

(12) The department may authorize mixing zones only in compliance with and after making determinations mandated by the procedural and substantive requirements of applicable laws and regulations.

[2009 c 449 § 1; 2004 c 225 § 2.]

Notes:

Expiration date -- 2009 c 449 § 1: "Section 1 of this act expires January 1, 2015." [2009 c 449 § 3.]

Expiration date -- 2004 c 225: "This act expires January 1, 2015." [2004 c 225 § 7.]

Conflict with federal clean water act--2004 c 225 §§ 2 and 3: "If any portion of sections 2 and 3 of this act are found to be in conflict with the federal clean water act, that portion alone is void." [2004 c 225 § 6.]

Findings -- 2004 c 225: "(1) The legislature finds that the federal permit program under the federal clean water act, 33 U.S.C. Sec. 1251 et seq., and the state water pollution control laws provide numerous environmental and public health benefits to the citizens of Washington and to the state. The legislature also finds that failure to prevent and control pollution discharges, including those associated with storm water runoff, can degrade water quality and damage the environment, public health, and industries dependent on clean water such as shellfish production.

(2) The legislature finds the nature of storm water presents unique challenges and difficulties in meeting the permitting requirements under the federal clean water act, 33 U.S.C. Sec. 1251 et seq., including compliance with technology and water quality-based standards.

(3) The legislature finds that the federal clean water act, 33 U.S.C. Sec. 1251 et seq., requires certain larger construction sites and industrial facilities to obtain storm water permits under the national pollutant discharge elimination system permit program. The legislature also finds that under phase two of this program, smaller construction sites are also required to obtain storm water permits for their discharges.

(4) The legislature finds the department of ecology has been using general permits to permit categories of similar dischargers, including storm water associated with industrial and construction activities. The legislature also finds general permits must comply with all applicable requirements of the federal clean water act, 33 U.S.C. Sec. 1251 et seq., and the state water pollution control act including technology and water quality-based permitting requirements. The legislature further finds general permits may not always be the best solution for an individual discharger, especially when establishing water quality-based permitting requirements.

(5) The legislature finds that where sources within a specific category or subcategory of dischargers are subject to water quality-based limits imposed under the federal clean water act, 33 U.S.C. Sec. 1251 et seq., the sources in

that specific category or subcategory must be subject to the same water quality-based limits.

(6) For this reason, the legislature encourages, to the extent allowed under existing state and federal law, an adaptive management approach to permitting storm water discharges.

(7) The legislature finds that storm water management must satisfy state and federal water quality requirements while also providing for flexibility in meeting such requirement to help ensure cost-effective storm water management.

(8) The legislature finds that the permitting of new and existing dischargers into waters listed under 33 U.S.C. Sec. 1313(d) (section 303(d) of the federal clean water act) presents specific challenges and is subject to additional permitting restrictions under the federal clean water act, 33 U.S.C. Sec. 1251 et seq.

(9) The legislature declares that general permits can be an effective and efficient permitting mechanism for permitting large numbers of similar dischargers.

(10) The legislature declares that an inspection and technical assistance program for industrial and construction storm water general permits is needed to ensure an effective permitting program. The legislature also declares that such a program should be fully funded to ensure its success." [2004 c 225 § 1.]

Report to legislature--2004 c 225: "No later than December 31, 2006, the department of ecology shall submit a report to the appropriate committees of the legislature regarding methods to improve the effectiveness of permit monitoring requirements in construction and industrial storm water general permits. The department of ecology shall study and evaluate how monitoring requirements could be improved to determine the effectiveness of storm water best management practices and compliance with state water quality standards. In this study the department also shall evaluate monitoring requirements that are necessary for determining compliance or noncompliance with state water quality standards and shall evaluate the feasibility of including such monitoring in future permits. When conducting this study, the department shall consult with experts in the fields of monitoring, storm water management, and water quality, and when necessary the department shall conduct field work to evaluate the practicality and usefulness of alternative monitoring proposals." [2004 c 225 § 4.]

APPENDIX B

Industrial Stormwater General Permit

October 21, 2009

(effective January 1, 2010)

(Ex. B-1)

Issuance Date: October 21, 2009
Effective Date: January 1, 2010
Expiration Date: January 1, 2015

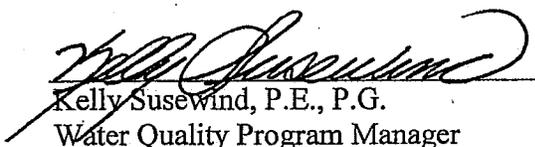
INDUSTRIAL STORMWATER GENERAL PERMIT

A National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge
General Permit for Stormwater Discharges Associated With
Industrial Activities

State of Washington
Department of Ecology
Olympia, Washington 98504-7600

In compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington
and
The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1251 et seq.

Until this permit expires, is modified or revoked, Permittees that have properly obtained
coverage under this general permit are authorized to discharge in accordance with the special and
general conditions which follow.



Kelly Susewind, P.E., P.G.
Water Quality Program Manager
Washington State Department of Ecology

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SUMMARY OF PERMIT REPORTS & SUBMITTALS

Permit Section	Submittal	Frequency	Due Date(s)
S1.F	Conditional "No Exposure" Certification Form	As necessary	As necessary
S2.B	<i>Application</i> for Permit Coverage	As necessary	As necessary
S2.B.	Request Modification of Permit Coverage	As necessary	As necessary
S2.D	Request Transfer of Coverage	As necessary	As necessary
S9.A	Discharge Monitoring Reports (DMRs)	1/quarter	within 45 days after the end of each quarter
S9.B	Annual Report	1/year	May 15 th (except 2010)
S9.C.	SWPPP, if requested by <i>Ecology</i>	Per <i>Ecology</i> request	Within 14 days of request
S9.D	Noncompliance Notification	As necessary	Within 30 days of noncompliance event

SUMMARY OF REQUIRED ONSITE DOCUMENTATION¹

Permit Condition(s)	Document Title
S3.A.4.a	<i>Stormwater Pollution Prevention Plan (SWPPP)</i> ²
S9.B	Copies of Annual Reports
S9.C.1.a	Copy of Permit
S9.C.1.b	Copy of Permit Coverage Letter
S9.C.1.c	Original Sampling Records (Field Notes and Laboratory Reports)
S7.C & S9.C.1.d	Site Inspection Reports
S9.C.1.j	Copies of Discharge Monitoring Reports (DMRs)

¹ A complete list is contained in Condition S9.C. The permittee shall make all plans, documents and records required by this permit immediately available to Ecology or the local jurisdiction upon request.

² With signed and completed SWPPP Certification Form(s) – see Appendix 3

SPECIAL CONDITIONS

S1. PERMIT COVERAGE

A. Facilities Required to Seek Coverage Under This General Permit

This statewide permit applies to *facilities* conducting *industrial activities* that *discharge stormwater* to a surface water body or to a *storm sewer* system that drains to a surface water body. Beginning on the effective date of this permit and lasting through its expiration date, the Permittee is authorized to *discharge stormwater* and conditionally approved non-stormwater *discharges* to *waters of the state*. All *discharges* and activities authorized by this permit shall be consistent with the terms and conditions of this permit.

The permit requires coverage for private entities, state, and *local government* facilities, and includes *existing facilities* and *new facilities*. Facilities conducting industrial activities listed in Table 1 or referenced in S1.A3 shall apply for coverage under this permit or apply for a Conditional No Exposure exemption, if eligible (Condition S1.F). The *Department of Ecology (Ecology)* may also require permit coverage for any *facility* on a case-by-case basis in order to protect *waters of the state* (Condition S1.B).

1. Facilities engaged in any industrial activities in Table 1 shall apply for coverage if *stormwater* from the *facility discharges* to a surface water body, or to a *storm sewer* system that *discharges* to a surface water body. The *Standard Industrial Classification (SIC)* groups generally, but not always, associated with these activities are listed in Table 1.

Table 1: Activities Requiring Permit Coverage and the Associated SIC Code Groups

Industrial Activities	SIC Code
Metal Mining	10xx
Coal Mining	12xx
Oil and Gas Extraction	13xx
Mining and Quarrying of Nonmetallic Minerals, except Fuels (except facilities in SIC Codes must apply for the Sand and Gravel General Permit: 1411 -; 1422 1423 1429 1442 - 1446 1445; 1459; 1499 -	14xx
Food and Kindred Products	20xx
Tobacco Products	21xx
Textile Mill Products	22xx
Apparel and Other Finished Products Made from Fabrics and Similar Material	23xx
Lumber and Wood Products	24xx
Furniture and Fixtures	25xx
Paper and Allied Products	26xx
Printing, Publishing and Allied Industries	27xx
Chemicals and Allied Products	28xx
Petroleum Refining and Related Industries	29xx
Rubber and Miscellaneous Products	30xx
Leather and Leather Products	31xx
Stone, Clay, Glass, and Concrete Products	32xx

Industrial Activities	SIC Code
Primary Metal Industries	33xx
Fabricated Metal Products	34xx
Industrial and Commercial Machinery and Computer Equipment	35xx
Electronic and Other Electrical Equipment and Components	36xx
Transportation Equipment	37xx
Measuring, Analyzing, and Controlling Instruments; Photographic, Medical, and Optical Goods; Watches and Clocks	38xx
Miscellaneous Manufacturing Industries	39xx
Farm Product Storage	4221
Refrigerated Storage	4222
General Storage	4225
Recycling facilities involved in the recycling of materials, including but not limited to, metal scrap yards, battery reclaimers, salvage yards, auto recyclers, and automobile junkyards.	5015 and 5093
Steam Electric Power Generation, including coal handling sites	N/A
Active <i>landfills</i> , including, but not limited to, wood waste and inert <i>landfills</i> , transfer stations, open dumps, compost facilities, and <i>land application sites</i> , except as described in S1.C.6 or C.7.	4953
Hazardous waste treatment, storage, and disposal (TSD) facilities, and recycling facilities regulated under Chapter 173-303 WAC.	N/A
Treatment works treating domestic sewage, or any other sewage sludge, or wastewater treatment device or system, used in the storage, recycling, and reclamation of municipal or domestic sewage (including land dedicated to the disposal of sewage sludge that are located within the confines of the <i>facility</i>) with the design flow capacity of 1 million gallons per day (MGD) or more, or required to have a pretreatment program under 40 CFR §403.	4952
Transportation facilities which have <i>vehicle maintenance</i> shops, <i>material handling</i> facilities, equipment cleaning operations, or airport deicing operations:	
• Railroad Transportation	40xx
• Local and Suburban Transit and Interurban Highway Passenger Transportation	41xx
• Motor Freight Transportation (except SIC 4221–25)	42xx
• United States Postal Service	43xx
• Water Transportation	44xx
• Air Transportation	45xx
• Petroleum Bulk Stations and Terminals	5171

2. Any facility that has an existing *National Pollutant Discharge Elimination System (NPDES)* permit which does not address all *stormwater discharges associated with industrial activity* [40 CFR Subpart 122.26(b)(14)] shall obtain permit coverage.
3. Any *inactive facility* which is listed under 40 CFR Subpart 122.26(b)(14) where *significant materials* remain onsite and are exposed to *stormwater* shall obtain permit coverage.

B. Significant Contributors of Pollutants

Ecology may require a facility to obtain coverage under this permit if *Ecology* determines the facility:

1. Is a *significant contributor of pollutants* to *waters of the state*, including *ground water*;
2. May reasonably be expected to cause a violation of any *water quality standard*; or
3. Conducts *industrial activity*, or has a SIC code, with *stormwater* characteristics similar to any *industrial activity* or SIC code listed in Table 1 in S1.A1.

C. Facilities Not Required to Obtain Coverage

Ecology does not require the types of facilities listed below to obtain coverage under this permit, unless determined to be a *significant contributor of pollutants*.

1. Industrial facilities that submit an *application* and qualify for a Conditional “No Exposure” Exemption. (Condition S1.F)
2. Industrial facilities that *discharge stormwater* only to a municipal *combined sewer* or *sanitary sewer*. *Discharge* of stormwater to sanitary or *combined sewers* shall only occur as authorized by the municipal sewage authority.
3. Industrial facilities that *discharge stormwater* only to groundwater (e.g., on-site infiltration) with no *discharge* to *surface waters of the state* under any condition.
4. Office buildings and/or administrative parking lots from which *stormwater* does not commingle with stormwater from areas associated with *industrial activity*.
5. Any part of a *facility* with a *discharge* that is in compliance with the instructions of an On-Scene-Coordinator pursuant to 40 CFR part 300 (The National Oil and Hazardous Substances Pollution Contingency Plan) or 33 CFR 153.10(e) (Pollution by Oil and Hazardous Substances), in accordance with 40 CFR 122.3(d).
6. Any *land application site* used for the beneficial use of industrial or municipal wastewater for agricultural activities or when applied for landscaping purposes at agronomic rates.
7. Any farmland, domestic garden, or land used for sludge management where domestic sewage sludge (biosolids) is beneficially reused (nutrient builder or soil conditioner) and which is not physically located in the confines of domestic sewage treatment

works, or areas that are in compliance with Section 405 (Disposal of Sewage Sludge) of the *Clean Water Act (CWA)*.

8. Any inactive coal mining operation if:
 - a. The performance bond issued to the *facility* by the appropriate Surface Mining Control and Reclamation Act (SMCRA) authority has been released from applicable state or federal reclamation requirements after December 17, 1990.
 - b. The mine does not have a *discharge of stormwater* that comes in contact with any overburden, raw material, intermediate products, finished products, byproducts, or waste products located on the site of the *facility*.
9. Inactive mining, inactive oil and gas operations, or inactive *landfills* where neither an owner nor an operator can be identified.
10. Closed *landfills* that are capped and stabilized, in compliance with Chapter 173-304 WAC, and in which no *significant materials* or industrial *pollutants* remain exposed to *stormwater*. Permittee's with existing coverage may submit a *Notice of Termination* in accordance with Special Condition S13.A.1.

D. Facilities Excluded from Coverage

Ecology will not cover the following facilities or activities under this permit:

1. Any part of a *facility* that has a *stormwater discharge* subject to *stormwater* Effluent Limitations Guidelines, New Source Performance Standards (NSPS) Under *40 CFR* Subchapter N, or Toxic Pollutant Effluent Standards under *40 CFR* Subchapter D Part 129; these facilities must apply for NPDES permit coverage in an individual or industry-specific *general permit* for those *stormwater discharges*.

Below is a list of categories of industries specified in *40 CFR* Subchapter N for which at least one subpart includes *stormwater* effluent limitations guidelines or NSPS. Industries included in this list should review the Subchapter N guidelines to determine if they are subject to a *stormwater* effluent limitation guideline for activities which they perform at their site.

40 CFR 411 Cement manufacturing	40 CFR 423 Steam electric power generating
40 CFR 412 Feedlots	40 CFR 434 Coal mining
40 CFR 418 Fertilizer manufacturing	40 CFR 436 Mineral mining and processing
40 CFR 419 Petroleum refining	40 CFR 440 Ore mining and dressing
40 CFR 422 Phosphate manufacturing	40 CFR 443 Paving and roofing materials (tars & asphalt)

Facilities discharging any of the following toxic *pollutants*, which are limited by effluent standards in *40 CFR* Subchapter D Part 129: Aldrin/Dieldrin; DDT; Endrin; Toxaphene; Benzidine; or Polychlorinated Biphenyls (PCBs); these facilities shall obtain coverage under an individual NPDES permit.

2. Nonpoint source silvicultural activities with natural *runoff* that are excluded in *40 CFR* Subpart 122.27.

3. Facilities located on federal land or are federally owned or operated.
4. Facilities located on Tribal lands or facilities that *discharge stormwater* to receiving waters subject to *water quality standards* of Indian Tribes, including portions of the Puyallup River and other waters on trust or restricted lands within the 1873 Survey Area of the Puyallup Tribe of Indians Reservation.
5. Any *facility* authorized to *discharge stormwater* associated with *industrial activity* under an existing NPDES individual or other *general permit*.
6. All *construction activities*. Operators of these construction activities shall seek coverage under the Construction Stormwater General Permit or an individual NPDES permit for *stormwater* associated with *construction activity*.
7. Facilities that *discharge* to a water body with a *control plan*, unless this *general permit* adequately provides the level of protection required by the *control plan*.
8. *New dischargers* to a water body listed pursuant to Section 303(d) of the CWA, unless the Permittee meets the requirements of Condition S6.B.
9. Hazardous waste *landfills* subject to 40 CFR Part 445, Subpart A.

E. Discharges to Ground

1. For sites that *discharge* to both surface water and *ground water*, the terms and conditions of this permit shall apply to all *ground water discharges*.
2. Facilities that *discharge* to *ground water* through an *underground injection control well* shall comply with any applicable requirements of the Underground Injection Control (UIC) regulations, Chapter 173-218 WAC.

F. Conditional "No Exposure" Exemption

1. Any *industrial activity* identified for coverage under Condition S1.A. that is eligible for a "No Exposure" exemption from the permit under 40 CFR 122.26 (g), may submit a No Exposure Certification Form to *Ecology*, either in writing or electronically.
 - a. A Permittee is automatically granted a No Exposure exemption 90 days from *Ecology's* receipt of a complete and accurate No Exposure Certification Form, unless *Ecology* informs the applicant in writing or electronically within 90 days that it has denied or approved the request.
 - b. *Ecology* will automatically terminate permit coverage when it grants the No Exposure exemption to a permitted *facility*.
 - c. Facilities which are granted a No Exposure exemption must submit a No Exposure Certification Form to *Ecology* once every five years, or by October 1, 2013, whichever is earlier.
 - d. No Exposure exemptions are conditional. If there is a change at the *facility* that results in the exposure of industrial activities or materials to *stormwater*, the *facility* is required to immediately apply for and obtain a permit.

S2. APPLICATION FOR COVERAGE

A. Obtaining Permit Coverage

1. Permitted Facilities

Permittees with coverage under the existing industrial *stormwater general permit* (effective date Nov 15, 2008) are automatically covered under this permit unless otherwise notified by *Ecology*.

2. Unpermitted Facilities

Unpermitted facilities that require coverage under this permit shall submit a complete and accurate permit *application* to *Ecology* as follows:

a. Existing Facilities

- i. Unpermitted existing facilities that require coverage under this permit shall submit a complete and accurate permit *application* to *Ecology*.
- ii. Existing facilities are facilities in operation prior to the effective date of this permit, January 1, 2010.

b. New Facilities

New facilities are facilities that begin operation on or after the effective date of this permit, January 1, 2010. All unpermitted new facilities shall:

- i. Submit a complete and accurate permit *application* to *Ecology* at least 60 days before the commencement of *stormwater discharge* from the *facility*.
- ii. The *application* shall include certification that the *facility* has met the applicable public notice and *State Environmental Policy Act (SEPA)* requirements in WAC 173-226-200(f).

B. Modification of Permit Coverage

A Permittee anticipating a *significant process change*, or otherwise requesting a modification of permit coverage, shall submit a complete Modification of Coverage Form to *Ecology*. The Permittee shall:

1. Apply for modification of coverage at least 60 days before implementing a *significant process change*; or by June 1st prior to a Corrective Action deadline, if requesting a Level 2 or 3 time extension or waiver request per Condition S8.B-D.
2. Complete the public notice requirements in WAC 173-226-130(5) as part of a complete *application* for modification of coverage.
3. Comply with SEPA as part of a complete *application* for modification of coverage if undergoing a *significant process change*.

C. Permit Coverage or Permit Modification Timeline

1. If the applicant does not receive notification from *Ecology*, permit coverage or modification of coverage automatically commences on whichever of the following dates occurs last:
 - a. The 31st day following receipt by *Ecology* of a completed *application* for coverage or modification of coverage form.
 - b. The 31st day following the end of a 30-day public comment period.
 - c. The effective date of the *general permit*.
2. *Ecology* may need additional time to review the *application*:
 - a. If the *application* is incomplete.
 - b. If it requires additional site-specific information.
 - c. If the public requests a public hearing.
 - d. If members of the public file comments.
 - e. When more information is necessary to determine whether coverage under the *general permit* is appropriate.
3. When *Ecology* needs additional time:
 - a. *Ecology* will notify the applicant in writing within 30 days and identify the issues that the applicant must resolve before a decision can be reached.
 - b. *Ecology* will submit the final decision to the applicant in writing. If *Ecology* approves the *application* for coverage/modification, coverage begins the 31st day following approval, or the date the approval letter is issued, whichever is later.

D. Transfer of Permit Coverage

Coverage under this *general permit* shall automatically transfer to a *new discharger*, if all of the following conditions are met:

1. The Permittee (existing *discharger*) and *new discharger* submit to *Ecology* a complete, written, signed agreement (Transfer of Coverage Form) containing a specific date for transfer of permit responsibility, coverage, and liability.
2. The type of industrial activities and practices remain substantially unchanged.
3. *Ecology* does not notify the Permittee of the need to submit a new *application* for coverage under the *general permit* or for an individual permit pursuant to Chapters 173-216, 173-220, and 173-226 WAC.
4. *Ecology* does not notify the existing *discharger* and *new discharger* of its intent to revoke coverage under the *general permit*. The transfer is effective on the date specified in the written agreement unless *Ecology* gives this notice.

S3. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General Requirements

1. All Permittees and applicants for coverage under this permit shall develop and implement a SWPPP for the permitted *facility* as follows:
2. The SWPPP shall specify the *Best Management Practices* (BMPs) necessary to:
 - a. Provide *all known, available, and reasonable methods of prevention, control, and treatment (AKART)* of stormwater pollution.
 - b. Ensure the *discharge* does not cause or contribute to a violation of the *Water Quality Standards*.
 - c. Comply with applicable federal technology-based treatment requirements under *40 CFR 125.3*.
3. Proper Selection and Use of *Stormwater Management Manuals (SWMM)*:
BMPs shall be consistent with:
 - a. *Stormwater Management Manual* for Western Washington (2005 edition), for sites west of the crest of the Cascade Mountains.
 - b. *Stormwater Management Manual* for Eastern Washington (2004 edition), for sites east of the crest of the Cascade Mountains.
 - c. Revisions to the manuals in S3.A.3. a & b., or other *stormwater* management guidance documents or manuals which provide an equivalent level of *pollution* prevention, that are approved by *Ecology* and incorporated into this permit in accordance with the permit modification requirements of WAC 173-220-190. For purposes of this section, the documents listed in Appendix 10 of the Phase I Municipal Stormwater Permit are hereby incorporated into this permit.
 - d. Documentation in the SWPPP that the BMPs selected are *demonstrably equivalent* to practices contained in stormwater technical manuals approved by *Ecology*, including the proper selection, implementation, and maintenance of all applicable and appropriate *best management practices* for on-site *pollution* control.
4. Update of the SWPPP
 - a. The Permittee shall modify the SWPPP if the owner/operator or the applicable local or state regulatory authority determines during inspections or investigations that the SWPPP is, or would be, ineffective in eliminating or significantly minimizing *pollutants* in *stormwater* discharges from the site. The Permittee shall modify the SWPPP:
 - i. As necessary to include additional or modified BMPs designed to correct problems identified.
 - ii. To correct the deficiencies identified in writing from *Ecology* within 30 days of notice.

- b. The Permittee shall modify the SWPPP whenever there is a change in design, construction, operation, or maintenance at the *facility* that significantly changes the nature of *pollutants* discharged in *stormwater* from the *facility*, or significantly increases the quantity of pollutants discharged.

5. *Other Pollution Control Plans*

The Permittee may incorporate by reference applicable portions of plans prepared for other purposes at their *facility*. Plans or portions of plans incorporated by reference into a SWPPP become enforceable requirements of this permit and must be available along with the SWPPP as required in S9.F. A *Pollution* Prevention Plan prepared under the Hazardous Waste Reduction Act, Chapter 70.95C RCW, is an example of such a plan.

6. *Signatory Requirements*

The Permittee shall sign and certify all SWPPPs in accordance with General Condition G2, each time it revises or modifies a SWPPP to comply with Conditions S3.A.4 (Update of the SWPPP), S7 (Inspections) or S8 (Corrective Actions). A SWPPP Certification Form is contained in Appendix 3 of this permit.

B. Specific SWPPP Requirements

The SWPPP shall contain a site map, a detailed assessment of the *facility*, a detailed description of the BMPs, Spill Prevention and Emergency Cleanup Plan, and a sampling plan. The Permittee shall identify any parts of the SWPPP which the *facility* wants to claim as Confidential Business Information.

1. The site map shall identify:

- a. The scale or include relative distances between significant structures and drainage systems.
- b. Significant features.
- c. The *stormwater* drainage and *discharge* structures and identify, by name, any other party other than the Permittee that owns any *stormwater* drainage or discharge structures.
- d. The *stormwater* drainage areas for each *stormwater discharge* point off-site (including discharges to *ground water*) and assign a unique identifying number for each discharge point.
- e. Each sampling location by unique identifying number.
- f. Paved areas and buildings.
- g. Areas of *pollutant* contact (actual or potential) associated with specific industrial activities.
- h. Conditionally approved non-*stormwater* discharges (Condition S5.D).
- i. Surface water locations (including wetlands and drainage ditches).
- j. Areas of existing and potential soil *erosion* (in a *significant amount*).

- k. *Vehicle maintenance* areas.
 - l. Lands and waters adjacent to the site that may be helpful in identifying *discharge* points or drainage routes.
2. The *facility* assessment shall include a description of the *facility*; an inventory of *facility* activities and equipment that contribute to or have the potential to contribute any *pollutants* to *stormwater*; and, an inventory of materials that contribute to or have the potential to contribute *pollutants* to *stormwater*.
- a. The *facility* description shall describe:
 - i. The industrial activities conducted at the site.
 - ii. *Regular business hours* and seasonal variations in business hours or industrial activities.
 - iii. The general layout of the *facility* including buildings and storage of raw materials, and the flow of goods and materials through the *facility*.
 - b. The inventory of industrial activities shall identify all areas associated with industrial activities (see Table 1) that have been or may potentially be sources of *pollutants*, including, but not limited to, the following:
 - i. Loading and unloading of dry bulk materials or liquids.
 - ii. Outdoor storage of materials or products.
 - iii. Outdoor manufacturing and processing.
 - iv. On-site dust or particulate generating processes.
 - v. On-site waste treatment, storage, or disposal.
 - vi. *Vehicle* and equipment fueling, maintenance, and/or cleaning (includes washing).
 - vii. Roofs or other surfaces exposed to *air emissions* from a manufacturing building or a process area.
 - viii. Roofs or other surfaces composed of materials that may be mobilized by *stormwater* (e.g., galvanized roofs, galvanized fences, etc.).
 - c. The inventory of materials shall list:
 - i. The types of materials handled at the site that potentially may be exposed to precipitation or *runoff* and could result in *stormwater pollution*.
 - ii. A short narrative for each material describing the potential of the *pollutant* to be present in *stormwater* discharges. The Permittee shall update this narrative when data become available to verify the presence or absence of these *pollutants*.
 - iii. A narrative description of any potential sources of *pollutants* from past activities, materials and spills that were previously handled, treated, stored, or disposed of in a manner to allow ongoing exposure to *stormwater*. Include the

method and location of on-site storage or disposal. List significant spills and significant leaks of toxic or hazardous pollutants.

3. The SWPPP shall identify specific individuals by name or by title within the organization (*pollution* prevention team) whose responsibilities include: SWPPP development, implementation, maintenance, and modification.

4. *Best Management Practices* (BMPs)

a. General BMP Requirements

The Permittee shall describe each BMP selected to eliminate or reduce the potential to contaminate *stormwater* and prevent violations of *water quality standards*.

b. No later than July 1, 2010, the Permittee shall include each of the following mandatory BMPs in the SWPPP and implement the BMPs. The Permittee may omit individual BMPs if site conditions render the BMP unnecessary, infeasible, or the Permittee provides alternative and equally effective BMPs; if the Permittee clearly justifies each BMP omission in the SWPPP. Prior to July 1, 2010, the Permittee shall implement the BMP requirements of the previous Industrial *Stormwater General Permit*, or Condition S3.B.4 of this permit.

i. *Operational Source Control BMPs*

1) The SWPPP shall include the *Operational Source Control BMPs* listed as “applicable” in *Ecology’s* SWMMs, or other guidance documents or manuals approved in accordance with S3.A.3.c.

2) Good Housekeeping: The SWPPP shall include BMPs that define ongoing maintenance and cleanup, as appropriate, of areas which may contribute *pollutants* to *stormwater* discharges. The SWPPP shall include the schedule/frequency for completing each housekeeping task, based upon *industrial activity*, sampling results and observations made during inspections. The Permittee shall:

a) Vacuum paved surfaces with a vacuum sweeper (or a sweeper with a vacuum attachment) to remove accumulated *pollutants* a minimum of once per quarter.

b) Identify and control all on-site sources of dust to minimize *stormwater* contamination from the deposition of dust on areas exposed to precipitation.

c) Inspect and maintain bag houses monthly to prevent the escape of dust from the system. Immediately remove any accumulated dust at the base of exterior bag houses.

d) Keep all dumpsters under cover or fit with a lid that must remain closed when not in use.

3) Preventive Maintenance: The SWPPP shall include BMPs to inspect and maintain the *stormwater* drainage, source controls, treatment systems (if

any), and plant equipment and systems that could fail and result in contamination of *stormwater*. The SWPPP shall include the schedule/frequency for completing each maintenance task. The Permittee must:

- a) Clean catch basins when the depth of debris reaches 60% of the sump depth. In addition, the Permittee must keep the debris surface at least 6 inches below the outlet pipe.
 - b) Inspect all equipment and vehicles during monthly site inspections for leaking fluids such as oil, antifreeze, etc. Take leaking equipment and *vehicles* out of service or prevent leaks from spilling on the ground until repaired.
 - c) Immediately clean up spills and leaks (e.g., using absorbents, vacuuming, etc.) to prevent the *discharge* of *pollutants*.
- 4) Spill Prevention and Emergency Cleanup Plan (SPECP): The SWPPP shall include a SPECP that includes BMPs to prevent spills that can contaminate *stormwater*. The SPECP shall specify BMPs for *material handling* procedures, storage requirements, cleanup equipment and procedures, and spill logs, as appropriate. The Permittee shall:
- a) Store all chemical liquids, fluids, and petroleum products, on an impervious surface that is surrounded with a containment berm or dike that is capable of containing 10% of the total enclosed tank volume or 110% of the volume contained in the largest tank, whichever is greater.
 - b) Prevent precipitation from accumulating in containment areas with a roof or equivalent structure or include a plan on how it will manage and dispose of accumulated water if a containment area cover is not practical.
 - c) Locate spill kits within 25 feet of all stationary fueling stations, fuel transfer stations, and mobile fueling units. At a minimum, spill kits shall include:
 - i) Oil absorbents capable of absorbing 15 gallons of fuel.
 - ii) A storm drain plug or cover kit.
 - iii) A non-water containment boom, a minimum of 10 feet in length with a 12 gallon absorbent capacity.
 - iv) A non-metallic shovel.
 - v) Two five-gallon buckets with lids.
 - d) Not lock shut-off fueling nozzles in the open position. Do not “top-off” tanks being refueled.

- e) Block, plug or cover storm drains that receive *runoff* from areas where fueling, during fueling.
 - f) Use drip pans or equivalent containment measures during all petroleum transfer operations.
 - g) Locate materials, equipment, and activities so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone *vehicles* and equipment awaiting maintenance to protected areas).
 - h) Use drip pans and absorbents under or around leaky *vehicles* and equipment or store indoors where feasible. Drain fluids from equipment and *vehicles* prior to on-site storage or disposal.
 - i) Maintain a spill log that includes the following information for chemical and petroleum spills: date, time, amount, location, and reason for spill; date/time clean-up completed, notifications made and staff involved.
- 5) Employee Training: The SWPPP shall include BMPs to provide SWPPP training for employees who have duties in areas of industrial activities subject to this permit. At a minimum, the training plan shall include:
- a) The content of the training,
 - i) An overview of what is in the SWPPP.
 - ii) How employees make a difference in complying with the SWPPP and preventing contamination of *stormwater*.
 - iii) Spill response procedures, good housekeeping, maintenance requirements, and material management practices.
 - b) How the Permittee will conduct training.
 - c) The frequency/schedule of training. The Permittee shall train employees annually, at a minimum.
 - d) A log of the dates on which specific employees received training.
- 6) Inspections and Recordkeeping: The SWPPP shall include documentation of procedures to ensure compliance with permit requirements for inspections and recordkeeping. At a minimum, the SWPPP shall:
- a) Identify *facility* personnel who will inspect designated equipment and *facility* areas as required in Condition S7.
 - b) Contain a visual inspection report or check list that includes all items required by Condition S7.C.

- c) Provide a tracking or follow-up procedure to ensure that a report is prepared and any appropriate action taken in response to visual inspections.
 - d) Define how the Permittee will comply with signature requirements and records retention identified in Special Condition S9, Reporting and Recordkeeping Requirements.
 - e) Include a certification of compliance with the SWPPP and permit for each inspection using the language in S7.C.1.c.
- 7) *Illicit Discharges*: The SWPPP shall include measures to identify and eliminate the *discharge of process wastewater, domestic wastewater, noncontact cooling water, and other illicit discharges, to stormwater sewers, or to surface waters and ground waters of the state.* The Permittee can find BMPs to identify and eliminate *illicit discharges* in Volume IV of *Ecology's SWMM for Western Washington* and Chapter 8 of the SWMM for Eastern Washington.

Water from washing *vehicles* or equipment, steam cleaning and/or pressure washing is considered *process wastewater*. The Permittee must not allow this process wastewater to comingle with *stormwater* or enter storm drains; and must collect in a tank for off-site disposal, or *discharge* it to a *sanitary sewer*, with written approval from the local sewage authority.

ii. *Structural Source Control BMPs*

- 1) The SWPPP shall include the *Structural Source Control BMPs* listed as “applicable” in *Ecology's SWMMs*, or other guidance documents or manuals approved in accordance with S3.A.3.c.
- 2) The SWPPP shall include BMPs to minimize the exposure of manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rain, snow, snowmelt, and *runoff* by either locating these industrial materials and activities inside or protecting them with storm resistant coverings.

Permittees shall:

- a) Use grading, berming, or curbing to prevent *runoff* of contaminated flows and divert run-on away from these areas.
- b) Perform all cleaning operations indoors, under cover, or in bermed areas that prevent *stormwater runoff* and run-on and also that capture any overspray.
- c) Ensure that all washwater drains to a collection system that directs the washwater to further treatment or storage and not to the *stormwater drainage system*.

iii. *Treatment BMPs*

The Permittee shall:

- 1) Use *Treatment BMPs* consistent with the applicable documents referenced in Condition S3.A.3.
- 2) Employ oil/water separators, booms, skimmers or other methods to eliminate or minimize oil and grease contamination of *stormwater* discharges.
- 3) Obtain *Ecology* approval before beginning construction/installation of all *treatment BMPs* that include the addition of chemicals to provide treatment.

iv. *Stormwater Peak Runoff Rate and Volume Control BMPs*

Facilities with *new development* or *redevelopment* shall evaluate whether flow control BMPs are necessary to satisfy the state's AKART requirements, and prevent violations of water quality standards. If flow control BMPs are required, they shall be selected according to S3.A.3.

v. *Erosion and Sediment Control BMPs*

The SWPPP shall describe the BMPs necessary to prevent the *erosion* of soils and other earthen materials (crushed rock/gravel, etc.) and prevent off-site *sedimentation* and violations of *water quality standards*. The Permittee shall implement and maintain:

- 1) *Sediment* control BMPs such as *detention* or retention ponds or traps, vegetated filter strips, bioswales, or other permanent *sediment* control BMPs to minimize *sediment* loads in *stormwater* discharges.
- 2) Filtration BMPs to remove solids from catch basins, sumps or other *stormwater* collection and conveyance system components (filter socks, modular canisters, sand filtration, centrifugal separators, etc.).

5. Sampling Plan

The SWPPP shall include a sampling plan. The plan shall:

- a. Identify points of *discharge* to surface water, *storm sewers*, or discrete *ground water* infiltration locations, such as dry wells or *detention* ponds.
- b. Include documentation of why each *discharge* point is not sampled per S4.B.2.c (if applicable):
 - i. Location of which *discharge* points the Permittee does not sample because the *pollutant* concentrations are substantially identical to a discharge point being sampled.
 - ii. General industrial activities conducted in the drainage area of each *discharge* point.
 - iii. *Best Management Practices* conducted in the drainage area of each outfall.

- iv. Exposed materials located in the drainage area of each *discharge* point that are likely to be significant contributors of *pollutants* to *stormwater discharges*.
- v. Impervious surfaces in the drainage area that could affect the percolation of *stormwater runoff* into the ground (e.g., asphalt, crushed rock, grass, etc.).
- vi. Reasons why the Permittee expects the *discharge* points to discharge substantially identical effluents.
- c. Identify each sampling location by its unique identifying number such as A1, A2, etc.
- d. Identify staff responsible for conducting *stormwater* sampling.
- e. Specify procedures for sample collection and handling.
- f. Specify procedures for sending samples to a laboratory.
- g. Identify parameters for analysis, holding times and preservatives, laboratory *quantitation levels*, and analytical methods.
- h. Specify the procedure for submitting results to *Ecology*.

S4. GENERAL SAMPLING REQUIREMENTS

A. General Requirements

The Permittee shall conduct sampling of *stormwater* in accordance with this permit and the SWPPP.

B. Sampling Requirements

1. Sample Timing and Frequency

- a. The Permittee shall sample the *discharge* from each designated location at least once per quarter:
 - 1st Quarter = January, February, and March
 - 2nd Quarter = April, May, and June
 - 3rd Quarter = July, August, and September
 - 4th Quarter = October, November, and December
- b. Permittees shall sample the *stormwater discharge* from the first fall storm event each year. "First fall storm event" means the first time after October 1st of each year that precipitation occurs and results in a *stormwater discharge* from a *facility*.
- c. Permittees shall collect samples within the first 12 hours of *stormwater discharge* events. If it is not possible to collect a sample within the first 12 hours of a *stormwater* discharge event, the Permittee must collect the sample as soon as practicable after the first 12 hours, and keep documentation with the sampling records (Condition S4.B.3) explaining why they could not collect samples within the first 12 hours.

- d. The Permittee shall obtain *representative samples*, which may be a single grab sample, a time-proportional sample, or a flow-proportional sample.
 - e. Permittees need not sample outside of *regular business hours*, during unsafe conditions, or during quarters where there is no discharge, but shall submit a Discharge Monitoring Report each reporting period (Condition S9.A).
2. Sample Location(s)
- a. The Permittee shall designate sampling location(s) at the point(s) where it discharges *stormwater* associated with *industrial activity* off-site.
 - b. The Permittee is not required to sample on-site discharges to ground (e.g., infiltration, etc.) or *sanitary sewer* discharges, unless specifically required by *Ecology* (Condition G12).
 - c. The Permittee shall sample each distinct point of *discharge* off-site except as otherwise exempt from monitoring as a “substantially identical outfall” per S3.B.5.b. The Permittee is required to monitor only one of the “substantially identical outfalls” if two or more outfalls discharge substantially identical effluents (based on similar industrial activities and site conditions).
 - d. The exception to sampling each point of *discharge* in S4.B.2.c does not apply to any point of discharge subject to numeric effluent limitations (Conditions S5.C, S6.C & S6.D).
3. Sample Documentation
- For each *stormwater* sample taken, the Permittee shall record the following information and retain it on-site for *Ecology* review:
- a. Sample date.
 - b. Sample time.
 - c. A notation describing if the Permittee collected the sample within the first 30 minutes of *stormwater* discharge events.
 - d. An explanation of why it could not collect a sample within the first 30 minutes of a *stormwater discharge* event, if it was not possible.
 - e. Sample location (using SWPPP identifying number).
 - f. Method of sampling, and method of sample preservation, if applicable.
 - g. Individual who performed the sampling.

4. Laboratory Documentation

The Permittee shall retain laboratory reports on-site for *Ecology* review and shall ensure that all laboratory reports providing data for all parameters include the following information:

- a. Date of analysis.
 - b. Parameter name.
 - c. CAS number, if applicable.
 - d. Analytical method(s).
 - e. Individual who performed the analysis.
 - f. Method detection limit (MDL).
 - g. Laboratory *quantitation level* (QL) achieved by the laboratory.
 - h. Reporting units.
 - i. Sample result.
 - j. Quality assurance/quality control data.
5. The Permittee shall maintain the original records onsite and make them available to *Ecology* upon request.
6. The Permittee may suspend sampling for one or more parameters (other than “visible oil sheen”) based on consistent attainment of *benchmark* values when:
- a. Four consecutive quarterly samples, collected after the effective date of this permit, demonstrate a reported value equal to or less than the *benchmark* value; or for pH, within the range of 5.0 – 9.0.
 - b. For purposes of tallying “consecutive quarterly samples”:
 - i. Do not include any quarters in which the Permittee did not collect a sample, but should have (e.g., discharge(s) occurred during normal working hours, and during safe conditions; but no sample was collected during the entire quarter). If this occurs, the tally of consecutive quarterly samples is reset to zero.
 - ii. Do not include any quarters in which the Permittee did not collect a sample because there was no *discharge* during the quarter (or the discharges during the quarter occurred outside normal working hours or during unsafe conditions). These quarters are not included in the calculation of four consecutive quarters, but do not cause the tally to be reset; i.e., they are skipped over.
 - c. Permittees monitoring more than once per quarter shall average all of the monitoring results for each parameter (except pH and “visible oil sheen”) and compare the average value to the *benchmark* value.

7. A Permittee who has a *significant process change* shall not use previous sampling results to demonstrate consistent attainment.
8. Suspension of sampling based on consistent attainment does not apply to *pollutant* parameters subject to numeric effluent limits based on federal Effluent Limitation Guidelines (Condition S5.C) or Section 303(d) of the *Clean Water Act* (Condition S6).

C. Analytical Procedures for Sampling Requirements

The Permittee shall ensure that analytical methods used to meet the sampling requirements specified in this permit conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136.

D. Laboratory Accreditation

1. The Permittee shall ensure that all analytical data required by *Ecology* is prepared by a laboratory registered or accredited under the provisions of, Accreditation of Environmental Laboratories, Chapter 173-50 WAC.
2. *Turbidity* and pH are exempt from this requirement, unless the laboratory must be registered or accredited for any other parameter.

S5. BENCHMARKS, EFFLUENT LIMITATIONS AND SPECIFIC SAMPLING REQUIREMENTS

A. Benchmarks and Sampling Requirements

1. Permittees shall sample their *stormwater discharges* as specified in Condition S4 and as specified in Table 2.
2. Additional sampling and/or requirements apply to specific industrial categories (S5.B), and facilities subject to effluent limitation guidelines (S5.C), and certain discharges to impaired waterbodies (S6).
3. If a Permittee's discharge exceeds a *benchmark* listed in Table 2, the Permittee shall take the actions specified in Condition S8. Permittees sampling more than once per quarter shall average the sample results for each parameter (except pH and "visible oil sheen") and compare the average value to the *benchmark* to determine if the discharge has exceeded a *benchmark* value.

Table 2: Benchmarks and Sampling Requirements Applicable to All Facilities

Parameter	Units	Benchmark Value	Analytical Method	Laboratory Quantitation Level ^a	Minimum Sampling Frequency ^b
Turbidity	NTU	25	EPA 180.1 Meter	0.5	1/quarter
pH	Standard Units	Between 5.0 and 9.0	Meter/Paper ^c	±0.5	1/quarter
Oil Sheen	Yes/No	No Visible Oil Sheen	N/A	N/A	1/quarter
Copper, Total	µg/L	Western WA: 14 Eastern WA: 32	EPA 200.8	2.0	1/quarter
Zinc, Total	µg/L	117	EPA 200.8	2.5	1/quarter

^a The Permittee shall ensure laboratory results comply with the *quantitation level* specified in the table. However, if a Permittee knows that an alternate, less sensitive method (higher detection level and *quantitation level*) from 40 CFR Part 136 is sufficient to produce measurable results in its effluent, it may use that method for analysis.

^b 1/quarter means 1 sample taken each quarter, year-round.

^c Permittees shall use either a calibrated pH meter or narrow-range pH indicator paper with a resolution not greater than ± 0.5 SU.

B. Additional Sampling Requirements for Specific Industrial Groups

1. In addition to the requirements in Table 2, all Permittees identified by an *industrial activity* in Table 3 shall sample *stormwater* discharges as specified in Condition S4 and in Table 3.
2. If a *discharge* exceeds a *benchmark* listed in Table 3, the Permittee shall take the actions specified in Condition S8. Permittees sampling more than once per quarter shall average the sample results for each parameter and compare the average value to the *benchmark* to determine if the discharge has exceeded a *benchmark*.

Table 3: Additional Benchmarks and Sampling Requirements Applicable to Specific Industries

Parameter	Units	Benchmark Value	Analytical Method	Laboratory Quantitation Level ^a	Minimum Sampling Frequency ^b
1. Chemical and Allied Products (28xx), Food and Kindred Products (20xx)					
BOD ₅	mg/L	30	EPA 405.1 or SM 5210B	2	1/quarter
Nitrate/Nitrite, as Nitrogen	mg/L	0.68	EPA 353.1	0.10	1/quarter
Phosphorus, Total	mg/L	2.0	EPA 365.1	0.10	1/quarter
2. Primary Metals(33xx), Metals Mining (10xx), Automobile Salvage and Scrap Recycling (5015 and 5093), Metals Fabricating (34xx)					
Lead, Total	µg/L	81.6	EPA 200.8	0.5	1/quarter
Total Petroleum Hydrocarbons (TPH)	mg/L	10	NWTPH-Dx	0.1	1/quarter
3. Hazardous Waste Treatment, Storage and Disposal Facilities and Dangerous Waste Recyclers subject to the provisions of Resource Conservation and Recovery Act (RCRA) Subtitle C					
Chemical Oxygen Demand (COD)	mg/L	120	SM5220-D	10	1/quarter
Ammonia, Total, as N	mg/L	2.1	SM4500-NH3- GH	0.3	1/quarter
TSS	mg/L	100	SM2540-D	5	1/quarter
Arsenic, Total	µg/L	150	EPA 200.8	0.5	1/quarter
Cadmium, Total	µg/L	2.1	EPA 200.8	0.25	1/quarter
Cyanide, Total	µg/L	22	SM 4500-CN I	10	1/quarter
Lead, Total	µg/L	81.6	EPA 200.8	0.5	1/quarter
Magnesium, Total	µg/L	64	EPA 200.7	80	1/quarter
Mercury, Total	µg/L	1.4	EPA 1631E	0.0005	1/quarter
Selenium, Total	µg/L	5.0	EPA 200.8	1.0	1/quarter
Silver, Total	µg/L	3.8	EPA 200.8	0.2	1/quarter
Total Petroleum Hydrocarbons (TPH)	mg/L	10	NWTPH-Dx	0.1	1/quarter
4. Air Transportation^c (45xx)					
Ammonia	mg/L	2.1	SM4500-NH3- GH	0.3	1/quarter
BOD ₅	mg/L	30	EPA 405.1 or SM 5210B	2	1/quarter
COD	mg/L	120	EPA 410.2	5	1/quarter
Nitrate/Nitrite, as N	mg/L	0.68	EPA 4500-NO3-E/F/H	0.10	1/quarter

Parameter	Units	Benchmark Value	Analytical Method	Laboratory Quantitation Level ^a	Minimum Sampling Frequency ^b
5. Timber Product Industry (24xx), Paper and Allied Products (26xx)					
COD	mg/L	120	SM5220-D	10	1/quarter
TSS	mg/L	100	SM2540-D	5	1/quarter

^a The Permittee shall ensure laboratory results comply with the *quantitation level* specified in the table. However, if a Permittee knows that an alternate, less sensitive method (higher detection level and *quantitation level*) from 40 CFR Part 136 is sufficient to produce measurable results in their effluent, that method may be used for analysis.

^b 1/quarter means 1 sample taken each quarter, year-round.

^c For airports where a single permittee, or a combination of permitted facilities use more than 100,000 gallons of glycol-based deicing chemicals and/or 100 tons or more of urea on an average annual basis, monitor these additional four parameters in those outfalls that collect *runoff* from areas where deicing activities occur (SIC 4512-4581).

C. Stormwater Discharges Subject to Effluent Limitation Guidelines

1. Permittees with discharges from the following activities shall comply with the effluent limits and monitor as specified in Condition S4 and Tables 4 and 5.
2. The *discharge* of the *pollutants* at a level more than that identified and authorized by this permit for these activities shall constitute a violation of the terms and conditions of this permit.
3. Permittees operating non-hazardous waste *landfills* subject to the provisions of 40 CFR Part 445 Subpart B shall not exceed the effluent limits³ listed in Table 4.

³ As set forth in 40 CFR Part 445 Subpart B, these numeric effluent limits apply to contaminated *stormwater* discharges from Municipal Solid Waste Landfills that have not been closed in accordance with 40 CFR 258.60, and to contaminated *stormwater* discharges from those landfills that are subject to the provisions of 40 CFR Part 257 except for discharges from any of the following facilities:

- (a) landfills operated in conjunction with other industrial or commercial operations, when the landfill receives only wastes generated by the industrial or commercial operation directly associated with the landfill;
- (b) landfills operated in conjunction with other industrial or commercial operations, when the landfill receives wastes generated by the industrial or commercial operation directly associated with the landfill and also receives other wastes, provided that the other wastes received for disposal are generated by a facility that is subject to the same provisions in 40 CFR Subchapter N as the industrial or commercial operation, or that the other wastes received are of similar nature to the wastes generated by the industrial or commercial operation;
- (c) landfills operated in conjunction with CWT facilities subject to 40 CFR Part 437, so long as the CWT facility commingles the landfill wastewater with other non-landfill wastewater for discharge. A landfill directly associated with a CWT facility is subject to this part if the CWT facility discharges landfill wastewater separately from other CWT wastewater or commingles the wastewater from its landfill only with wastewater from other landfills; or
- (d) landfills operated in conjunction with other industrial or commercial operations when the landfill receives wastes from public service activities, so long as the company owning the landfill does not receive a fee or other remuneration for the disposal service.

Table 4: Effluent Limits Applicable to Non-Hazardous Waste Landfills Subject to 40 CFR Part 445 Subpart B

Parameter	Units	Average Monthly ^a	Maximum Daily ^b	Analytical Method ^c	Laboratory Quantitation Level ^d	Minimum Sampling Frequency ^e
BOD ₅	mg/L	37	140	EPA 405.1 or SM 5210B	2	1/quarter
TSS	mg/L	27	88	SM2540-D	5	1/quarter
Ammonia (total as N)	mg/L	4.9	10	SM4500-NH3-GH.	0.3	1/quarter
Alpha Terpineol	µg/L	16	33	EPA 625	5	1/quarter
Benzoic Acid	µg/L	71	120	EPA 625	50	1/quarter
p-Cresol (4-methylphenol)	µg/L	14	25	EPA 8270D	10 ug/L	1/quarter
Phenol	µg/L	15	26	EPA 625	4.0	1/quarter
Zinc, Total	µg/L	110	200	EPA 200.8	2.5	1/quarter
pH	SU	Between 6.0 and 9.0		Meter/Paper ^e	±0.1	1/quarter

- ^a. Average monthly effluent limit means the highest allowable average of daily discharges over a calendar month. To calculate the *discharge* value to compare to the limit, you add the value of each daily discharge measured during a calendar month and divide this sum by the total number of daily discharges measured. If only one sample is taken during the calendar month, the average monthly effluent limitation applies to that sample. If only one sample is taken during the reporting period, the average monthly effluent limitation applies to that sample.
- ^b. Maximum daily effluent limit means the highest allowable daily discharge. The daily *discharge* means the *discharge of a pollutant* measured during a calendar day. The daily discharge is the average measurement of the *pollutant* over the day; this does not apply to pH.
- ^c. Or other equivalent EPA-approved method with the same or lower *quantitation level*.
- ^d. The Permittee shall ensure laboratory results comply with the *quantitation level* specified in the table. However, if a Permittee knows that an alternate, less sensitive (higher detection level and *quantitation level*) from 40 CFR Part 136 method will provide measurable results in its effluent, it may use that method for analysis.
- ^e. 1/quarter means 1 sample taken each quarter, year-round.

D. Conditionally Authorized Non-Stormwater Discharges

1. The categories and sources of non-*stormwater* discharges identified in Condition S5. D.2, below, are conditionally authorized, provided:
 - a. The *discharge* is otherwise consistent with the terms and conditions of this permit, including Condition S5, S6 and S10.

- b. The Permittee conducts the following assessment for each non-*stormwater discharge* (except for S5.D.2.a & f) and documents the assessment in the SWPPP, consistent with Condition S3.B.2. The Permittee shall:
 - i. Identify each source.
 - ii. Identify the location of the discharge into the *stormwater* collection system.
 - iii. Characterize the discharge including estimated flows or flow volume, and likely *pollutants* which may be present.
 - iv. Evaluate and implement available and reasonable *source control BMPs* to reduce or eliminate the discharge.
 - v. Evaluate compliance of the *discharge* with the state *water quality standards*.
 - vi. Identify appropriate BMPs for each discharge to control *pollutants* and or flow volumes.
2. Conditionally authorized non-*stormwater* discharges include:
- a. Discharges from fire fighting activities.
 - b. Fire protection system flushing, testing, and maintenance.
 - c. Discharges of potable water including water line flushing, provided that water line flushing must be de-chlorinated prior to discharge.
 - d. Uncontaminated air conditioning or compressor condensate.
 - e. Landscape watering and irrigation drainage.
 - f. Uncontaminated *ground water* or spring water.
 - g. Discharges associated with dewatering of foundations, footing drains, or utility vaults where flows are not contaminated with process materials such as solvents.
 - h. Incidental windblown mist from cooling towers that collects on rooftops or areas adjacent to the cooling tower. This does not include intentional discharges from cooling towers such as piped cooling tower blow down or drains.

E. Prohibited Discharges

Unless authorized by a separate NPDES or state waste *discharge* permit, the following discharges are prohibited:

1. The discharge of *process wastewater* is not authorized. *Stormwater* that commingles with *process wastewater* is considered *process wastewater*.
2. *Illicit discharges* are not authorized by this permit. Conditionally authorized non-*stormwater* discharges in compliance with Condition S5.D are not *illicit discharges*.

F. General Prohibitions

Permittees shall manage *stormwater* to prevent the *discharge* of:

1. Synthetic, natural or processed oil or oil-containing products as identified by an oil sheen, and
2. Trash and floating debris.

S6. **DISCHARGES TO 303(D)-LISTED OR TMDL WATERS**

A. General Requirements for Discharges to 303(d)-listed Waters

Permittees with coverage under this permit that *discharge* to a *303(d)-listed water body* shall conduct sampling and inspections in accordance with Conditions S4, S6, and S7.

B. Limits on Coverage for New Discharges to TMDL or 303(d)-listed Waters

Facilities that meet the definition of “*new discharger*” and *discharge* to a *303(d) listed waterbody* are not eligible for coverage under this permit unless the *facility*:

1. Prevents all exposure to *stormwater* of the *pollutant(s)* for which the waterbody is impaired, and retains documentation of procedures taken to prevent exposure onsite with its SWPPP; or
2. Documents that the *pollutant(s)* for which the waterbody is impaired is not present at the *facility*, and retains documentation of this finding with the SWPPP; or
3. Provides *Ecology* with data to support a showing that the *discharge* is not expected to cause or contribute to an exceedance of a water quality standard, and retain such data onsite with its SWPPP. The *facility* must provide data and other technical information to *Ecology* sufficient to demonstrate:
 - a. For discharges to waters without an *EPA* approved or established *TMDL*, that the *discharge* of the *pollutant* for which the water is impaired will meet in-stream water quality criteria at the point of discharge to the waterbody; or
 - b. For discharges to waters with an *EPA* approved or established *TMDL*, that there are sufficient remaining *wasteload allocations* in an *EPA* approved or established *TMDL* to allow industrial *stormwater discharge* and that existing *dischargers* to the waterbody are subject to compliance schedules designed to bring the waterbody into attainment with *water quality standards*.

Facilities are eligible for coverage under this permit if *Ecology* issues permit coverage based upon an affirmative determination that the *discharge* will not cause or contribute to the existing impairment.

C. Additional Sampling Requirements and Effluent Limits for Discharges to Certain 303(d)-listed Waters

1. Beginning July 1, 2010, Permittees discharging to a *303(d)-listed water body* that does not have an *EPA*-approved *total maximum daily load (TMDL)* shall comply with

the applicable sampling requirements and effluent limits in Table 5, unless a compliance schedule is requested and granted in accordance with S6.C.1.b&c.

- a. Facilities subject to these limits include, but may not be limited to, facilities listed in Appendix 4.
- b. For purposes of this condition, “applicable sampling requirements and effluent limits” means the sampling and effluent limits in Table 5 that correspond to the specific parameter(s) the receiving water is *303(d)-listed* for at the time of permit coverage, or Total Suspended Solids (TSS) if the waterbody is *303(d)-listed* for any *sediment* quality parameter at the time of permit coverage.
- c. Permittees may request a compliance schedule for relief from the July 1, 2010 deadline to comply with an applicable effluent limit in Condition S6.C. Permittees shall submit requests for compliance schedules in writing to *Ecology* no later than January 31, 2010 and shall include the company name, *facility* location, industrial *stormwater* permit number, and the reason for requesting a compliance schedule.
- d. *Ecology* will consider all compliance schedule requests submitted by January 31, 2010. If *Ecology* determines that a Permittee is unable to comply with the applicable effluent limits by July 1, 2010, *Ecology* will establish a compliance schedule to require compliance as soon as possible, and no later than twenty-four months, or two complete wet seasons, after the effective date of this permit. *Ecology* will send its decision regarding the request for compliance schedule to the Permittee no sooner than April 1, 2010.
- e. For purposes of this condition, “wet season” means Oct 1st through June 30th.

Table 5: Sampling and Effluent Limits Applicable to Discharges to 303(d)-listed Waters

Parameter	Units	Effluent Limit		Analytical Method ^a	Laboratory Quantitation Level ^b	Sampling Frequency
		Fresh Water	Marine			
Turbidity	NTUs	25	25	EPA 180.1 Meter	0.5	1/quarter ^c
pH	SU	ⁱ	Between 7.0 and 8.5	Meter ^d	±0.5	1/quarter ^c
Fecal Coliform Bacteria	# colonies/100 mL	^h	^h	SM 9222D	20 CFU/100 mL	1/quarter ^c
TSS ^e	mg/L	30	30	SM2540-D	5	1/quarter ^c
Phosphorus, Total	mg/L	^f	^f	EPA 365.1	0.01	1/quarter ^c
Ammonia, total as N	mg/L	^f	^f	SM 4500 NH ₃ -GH	0.3	1/quarter ^c
Copper, Total	µg/L	^f	^f	EPA 200.8	2.0	1/quarter ^c
Lead, Total	µg/L	^f	^f	EPA 200.8	0.5	1/quarter ^c
Mercury, Total	µg/L	2.1	1.8	EPA1631E	0.0005	1/quarter ^c
Zinc, Total	µg/L	^f	^f	EPA 200.8	2.5	1/quarter ^c
Pentachlorophenol	µg/L	9 ^g	^f	EPA 625	1.0	1/quarter ^c

^a Or other equivalent method with the same reporting level.

^b The Permittee shall ensure laboratory results comply with the *quantitation level* specified in the table.

^c 1/quarter means 1 sample taken each quarter, e.g., Q1 = Jan 1 – March 31st, Q2 = April 1 – June 30th, etc.

^d Permittees shall use either a calibrated pH meter consistent with EPA 9040 or an approved state method.

^e A Permittee who discharges to a water body 303(d)-listed for any *sediment* quality parameter shall sample the *discharge* for TSS.

^f Site-specific effluent limitation will be assigned at the time of permit coverage.

^g Based on a pH of 7.0.

^h The effluent limit is the water recreation bacteria criteria (WAC 173-201A) applicable to the receiving waterbody.

ⁱ The effluent limit for a Permittee who discharges to a fresh water body 303(d)-listed for pH is: Between 6.0 and 8.5, if the 303(d)-listing is for high pH only; Between 6.5 and 9.0, if the 303(d)-listing is for low pH only; and Between 6.5 and 8.5 if the 303(d)-listing is for both low and high pH. All pH effluent limits are applied end-of-pipe.

D. Requirements for Discharges to Waters with Applicable TMDLs

2. The Permittee shall comply with *applicable TMDL* determinations. *Applicable TMDLs* or *TMDL* determinations are *TMDLs* which have been completed by the issuance date of this permit, or which have been completed prior to the date that the Permittee's *application* is received by *Ecology*, whichever is later. *Ecology* will list the Permittee's requirements to comply with this condition on the letter of permit coverage.
3. *TMDL* requirements associated with *TMDLs* completed after the issuance date of this permit only become effective if they are imposed through an administrative order issued by *Ecology*.

4. Where *Ecology* has established a *TMDL wasteload allocation* and sampling requirements for the Permittee's discharge, the Permittee shall comply with all requirements of the *TMDL* as listed in Appendix 5.
5. Where *Ecology* has established a *TMDL general wasteload allocation* for industrial *stormwater* discharges for a parameter present in the Permittee's discharge, but has not identified specific requirements, *Ecology* will assume the Permittee's compliance with the terms and conditions of the permit complies with the approved *TMDL*.
6. Where *Ecology* has not established a *TMDL wasteload allocation* for industrial *stormwater* discharges for a parameter present in the Permittee's discharge, but has not excluded these discharges, *Ecology* will assume the Permittee's compliance with the terms and conditions of this permit complies with the approved *TMDL*.
7. Where a *TMDL* for a parameter present in the Permittee's *discharge* specifically precludes or prohibits discharges of *stormwater* associated with *industrial activity*, the Permittee is not eligible for coverage under this permit.

S7. INSPECTIONS

A. Inspection Frequency and Personnel

1. The Permittee shall conduct and document visual inspections of the site each month.
2. The Permittee shall ensure that inspections are conducted by *qualified personnel*.

B. Inspection Components

Each inspection shall include:

1. Observations made at *stormwater* sampling locations and areas where *stormwater* associated with *industrial activity* is discharged off-site; or discharged to *waters of the state*, or to a *storm sewer* system that drains to *waters of the state*.
2. Observations for the presence of floating materials, visible oil sheen, discoloration, *turbidity*, odor, etc. in the *stormwater* discharge(s).
3. Observations for the presence of *illicit discharges* such as *domestic wastewater*, *noncontact cooling water*, or *process wastewater* (including *leachate*).
 - a. If an *illicit discharge* is discovered, the Permittee shall notify *Ecology* within seven days.
 - b. The Permittee shall eliminate the *illicit discharge* within 30 days.
4. A verification that the descriptions of potential *pollutant* sources required under this permit are accurate.
5. A verification that the site map in the SWPPP reflects current conditions.
6. An assessment of all BMPs that have been implemented, noting all of the following:
 - a. Effectiveness of BMPs inspected.
 - b. Locations of BMPs that need maintenance.

- c. Reason maintenance is needed and a schedule for maintenance.
- d. Locations where additional or different BMPs are needed and the rationale for the additional or different BMPs.

C. Inspection Results

1. The Permittee shall record the results of each inspection in an inspection report or checklist and keep the records on-site for *Ecology* review. The Permittee shall ensure each inspection report documents the observations, verifications and assessments required in S7.B and includes:
 - a. Time and date of the inspection.
 - b. Locations inspected.
 - c. Statements that, in the judgment of 1) the person conducting the site inspection, and 2) the person described in Condition G2.A, the site is either in compliance or out of compliance with the terms and conditions of the SWPPP and this permit.
 - d. A summary report and a schedule of implementation of the remedial actions that the Permittee plans to take if the site inspection indicates that the site is out of compliance. The remedial actions taken must meet the requirements of the SWPPP and the permit.
 - e. Name, title, and signature of the person conducting site inspection; and the following statement: "I certify that this report is true, accurate, and complete, to the best of my knowledge and belief."
 - f. Certification and signature of the person described in Condition G2.A, or a duly authorized representative of the *facility*, in accordance with Condition G.2.B.

D. Reports of Non-Compliance

The Permittee shall prepare reports of non-compliance identified during an inspection in accordance with the requirements of Condition S9.E.

S8. CORRECTIVE ACTIONS

A. Implementation of Source Control and Treatment BMPs from Previous Permit

In addition to the Corrective Action Requirements of S8.B-D, Permittees shall implement any applicable Level 1, 2 or 3 Responses required by the previous Industrial Stormwater *General Permit(s)*. Permittees shall continue to operate and/or maintain any source control or *treatment BMPs* related to Level 1, 2 or 3 Responses implemented prior to the effective date of this permit.

B. Level One Corrective Actions – Operational Source Control BMPs

Permittees that exceed any applicable *benchmark* value(s) in Table 2 or Table 3, shall complete a Level 1 Corrective Action for each parameter exceeded in accordance with the following:

1. Review the SWPPP and ensure that it fully complies with Permit Condition S3, and contains the correct BMPs from the applicable *Stormwater Management Manual*.
2. Make appropriate revisions to the SWPPP to include additional *Operational Source Control BMPs* with the goal of achieving the applicable *benchmark* value(s) in future discharges. The Permittee shall sign and certify the revised SWPPP in accordance with S3.A.6.
3. Summarize the Level 1 Corrective Actions in the Annual Report (Condition S9.B)
4. **Level One Deadline:** The Permittee shall fully implement the revised SWPPP according to Permit Condition S3 and the applicable *Stormwater Management Manual* as soon as possible, but no later than the DMR due date for the quarter the *benchmark* was exceeded.

C. Level Two Corrective Actions – Structural Source Control BMPs

Permittees that exceed an applicable *benchmark* value (for a single parameter) for any two quarters during a calendar year shall complete a Level 2 Corrective Action in accordance with the following⁴:

1. Review the SWPPP and ensure that it fully complies with Permit Condition S3.
2. Make appropriate revisions to the SWPPP to include additional *Structural Source Control BMPs* with the goal of achieving the applicable *benchmark* value(s) in future discharges. The Permittee shall sign and certify the revised SWPPP in accordance with S3.A.6.
3. Summarize the Level 2 Corrective Actions (planned or taken) in the Annual Report (Condition S9.B).
4. **Level 2 Deadline:** The Permittee shall fully implement the revised SWPPP according to Permit Condition S3 and the applicable *Stormwater Management Manual* as soon as possible, but no later than September 30th the following year.
 - a. If installation of necessary *Structural Source Control BMPs* is not feasible by September 30th the following year, *Ecology* may approve additional time, by approving a *Modification of Permit Coverage*.
 - b. If installation of *Structural Source Control BMPs* is not feasible or not necessary to prevent discharges that may cause or contribute to a violation of a water quality standard, *Ecology* may waive the requirement for additional *Structural Source Control BMPs* by approving a *Modification of Permit Coverage*.
 - c. To request a time extension or waiver, a Permittee shall submit a detailed explanation of why it is making the request (technical basis), and a *Modification of Coverage* form to *Ecology* in accordance with Condition S2.B, by June 1st prior to Level 2 Deadline. *Ecology* will approve or deny the request within 60 days of receipt of a complete *Modification of Coverage* request.

⁴ Facilities that continue to exceed benchmarks after a Level 2 Corrective Action is triggered, but prior to the Level 2 Deadline, are not required to complete another Level 2 or 3 Corrective Action the following year for the same parameter. However, a Level 1 Corrective Action is required each time a benchmark is exceeded.

D. Level Three Corrective Actions – Treatment BMPs

Permittees that exceed an applicable *benchmark* value (for a single parameter) for any three quarters during a calendar year shall complete a Level 3 Corrective Action in accordance with the following⁵:

1. Review the SWPPP and ensure that it fully complies with Permit Condition S3.
2. Make appropriate revisions to the SWPPP to include additional *Treatment BMPs* with the goal of achieving the applicable *benchmark* value(s) in future discharges.
 - a. The Permittee shall sign and certify the revised SWPPP in accordance with S3.A.6.
 - b. A licensed professional engineer, geologist, hydrogeologist, or Certified Professional in Storm Water Quality (CPSWQ) shall design and stamp the portion of the SWPPP that addresses *stormwater* treatment structures or processes.
 - i. *Ecology* may waive the requirement for a licensed or certified professional upon request of the Permittee and demonstration that the Permittee or treatment device vendor can properly design and install the treatment device.
 - ii. *Ecology* will not waive the Level 3 requirement for a licensed or certified professional more than one time during the permit cycle.
3. Summarize the Level 3 Corrective Actions (planned or taken) in the Annual Report (Condition S9.B).
4. **Level 3 Deadline:** The Permittee shall fully implement the revised SWPPP according to Permit Condition S3 and the applicable *Stormwater Management Manual* as soon as possible, but no later than September 30th the following year.
 - a. If installation of necessary *Treatment BMPs* is not feasible by the Level 3 Deadline; *Ecology* may approve additional time by approving a *Modification of Permit Coverage*.
 - b. If installation of *Treatment BMPs* is not feasible or not necessary to prevent discharges that may cause or contribute to violation of a water quality standard, *Ecology* may waive the requirement for *Treatment BMPs* by approving a *Modification of Permit Coverage*.
 - c. To request a time extension or waiver, a Permittee shall submit a detailed explanation of why it is making the request (technical basis), and a Modification of Coverage form to *Ecology* in accordance with Condition S2.B, by June 1st prior to the Level 3 Deadline. *Ecology* will approve or deny the request within 60 days of receipt of a complete *Modification of Coverage* request.

⁵ Facilities that continue to exceed benchmarks after a Level 3 Corrective Action is triggered, but prior to the Level 3 Deadline, are not required to complete another Level 2 or 3 Corrective Action the following year for the same parameter. However, a Level 1 Corrective Action is required each time a benchmark is exceeded.

S9. REPORTING AND RECORDKEEPING

A. Discharge Monitoring Reports

1. The Permittee shall submit sampling data obtained during each reporting period on a Discharge Monitoring Report (DMR) form provided, or otherwise approved, by *Ecology*.
2. The Permittee shall submit sampling results within 45 days of the end of each reporting period.
3. The first reporting period shall begin on the effective date of permit coverage.
4. Upon permit coverage, the Permittee shall ensure that DMRs are postmarked or received by *Ecology* by the DMR Due Dates below:

Table 7: Reporting Dates and DMR Due Dates

Reporting Period	Months	DMR Due Date
1 st	January-March	May 15
2 nd	April-June	August 14
3 rd	July-Sept	November 14
4 th	October-December	February 14

5. DMRs shall be submitted using *Ecology*'s WebDMR system or by mail to the following address:

Department of Ecology
Water Quality Program – Industrial Stormwater
PO Box 47696
Olympia, Washington 98504-7696

6. Upon permit coverage, the Permittee shall submit a DMR each reporting period, whether or not the *facility* has discharged *stormwater* from the site.
 - a. If no *stormwater* sample was obtained from the site during a given reporting period, the Permittee shall submit the DMR form indicating “no sample obtained”, or “no discharge during the quarter”, as applicable.
 - b. If a Permittee has suspended sampling for a parameter due to consistent attainment, the Permittee shall submit a DMR and indicate that it has achieved Consistent Attainment for that parameter(s).

B. Annual Reports

1. The Permittee shall submit a complete and accurate Annual Report to the Department of *Ecology* no later than May 15th of each year (except 2010) using a form provided by or otherwise approved by *Ecology*.
2. The annual report shall include corrective action documentation as required in S8.B-D. If corrective action is not yet completed at the time of submission of this annual report, the Permittee must describe the status of any outstanding corrective action(s).

3. Permittees shall include the following information with each annual report. The Permittee shall:
 - a. Identify the condition triggering the need for corrective action review.
 - b. Describe the problem(s) and identify the dates they were discovered.
 - c. Summarize any Level 1, 2 or 3 corrective actions completed during the previous calendar year and include the dates it completed the corrective actions.
 - d. Describe the status of any Level 2 or 3 corrective actions triggered during the previous calendar year, and identify the date it expects to complete corrective actions.
4. Permittees shall retain a copy of all annual reports onsite for *Ecology* review.

C. Records Retention

1. The Permittee shall retain the following documents onsite for a minimum of five years:
 - a. A copy of this permit.
 - b. A copy of the permit coverage letter.
 - c. Records of all sampling information specified in Condition S4.B.3.
 - d. Inspection reports including documentation specified in Condition S7.
 - e. Any other documentation of compliance with permit requirements.
 - f. All equipment calibration records.
 - g. All BMP maintenance records.
 - h. All original recordings for continuous sampling instrumentation.
 - i. Copies of all laboratory reports as described in Condition S3.B.4.
 - j. Copies of all reports required by this permit.
 - k. Records of all data used to complete the *application* for this permit.
2. The Permittee shall extend the period of records retention during the course of any unresolved litigation regarding the *discharge* of *pollutants* by the Permittee, or when requested by *Ecology*.
3. The Permittee shall make all plans, documents and records required by this permit immediately available to *Ecology* or the local jurisdiction upon request; or within 14 days of a written request from *Ecology*.

D. Additional Sampling by the Permittee

If the Permittee samples any *pollutant* at a designated sampling point more frequently than required by this permit, then the Permittee shall include the results in the calculation and reporting of the data submitted in the Permittee's DMR.

E. Reporting Permit Violations

1. In the event the Permittee is unable to comply with any of the terms and conditions of this permit which may endanger human health or the environment, or the facility experiences any *bypass* or upset which causes an exceedance of any effluent limitation in the permit, the Permittee shall:
 - a. Immediately take action to minimize potential *pollution* or otherwise stop the noncompliance and correct the problem.
 - b. Immediately notify the appropriate *Ecology* regional office of the failure to comply.
 - c. Submit a detailed written report to *Ecology* within 30 days unless *Ecology* requests an earlier submission. The Permittee's report shall contain:
 - i. A description of the noncompliance, including exact dates and times.
 - ii. Whether the noncompliance has been corrected and, if not, when the noncompliance will be corrected.
 - iii. The steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
2. Compliance with the requirements of this section does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

F. Public Access to SWPPP

The Permittee shall provide access to, or a copy of, the SWPPP to the public when requested in writing. Upon receiving a written request from the public for the SWPPP, the Permittee shall:

1. Provide a copy of the SWPPP to the requestor within 14 days of receipt of the written request; or
2. Notify the requestor within 10 days of receipt of the written request of the location and times within normal business hours when the requestor may view the SWPPP, and provide access to the SWPPP within 14 days of receipt of the written request; or
3. Provide a copy of the plans and records to *Ecology*, where the requestor may view the records, within 14 days of a request; or may arrange with the requestor for an alternative, mutually agreed upon location for viewing and/or copying of the plans and records. If access to the plans and records is provided at a location other than at an *Ecology* office, the Permittee will provide reasonable access to copying services for which it may charge a reasonable fee.

S10. COMPLIANCE WITH STANDARDS

- A. Discharges shall not cause or contribute to a violation of *Surface Water Quality Standards* (Chapter 173-201A WAC), *Ground Water Quality Standards* (Chapter 173-200 WAC), *Sediment Management Standards* (Chapter 173-204 WAC), and human health-based criteria in the National Toxics Rule (40 CFR 131.36). Discharges that are not in compliance with these standards are prohibited.
- B. *Ecology* will presume compliance with *water quality standards*, unless *discharge* monitoring data or other site specific information demonstrates that a discharge causes or contributes to violation of *water quality standards*, when the Permittee is:
 - 1. In full compliance with all permit conditions, including planning, sampling, monitoring, reporting, and recordkeeping conditions.
 - 2. Fully implementing storm water *best management practices* contained in storm water technical manuals approved by the department, or practices that are *demonstrably equivalent* to practices contained in storm water technical manuals approved by *Ecology*, including the proper selection, implementation, and maintenance of all applicable and appropriate *best management practices* for on-site *pollution* control.
- C. Prior to the *discharge* of *stormwater* and non-stormwater to *waters of the state*, the Permittee shall apply all known and reasonable methods of prevention, control, and treatment (*AKART*). To comply with this condition, the Permittee shall prepare and implement an adequate SWPPP, with all applicable and appropriate BMPs, including the BMPs necessary to meet the standards identified in Condition S10.A, and shall install and maintain the BMPs in accordance with the SWPPP, applicable SWMMs, and the terms and conditions of this permit.

S11. PERMIT FEES

- A. The Permittee shall pay permit fees assessed by *Ecology* and established in Chapter 173-224 WAC.
- B. *Ecology* will continue to assess permit fees until it terminates a permit in accordance with Special Condition S13 or revoked in accordance with General Condition G5.

S12. SOLID AND LIQUID WASTE MANAGEMENT

The Permittee shall not allow solid waste material or *leachate* to cause violations of the State *Surface Water Quality Standards* (Chapter 173-201A WAC), the *Ground Water Quality Standards* (Chapter 173-200 WAC) or the *Sediment Management Standards* (Chapter 173-204 WAC).

S13. NOTICE OF TERMINATION (NOT)

A. Conditions for a NOT

Ecology may approve a *Notice of Termination* (NOT) request when the Permittee meets one or more of the following conditions:

1. All permitted *stormwater* discharges associated with *industrial activity* that are authorized by this permit cease because the *industrial activity* has ceased, and no *significant materials* or *industrial pollutants* remain exposed to *stormwater*.
2. The party that is responsible for permit coverage (signatory to *application*) sells or otherwise legally transfers responsibility for the *industrial activity*.
3. All *stormwater* discharges associated with *industrial activity* are prevented because the *stormwater* is redirected to a *sanitary sewer*, or discharged to ground (e.g., infiltration, etc.).

B. Procedure for Obtaining Termination

1. The Permittee shall apply for a NOT on a form specified by *Ecology* (NOT Form).
2. The Permittee seeking permit coverage termination shall sign the NOT in accordance with Condition G2. of this permit.
3. The Permittee shall submit the completed NOT form to *Ecology* at the address in Condition S9.A.5.

GENERAL CONDITIONS

G1. DISCHARGE VIOLATIONS

All discharges and activities authorized by this *general permit* shall be consistent with the terms and conditions of this *general permit*. Any *discharge* of any *pollutant* more frequently than, or at a level in excess of that identified and authorized by the *general permit*, shall constitute a violation of the terms and conditions of this permit.

G2. SIGNATORY REQUIREMENTS

- A. All permit *applications* shall be signed:
1. In the case of corporations, by a responsible corporate officer of at least the level of vice president of a corporation.
 2. In the case of a partnership, by a general partner of a partnership.
 3. In the case of sole proprietorship, by the proprietor.
 4. In the case of a municipal, state, or other public *facility*, by either a principal executive officer or ranking elected official.
- B. All reports required by this permit and other information requested by *Ecology* shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
1. The authorization is made in writing by a person described above and submitted to the *Ecology*.
 2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated *facility*, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.
- C. Changes to authorization. If an authorization under paragraph G2.B.2 above is no longer accurate because a different individual or position has responsibility for the overall operation of the *facility*, a new authorization satisfying the requirements of paragraph G2.B.2 above shall be submitted to *Ecology* prior to, or together with, any reports, information, or *applications* to be signed by an authorized representative.
- D. Certification. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that *qualified personnel* properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there

are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

G3. RIGHT OF INSPECTION AND ENTRY

The Permittee shall allow an authorized representative of *Ecology*, upon the presentation of credentials and such other documents as may be required by law:

- A. To enter upon the premises where a *discharge* is located or where any records shall be kept under the terms and conditions of this permit.
- B. To have access to and copy, at reasonable times and at reasonable cost, any records required to be kept under the terms and conditions of this permit.
- C. To inspect, at reasonable times, any facilities, equipment (including sampling and control equipment), practices, methods, or operations regulated or required under this permit.
- D. To sample or monitor, at reasonable times, any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the *Clean Water Act*.

G4. GENERAL PERMIT MODIFICATION AND REVOCATION

This permit may be modified, revoked and reissued, or terminated in accordance with the provisions of Chapter 173-226 WAC. Grounds for modification, revocation and reissuance, or termination include, but are not limited to, the following:

- A. When a change which occurs in the technology or practices for control or abatement of *pollutants* applicable to the category of *dischargers* covered under this permit.
- B. When effluent limitation guidelines or standards are promulgated pursuant to the CWA or Chapter 90.48 RCW, for the category of *dischargers* covered under this permit.
- C. When a water quality management plan containing requirements applicable to the category of *dischargers* covered under this permit is approved.
- D. When information is obtained which indicates that cumulative effects on the environment from *dischargers* covered under this permit are unacceptable.

G5. REVOCATION OF COVERAGE UNDER THE PERMIT

- A. Pursuant with Chapter 43.21B RCW and Chapter 173-226 WAC, *Ecology* may terminate coverage for any *discharger* under this permit for cause. Cases where coverage may be terminated include, but are not limited to, the following:
 - 1. Violation of any term or condition of this permit.
 - 2. Obtaining coverage under this permit by misrepresentation or failure to disclose fully all relevant facts.
 - 3. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

4. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.
 5. A determination that the permitted activity endangers human health or the environment, or contributes to *water quality standards* violations.
 6. Nonpayment of permit fees or penalties assessed pursuant to RCW 90.48.465 and Chapter 173-224 WAC.
 7. Failure of the Permittee to satisfy the public notice requirements of WAC 173-226-130(5), when applicable.
- B. *Ecology* may require any *discharger* under this permit to apply for and obtain coverage under an individual permit or another more specific *general permit*.
- C. Permittees who have their coverage revoked for cause according to WAC 173-226-240 may request temporary coverage under this permit during the time an individual permit is being developed, provided the request is made within 90 days from the time of revocation and is submitted along with a complete individual permit *application* form.

G6. REPORTING A CAUSE FOR MODIFICATION

The Permittee shall submit a new *application*, or a supplement to the previous *application*, whenever a material change to the *industrial activity* or in the quantity or type of *discharge* is anticipated which is not specifically authorized by this permit. This *application* shall be submitted at least 60 days prior to any proposed changes. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not relieve the Permittee of the duty to comply with the existing permit until it is modified or reissued.

G7. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in this permit shall be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G8. DUTY TO REAPPLY

The Permittee shall apply for permit renewal at least 180 days prior to the expiration date of this permit.

G9. REMOVED SUBSTANCES

Collected screenings, grit, solids, sludges, filter backwash, or other *pollutants* removed in the course of treatment or control of *stormwater* shall not be resuspended or reintroduced to the final effluent stream for *discharge* to state waters.

G10. DUTY TO PROVIDE INFORMATION

The Permittee shall submit to *Ecology*, within a reasonable time, all information which *Ecology* may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee shall also submit to *Ecology*, upon request, copies of records required to be kept by this permit [40 CFR 122.41(h)].

G11. OTHER REQUIREMENTS OF 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G12. ADDITIONAL SAMPLING

Ecology may establish specific sampling requirements in addition to those contained in this permit by administrative order or permit modification.

G13. PENALTIES FOR VIOLATING PERMIT CONDITIONS

Any person who is found guilty of willfully violating the terms and conditions of this permit shall be deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to \$10,000 and costs of prosecution, or by imprisonment at the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of this permit shall incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to \$10,000 for every such violation. Each and every such violation shall be a separate and distinct offense, and in case of a continuing violation, every day's continuance shall be deemed to be a separate and distinct violation.

G14. UPSET

Definition – "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that: 1) an upset occurred and that the Permittee can identify the cause(s) of the upset; 2) the permitted *facility* was being properly operated at the time of the upset; 3) the Permittee submitted notice of the upset as required in condition S5.F; and 4) the Permittee complied with any remedial measures required under this permit.

In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G15. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

G16. DUTY TO COMPLY

The Permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the *Clean Water Act* and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal *application*.

G17. TOXIC POLLUTANTS

The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the *Clean Water Act* for toxic *pollutants* within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G18. PENALTIES FOR TAMPERING

The *Clean Water Act* provides that any person who falsifies, tampers with, or knowingly renders inaccurate any sampling device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this Condition, punishment shall be a fine of not more than \$20,000 per day of violation, or imprisonment of not more than four years, or both.

G19. REPORTING PLANNED CHANGES

The Permittee shall, as soon as possible, give notice to *Ecology* of planned physical alterations, modifications or additions to the permitted *industrial activity*, which will result in:

- A. The permitted *facility* being determined to be a new source pursuant to 40 *CFR* 122.29(b).

- B. A *significant process change*, as defined in the glossary of this permit.
- C. A change in the location of *industrial activity* that affects the Permittee's sampling requirements in Conditions S3, S4, S5, and S6.

Following such notice, permit coverage may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any *pollutants* not previously limited. Until such modification is effective, any new or increased *discharge* in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G20. REPORTING OTHER INFORMATION

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit *application*, or submitted incorrect information in a permit *application* or in any report to *Ecology*, it shall promptly submit such facts or information.

G21. REPORTING ANTICIPATED NON-COMPLIANCE

The Permittee shall give advance notice to *Ecology* by submission of a new *application*, or supplement to the existing *application*, at least 45 days prior to commencement of such discharges, of any *facility* expansions, production increases, or other planned changes, such as process modifications, in the permitted *facility* or activity which may result in noncompliance with permit limits or conditions. Any maintenance of facilities, which might necessitate unavoidable interruption of operation and degradation of effluent quality, shall be scheduled during non-critical water quality periods and carried out in a manner approved by *Ecology*.

G22. REQUESTS TO BE EXCLUDED FROM COVERAGE UNDER THE PERMIT

- A. Any *discharger* authorized by this permit may request to be excluded from coverage under the *general permit* by applying for an individual permit.
- B. The *discharger* shall submit to *Ecology* an *application* as described in WAC 173-220-040 or WAC 173-216-070, whichever is applicable, with reasons supporting the request. These reasons shall fully document how an individual permit will apply to the applicant in a way that the *general permit* cannot.
- C. *Ecology* may make specific requests for information to support the request. *Ecology* shall either issue an individual permit or deny the request with a statement explaining the reason for the denial.
- D. When an individual permit is issued to a *discharger* otherwise subject to the industrial *stormwater general permit*, the applicability of the industrial *stormwater general permit* to that Permittee is automatically terminated on the effective date of the individual permit.

G23. APPEALS

- A. The terms and conditions of this *general permit*, as they apply to the appropriate class of *dischargers*, are subject to appeal by any person within 30 days of issuance of this *general permit*, in accordance with Chapter 43.21B RCW, and Chapter 173-226 WAC.
- B. The terms and conditions of this *general permit*, as they apply to an individual *discharger*, are appealable in accordance with Chapter 43.21B RCW within 30 days of the effective date of coverage of that *discharger*. Consideration of an appeal of *general permit* coverage of an individual *discharger* is limited to the *general permit's* applicability or nonapplicability to that individual *discharger*.
- C. The appeal of *general permit* coverage of an individual *discharger* does not affect any other *dischargers* covered under this *general permit*. If the terms and conditions of this *general permit* are found to be inapplicable to any individual *discharger(s)*, the matter shall be remanded to *Ecology* for consideration of issuance of an individual permit or permits.

G24. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or *application* of any provision of this permit to any circumstance, is held invalid, the *application* of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

G25. BYPASS PROHIBITED

Bypass, which is the intentional diversion of waste streams from any portion of a treatment facility, is prohibited, and *Ecology* may take enforcement action against a Permittee for *bypass* unless one of the following circumstances (A, B, or C) is applicable.

A. *Bypass for Essential Maintenance without the Potential to Cause Violation of Permit Limits or Conditions*

Bypass is authorized if it is for essential maintenance and does not have the potential to cause violations of limitations or other conditions of this permit, or adversely impact public health as determined by *Ecology* prior to the *bypass*. The Permittee must submit prior notice, if possible, at least ten (10) days before the date of the *bypass*.

B. *Bypass Which is Unavoidable, Unanticipated, and Results in Noncompliance of this Permit*

This *bypass* is permitted only if:

1. *Bypass* is unavoidable to prevent loss of life, personal injury, or *severe property damage*. "*Severe property damage*" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a *bypass*.

2. There are no feasible alternatives to the *bypass*, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment downtime (but not if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a *bypass* which occurred during normal periods of equipment downtime or preventative maintenance), or transport of untreated wastes to another treatment *facility*.
3. *Ecology* is properly notified of the *bypass* as required in condition S3E of this permit.

C. *Bypass* which is Anticipated and has the Potential to Result in Noncompliance of this Permit

The Permittee must notify *Ecology* at least thirty (30) days before the planned date of *bypass*. The notice must contain (1) a description of the *bypass* and its cause; (2) an analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing; (3) a cost-effectiveness analysis of alternatives including comparative resource damage assessment; (4) the minimum and maximum duration of *bypass* under each alternative; (5) a recommendation as to the preferred alternative for conducting the *bypass*; (6) the projected date of *bypass* initiation; (7) a statement of compliance with SEPA; (8) a request for modification of *water quality standards* as provided for in WAC 173-201A-410, if an exceedance of any water quality standard is anticipated; and (9) steps taken or planned to reduce, eliminate, and prevent reoccurrence of the *bypass*.

For probable construction bypasses, the need to *bypass* is to be identified as early in the planning process as possible. The analysis required above must be considered during preparation of the engineering report or facilities plan and plans and specifications and must be included to the extent practical. In cases where the probable need to *bypass* is determined early, continued analysis is necessary up to and including the construction period in an effort to minimize or eliminate the *bypass*.

Ecology will consider the following prior to issuing an administrative order for this type *bypass*:

1. If the *bypass* is necessary to perform construction or maintenance-related activities essential to meet the requirements of this permit.
2. If there are feasible alternatives to *bypass*, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment *facility*.
3. If the *bypass* is planned and scheduled to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed *bypass* and any other relevant factors, *Ecology* will approve or deny the request. The public must be notified and given an opportunity to comment on *bypass* incidents of significant duration, to the extent feasible. Approval of a request to *bypass* will be by administrative order issued by *Ecology* under RCW 90.48.120.

APPENDIX 1 - ACRONYMS

BMP	Best Management Practice
CAS	Chemical Abstract Service
CERCLA	Comprehensive Environmental Response Compensation & Liability Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
CWA	Centralized Waste Treatment
EPA	Environmental Protection Agency
ESC	Erosion and Sediment Control
FWPCA	Federal Water Pollution Control Act
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
SARA	Superfund Amendment and Reauthorization Act
SEPA	State Environmental Policy Act
SIC	Standard Industrial Classification
SMCRA	Surface Mining Control and Reclamation Act
SWMM	Stormwater Management Manual
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
USC	United States Code
USEPA	United States Environmental Protection Agency
WAC	Washington Administrative Code
WQ	Water Quality

APPENDIX 2 - DEFINITIONS

40 CFR means Title 40 of the Code of Federal Regulations, which is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the federal government.

303(d)-listed water body means waterbodies as listed as Category 5 on Washington State's Water Quality Assessment.

Air Emission means a release of air contaminants into the ambient air.

AKART is an acronym for "all known, available, and reasonable methods of prevention, control, and treatment." AKART represents the most current methodology that can be reasonably required for preventing, controlling, or abating the *pollutants* and controlling *pollution* associated with a discharge.

Applicable TMDL means any *TMDL* which has been completed either before the issuance date of this permit or the date the permittee first obtains coverage under this permit, whichever is later.

Application means a request for coverage under this *general permit* pursuant to WAC 173-226-200. Also called a *Notice of Intent (NOI)*.

Best Management Practices (BMPs - general definition) means schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the *pollution of waters of the state*. BMPs include treatment systems, operating procedures, and practices to control: plant site *runoff*, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. In this permit BMPs are further categorized as operational source control, structural source control, *erosion* and *sediment* control, and *treatment BMPs*.

Benchmark means a *pollutant* concentration used as a permit threshold, below which a pollutant is considered unlikely to cause a water quality violation, and above which it may. When pollutant concentrations exceed benchmarks, corrective action requirements take effect. Benchmark values are not *water quality standards* and are not numeric effluent limitations; they are indicator values.

Bypass means the intentional diversion of waste streams from any portion of a treatment *facility*.

Clean Water Act (CWA) means the Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, and 97-117; USC 1251 et seq.

Combined Sewer means a sewer which has been designed to serve as a *sanitary sewer* and a *storm sewer*, and into which inflow is allowed by local ordinance.

Construction Activity means clearing, grading, excavation and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, industrial buildings, and demolition activity.

Control Plan means a *total maximum daily load (TMDL)* determination, restrictions for the protection of endangered species, a *ground water* management plan, or other limitations that regulate or set limits on discharges to a specific water body or *ground water* recharge area.

Demonstrably Equivalent means that the technical basis for the selection of all storm water *best management practices* are documented within a storm water *pollution* prevention plan. The storm water *pollution* prevention plan must document: 1) The method and reasons for choosing the storm water *best management practices* selected; 2) The *pollutant* removal performance expected from the practices selected; 3) The technical basis supporting the performance claims for the practices selected, including any available existing data concerning field performance of the practices selected; 4) An assessment of how the selected practices will comply with state *water quality standards*; and 5) An assessment of how the selected practices will satisfy both applicable federal technology-based treatment requirements and state requirements to use all known, available, and reasonable methods of prevention, control, and treatment.

Detention means the temporary storage of *stormwater* to improve quality and/or to reduce the mass flow rate of discharge.

Discharge [of a pollutant] means any addition of any *pollutant* or combination of pollutants to waters of the United States from any point source. This definition includes additions of pollutants into waters of the United States from: surface *runoff* which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, *municipality*, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works.

Discharger means an owner or operator of any *facility* or activity subject to regulation under Chapter 90.48 RCW or the Federal *Clean Water Act*.

Domestic Wastewater means water carrying human wastes, including kitchen, bath, and laundry wastes from residences, buildings, industrial establishments, or other places, together with such *ground water* infiltration or surface waters as may be present.

Ecology means the Washington State Department of *Ecology*.

EPA means the United States Environmental Protection Agency.

Equivalent BMPs means operational, source control, treatment, or innovative BMPs which result in equal or better quality of *stormwater discharge* to surface water or to *ground water* than BMPs selected from the SWMM.

Erosion means the wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep.

Erosion and Sediment Control BMPs means BMPs that are intended to prevent *erosion* and sedimentation, such as preserving natural vegetation, seeding, mulching and matting, plastic covering, filter fences, and *sediment* traps and ponds.

Existing Facility means a *facility* that was in operation prior to the effective date of this permit. It also includes any *facility* that is not categorically included for coverage but is in operation when identified by *Ecology* as a *significant contributor of pollutants*.

Facility means any NPDES “point source” (including land or appurtenances thereto) that is subject to regulation under the NPDES program. See 40 CFR 122.2.

General Permit means a permit which covers multiple *dischargers* of a point source category within a designated geographical area, in lieu of individual permits being issued to each *discharger*.

Ground Water means water in a saturated zone or stratum beneath the land surface or a surface water body.

Illicit Discharge means any *discharge* that is not composed entirely of *stormwater* except (1) discharges authorized pursuant to a separate NPDES permit, or (2) conditionally authorized non-*stormwater* discharges identified in Condition S5.D.

Inactive Facility means a *facility* that no longer engages in business, production, providing services, or any auxiliary operation.

Industrial Activity means (1) the 11 categories of industrial activities identified in 40 CFR 122.26(b)(14)(i-xi) that must apply for either coverage under this permit or no exposure certification, (2) any *facility* conducting any activities described in Table 1, and (3) identified by *Ecology* as a *significant contributor of pollutants*. Table 1 lists the 11 categories of industrial activities identified in 40 CFR 122.26(b)(14)(i-xi) in a different format.

Landfill means an area of land or an excavation in which wastes are placed for permanent disposal, and which is not a *land application site*, surface impoundment, injection well, or waste pile.

Land Application Site means an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for treatment or disposal.

Leachate means water or other liquid that has percolated through raw material, product or waste and contains substances in solution or suspension as a result of the contact with these materials.

Local Government means any county, city, or town having its own government for local affairs.

Material Handling means storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product or waste product.

Municipality means a political unit such as a city, town or county; incorporated for local self-government.

National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking, and reissuing, terminating, and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the state from point sources. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington Department of Ecology.

New Development means land disturbing activities, including Class IV -general forest practices that are conversions from timber land to other uses; structural development, including construction or installation of a building or other structure; creation of impervious surfaces; and subdivision, short subdivision and binding site plans, as defined and applied in Chapter 58.17 RCW. Projects meeting the definition of redevelopment shall not be considered new development.

New Discharge(r) means a facility from which there is a discharge, that did not commence the discharge at a particular site prior to August 13, 1979, which is not a new source, and which has never received a finally effective NPDES permit for discharges at that site. See 40 CFR 122.2.

New Facility means a facility that begins activities that result in a discharge or a potential discharge to waters of the state on or after the effective date of this general permit.

Noncontact Cooling Water means water used for cooling which does not come into direct contact with any raw material, intermediate product, waste product, or finished product.

Notice of Termination (NOT) means a request for termination of coverage under this general permit as specified by Special Condition S11 of this permit.

Operational Source Control BMPs means schedule of activities, prohibition of practices, maintenance procedures, employee training, good housekeeping, and other managerial practices to prevent or reduce the pollution of waters of the state. Not included are BMPs that require construction of pollution control devices.

Pollutant means the discharge of any of the following to waters of the state: dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, domestic sewage sludge (biosolids), munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste. This term does not include sewage from vessels within the meaning of section 312 of the FWPCA nor does it include dredged or fill material discharged in accordance with a permit issued under section 404 of the FWPCA.

Pollution means contamination or other alteration of the physical, chemical, or biological properties of waters of the state; including change in temperature, taste, color, turbidity, or odor of the waters; or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the state as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety or welfare; or to domestic, commercial,

industrial, agricultural, recreational, or other legitimate beneficial uses; or to livestock, wild animals, birds, fish, or other aquatic life.

Process Wastewater means any water which, during manufacturing or processing, comes into direct contact or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Qualified Personnel means those who possess the knowledge and skills to assess conditions and activities that could impact *stormwater* quality at the *facility*, and evaluate the effectiveness of *best management practices* required by this permit.

Quantitation Level (QL) also known as Minimum Level of Quantitation (ML) means the lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

Reasonable Potential means the likely probability for *pollutants* in the *discharge* to exceed the applicable water quality criteria in the receiving water body.

Redevelopment means on a site that is already substantially developed (i.e., has 35% or more of existing impervious surface coverage), the creation or addition of impervious surfaces; the expansion of a building footprint or addition or replacement of a structure; structural development including construction, installation or expansion of a building or other structure; replacement of impervious surface that is not part of a routine maintenance activity; and land disturbing activities.

Regular Business Hours means those time frames when the *facility* is engaged in its primary production process, but does not include additional shifts or weekends when partial staffing is at the site primarily for maintenance and incidental production activities. *Regular business hours* do not include periods of time that the *facility* is inactive and *unstaffed*.

Representative [sample] means a sample of the *discharge* that accurately characterizes *stormwater runoff* generated in the designated drainage area of the *facility*.

Runoff means that portion of rainfall or snowmelt water not absorbed into the ground that becomes surface flow.

Sanitary Sewer means a sewer which is designed to convey *domestic wastewater*.

Sediment means the fragmented material that originates from the weathering and *erosion* of rocks, unconsolidated deposits, or unpaved yards, and is transported by, suspended in, or deposited by water.

Severe Property Damage means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent

loss of natural resources which can reasonably be expected to occur in the absence of a *bypass*. *Severe property damage* does not mean economic loss caused by delays in production.

Significant Amount means an amount of a *pollutant* in a *discharge* that is amenable to available and reasonable methods of prevention, control, or treatment; or an amount of a *pollutant* that has a *reasonable potential* to cause a violation of surface or *ground water quality standards* or *sediment management standards*.

Significant Contributor of Pollutant(s) means a *facility* determined by *Ecology* to be a contributor of a *significant amount(s)* of a *pollutant(s)* to *waters of the state*.

Significant Materials includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the *facility* is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with *stormwater* discharges.

Significant Process Change means any modification of the *facility* that would result in any of the following:

1. Add different *pollutants* in a *significant amount* to the discharge.
2. Increase the *pollutants* in the *stormwater discharge* by a *significant amount*.
3. Add a new *industrial activity* (SIC) that was not previously covered.
4. Add additional impervious surface or acreage such that *stormwater* discharge would be increased by 25% or more.

Source Control BMPs means physical, structural or mechanical devices or facilities that are intended to prevent *pollutants* from entering *stormwater*.

Standard Industrial Classification (SIC) is the statistical classification standard underlying all establishment-based federal economic statistics classified by industry as reported in the 1987 SIC Manual by the Office of Management and Budget.

State Environmental Policy Act (SEPA) means the Washington State Law, RCW 43.21C.020, intended to prevent or eliminate damage to the environment.

Storm Sewer means a sewer that is specifically designed to carry *stormwater*. Also called a storm drain.

Stormwater means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a *stormwater drainage system* into a defined surface water body, or a constructed infiltration *facility*.

Stormwater Discharge Associated with Industrial Activity means the *discharge* from any conveyance that is used for collecting and conveying *stormwater* and that is directly related to

manufacturing, processing or raw materials storage areas at an industrial plant (see 40 CFR 122(b)(14)).

Stormwater Drainage System means constructed and natural features which function together as a system to collect, convey, channel, hold, inhibit, retain, detain, infiltrate or divert *stormwater*.

Stormwater Management Manual (SWMM) or Manual means the technical manuals prepared by Ecology for *stormwater* management in western and eastern Washington.

Stormwater Pollution Prevention Plan (SWPPP) means a documented plan to implement measures to identify, prevent, and control the contamination of point source discharges of *stormwater*.

Structural Source Control BMPs means physical, structural, or mechanical devices or facilities that are intended to prevent *pollutants* from entering *stormwater*.

Surface Waters of the State includes lakes, rivers, ponds, streams, inland waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state.

Total Maximum Daily Load (TMDL) means a calculation of the maximum amount of a *pollutant* that a water body can receive and still meet state *water quality standards*. Percentages of the *total maximum daily load* are allocated to the various *pollutant* sources. A *TMDL* is the sum of the allowable loads of a single *pollutant* from all contributing point and nonpoint sources. The *TMDL* calculations include a "margin of safety" to ensure that the water body can be protected in case there are unforeseen events or unknown sources of the *pollutant*. The calculation also accounts for reasonable variation in water quality.

Treatment BMPs means BMPs that are intended to remove *pollutants* from *stormwater*.

Turbidity means the clarity of water expressed as nephelometric *turbidity* units (NTU) and measured with a calibrated turbidimeter.

Underground Injection Control Well means a well that is used to *discharge* fluids into the subsurface. An *underground injection control well* is one of the following:

1. A bored, drilled, or driven shaft,
2. An improved sinkhole, or
3. A subsurface fluid distribution system. (WAC 173-218-030)

Unstaffed means the *facility* has no assigned staff. A site may be "unstaffed" even when security personnel are present, provided that *pollutant* generating activities are not included in their duties.

Vehicle means a motor-driven conveyance that transports people or freight, such as an automobile, truck, train, or airplane.

Vehicle Maintenance means the rehabilitation, mechanical repairing, painting, fueling, and/or lubricating of a motor-driven conveyance that transports people or freight, such as an automobile, truck, train, or airplane.

Wasteload Allocation (WLA) means the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of *pollution*. WLAs constitute a type of water quality based effluent limitation (40 CFR 130.2(h)).

Water Quality Standards means the Water Quality Standards for *Surface Waters of the State* of Washington, Chapter 173-201A WAC, Ground Water Quality Standards (Chapter 173-200 WAC), Sediment Management Standards (Chapter 173-204 WAC), and human health-based criteria in the National Toxics Rule (40 CFR 131.36).

Waters of the State includes those waters defined as "waters of the United States" in 40 CFR Subpart 122.2 within the geographic boundaries of Washington State. State statute defines "*waters of the state*" to include lakes, rivers, ponds, streams, wetlands, inland waters, *underground waters*, salt waters and all other surface waters and water courses within the jurisdiction of the state of Washington (Chapter 90.48 RCW).

APPENDIX 3 - SWPPP CERTIFICATION FORM

The Permittee shall use this form to sign and certify that the Stormwater Pollution Prevention Plan (SWPPP) is complete, accurate and in compliance with Conditions S3 and S8 of the Industrial Stormwater General Permit.

- A SWPPP certification form needs to be completed and attached to all SWPPPs.
- Each time a Level 1, 2, or 3 Corrective Action is required, this form needs to be re-signed and re-certified by the Permittee, and attached to the SWPPP.

Is this SWPPP certification in response to a Level 1, 2 or 3 Corrective Action? Yes No

If Yes:

- Type of Corrective Action?: Level 1 Level 2 Level 3
- Date SWPPP update/revision completed: _____

"I certify under penalty of law that this SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate information to determine compliance with the Industrial Stormwater General Permit. Based on my inquiry of the person or persons who are responsible for stormwater management at my facility, this SWPPP is, to the best of my knowledge and belief, true, accurate, and complete, and in full compliance with Permit Conditions S3 and S8, including the correct Best Management Practices from the applicable Stormwater Management Manual. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Operator's Printed Name *

Title

Operator's Signature *

Date

* Federal regulations require this document to be signed as follows:

- For a corporation, by a principal executive officer of at least the level of vice president;
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
- For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking elected official.

This document shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above and submitted to the Ecology.
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.

Changes to authorization. If an authorization under number 2 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of number 2 above shall be submitted to Ecology prior to, or together with, any reports, information, or applications to be signed by an authorized representative.

APPENDIX 4 - EXISTING DISCHARGERS TO IMPAIRED WATER BODIES

This appendix has a link below to a website list of existing Permittees that *discharge pollutants* of concern to impaired water bodies.

<http://www.ecy.wa.gov/programs/wq/stormwater/industrial/permitdocs/iswgpapp4.pdf>

This list is based on the best information available to *Ecology*. There will be changes and updates to this list based on new, more accurate information. If changes or updates are made, *Ecology* will notify the affected permittees directly. Such changes or updates will not become effective until 30 days after the affected *dischargers* are notified.

This list is generated by comparing the *discharge* point of each individual *discharger* permitted under the Industrial *Stormwater General Permit* with the 2008 list of Category 5 impaired waters (the *303(d) list*), approved by US *EPA* on January 29, 2009.

APPENDIX 5 - DISCHARGERS SUBJECT TO TMDL REQUIREMENTS

The list of *dischargers* identified as discharging to water bodies which have completed water quality clean-up plans or *TMDLs* and associated monitoring requirements can be viewed on *Ecology's* website at: <http://www.ecy.wa.gov/programs/wq/stormwater/industrial/index.html>

The most current list can also be obtained by contacting *Ecology* at:

Industrial Stormwater General Permit
Washington State Department of Ecology
P.O. Box 47696
Olympia, WA 98504-7600

This list is based on the best information available to *Ecology*. There will be changes and updates to this list based on new, more accurate information. If changes or updates are made, *Ecology* will notify the affected permittees directly. Such changes or updates will not become effective until 30 days after the affected *dischargers* are notified.

APPENDIX C

Department of Ecology

**Stormwater Management Manual for Western
Washington, Volume I**

February 2005

(Ex. B-49B)

(excerpts)

Stormwater Management Manual for Western Washington

Volume I Minimum Technical Requirements and Site Planning

Prepared by:
Washington State Department of Ecology
Water Quality Program

February 2005
Publication No. 05-10-029
(A revision of Publication No. 99-11)

Acknowledgments

The individuals listed below volunteered their time and knowledge to aid in the 2001 update of this volume of the Department of Ecology's Stormwater Manual. The department thanks the members of the Volume I Committee for their efforts and advice.

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Chapter 1 - Introduction

1.1 Objective

The objective of this manual is to provide guidance on the measures necessary to control the quantity and quality of stormwater produced by new development and redevelopment such that they comply with water quality standards and contribute to the protection of beneficial uses of the receiving waters. The water quality standards include: Chapter 173-200 WAC, Water Quality Standards for Ground Waters of the State of Washington; Chapter 173-201A, Water Quality Standards for Surface Waters of the State of Washington; and Chapter 173-204, Sediment Management Standards. Application of appropriate minimum requirements and Best Management Practices (BMPs) identified in this manual are necessary but sometimes insufficient measures to achieve the objective. (See Section 1.7, Effects of Urbanization)

This manual establishes minimum requirements for development and redevelopment projects of all sizes and provides guidance concerning how to prepare and implement stormwater site plans. These requirements are, in turn, satisfied by the application of BMPs from Volumes II through V. Projects that follow this approach will apply reasonable, technology-based BMPs and water quality-based BMPs to reduce the adverse impacts of stormwater. This manual is applicable to all types of land development – including residential, commercial, industrial, and roads. Manuals with a more-specific focus, such as a Highway Runoff Manual, that have been determined to be equivalent to this manual, may provide more appropriate guidance to the intended audience.

Federal, state, and local permitting authorities with jurisdiction can require more stringent measures that are deemed necessary to meet locally established goals, state water quality standards, or other established natural resource or drainage objectives.

This manual can also be helpful in identifying options for retrofitting BMPs to existing development. Retrofitting stormwater BMPs into existing developed areas will be necessary in many cases to meet federal Clean Water Act and state Water Pollution Control Act (Chapter 90.48 RCW) requirements.

The Department of Ecology (Ecology) does not have guidance specifically for retrofit situations (not including redevelopment situations). Application of BMPs from this manual is encouraged. However, there can be site constraints that make the strict application of these BMPs difficult.

1.2 Expanded Applicability to Western Washington

With this update of this stormwater manual, the applicability has been broadened to include all of western Washington. This includes the area bounded on the south by the Columbia River, on the west by the Pacific Ocean, on the north by the Canadian border, and on the east by the Cascade Mountains crest.

The Ecology stormwater manual was originally developed in response to a directive of the Puget Sound Water Quality Management Plan (PSWQA 1987 et seq.). The Puget Sound Water Quality Authority (since replaced by the Puget Sound Action Team, PSAT) recognized the need for overall guidance for stormwater quality improvement. It incorporated requirements in its plan to implement a cohesive, integrated stormwater management approach through the development and implementation of programs by local jurisdictions, and the development of rules, permits and guidance by Ecology.

The Puget Sound Water Quality Management Plan included a stormwater element (SW-2.1) requiring Ecology to develop a stormwater technical manual for use by local jurisdictions. This manual was originally developed to meet this requirement. Ecology has found that the concepts developed for the Puget Sound Basin are applicable throughout western Washington.

Further information describing how this manual relates to the Puget Sound Water Quality Management Plan is included in Section 1.6, below.

1.3 Organization of this Manual

1.3.1 Overview of Manual Content

To accomplish the objective described in Section 1.1, the manual includes the following:

- *Minimum Requirements* that cover a range of issues, such as preparation of Stormwater Site Plans, pollution prevention during the construction phase of a project, control of potential pollutant sources, treatment of runoff, control of stormwater flow volumes, protection of wetlands, and long-term operation and maintenance. The Minimum Requirements applicable to a project vary depending on the type and size of the proposed project.
- *Best Management Practices (BMPs)* that can be used to meet the minimum requirements. BMPs are defined as schedules of activities, prohibitions of practices, maintenance procedures, managerial practices, or structural features that prevent or reduce adverse impacts

to waters of Washington State. BMPs are divided into those for short-term control of stormwater from construction sites, and those addressing long-term management of stormwater at developed sites. Long-term BMPs are further subdivided into those covering management of the volume and timing of stormwater flows, prevention of pollution from potential sources, and treatment of runoff to remove sediment and other pollutants.

- *Guidance on how to prepare and implement Stormwater Site Plans.* The Stormwater Site Plan is a comprehensive report that describes existing site conditions, explains development plans, examines potential offsite effects, identifies applicable Minimum Requirements, and proposes stormwater controls for both the construction phase and long-term stormwater management. The project proponent submits the Stormwater Site Plan to state and local permitting authorities with jurisdiction, who use the plan to evaluate a proposed project for compliance with stormwater requirements.

1.3.2 Organization of this Manual

Volume I of this manual serves as an introduction and covers several key elements of developing the Stormwater Site Plan. The remaining volumes of this manual cover BMPs for specific aspects of stormwater management. Volumes II through V are organized as follows:

- Volume II covers BMPs for short-term stormwater management at construction sites;
- Volume III covers hydrologic analysis and BMPs to control flow volumes from developed sites;
- Volume IV addresses BMPs to minimize pollution generated by potential pollution sources at developed sites; and
- Volume V presents BMPs to treat runoff that contains sediment or other pollutants from developed sites.

1.3.3 Organization of Volume I

Following this introduction, Volume I contains three additional chapters. Chapter 2 identifies the Minimum Requirements for stormwater management at all new development and redevelopment projects. In addition, Chapter 2 describes the relationship between the Minimum Requirements and the Puget Sound Water Quality Management Plan. Chapter 3 describes the Stormwater Site Plan, and provides step-by-step guidance on how to develop these plans. Chapter 4 describes the process for selecting BMPs for long-term management of stormwater flows and quality. Appendices are included to support these topics. Volume I also includes the Glossary for all five volumes of the stormwater manual.

1.4 How to Use this Manual

This manual has applications for a variety of users. Project proponents should start by reading Chapter 3 of Volume I. It explains how to complete stormwater site plans.

Local government officials may adopt and apply the requirements, thresholds, definitions, BMP selection processes, and BMP design criteria of this manual, or an equivalent manual. Staff at local governments and agencies with permitting jurisdiction may use this manual in reviewing Stormwater Site Plans, checking BMP designs, and providing technical advice to project proponents.

Federal, State, and local permits may refer to this manual or the BMPs contained in this manual. In those cases, affected permit-holders or applicants should use this manual for specific guidance on how to comply with those permit conditions.

1.5 Development of Best Management Practices for Stormwater Management

1.5.1 Best Management Practices (BMPs)

The method by which the manual controls the adverse impacts of development and redevelopment is through the application of Best Management Practices.

Best Management Practices are defined as schedules of activities, prohibitions of practices, maintenance procedures, and structural and/or managerial practices, that when used singly or in combination, prevent or reduce the release of pollutants and other adverse impacts to waters of Washington State. The types of BMPs are source control, treatment, and flow control. BMPs that involve construction of engineered structures are often referred to as facilities in this manual. For instance, the BMPs referenced in the menus of Chapter 3 in Volume V are called treatment facilities.

The primary purpose of using BMPs is to protect beneficial uses of water resources through the reduction of pollutant loads and concentrations, and through reduction of discharges (volumetric flow rates) causing stream channel erosion. If it is found that, after the implementation of BMPs advocated in this manual, beneficial uses are still threatened or impaired, then additional controls may be required.

1.5.2 Source Control BMPs

Source control BMPs **prevent** pollution, or other adverse effects of stormwater, from occurring. Ecology further classifies source control BMPs as operational or structural. Examples of source control BMPs include methods as various as using mulches and covers on disturbed soil, putting roofs over outside storage areas, and berming areas to prevent stormwater run-on and pollutant runoff.

It is generally more cost effective to use source controls to **prevent** pollutants from entering runoff, than to treat runoff to remove pollutants. However, since source controls cannot prevent all impacts, some combination of measures will always be needed.

1.5.3 Treatment BMPs

Treatment BMPs include facilities that remove pollutants by simple gravity settling of particulate pollutants, filtration, biological uptake, and soil adsorption. Treatment BMPs can accomplish significant levels of pollutant load reductions if properly designed and maintained.

1.5.4 Flow Control BMPs

Flow control BMPs typically control the rate, frequency, and flow duration of stormwater surface runoff. The need to provide flow control BMPs depends on whether a development site discharges to a stream system or wetland, either directly or indirectly. Stream channel erosion control can be accomplished by BMPs that detain runoff flows and also by those which physically stabilize eroding streambanks. Both types of measures may be necessary in urban watersheds. Only the former is covered in this manual.

Construction of a detention pond is the most common means of meeting flow control requirements. Construction of an infiltration facility is the preferred option but is feasible only where more porous soils are available. The concept of detention is to collect runoff from a developed area and release it at a slower rate than it enters the collection system. The reduced release rate requires temporary storage of the excess amounts in a pond with release occurring over a few hours or days. The volume of storage needed is dependent on 1) the size of the drainage area; 2) the extent of disturbance of the natural vegetation, topography, and soils and creation of effective impervious surfaces (surfaces that drain to a stormwater collection system); and 3) how rapidly the water is allowed to leave the detention pond, i.e., the target release rates.

The 1992 Ecology manual focused primarily on controlling the peak flow release rates for recurrence intervals of concern – the 2, 10, and 100-year rates. This level of control did not adequately address the increased duration at which those high flows occur because of the increased volume

of water from the developed condition as compared to the pre-developed conditions. To protect stream channels from increased erosion, it is necessary to control the durations over which a stream channel experiences geomorphically significant flows such that the energy imparted to the stream channel does not increase significantly. Geomorphically significant flows are those that are capable of moving sediments. This target will translate into lower release rates and significantly larger detention ponds than the previous Ecology standard. The size of such a facility can be reduced by changing the extent to which a site is disturbed.

In regard to wetlands, it is necessary to not alter the natural hydroperiod. This means control of flows from a development such that the wetland is within certain elevations at different times of the year and short-term elevation changes are within the prescribed limits. If the amount of surface water runoff draining to a wetland is increased because of land conversion from forested to impervious areas, it may be necessary to bypass some water around the wetland in the wet season. (Bypassed stormwater must still meet flow control and treatment requirements applicable to the receiving water.) If however, the wetland was fed by local ground water elevations during the dry season, the impervious surface additions and the bypassing practice may cause variations from the dry season elevations.

Estimates of what should be done to maintain the natural hydroperiod require the use of a continuous runoff model. It remains to be seen whether the available continuous runoff models are sufficiently accurate to determine successful flow management strategies. Even if the modeling approaches are sufficient, it will be a challenge to simulate pre-development hydrology after significant development has occurred.

1.6 Relationship of this Manual to Federal, State, and Local Regulatory Requirements

1.6.1 The Manual's Role as Technical Guidance

The *Stormwater Management Manual for Western Washington* is not a regulation. The Manual does not have any independent regulatory authority and it does not establish new environmental regulatory requirements. Its "Requirements" and BMP's become required through:

- Ordinances and rules established by local governments; and
- Permits and other authorizations issued by local, state, and federal authorities.

Current law and regulations require the design, construction, operation and maintenance of stormwater systems that prevent pollution of State waters. The Manual is a guidance document which provides local governments,

State and Federal agencies, developers and project proponents with a stormwater management strategy to apply at the project level. If this strategy is implemented correctly, in most cases it should result in compliance with existing regulatory requirements for stormwater – including compliance with the Federal Clean Water Act, Federal Safe Drinking Water Act and State Water Pollution Control Act.

The Manual provides generic, technical guidance on measures to control the quantity and quality of stormwater runoff from new development and redevelopment projects. These measures are considered to be necessary to achieve compliance with State water quality standards and to contribute to the protection of the beneficial uses of the receiving waters (both surface and ground waters). Stormwater management techniques applied in accordance with this Manual are presumed to meet the technology-based treatment requirement of State law to provide all known available and reasonable methods of treatment, prevention and control (AKART; RCW 90.52.040 and RCW 90.48.010).

This technology-based treatment requirement does not excuse any discharge from the obligation to apply additional stormwater management practices as necessary to comply with State water quality standards. The State water quality standards include: Chapter 173-200 WAC, Water Quality Standards for Ground Waters of the State of Washington; Chapter 173-201A, Water Quality Standards for Surface Waters of the State of Washington; and Chapter 173-204, Sediment Management Standards.

Following this Manual is not the only way to properly manage stormwater runoff. A municipality may adopt, or a project proponent may choose to implement other methods to protect water quality; but in those cases, they assume the responsibility of providing technical justification that the chosen methods will protect water quality (see Section 1.6.3, Presumptive versus Demonstrative Approaches to Protecting Water Quality below).

1.6.2 More Stringent Measures and Retrofitting

Federal, State, and local government agencies with jurisdiction can require more stringent measures that are deemed necessary to meet locally established goals, State water quality standards, or other established natural resource or drainage objectives. Water cleanup plans or Total Maximum Daily Loads (TMDLs) may identify more stringent measures needed to restore water quality in an impaired water body.

This Manual is not a retrofit manual, but it can be helpful in identifying options for retrofitting BMPs to existing development. Retrofitting stormwater BMPs into existing developed areas may be necessary to meet federal Clean Water Act and state Water Pollution Control Act (Chapter 90.48 RCW) requirements. In retrofit situations there frequently are site constraints that make the strict application of these BMPs difficult. In these instances, the BMPs presented here can be modified using best

professional judgment to provide reasonable improvements in stormwater management.

1.6.3 Presumptive versus Demonstrative Approaches to Protecting Water Quality

Wherever a discharge permit or other water-quality-based project approval is required, project proponents may be required to document the technical basis for the design criteria used to design their stormwater management BMPs. This includes: how stormwater BMPs were selected; the pollutant removal performance expected from the selected BMPs; the scientific basis, technical studies, and(or) modeling which supports the performance claims for the selected BMPs; and an assessment of how the selected BMP will comply with State water quality standards and satisfy State AKART requirements and Federal technology-based treatment requirements.

The Manual is intended to provide project proponents, regulatory agencies and others with technically sound stormwater management practices which are *presumed* to protect water quality and instream habitat – and meet the stated environmental objectives of the regulations described in this chapter. Project proponents always have the option of not following the stormwater management practices in this Manual. However, if a project proponent chooses not to follow the practices in the Manual then the project proponent may be required to individually *demonstrate* that the project will not adversely impact water quality by collecting and providing appropriate supporting data to show that the alternative approach is protective of water quality and satisfies State and federal water quality laws.

Figure 1.1 graphically depicts the relation between the *presumptive approach* (the use of this Manual) and the *demonstrative approach* for achieving the environmental objectives of the standards. Both the presumptive and demonstrative approaches are based on best available science and result from existing Federal and State laws that require stormwater treatment systems to be properly designed, constructed, maintained and operated to:

1. Prevent pollution of state waters and protect water quality, including compliance with state water quality standards;
2. Satisfy state requirements for all known available and reasonable methods of prevention, control and treatment (AKART) of wastes prior to discharge to waters of the State; and
3. Satisfy the federal technology based treatment requirements under 40 CFR part 125.3.

Relation between environmental science and standards in stormwater regulations. Both the presumptive and demonstrative approaches are based on using best available science to protect water quality. See the glossary for definitions.

STANDARDS

Water Pollution Control Act

(Chapter 90.48 RCW)

Discharges to state waters shall not cause pollution, which is defined as an alteration of the physical, chemical or biological properties of State waters which would impair beneficial uses. Requires the use of AKART and BMPs approved by Ecology.

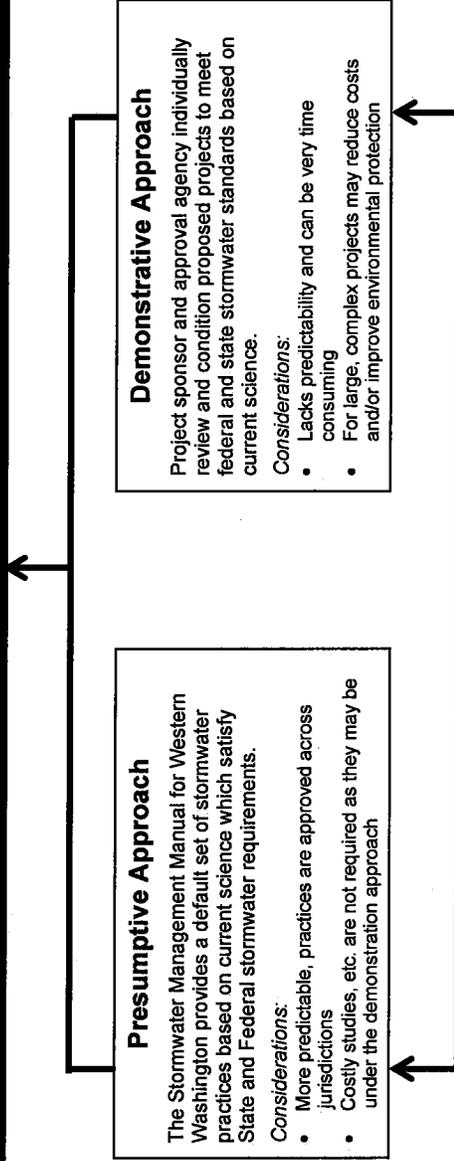
Federal Clean Water Act

Restore and maintain the chemical, physical, and biological integrity of the Nation's waters.

- State water quality standards (water-quality based treatment requirements)
- Federal technology-based treatment requirements
- NPDES permits
- 303(d) impaired water body list and water clean-up plans

Others

- Endangered Species Act
- Properly functioning conditions
- Hydraulics Code (HPA)
- Safe Drinking Water Act (UIC)



Presumptive Approach

The Stormwater Management Manual for Western Washington provides a default set of stormwater practices based on current science which satisfy State and Federal stormwater requirements.

Considerations:

- More predictable, practices are approved across jurisdictions
- Costly studies, etc. are not required as they may be under the demonstration approach

Demonstrative Approach

Project sponsor and approval agency individually review and condition proposed projects to meet federal and state stormwater standards based on current science.

Considerations:

- Lacks predictability and can be very time consuming
- For large, complex projects may reduce costs and/or improve environmental protection

Hydrology

- When native vegetation is removed and replaced with impervious surfaces (roads or buildings) there is an increase in stormwater runoff and other drastic alterations to the natural hydrology.
- Increased flows lead to increased flooding and stream bank and stream bed erosion.
- Unless mitigated, adverse high flow impacts occur at even low levels of urban development: 4% to 10% total impervious area.
- Transportation infrastructure (including parking areas) represents between 50% and 75% of the impervious surface area within any single watershed.

Water Quality

- More than a third of the State's urban streams, creeks and embayments are impaired due to stormwater runoff.
- Stormwater runoff from construction activities can contain large amounts of sediments and suspended solids which are harmful to fish and other aquatic life.
- Untreated stormwater from roads and urban areas can adversely impact water quality due to sediments, toxic metals, pesticides, herbicides, oils and greases, and possible human pathogens including fecal coliform bacteria.
- Untreated stormwater runoff from roads and urban areas can be toxic to aquatic life including fish.

SCIENCE

Under the demonstration approach, the timeline and expectations for providing technical justification of stormwater management practices will depend on the complexity of the individual project and the nature of the receiving environment. In each case, the project proponent may be asked to document to the satisfaction of the permitting agency or other approval authority that the practices they have selected will result in compliance with the water quality protection requirements of the permit or other local, State, or Federal water-quality-based project approval condition. This approach may be more cost effective for large, complex or unusual types of projects.

Project proponents that choose to follow the stormwater management approaches contained in approved stormwater technical manuals are presumed to have satisfied this demonstration requirement and do not need provide technical justification to support the selection of BMPs for the project. Following the stormwater management practices in this Manual means adhering to the guidance provided for proper selection, design, construction, implementation, operation and maintenance of BMPs. Approved stormwater technical manuals include this Manual and other equivalent stormwater management guidance documents approved by Ecology (See Section 1.6.3). This approach will generally be more cost effective for typical development and redevelopment projects.

The following sub-sections will explain the relationship of the manual to various programs, permits, and planning efforts.

1.6.4 The Puget Sound Water Quality Management Plan

Stormwater Comprehensive Programs

The Puget Sound Water Quality Management Plan (the Plan) directs every city and county in the Puget Sound Basin to develop and implement a comprehensive stormwater management program. The Plan recognizes that stormwater programs will vary among jurisdictions, depending on the jurisdiction's population, density, threats posed by stormwater, and results of watershed planning efforts. Under the Plan, cities and counties are encouraged to form intergovernmental cooperative agreements in order to pool resources and carry out program activities most efficiently.

Comprehensive stormwater management programs under the Plan are to include:

- ***Stormwater Controls for New Development and Redevelopment*** – Local governments are directed to adopt ordinances that require the use of best management practices (BMPs) to control stormwater flows, provide treatment, and prevent erosion and sedimentation from all new development and redevelopment projects. They are also directed to adopt and require the use of Ecology's stormwater technical manual

(or an approved alternative manual) to meet these objectives. All new development in the basin, particularly new development sited outside of urban growth areas, are to seek to achieve no net detrimental change in natural surface runoff and infiltration.

- ***Stormwater Site Plan Review*** – Local governments are directed to review new development and redevelopment projects to ensure that stormwater control measures are adequate and consistent with local requirements.
- ***Inspection of Construction Sites*** – Local governments are directed to regularly inspect construction sites and to adopt ordinances to ensure clear authority to inspect construction sites, to require maintenance of BMPs, and to enforce violations. They are also directed to provide local inspectors with training on erosion and sediment control practices.
- ***Maintenance of Permanent Facilities*** – Local governments are directed to adopt ordinances that require all permanent stormwater facilities to be regularly maintained to ensure performance. They are also directed to develop necessary provisions, such as agreements or maintenance contracts, to ensure that facilities on private land (e.g., residential subdivisions and commercial complexes) are maintained. The Plan directs local government to provide training for professionals who maintain stormwater facilities.
- ***Source Control*** – Local governments are directed to develop and implement a program to control sources of pollutants from new development and redevelopment projects and from existing developed lands, using BMPs from Ecology’s stormwater technical manual, or an equivalent manual. Source control activities are to include pollution from roadways and landscaping activities. Integrated pest management practices are to be used to manage roadside vegetation.
- ***Illicit Discharges and Water Quality Response*** – Local governments are directed to adopt ordinances to prohibit dumping and illicit discharges and to carry out activities to detect, eliminate and prevent illicit discharges, and respond to spills and water quality violations.
- ***Identification and Ranking of Problems*** – The Plan directs local government to identify and rank existing problems that degrade water quality, aquatic species and habitat, and natural hydrologic processes. Local governments may choose to achieve this through watershed or basin planning or another process. Local governments are directed to conduct a hydrologic analysis and map stormwater drainages, outfalls, and impervious surfaces by watershed and to develop plans and schedules and identify funding to fix the problems.

- ***Public Education and Involvement*** – The Plan directs local government to educate and involve citizens, businesses, elected officials, site designers, developers, builders and other members of the community to build awareness and understanding of stormwater and water quality issues. Local governments are to provide practical alternatives to actions that degrade water quality and biological resources.
- ***Low Impact Development Practices*** – Local governments are directed to adopt ordinances that allow and encourage low impact development practices. These are practices that infiltrate stormwater (using proper safeguards to protect ground water) on-site rather than collecting, conveying and discharging stormwater off-site. The goals of low impact development practices are to enhance overall habitat functions, reduce runoff, recharge aquifers, maintain historic in-stream flows and reduce maintenance costs.
- ***Watershed or Basin Planning*** – The Plan directs local government to participate in watershed or basin planning processes, such as planning under Chapter 400-12 WAC or Chapter 90.82 RCW. The objective is to coordinate efforts, pool resources, ensure consistent methodologies and standards, maintain and restore watershed health, and protect and enhance natural hydrology and processes - including natural surface runoff, infiltration and evapotranspiration. Basin plans are to address water quality, aquatic habitat, ground water recharge and water re-use. Basin plans may prescribe stronger stormwater management measures to protect sensitive resources in a certain basin or sub-basin. Stormwater management measures in all basins are to at least meet the minimum requirements of Ecology’s technical manual. Cities and counties are directed to incorporate recommendations from watershed or basin plans and specific requirements from Total Maximum Daily Load (TMDL) Water Cleanup Plan processes into their stormwater programs, land use comprehensive plans and site development ordinances.
- ***Funding*** – The Plan directs local government to create local funding capacity, such as a utility, to ensure adequate, ongoing funding for program activities and to provide funding to contribute to regional stormwater projects.
- ***Monitoring*** – The Plan directs local government to monitor program implementation and environmental conditions and trends over time to measure the effectiveness of program activities. Local governments are directed to periodically share monitoring results with local and state agencies, citizens and others.

Stormwater Technical Manual

The Plan states that “A single technical stormwater manual for the region provides uniform standards and a central repository for BMPs”. The Plan directs Ecology to maintain the region’s technical stormwater manual for new development and redevelopment. Publication of this manual partially fulfills Ecology’s responsibilities under the Puget Sound Water Quality Management Plan.

Alternative Technical Manuals

Cities and counties that choose to develop an alternative technical manual are directed to submit their manual to Ecology. The submittal is to include an outline of significant differences between the manuals and demonstrate how the alternative manual is substantively equivalent to Ecology’s. The Plan directs Ecology to work with jurisdictions to ensure that all alternative manuals meet or exceed the standards in Ecology’s technical manual. Jurisdictions choosing to develop an alternative manual are directed to use Ecology’s technical manual in the interim.

Ecology published guidance for equivalency reviews (“Guidance for Local Governments When Submitting Manuals and Associated Ordinances for Equivalency Review,” 3/94, Publication #94-45). The criteria in that guidance are replaced with the following criteria.

1. The Minimum Requirements (Chapter 2) for new development and redevelopment, or their equivalents, must be included in ordinance or enforceable rules adopted by the local government. More stringent requirements may be used, and/or the Minimum Requirements may be tailored to local circumstances through the use of basin plans or other similar water quality and quantity planning efforts.
2. The thresholds for and definitions of new development, redevelopment, land disturbing activities, impervious surfaces, maintenance, and pollution-generating surfaces should provide equivalent protection of receiving waters or equivalent levels of pollution treatment as those provided by Ecology’s criteria.
3. The substantially equivalent manual must include BMP selection and site planning processes that have outcomes that provide equivalent or greater protection to those in Ecology’s manual.
4. The types of BMPs and design criteria for those BMPs specified by local governments must provide equivalent or greater protection than those contained in Volumes II through V of Ecology’s manual.
5. Adjustment and Variance criteria similar to those in Volume I must be included.

Where Ecology is uncertain that a local government requirement provides equivalent or better protection, it may provisionally approve the local requirement. The provisions would require the local government to implement an approved monitoring effort to assess the performance of the local requirement.

Ecology has used bold highlighting of statements in Chapter 2 of Volume I for which local governments must have equivalent statements if they are to comply with criteria 1,2, and 5 above.

1.6.5 Phase I - NPDES and State Waste Discharge Stormwater Permits for Municipalities

Certain municipalities and other entities are subject to permitting under the U.S. Environmental Protection Agency (EPA) Phase I Stormwater Regulations (40 CFR Part 122). In Western Washington, Ecology has issued joint NPDES and State Waste Discharge permits to regulate the discharges of stormwater from the municipal separate storm sewer systems operated by the following cities and counties:

- Clark County,
- King County,
- Pierce County,
- Snohomish County,
- Seattle, and
- Tacoma.

The Washington Department of Transportation is also a Phase I municipal stormwater permittee for its stormwater discharges within the jurisdictions of the above cities and counties.

As a condition (Special Condition S7.b.8.a.) of the permits issued in July 1995, these entities are required to implement stormwater programs that must include:

“... ordinances (except WSDOT’s program), minimum requirements and best management practices (BMPs) equivalent to those found in Volumes I-IV of Ecology’s *Stormwater Management Manual for the Puget Sound Basin* (1992 edition, and as amended by its replacement)....”

These entities had until the end of the permit terms, July 2000 to comply with this requirement.

Ecology has administratively extended these municipal permits until it can reissue updated permits. In the development of those permits, Ecology will consider incorporating the minimum requirements and thresholds and

referencing the BMP's within this manual. Ecology will also add a deadline or deadlines within the term of the permit for compliance with the condition.

1.6.6 Phase II - NPDES and State Waste Discharge Stormwater Permits for Municipalities

The EPA adopted Phase II stormwater regulations in December 1999. Those rules identify additional municipalities as subject to NPDES municipal stormwater permitting requirements. Over 100 municipalities in Washington are subject to the requirements. Federal regulations required issuance of Phase II permits by December 2002, and required the Phase II communities to submit their stormwater programs to comply with permit requirements by March 2003. Ecology made a standard permit application format available to municipalities and encouraged all to apply by March 2003. Ecology anticipates issuing the Phase II permit for Western Washington in 2005.

The USEPA regulations specify minimum measures for the stormwater programs developed to comply with the Phase II permits. One of those measures is the adoption of a program for "post-construction stormwater management in new development and redevelopment." Another is a program for "construction site stormwater runoff control." To at least partially fulfill these requirements, portions of this manual that apply will be used as the starting point for permit requirements. Ecology will propose using the federal phase II thresholds for the phase II municipal stormwater permits rather than the lower thresholds in this manual. A schedule (or schedules) for compliance will be necessary. Municipalities within the Puget Sound Basin should have already completed these tasks as required by the Puget Sound Water Quality Management Plan, and as encouraged by the State's strategy for salmon recovery.

1.6.7 Municipalities Not Subject to the Puget Sound Water Quality Management Plan nor NPDES Stormwater Permits for Municipalities

Municipalities not subject to the Puget Sound Plan nor NPDES stormwater permits for municipalities are encouraged to adopt stormwater programs at least equivalent to the Puget Sound Basic Stormwater Program. This would include adoption of ordinances, minimum requirements described in the 1994 Puget Sound Plan, and BMPs equivalent to those in Ecology's manual. Any municipalities in areas where urban stormwater has been identified as a limiting factor to salmon recovery are expected to have an equivalent stormwater manual as part of a Comprehensive Stormwater Program as defined by the Puget Sound Water Quality Management Plan.

1.6.8 Industrial Stormwater Permit (i.e. NPDES and State Waste Discharge Baseline General Permit for Stormwater Discharges Associated With Industrial Activities)

Businesses subject to the Baseline General Permit for Stormwater Discharges Associated With Industrial Activities have to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) in accordance with the terms of that permit. The current permit was issued in August 2002, and modified in December 2004. The modified permit allows permittees to follow a presumptive approach or a demonstration approach (see section 1.6.3 for a detailed explanation) to compliance with the permit. Permittees who choose the presumptive approach select BMP's from an approved stormwater manual. The permit identifies the Stormwater Management Manual for Western Washington and the Regional Road Maintenance ESA Program Guidelines as the applicable stormwater manuals for all facilities in western Washington.

Under the presumptive approach, new facilities are to apply the minimum technical requirements and BMP's appropriate for their facility as found in the most recent version of the Western Washington manual or an equivalent manual. Existing facilities are to use the most recent version of this manual when updating their SWPPP to accommodate changes at their facility or when additional BMPs are required to maintain compliance with permit conditions. Facilities undergoing new development or re-development are to apply the applicable minimum requirements of the most recent edition of this manual when beginning final design of the project to the development site.

1.6.9 Construction Stormwater Permit (i.e. NPDES and State Waste Discharge General Permit for Stormwater Discharges Associated With Construction Activity)

Construction sites that will disturb five acres or more and will have a discharge of stormwater from the project site to surface water must apply for Ecology's construction stormwater permit. The permit requires application of stabilization and structural practices to reduce the potential for erosion and the discharge of sediments from the site. The stabilization and structural practices cited in the permit are similar to the minimum requirements for sedimentation and erosion control in Volume I of the SWMM.

The permit also requires construction sites within the Puget Sound basin to "select from BMPs described in Volume II of the most recent edition of Ecology's Stormwater Management Manual (SWMM) that has been available at least 120 days prior to the BMP selection." Sites outside the basin are required to select BMPs from the manual, from the Erosion and Sediment Control Handbook, by Goldman et al, or to select other

APPENDIX D

WSR 03-15-091

Department of Ecology Policy Statement

July 18, 2003

WSR 03-15-091

POLICY STATEMENT

DEPARTMENT OF ECOLOGY

[Filed July 18, 2003, 3:12 p.m.]

Policy Statement

The following represents the Department of Ecology's policy regarding the limitations, and proper use of the Stormwater Management Manual for Western Washington (August 2001).

The Stormwater Management Manual for Western Washington is Not a Regulation: The manual does not have any independent regulatory authority and it does not establish new environmental regulatory requirements or standards. The manual is a guidance document which provides local governments, state and federal agencies, developers and project proponents with a set of stormwater management practices to assist in the design of stormwater site or pollution prevention plans. Other stormwater technical guidance documents have been prepared or approved by ecology, and the current list of approved stormwater technical guidance documents can be found on ecology's website, at <http://www.ecy.wa.gov>. If these practices are implemented correctly, ecology believes they should result in compliance with existing regulatory requirements for stormwater - including compliance with the Federal Clean Water Act, Federal Safe Drinking Water Act and State Water Pollution Control Act.

Presumptive vs. Demonstration Approach: Following the manual (the presumptive approach) or other technical guidance documents approved by ecology, is not the only way to properly manage stormwater runoff. The manual or other stormwater technical guidance documents approved by ecology, are intended to provide project proponents, regulatory agencies and others with technically sound stormwater management practices which are *presumed* to protect water quality and satisfy the state AKART requirement. All project proponents have the option of not following the stormwater management practices in the manual or other technical guidance documents approved by ecology. However, if a project proponent chooses not to follow the practices in the manual or other technical guidance documents approved by ecology, then the project proponent may be required to individually *demonstrate* that the project will not adversely impact water quality and show that the alternative approach is protective of water quality and satisfies state and federal water quality laws. In this case, whether the project proponent is required to demonstrate compliance with environmental laws or not will depend on the underlying project approval or permit requirements established in federal, state and local laws, regulations and ordinances.

Included within the Stormwater Management Manual for Western Washington are provisions for adjustments to the minimum requirements in the manual (Volume 1, chapter 2.7). There are also provisions for exceptions and variances to the minimum requirements in the manual (Volume 1, chapter 2.8). The provisions for adjustments, exceptions and variances within the manual are available to all project proponents, including local governments, that follow the manual. In addition, project proponents or permittees may select best management practices (BMPs) which are functionally equivalent to BMPs in the manual in lieu of strict adherence to the manual BMPs. If required by a permit or other authorization, project proponents or permittees may be required to demonstrate functional equivalency.

Both the presumptive and demonstrative approaches are based on and result from existing federal and state laws that require stormwater treatment systems to be properly designed, constructed, maintained and operated to:

- Prevent pollution of state waters and protect water quality, including compliance with state water quality standards;
- Satisfy state requirements for all known available and reasonable methods of prevention, control and treatment (AKART) of wastes prior to discharge to waters of the state; and
- Satisfy the federal technology based treatment requirements under 40 C.F.R. part 125.3.

Under the demonstration approach, the expectations for providing technical justification of stormwater management practices will depend on the complexity of the individual project and the nature of the receiving environment. In each case, the project proponent may be asked to document to the satisfaction of the permitting agency or other approval authority that the practices they have selected will result in compliance with the water quality protection requirements of the permit or other local, state, or federal water-quality-based project approval condition.

When a discharge permit or other water-quality-based project approval is required from the Department of Ecology, project proponents are required to document the technical basis for the design criteria used to design their stormwater management BMPs. This includes: How stormwater BMPs were selected; the pollutant removal performance expected from the selected BMPs; the technical basis for the performance claims for the selected BMPs; and an assessment of how the selected BMPs will comply with state water quality standards and satisfy state AKART requirements under chapter 90.48 RCW and the federal technology-based treatment requirements.

Project proponents who choose to follow the stormwater management practices contained in approved stormwater technical manuals are presumed by ecology to have satisfied this demonstration requirement and in most cases will not be required to provide technical justification to support the selection of BMPs for the project. Following the stormwater management practices in this manual or other technical guidance documents approved by ecology means adhering to the guidance provided for proper selection, design, construction, implementation, operation and maintenance of BMPs.

How is the manual implemented? Local government staff may use the manual as a reference for developing stormwater requirements for new development and redevelopment, reviewing stormwater site plans; checking source control, runoff treatment and flow control facility designs; and for providing technical advice in general. Private industry may use the manual for information on how to develop and implement stormwater site plans and as a reference for technical specifications of best management practices (BMPs) to prevent and control stormwater pollution.

The manual itself has no independent regulatory authority. The minimum requirements in chapter 2 and technical guidance in the manual only become required through:

- Ordinances and rules established by local governments; and
- Permits and other authorizations issued by local, state, and federal authorities.

In the absence of a permit or other regulatory requirement local jurisdictions may adopt and apply all or a portion of the minimum requirements, thresholds, definitions, BMP selection processes, and BMP

design criteria of this manual through local ordinances. Local jurisdictions adopting only portions of the manual or other technical guidance documents approved by ecology may consider adopting an alternative approach similar to the demonstration approach described in this statement. Staff at local governments and agencies with permitting jurisdiction may use this manual or other technical guidance documents approved by ecology in reviewing stormwater site plans, checking BMP designs, and providing technical advice to project proponents. Such use by local governments may consider local stormwater issues and allow for site-specific analyses and the application of professional judgment.

Federal, state, and local permits may refer to this manual or the BMPs contained in this manual. In those cases, elements of the manual or the manual itself may become permit requirement only if the authorities and standards under which the permit is issued support such a requirement. It is not permissible or appropriate to include the minimum requirements, thresholds, definitions, BMP selection processes, and BMP design criteria of this manual as permit conditions or use the manual as a review standard solely because they are published in the manual or part of the manual.

Questions? If there are questions about the proper use and application of Ecology's Stormwater Management Manual for Western Washington please contact the Department of Ecology's Water Quality Program at (360) 407-6400.

July 16, 2003

Megan White, P.E., Manager

Water Quality Program

Legislature

Code Reviser

Register

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APPENDIX E

Pollution Control Hearings Board

**Order on Summary Judgment (PSA's Fourth
Motion for Summary Judgment)**

December 23, 2010

(CP 113-135)

1 **BEFORE THE POLLUTION CONTROL HEARINGS BOARD**
2 **STATE OF WASHINGTON**

3 **COPPER DEVELOPMENT**
4 **ASSOCIATION, INC., and THE**
5 **INTERNATIONAL COPPER**
6 **ASSOCIATION, LTD., OLYMPIANS FOR**
7 **PUBLIC ACCOUNTABILITY, ARTHUR**
8 **WEST, PUGET SOUNDKEEPER**
9 **ALLIANCE, COLUMBIA RIVERKEEPER,**
10 **THE BOEING COMPANY, and**
11 **GUNDERSON RAIL SERVICES,**

12 **Appellants,**

13 **v.**

14 **STATE OF WASHINGTON,**
15 **DEPARTMENT OF ECOLOGY, and the**
16 **PORT OF OLYMPIA,**

17 **Respondents,**

18 **WEYERHAEUSER COMPANY,**

19 **Intervenor.**

PCHB NOS. 09-135 through 09-141

ORDER ON SUMMARY JUDGMENT
(Legal Issues No. 7, 9, 11, 41, 48, 49, 52, 58,
59, 60)

(PSA's Fourth Motion for Summary
Judgment)

20 **INTRODUCTION**

21 Multiple parties filed appeals of the Industrial Stormwater General Permit (ISGP or
General Permit) issued by the Department of Ecology (Ecology) in October 2009. A Pre-
Hearing Order dated January 25, 2010, set out the legal issues that control the course of the
proceedings. Appellants Puget Soundkeeper Alliance, Columbia Riverkeeper, and Olympians
For Public Accountability (collectively referred to as PSA) have moved for summary judgment

ORDER ON SUMMARY JUDGMENT
LEGAL ISSUES NO. 7, 9, 11, 41, 48, 49, 52, 58, 59, 60
PSA's Fourth Motion for Summary Judgment
PCHB Nos. 09-135 through 09-141

1 on Issues No. 7, 9, 11, 41, 48, 49, 52, 58, 59, and 60 from the Pre-Hearing Order. This is PSA's
2 Fourth Motion for Summary Judgment on various issues raised by the appeal. Respondent
3 Department of Ecology, Appellant The Boeing Company (Boeing), and Intervenor
4 Weyerhaeuser NR Company (Weyerhaeuser) oppose the motion for summary judgment.
5 Attorney Richard A. Smith represents Appellant PSA. Assistant Attorney General Thomas J.
6 Young and Senior Counsel Ronald L. Lavigne represent Respondent Ecology. Attorney James
7 A. Tupper represents Appellant Boeing. Attorney Charles Douthwaite represents Weyerhaeuser.
8 Other Appellants and Respondent Port of Olympia did not participate in this motion.

9 The Board heard oral argument on December 6, 2010, on the issues presented by PSA's
10 Fourth Motion for Summary Judgment. The motion before the Board presents three issues,
11 including 1) the proper interpretation and application of RCW 90.48.555(7) regarding numeric
12 effluent limitations for discharges to impaired waters, 2) whether aspects of the effluent
13 limitations in the General Permit violate antibacksliding provisions of the Clean Water Act
14 (CWA), and 3) whether the corrective actions provisions of the ISGP ensure discharges will not
15 contribute to violations of water quality standards. PSA asserts that these issues are
16 encompassed within the following more specific issues set out in the Pre-Hearing Order:

- 17 1. [Issue No. 7] Are the Permit's effluent limitations consistent with federal and
state law requirements?
- 18 2. [Issue No. 9] Are the Permit's adaptive management requirements (corrective
19 actions) inconsistent with state law?
- 20 3. [Issue No. 11] Is the permit consistent with the requirements for general
industrial stormwater permits under RCW 90.48.555?

- 1 4. [Issue No. 41] Are the benchmarks, effluent limitations, monitoring and specific
2 sampling requirements in Condition S5.A of the permit invalid or arbitrary and
 capricious?
- 3 5. [Issue No. 48] Is the permit's failure to establish numeric water quality-based
 effluent limitations invalid?
- 4 6. [Issue No. 49] Are the provisions of S5.B.5 concerning benchmarks for the
 timber and paper products industries invalid?
- 5 7. [Issue No. 52] Is the permit's omission and/or limited application of numeric
6 water quality-based effluent limitations for discharges to some categories of
 303(d)-listed water bodies inconsistent with the requirements of RCW 90.48.555
 or otherwise invalid?
- 7 8. [Issue No. 58] Are the provisions of S8 concerning timelines and triggers for
8 corrective actions arbitrary and capricious or otherwise invalid?
- 9 9. [Issue No. 59] Are the provisions of S8 concerning waivers from the
 requirements of Level 2 and Level 3 responses arbitrary and capricious or
 otherwise invalid?
- 10 10. [Issue No. 60] Are the provisions of S8.D concerning the requirements for
11 treatment BMPs invalid?

12 Board Members Kathleen D. Mix, Presiding, Andrea McNamara Doyle, Chair, and

13 William H. Lynch, Member, reviewed and considered both the written record and oral arguments
14 before the Board on this motion, including the following:

- 15 1. PSA's Fourth Motion for Summary Judgment, with Exhibits 1-25.
- 16 2. Declaration of Richard R. Horner, Ph.D, with Exhibit 1.
- 17 3. Department of Ecology's Response to PSA's Fourth Motion for Summary Judgment.
- 18 4. Declaration of Thomas J. Young in Support of Ecology's Response to PSA's Fourth
19 Motion for Summary Judgment, with Exhibit A.
- 20 5. Declaration of Jeff Killelea in Support of Ecology's Response, with Exhibits A-C.
- 21 6. The Boeing Company's Response to PSA's Fourth Motion for Summary Judgment.

- 1 7. Declaration of Bradford Doll in Support of Boeing's Response to PSA's Fourth
- 2 Motion for Summary Judgment, with Exhibits A-Q.
- 3 8. Weyerhaeuser NR Company's Response in Opposition to PSA's Fourth Motion for
- 4 Summary Judgment.
- 5 9. Reply Supporting PSA's Fourth Motion for Summary Judgment, with Attachments.

6 BACKGROUND

7 The ISGP is a National Pollutant Discharge Elimination System (NPDES) permit
8 required under both the federal Clean Water Act, and state law authority which requires a
9 discharge permit for the disposal of any waste material into waters of the state by any type of
10 commercial or industrial operation. 33 U.S.C. § 1342(p)(2)(B); RCW 90.48.160. The ISGP is a
11 statewide permit that applies to facilities conducting industrial activities that discharge
12 stormwater to surface waters or to a storm sewer system that drains to surface waters. The ISGP
13 is also a State Waste Discharge Permit that operates to protect groundwater from stormwater
14 discharged or infiltrated to groundwater under the authority of RCW Chapter 90.48. *Condition*
15 *SI,E (p. 10); Draft Fact Sheet (p. 60)*. The ISGP, like other general permits, allows Ecology to
16 regulate and administer a single permit for multiple industries that discharge to waters of the
17 State, rather than issuing individual NPDES discharge permits to multiple industrial dischargers.
18 Ecology issued the ISGP on October 21, 2009, with an effective period of five years, from
19 January 1, 2010, to January 1, 2015. This version of the General Permit replaces the 2004 ISGP,

1 which was re-issued without changes on August 15, 2007, and October 15, 2008. *2010 ISGP;*
2 *Draft Fact Sheet.*¹

3 The General Permit identifies a wide range of industrial activities that require permit
4 coverage, and specifies how currently permitted, and unpermitted existing and new facilities
5 should obtain permit coverage. The General Permit requires each facility to maintain and
6 implement a Stormwater Pollution Prevention Plan (SWPPP), which is a site-specific document
7 addressing several critical elements of stormwater management. The SWPPP must include a site
8 map, a detailed assessment of the facility, a detailed description of Best Management Practices
9 (BMPs) selected to eliminate or reduce the potential for contamination of stormwater and
10 prevent water quality violations, and a sampling plan. The General Permit also defines
11 benchmarks, effluent limitations and other specific, applicable sampling requirements.
12 Additional terms set out requirements for discharges to 303(d)-listed water bodies or waters
13 subject to total maximum daily loads (TMDLs). Other permit terms address inspections,
14 corrective actions, and reporting and record keeping requirements, among other terms.

15 ANALYSIS

16 Summary judgment is a procedure available to avoid unnecessary trials on formal issues
17 that cannot be factually supported and could not lead to, or result in, a favorable outcome to the
18 opposing party. *Jacobsen v. State*, 89 Wn.2d 104, 569 P.2d 1152 (1977). The summary
19 judgment procedure is designed to eliminate trial if only questions of law remain for resolution.

20 ¹ The 2010 ISGP and accompanying Draft Fact Sheet (dated June 3, 2009) are part of the Board's ongoing record in
21 this case, filed with the Notices of Appeals filed by parties, or as attachments to a prior Summary Judgment Motion.
The Board will also reference to Ecology's Stormwater Management Manuals, which are referenced in the General
Permit, and available for review at Ecology's website.

1 Summary judgment is appropriate when the only controversy involves the meaning of statutes,
2 and neither party contests the facts relevant to a legal determination. *Rainier Nat'l Bank v.*
3 *Security State Bank*, 59 Wn. App. 161, 164, 796 P.2d 443 (1990), review denied, 117 Wn.2d
4 1004 (1991).

5 The party moving for summary judgment must show there are no genuine issues of
6 material fact and the moving party is entitled to judgment as a matter of law. *Magula v. Benton*
7 *Franklin Title Co., Inc.*, 131 Wn.2d 171, 182, 930 P.2d 307 (1997). A material fact in a
8 summary judgment proceeding is one that will affect the outcome under the governing law.
9 *Eriks v. Denver*, 118 Wn.2d 451, 456, 824 P.2d 1207 (1992). In a summary judgment, all facts
10 and reasonable inferences must be construed in favor of the nonmoving party. *Jones v. Allstate*
11 *Ins. Co.*, 146 Wn.2d 291, 300, 45 P.3d 1068 (2002). Summary judgment may also be granted to
12 the non-moving party when facts are not in dispute. *Impecoven v. Department of Revenue*, 120
13 Wn.2d 357, 365, 842 P.2d 470 (1992).

14 The Board will review the terms of a General Permit to determine if it is "invalid in any
15 respect," and whether it is consistent with applicable legal requirements. WAC 371-08-540(2);
16 *PSA v. Ecology*, PCHB No. 02-162, (Order Granting Summary Judgment, June 6, 2003). The
17 Board concludes that none of the issues addressed in PSA's Fourth Motion for Summary
18 Judgment can be resolved on motions, as there are material issues of disputed fact. The Board
19 addresses each of the issues raised by PSA's motion below.

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ORDER ON SUMMARY JUDGMENT
LEGAL ISSUES NO. 7, 9, 11, 41, 48, 49, 52, 58, 59, 60
PSA's Fourth Motion for Summary Judgment
PCHB Nos. 09-135 through 09-141

1 1. Water Quality-Based Effluent Limitations for Impaired Water Bodies--Compliance

2 with RCW 90.48.555(7)

3 Background

4 The ISGP contains both technology-based and water quality-based effluent limitations,
5 which are two different kinds of restrictions on the quantity, rate, and concentration of
6 constituents which are discharged in the stormwater from industrial facilities into water bodies.
7 Technology-based limitations reflect both the technological and economic capability of
8 permittees to control pollutants in their discharges. Such limitations also reflect the state law
9 requirement to use "all known, available and reasonable methods of prevention, control, and
10 treatment" (AKART). Water quality-based effluent limitations, often more stringent, are
11 required by the CWA, and in Washington, are based on compliance with water quality standards
12 for surface and groundwater, sediment quality standards, and toxics criteria. *Fact Sheet, pp. 38-*
13 *42.*

14 NPDES permits may express these effluent limitations as either numeric or, if numeric
15 limits are considered "infeasible," non-numeric narrative standards." 40 C.F.R. § 122.44(k)(3).
16 Both EPA and Ecology determined that it was not feasible to calculate numeric effluent
17 limitations for many of the discharges covered under the ISGP, and therefore chose to adopt non-
18 numeric narrative limitations. This determination was based largely on the intermittent and
19 variable nature of stormwater, which is characterized by very high flows occurring over
20 relatively short time intervals, and which contains a variety of pollutants, the extent, source, and
21 nature of which varies considerably. Non-numeric, technology-based limits are reflected in

1 those conditions of the ISGP, for example, that require implementation of a Stormwater
2 Management Plan, and implementation of Best Management Practices to prevent and control
3 stormwater runoff. Condition S3. (pp. 13-21), *Fact Sheet*, pp. 38-42.

4 In response to both federal regulations and state law, Ecology also made a determination
5 that stormwater discharges from industrial facilities, on a general and ongoing basis, may cause,
6 or have a reasonable potential to cause a violation of water quality standards for a variety of
7 pollutant parameters. As a result of this so-called "reasonable potential analysis," Ecology also
8 developed water quality-based effluent limitations to control industrial discharges in order to
9 meet applicable water quality standards, in addition to the technology-based limitations. *Fact*
10 *Sheet*, pp. 48-58. One such water quality-based effluent limitation for the ISGP is contained at
11 Condition S6.C. (pp. 30-33) related to discharges to water bodies listed as impaired according to
12 33 U.S.C. § 1313(d) of the Clean Water Act (CWA) (referred to as 303(d)-listed water bodies).
13 *Fact Sheet*, pp. 49-51. These numeric effluent limitations are set out at Condition S6.C., Table 5,
14 and also implement a requirement of state law (RCW 90.48.555(7)). Other water quality-based
15 limitations are contained in Condition S6.D., which requires facilities to comply with TMDLs;
16 Conditions S5.A. and B., and S8., which require facilities that exceed water quality-based
17 numeric benchmark values to implement escalating levels of source control and treatment BMPs
18 in order to meet water quality standards; Condition S10, which prohibits discharges that violate
19 listed water quality surface, groundwater, sediment standards, or human health-based criteria;
20 and finally, Condition S12., which addresses solid and liquid waste management. *Id.*

1 In developing the water quality-based numeric effluent limitations for discharges to
2 303(d)-listed water bodies (set out at Condition S6.), Ecology applied a critical assumption that
3 limited the type and extent of numeric water quality-based effluent limitations an industrial
4 facility would have to comply with. *Fact Sheet, pp. 49-50*. This assumption is stated as follows:
5 “Ecology applied the basic assumption that numeric effluent limitations would only be applied to
6 facilities discharging to impaired water bodies that were ‘listed’ due to pollutants that are
7 typically present in industrial stormwater discharges.” *Id.* In other words, Ecology read the
8 applicable statute (RCW 90.48.555(7)) to require numeric effluent limits only if the pollutants
9 causing the impairment reasonably could be expected to be a component of stormwater
10 discharges associated with industrial activity—or “only when a reasonable potential to violate
11 water quality standards exists.” *Ecology’s Response at pp. 2-3*.

12 Based on this assumption, Ecology did not include a numeric effluent limitation for
13 discharges to water bodies listed as impaired for temperature and low dissolved oxygen. Water
14 bodies listed as impaired due to contaminated fish tissue or bioassessment are also not subject to
15 a numeric effluent limitation. While Ecology’s decision to omit numeric effluent limitations for
16 these parameters rested in part on the assumption discussed above, it also was based on a number
17 of other factors, or varying rationale, including the nature of the impairment, Ecology’s ability to
18 come up with effluent limitations based on either statewide or site-specific data, and perceived
19 technical difficulty in establishing effluent limitations for some discharges. *PSA Motion, Ex. 1*
20 *(Killelea Dep., pp. 295-310); Ex 4*. The ISGP sets a numeric effluent limitation for discharges
21 to water bodies impaired for fecal coliform, but only if the industrial facility is a potential source

1 of bacteria. With the exception of the circumstances noted above, the ISGP then sets numeric
2 effluent limitations and sampling frequency applicable to discharges to 303(d)-listed water
3 bodies at Table 5 of Condition S6.C. (pp. 30-32). *Fact Sheet, pp. 49-53.*

4 Analysis

5 In its first issue in the Fourth Motion for Summary Judgment, PSA argues that Ecology's
6 failure to impose numeric water quality-based effluent limitations for discharges to water bodies
7 that are 303(d)-listed for dissolved oxygen, temperature, and fish tissue/bioassay violates state
8 law. PSA relies on the language of RCW 90.48.555 which sets out a long list of requirements
9 applicable to development of effluent limitations for the ISGP, and in particular RCW
10 90.48.555(7). The initial sections of that statute state as follows:

11 The provisions of this section apply to the construction and industrial
12 storm water general permits issued by the department pursuant to the
federal clean water act, 33 U.S.C. Sec. 1251 et seq., and this chapter.

13 (1) Effluent limitations shall be included in construction and industrial
14 storm water general permits as required under the federal clean water act,
15 33 U.S.C. Sec. 1251 et seq., and its implementing regulations. In
16 accordance with federal clean water act requirements, pollutant specific,
17 water quality-based effluent limitations shall be included in construction
and industrial storm water general permits *if there is a reasonable
18 potential to cause or contribute to an excursion of a state water quality
19 standard.*

(2) Subject to the provisions of this section, both technology and water
20 quality-based effluent limitations may be expressed as:

21 (a) Numeric effluent limitations;

(b) Narrative effluent limitations; or

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(c) A combination of numeric and narrative effluent discharge limitations.

(3) The department must condition storm water general permits for industrial and construction activities issued under the national pollutant discharge elimination system of the federal clean water act to require compliance with numeric effluent discharge limits when such discharges are subject to:

(a) Numeric effluent limitations established in federally adopted, industry-specific effluent guidelines;

(b) State developed, industry-specific performance-based numeric effluent limitations;

(c) Numeric effluent limitations based on a completed total maximum daily load analysis or other pollution control measures; or

(d) A determination by the department that:

(i) The discharges covered under either the construction or industrial storm water general permits have a reasonable potential to cause or contribute to violation of state water quality standards; and

(ii) Effluent limitations based on nonnumeric best management practices are not effective in achieving compliance with state water quality standards.

RCW 90.48.555(1)-(3) (*emphasis added*).

A later section of this same statute, RCW 90.48.555(7) addresses effluent limitations for existing discharges to water bodies listed as impaired under the CWA. It states as follows:

(7)(a) By November 1, 2009, the department shall modify or reissue the industrial storm water general permit *to require compliance with appropriately derived numeric water quality-based effluent limitations for existing discharges to water bodies listed as*

1 *impaired* according to 33 U.S.C. Sec. 1313(d) (Sec. 303(d) of the federal clean water act,
2 33 U.S.C. Sec. 1251 et seq.)

3 (b) The industrial storm water general permit must require permittees to comply
4 with appropriately derived numeric water quality-based effluent limitations in the
5 permit, as described in (a) of this subsection, by no later than six months after the
6 effective date of the modified or reissued industrial storm water general permit.

7 (c) For permittees that the department determines are unable to comply with the
8 numeric water quality-based effluent limitations required by (a) of this subsection,
9 within the timeline established in (b) of this subsection, the department shall
10 establish a compliance schedule as follows:

11 (i) Any compliance schedule provided by the department must require
12 compliance as soon as possible, and must require compliance by no later
13 than twenty-four months, or two complete wet seasons, after the effective
14 date of the industrial storm water general permit. For purposes of this
15 subsection (7)(c)(i), "wet seasons" means October 1st through June 30th.

16 (further sub sections not included).

17 RCW 90.48.555(7) (*emphasis added*).

18 PSA argues that RCW 90.48.555(7) requires that the ISGP include appropriately derived
19 numeric water quality-based effluent limitations for all discharges to water bodies that are
20 included on the 303(d) list as impaired for any parameter, including those impaired for dissolved
21 oxygen, temperature, and fish tissue/bioassay. PSA asserts that Ecology created an
impermissible exception to the requirement set out in RCW 90.48.555(7), by requiring effluent
limits only if the pollutants causing the impairment reasonably could be expected to be a
component of stormwater discharges associated with industrial activity. PSA points out that
water bodies that are 303(d) listed, by definition, do not meet water quality standards, and that it
is fair to assume the discharges of pollutants of concern present a reasonable likelihood of

1 contributing to the impairment. PSA reasons that until a TMDL is finalized, thereby bringing a
2 303(d)-listed water body off the impaired list, there are no grounds to relieve any potential
3 contributors of responsibility, as Ecology has done with its "exception." PSA also asserts that
4 even if Ecology could correctly read an "exception" into the statute, Ecology can "appropriately
5 derive" numeric effluent limitations for dissolved oxygen, temperature and fish tissue/bioassay,
6 but has failed to do so.

7 In response to PSA's argument, Ecology argues that, under RCW 90.48.555(1), it may
8 require water quality-based numeric effluent limits only where there is a "reasonable potential
9 for the discharge to cause or contribute to a violation of water quality standards," and if so, then
10 only if Ecology can "appropriately derive" such limitation(s). Ecology states that basic
11 principles of statutory construction support reading the applicable statute, RCW 90.48.555(7), in
12 context with the rest of the statute and with the Clean Water Act, both of which call for an initial
13 determination of "reasonable potential" to violate water quality standards prior to imposing a
14 regulatory standard. Ecology argues that the Board must give deference to the agency's
15 technical expertise in deciding how to set effluent limitations for particular parameters of
16 concern. In that regard, Ecology states that with respect to each of the three parameters at issue,
17 there are good and valid reasons why the agency could not define an appropriate numeric
18 effluent limitation.

19 Boeing also opposes summary judgment on this issue, arguing among things, that the
20 applicable statute directs Ecology to require compliance with "appropriately derived" numeric
21 water quality-based effluent limitations for discharges to impaired water bodies. RCW

1 90.48.555(7). Boeing asserts that this language gives Ecology discretion to determine what
2 constitutes an appropriate water quality-based effluent limitation for impaired water bodies.
3 Boeing also urges the Board to develop a full factual record as it considers whether Ecology
4 acted consistently with the statute to “appropriately derive” effluent limitations.

5 Like the courts, our primary duty in interpreting any statute is to discern and implement
6 the intent of the Legislature. *State v. J.P.*, 149 Wn.2d 444, 450, 69 P.3d 318 (2003). Our
7 starting point must always be the statute’s plain language and ordinary meaning. *Id.* When the
8 plain language is unambiguous, admitting of only one meaning, the legislative intent is apparent,
9 and the Board cannot construe the statute otherwise. *Id.* We cannot add words or clauses to an
10 unambiguous statute when the legislature has chosen not to include that language. *Id.*

11 Consistent with such precedent, the Board first concludes that RCW 90.48.555(7) clearly
12 and unambiguously requires Ecology to include numeric water quality-based effluent limitations
13 for discharges to impaired water bodies in the ISGP. In doing so, Ecology must require
14 compliance with “appropriately derived” numeric water quality-based effluent limitations for
15 discharges to 303(d)-listed water bodies. The statute dealing with discharges to impaired water
16 bodies does not allow Ecology to exclude, based on the “reasonable potential” language of an
17 earlier section of the statute, certain types of discharges to impaired water bodies. Rather, it
18 directs to Ecology to set “appropriately derived” numeric effluent limitations for discharges to
19 impaired waters.

20 To the extent that this requirement conflicts with, or otherwise raises a question about,
21 RCW 90.48.555(1), which requires a determination by Ecology of “reasonable potential”

1 whether certain pollutants cause or contribute to an excursion of water quality standards, we
2 conclude that sub-section (7) is the more specific statute, and prevails in defining Ecology's
3 obligations to address effluent limitations for impaired water bodies. *See Wright v. Miller*, 93
4 Wn. App. 189, 198, 963 P.2d 934 (1998). It is undisputed that Ecology made an overarching
5 conclusion that industrial stormwater discharges have a "reasonable potential" to cause, or
6 contribute to excursions of water quality standards. *Fact Sheet*, p. 48. However, nothing in the
7 language of sub-section (7) calls for a second level of "reasonable potential" analysis when it
8 comes to discharges to impaired water bodies. The statutory requirement in sub-section (7)
9 embodies the assumption that impaired water bodies do not meet water quality standards, and
10 further discharges will continue to contribute to such impairment. We conclude that Ecology
11 impermissibly crafted an exception or assumption onto sub-section (7), and then used it, at least
12 in part, as a basis to omit an effluent limitation for dissolved oxygen, temperature and fish
13 tissue/bioassay impaired water bodies.

14 Even if we were to accept Ecology's reading of sub-section (7) to require an initial
15 determination of whether the "listed" pollutants are typically present in industrial stormwater
16 discharges, we would conclude there are questions of fact as to Ecology's decision to exclude
17 dissolved oxygen, temperature, and fish tissue/bioassay from further efforts to define numeric
18 effluent limitations. PSA supports its argument that these parameters should be subject to
19 numeric effluent limitations with references that suggest industrial stormwater discharges, at
20 least for some industry groups, are likely to include such parameters. *See Fact Sheet at 8, 14, 20,*
21 *34; PSA Motion, Ex. 14 (Herrera Data Analysis Report); Horner Decl.*

1 Although we disagree with Ecology's crafting of the "reasonable potential" language
2 onto sub-section (7) of the statute, there remains the question of whether Ecology "appropriately
3 derived" numeric effluent limitations for the ISGP under RCW 90.48.555(7), and whether
4 Ecology could omit effluent limitations for the three parameters of concern on the basis that it
5 cannot derive appropriate limitations. In this regard, we note that PSA correctly argues that the
6 statute does not state that Ecology will require numeric water quality-based effluent limitations,
7 "where appropriate." It requires appropriately derived limitations.

8 The parties devote considerable argument as to why Ecology's decision was valid or not
9 with respect to omission of effluent limits for dissolved oxygen, temperature, and fish
10 tissue/bioassay. However, the Board concludes that these arguments raise material issues of
11 disputed fact, and that summary judgment must be denied on this issue. The question for hearing
12 is whether Ecology established "appropriately derived" numeric water quality-based effluent
13 limitations for discharges to impaired water bodies, as required by RCW 90.48.555(7). Implicit
14 in this question is the issue of whether Ecology can, based on this same language, omit a numeric
15 effluent limitation for certain parameters altogether, as it has with dissolved oxygen,
16 temperature, and fish tissue/bioassay, on the basis that an effluent limitation cannot be
17 appropriately derived. This issue will proceed to hearing.

18 2. Water Quality-Based Effluent Limitations for Dissolved Oxygen--Antibacksliding
19 Issues

20 PSA asserts that two aspects of the ISGP are less stringent than the previous permit,
21 thereby violating the antibacksliding prohibition of the CWA, 33 U.S.C § 1342(o). First, PSA

1 argues that the previous permit contained a narrative effluent limitation, in the form of numeric
2 benchmarks and related corrective actions, for discharges to water bodies 303(d) –listed as
3 impaired for dissolved oxygen. PSA asserts that approximately 80 permittees were subject to
4 such benchmarks under the old permit, while the current permit has no comparable requirement.
5 PSA asserts that Ecology has changed the existing standard to a benchmark that is based on an
6 unsupported conversion ratio applicable to chemical oxygen demand (COD) and biochemical
7 oxygen demand (BOD), *Horner Decl. at 10-11*. PSA asserts that this benchmark is less
8 demanding than the one it replaced, and will result in exceedances of the water quality standards.
9 *Id.*

10 PSA's second backsliding argument relates to the benchmark applicable to permittees in
11 the lumber and wood products industry or in the paper and allied products industry. However, in
12 its reply brief, PSA concedes that factual issues concerning the relative stringency of benchmarks
13 applicable to these industries precludes summary judgment, and the issue must proceed to
14 hearing.

15 Ecology asserts that under the prior permit, dischargers to impaired water bodies were
16 required to monitor for the pollutant for which the water body was impaired, and were required
17 to meet benchmarks for that parameter. However, Ecology concluded that the benchmark in the
18 earlier version of the ISGP did not make sense given how the dissolved oxygen standard applies
19 in the receiving water. Thus, because the standard was not technically sound, Ecology asserts it
20 changed the nature of the benchmark in the current version of the permit to one stated as a ratio
21 of COD to BOD, resulting in a COD benchmark of 120mg/L, for some industries. Jeff Killelea,

1 the lead permit writer for the ISGP, states that COD benchmark “is not less stringent than the
2 previous ISGP’s BOD benchmark,” disagreeing with PSA’s expert. *Killelea Decl. at 6.* Ecology
3 argues that there is no backsliding because they either acted to correct a problem, or set a new,
4 and comparable, standard in the current ISGP.

5 The Board concludes that there are disputed facts on the question of whether the new
6 standard and/or benchmark of the ISGP is less stringent than the previous permit, and whether
7 the replacement standard constitutes backsliding. If the standard is less stringent, there are also
8 questions of fact as to whether or not Ecology acted properly to correct a “technical mistake,”
9 which Ecology asserts is allowed under 33 U.S.C. § 1342(o)(2)(B)(ii). The Board needs further
10 factual development of issues surrounding the use of a ratio of COD to BOD as an appropriate
11 standard, and is left with questions that preclude ruling on this issue as a matter of law. We
12 therefore deny summary judgment to PSA on this issue.

13 3. Adequacy of the Corrective Action/Adaptive Management Process

14 Background

15 The ISGP is required by state law to include “an enforceable adaptive management
16 mechanism that includes appropriate monitoring, evaluation, and reporting.” RCW
17 90.48.555(8). At a minimum, the adaptive management mechanisms must include an indicator,
18 such as monitoring benchmarks, monitoring, review and revisions to stormwater pollution
19 prevention plans, documentation of remedial actions taken, and reporting to Ecology. RCW
20 90.48.555(8)(a)(i)-(v).

1 Ecology implemented this requirement through Condition S5.A. and B. (benchmarks,
2 effluent limitations), (pp. 24-29), and Condition S8. (corrective actions), (pp. 34-36) of the ISGP.
3 Condition S8. is a non-numeric, narrative effluent limitation that requires facilities that exceed
4 water quality-based numeric benchmarks (Condition S5.A. and B.) to undertake incremental
5 revisions to the facility stormwater pollution prevention plan (SWPPP), and implement BMPs to
6 correct benchmark exceedances. *Fact Sheet at 54-55.* As Ecology has pointed out, benchmarks
7 themselves are the numeric component of a narrative effluent limitation that also includes the
8 corrective actions and the adaptive management process set out in Condition S8. The ISGP
9 requires escalating levels of response (Level 1, 2, or 3), depending on the number of times a
10 facility exceeds a benchmark in a given time frame. *Id.* Ecology asserts that “the plain language
11 of Condition S8. requires permittees to continue taking corrective action to meet benchmarks.”
12 *Ecology Response at 11.*

13 Analysis

14 PSA’s third issue in this motion seeks summary judgment on several aspects of the
15 benchmark and corrective action provisions of the ISGP. PSA argues that the corrective action
16 provisions of S8. are not adequate to ensure that the benchmarks of Condition S5.A. and B. will
17 be attained, because the permit does not expressly require attainment of benchmarks, and there
18 are loopholes in the corrective action, or adaptive management responses. More specifically,
19 PSA argues that nothing in Condition S8. requires that the permittee ever attain the benchmarks,
20 that it fails to specify when corrective actions begin, and that the waiver provisions are unlawful
21 and allow for violations of water quality standards. PSA also asserts that the adaptive

1 management scheme includes ambiguities, particularly in the Level 3 response requirements, that
2 are impermissibly vague. Finally, PSA complains that the calendar year counting of benchmark
3 exceedances, combined with footnote 4 of Condition S8. (p. 35) (limiting when a facility must
4 start a Level 3 response after a Level 2 response is triggered), results in a system where a
5 permittee can never reach the more rigorous Level 3 response, and therefore the adaptive
6 management scheme is seriously flawed and invalid.

7 Ecology responds to PSA's arguments by pointing out that benchmarks are not numeric
8 effluent limits, but that they do trigger corrective actions, including implementation of BMPs,
9 with the goal of meeting the benchmark, and the requirement to continue taking corrective action
10 to meet the benchmark. *Ecology Response at 10-11*. Ecology explains other requirements of the
11 adaptive management scheme, and asserts that the ISGP complies with requirements this Board
12 set out in its decision on review of the Boatyard General Permit, *PSA v. Ecology*, PCHB Nos. 05-
13 150-151, 06-034, 06-040 (2007) or alternatively, that Ecology can issue administrative orders to
14 noncompliant facilities if benchmarks are not met. *Ecology Response at 11-12*. Boeing responds
15 that PSA is attempting to turn benchmarks into numeric effluent limitations, a position rejected
16 by this Board in other cases. Boeing urges the Board to have an evidentiary hearing on the
17 question of the adequacy of the adaptive management requirements of the ISGP, including issues
18 regarding the extent of a permittee's obligations once a Level 3 response is triggered under the
19 terms of the permit.

20 The Board agrees with Boeing that this issue must go to hearing, and therefore denies
21 PSA's motion for summary judgment on issues related to the adequacy of the adaptive

1 management program set out in the ISGP. As we have concluded in review of several other
2 general permit challenges involving the adaptive management and associated benchmark
3 standard, issues of fact are involved in assessing the full extent of a permittee's obligation under
4 the general permit, and understanding the triggers and timelines set forth for corrective actions.
5 This seems particularly true in this case, where after oral argument, the Board was left with
6 substantial questions as to the manner in which the corrective actions were triggered, how a
7 permittee would move through the corrective action response levels under the ISGP, and to what
8 extent or in what manner the ISGP addresses the possibility of a permittee failing to meet
9 benchmarks despite implementing various levels of corrective action. The referenced footnote 4
10 (p. 35), related to when a Level 3 corrective action must start in relation to the implementation of
11 a Level 2 response, is confusing at best, and potentially compromises the effectiveness of the
12 permit's escalating adaptive management scheme. Testimony at hearing is necessary to clarify
13 the meaning and application of the footnote. Testimony must also clarify how these adaptive
14 response levels are triggered, how waiver provisions apply, and whether the calendar year
15 system will result in unduly long delays in implementing corrective action BMPs, such that the
16 adaptive management term is invalid.

17 Finally, although we deny summary judgment on all issues related to the adaptive
18 management process of the ISGP, some clarification on the issue of benchmarks and adaptive
19 response mechanisms may be helpful to the parties, given arguments advanced on summary
20 judgment. The iterative adaptive management process of the ISGP is required by RCW
21 90.48.555(8), and, in turn, requires permittees to take corrective actions to meet benchmarks.

1 The Board has consistently held in the context of other general permit appeals that while NPDES
2 permits must contain conditions to ensure water quality standards are met, this does not require
3 numeric water quality-based effluent limitations (unless otherwise specifically required as
4 discussed above in relation to 303(d)-listed impaired water bodies). *See Boatyard General*
5 *Permit Decision*. In the context of the Construction Stormwater General Permit, we interpreted
6 RCW 90.48.555(8) as follows: “A benchmark is not a numeric effluent limitation, even if it is
7 stated in numeric terms. Exceedances of the benchmark are not permit violations. Rather, the
8 benchmark is a threshold or indicator value. When that threshold is reached, a permittee must
9 implement a responsive protocol....” *Associated General Contractors v. Ecology*, PCHB Nos.
10 05-157, 158, 159 (2007), COL 22.

11 All parties have relied on the Board’s 2007 Boatyard General Permit Decision to support
12 their arguments. That decision ultimately required that the General Permit “explicitly require
13 that permittees must continue implementing required remedial actions unless and until the
14 benchmarks and other limits are achieved,” and further required the permit to address the
15 contingency that implementation of all BMPs and corrective actions might fail to achieve the
16 benchmarks. The Board did not construe the benchmark as a numeric effluent limitation, or
17 nonattainment of a benchmark as a permit violation, but did require Ecology to modify the
18 permit to specify further actions Ecology would take in response to continued failure of a
19 permittee to achieve the benchmark. *Boatyard Decision at 65-66*.

20 The arguments on this motion for summary judgment have not changed this Board’s
21 consistent interpretation of the benchmark and adaptive management schemes of recent general

1 permit appeals. However, there remain questions of fact as to exactly how this adaptive
2 management scheme will work under the ISGP, which has a different set of requirements than
3 other permits. These issues will proceed to hearing.

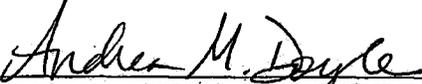
4 ORDER

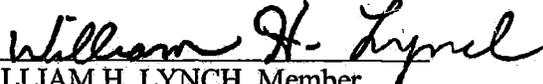
5 PSA's Fourth Motion for Summary Judgment is DENIED, and the issues will proceed to
6 hearing.

7 DONE this 23rd day of December 2010.

8
9 POLLUTION CONTROL HEARINGS BOARD

10 
11 KATHLEEN D. MIX, Presiding

12 
13 ANDREA MCNAMARA DOYLE, Chair

14 
15 WILLIAM H. LYNCH, Member

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21
ORDER ON SUMMARY JUDGMENT
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PSA's Fourth Motion for Summary Judgment
PCHB Nos. 09-135 through 09-141

APPENDIX F

Pollution Control Hearings Board

**Order on Summary Judgment (Ecology's Motion
for Summary Judgment Regarding Issues Raised
By PSA and Boeing)**

January 5, 2011

(CP 91-112)

1 **BEFORE THE POLLUTION CONTROL HEARINGS BOARD**
2 **STATE OF WASHINGTON**

3 **COPPER DEVELOPMENT**
4 **ASSOCIATION, INC., and THE**
5 **INTERNATIONAL COPPER**
6 **ASSOCIATION, LTD., OLYMPIANS FOR**
7 **PUBLIC ACCOUNTABILITY, ARTHUR**
8 **WEST, PUGET SOUNDKEEPER**
9 **ALLIANCE, COLUMBIA RIVERKEEPER,**
10 **THE BOEING COMPANY, and**
11 **GUNDERSON RAIL SERVICES,**

12 **Appellants,**

13 **v.**

14 **STATE OF WASHINGTON,**
15 **DEPARTMENT OF ECOLOGY, and the**
16 **PORT OF OLYMPIA,**

17 **Respondents,**

18 **WEYERHAEUSER COMPANY,**

19 **Intervenor.**

PCHB NOS. 09-135 through 09-141

ORDER ON SUMMARY JUDGMENT
(Legal Issues No. 15, 24-25, 31, 44, 46-48,
56, 61-62, and 65-67)

(Ecology's Motion for Summary Judgment
Regarding Issues Raised By Appellants PSA
and Boeing)

20 **INTRODUCTION**

21 Multiple parties filed appeals of the Industrial Stormwater General Permit (ISGP or
22 General Permit) issued by the Department of Ecology (Ecology) in October 2009. A Pre-
23 Hearing Order dated January 25, 2010, set out the legal issues that control the course of the
24 proceedings. Respondent Department of Ecology (Ecology) has moved for summary judgment

25 **ORDER ON SUMMARY JUDGMENT**
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1 on Issues No. 15, 24, 25, 31, 44, 46-48, 56, 61, 62, and 65-67 from the Pre-Hearing Order.
2 Appellants Puget Soundkeeper Alliance, Columbia Riverkeeper, and Olympians for Public
3 Accountability (collectively PSA) and The Boeing Company (Boeing) oppose some aspects of
4 the motion for summary judgment and support others. Assistant Attorney General Thomas J.
5 Young and Senior Counsel Ronald L. Lavigne represent Respondent Ecology. Attorney Richard
6 A. Smith represents Appellant PSA. Attorneys James A. Tupper, Sarah E. Mack, Lynne M.
7 Cohee, and Bradford Doll represent Appellant Boeing. Other Appellants and the Intervenor did
8 not participate in this motion.

9 The parties submitted the motion to the Board on the written record, without oral
10 argument. The issues before the Board on Ecology's motion for summary judgment regarding
11 issues raised by Appellant PSA and Boeing are as follows:

- 12 1. [Issue No. 15] Is Ecology's post-permit issuance change, through issuance of an
13 errata sheet, to S1.A.1 to eliminate permit coverage requirements for
transportation facilities that have material handling facilities, invalid?
- 14 2. [Issue No. 24] Is Condition S2.B of the permit invalid by failing to adequately
15 define the term "significant process change"?
- 16 3. [Issue No. 25] May Ecology lawfully modify a general NPDES permit through
17 modification of permit coverage as provided in Conditions S2.B, S8.C and S8.D?
- 18 4. [Issue No. 31] Does the permit require in Condition S3.A.2.a, or in any other
19 condition of the permit, facilities to install process, source and treatment
20 stormwater best management practices (BMPs) that are not described in either the
Western Washington or Eastern Washington Stormwater Management Manuals?
If the permit requires BMPs that are not described in the Ecology stormwater
management manuals, are those requirements vague, unreasonable and unlawful?
- 21 5. [Issue No. 44] Does Ecology's development of numeric benchmarks for copper,
zinc, and turbidity constitute rules of general applicability adopted in violation of
Ch. 34.05 RCW?

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- 1 6. [Issue No. 46] Did Ecology invalidly fail to perform reasonable potential analysis
 in the development of the permit?
- 2 7. [Issue No. 47] Did Ecology invalidly fail to make the determinations required by
 RCW 90.48.555 in the development of the permit?
- 3 8. [Issue No. 48] Is the permit's failure to establish numeric water quality-based
 effluent limitations invalid?
- 4 9. [Issue No. 56] Do the numeric effluent limits applicable to discharges into
 Section 303(d) listed water bodies in Condition S6.C, Table 5, violate RCW
5 90.48.555? (West) Are the additional sampling requirements of Table 5 adequate
6 to ensure protection of impaired bodies of water?
- 7 10. [Issue No. 61] Is Condition S8.A of the permit vague, unreasonable and unlawful
 by requiring compliance with a prior expired permit?
- 8 11. [Issue No. 62] Are Conditions S8.C.4 and S8.D.4 of the permit invalid in
 requiring source control BMPs and treatment BMPs "with the goal of achieving
9 the applicable benchmark" without defining the specific BMPs or level of
 adaptive management necessary to meet the stated "goal"?
- 10 12. [Issue No. 65] Are Conditions S8.C.4, S8.D.4 and S10 of the permit invalid by
 requiring a demonstration as to the feasibility and necessity for additional BMPs?
- 11 13. [Issue No. 66] Are the provisions of S9.F concerning public access to stormwater
 pollution prevention plans arbitrary and capricious, insufficiently clear or
12 otherwise invalid?
- 13 14. [Issue No. 67] Is Condition S10.C of the permit vague, unreasonable and
 unlawful by requiring application of AKART to achieve water quality standards?
- 14

15 Board Members Kathleen D. Mix, Presiding, Andrea McNamara Doyle, Chair, and
16 William H. Lynch, Member, reviewed and considered the written record before the Board on this
17 motion, which included the following:

- 18 1. Ecology's Motion for Summary Judgment Regarding Issues Raised By Appellants
19 PSA and Boeing.

20
21 ORDER ON SUMMARY JUDGMENT
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 56, 61-62, and 65-67.
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 Regarding Issues Raised By Appellants PSA and Boeing
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- 1 2. Declaration of Thomas J. Young in Support of Ecology's Motion for Summary
2 Judgment Regarding Issues Raised By Appellants PSA and Boeing, with Exhibits A-
3 C.
- 4 3. Puget Soundkeeper Alliance, Columbia Riverkeeper, and Olympians for Public
5 Accountability's Response to Ecology's Motion for Summary Judgment, with
6 Exhibits 1-3.
- 7 4. The Boeing Company's Response to Ecology's Motion for Summary Judgment
8 Regarding Issues Raised By Appellants Puget Soundkeeper Alliance and The Boeing
9 Company.
- 10 5. Declaration of Susan C. Paulsen, Ph.D, P.E. (CA) in Support of The Boeing
11 Company's Responses to Summary Judgment Motions, with Exhibits 1-8.
- 12 6. Declaration of Paul Fendt P.E. in Support of The Boeing Company's Responses to
13 Summary Judgment Motions, with Exhibits 1-3.
- 14 7. Declaration of Bradford Doll in Support of Boeing's Response to Ecology's Motion
15 for Summary Judgment, with Exhibits A-E.
- 16 8. Department of Ecology's Reply in Support of Motion for Summary Judgment
17 Regarding Issues Raised By Appellants PSA and Boeing.

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21 ORDER ON SUMMARY JUDGMENT
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1 BACKGROUND AND FACTS

2 The ISGP is a National Pollutant Discharge Elimination System (NPDES) permit
3 required under both the federal Clean Water Act, and state law authority which requires a
4 discharge permit for the disposal of any waste material into waters of the state by any type of
5 commercial or industrial operation. 33 U.S.C. § 1342(p)(2)(B); RCW 90.48.160. The ISGP is a
6 statewide permit that applies to facilities conducting industrial activities that discharge
7 stormwater to surface waters or to a storm sewer system that drains to surface waters. The ISGP
8 is also a State Waste Discharge Permit that operates to protect groundwater from stormwater
9 discharged or infiltrated to groundwater under the authority of RCW Chapter 90.48. *Condition*
10 *SI.E (p. 10); Draft Fact Sheet (p. 60)*. The ISGP, like other general permits, allows Ecology to
11 regulate and administer a single permit for multiple industries that discharge to waters of the
12 State, rather than issuing individual NPDES discharge permits to multiple industrial dischargers.
13 Ecology issued the ISGP on October 21, 2009, with an effective period of five years, from
14 January 1, 2010, to January 1, 2015. This version of the General Permit replaces the 2004 ISGP,
15 which was re-issued without changes on August 15, 2007, and October 15, 2008. *2010 ISGP;*
16 *Draft Fact Sheet.*¹

17 The General Permit identifies a wide range of industrial activities that require permit
18 coverage, and specifies how currently permitted, and unpermitted existing and new facilities

19 ¹ The 2010 ISGP and accompanying Draft Fact Sheet (dated June 3, 2009) are part of the Board's ongoing record in
20 this case, filed with the Notices of Appeals filed by parties, or as attachments to a prior Summary Judgment Motion.
The Board will also reference to Ecology's Stormwater Management Manuals, which are referenced in the General
Permit, and available for review at Ecology's website.

1 should obtain permit coverage. The General Permit requires each facility to maintain and
2 implement a Stormwater Pollution Prevention Plan (SWPPP), which is a site-specific document
3 addressing several critical elements of stormwater management. The SWPPP must include a site
4 map, a detailed assessment of the facility, a detailed description of Best Management Practices
5 (BMPs) selected to eliminate or reduce the potential for contamination of stormwater and
6 prevent water quality violations, and a sampling plan. The General Permit also defines
7 benchmarks, effluent limitations and other specific, applicable sampling requirements.
8 Additional terms set out requirements for discharges to 303(d)-listed water bodies or waters
9 subject to total maximum daily loads (TMDLs). Other permit terms address inspections,
10 corrective actions, and reporting and record keeping requirements, among other terms.

11 ANALYSIS

12 Summary judgment is a procedure available to avoid unnecessary trials on formal issues
13 that cannot be factually supported and could not lead to, or result in, a favorable outcome to the
14 opposing party. *Jacobsen v. State*, 89 Wn.2d 104, 569 P.2d 1152 (1977). The summary
15 judgment procedure is designed to eliminate trial if only questions of law remain for resolution.
16 Summary judgment is appropriate when the only controversy involves the meaning of statutes,
17 and neither party contests the facts relevant to a legal determination. *Rainier Nat'l Bank v.*
18 *Security State Bank*, 59 Wn. App. 161, 164, 796 P.2d 443 (1990), review denied, 117 Wn.2d
19 1004 (1991).

20
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1 The party moving for summary judgment must show there are no genuine issues of
2 material fact and the moving party is entitled to judgment as a matter of law. *Magula v. Benton*
3 *Franklin Title Co., Inc.*, 131 Wn.2d 171, 182, 930 P.2d 307 (1997). A material fact in a
4 summary judgment proceeding is one that will affect the outcome under the governing law.
5 *Eriks v. Denver*, 118 Wn.2d 451, 456, 824 P.2d 1207 (1992). In a summary judgment, all facts
6 and reasonable inferences must be construed in favor of the nonmoving party. *Jones v. Allstate*
7 *Ins. Co.*, 146 Wn.2d 291, 300, 45 P.3d 1068 (2002). Summary judgment may also be granted to
8 the non-moving party when facts are not in dispute. *Impecoven v. Department of Revenue*, 120
9 Wn.2d 357, 365, 842 P.2d 470 (1992).

10 The Board will review the terms of a General Permit to determine if it is “invalid in any
11 respect,” and whether it is consistent with applicable legal requirements. WA 371-08-540(2);
12 *PSA v. Ecology*, PCHB No. 02-162, (Order Granting Summary Judgment, June 6, 2003). The
13 Board addresses each of the issues raised by Ecology’s motion below, concluding that summary
14 judgment should be granted to Ecology on several issues, but others issues must proceed to
15 hearing.

- 16 1. [Issue No. 15] Is Ecology’s post-permit issuance change, through issuance of an
17 errata sheet, to S1.A.1 to eliminate permit coverage requirements for transportation
18 facilities that have material handling facilities, invalid?

19 After issuance of the ISGP, Ecology made a change to Condition S1.A.1. by means of an
20 errata sheet, viewing the change as a minor permit modification that did not lessen the stringency
of any effluent limitation of the ISGP. The change eliminated permit coverage requirements for

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1 transportation facilities that have material handling facilities, in order to make the permit term
2 consistent with the applicable definition in federal regulations. 40 C.F.R. § 122.26(b)(14)(viii).
3 PSA does not oppose granting summary judgment to Ecology on this issue, and Boeing asserts
4 that summary judgment should be granted to Ecology. In the absence of material facts and
5 opposing legal argument, the Board grants summary judgment to Ecology on Legal Issue 15, and
6 it is dismissed from the appeal.

7 2. [Issue No. 24] Is Condition S2.B of the permit invalid by failing to adequately define
8 the term “significant process change”?

9 In this issue, Boeing asserts that the definition of “significant process change” requires a
10 “reasonable potential analysis” in order to obtain a modification of the permit coverage, and that
11 such a requirement is unreasonable and costly, effectively precluding permit coverage
12 modifications when there is a “significant process change” at a facility. PSA asserts that the
13 Board should grant summary judgment to Ecology on this issue.

14 Condition S.2.B. of the ISGP requires that permittees anticipating a significant process
15 change seek a modification of coverage from Ecology. The term in dispute is defined in
16 Appendix 2 to the ISGP (Definitions) as follows (italicized terms are also defined in the
17 definition section of the permit):

18 *Significant Process Change* means any modification of the *facility* that would
19 result in any of the following: 1. Add different *pollutants* in a *significant amount*
20 to the discharge. 2. Increase the *pollutants* in the *stormwater discharge* by a
significant amount. 3. Add a new *industrial activity* (SIC) that was not
previously covered. 4. Add additional impervious surface or acreage such that
stormwater discharge would be increased by 25% or more.

21 ORDER ON SUMMARY JUDGMENT
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1 Ecology argues that Boeing misreads Condition S2.B. While this permit term requires
2 permittees that anticipate a significant process change to file a modification of coverage form,
3 Ecology asserts the permittee does not need to perform a “reasonable potential analysis.”
4 Instead, Ecology says the permittee may rely on generalized assumptions, or data about
5 anticipated discharges, and common sense, to determine if a change at the facility meets the
6 definition of a “significant process change.”

7 The Board concludes that summary judgment should be granted to Ecology on this issue.
8 The term “significant process change” is well-defined in the ISGP, and does not require the
9 permittee to undertake a complex “reasonable potential analysis” in order to obtain a permit
10 modification. The further definitions of “significant amount”² and “reasonable potential”³ both
11 allow the permittee to make judgments based on available information, and common
12 understanding of terms, as to whether or not a change at a facility fits the definition of
13 “significant process change.” Boeing reads the term “significant amount” in the disputed
14 definition to require a reasonable potential analysis, but in doing so, ignores the first section of
15 that definition, which defines “significant amount” as “an amount of a pollutant in a discharge
16 that is amenable to available and reasonable methods of prevention, control, or treatment.” The
17 alternative, or second part of the definition (“*or* an amount of a pollutant that has a reasonable

18 _____
19 ² “*Significant Amount* means an amount of a *pollutant* in a *discharge* that is amenable to available and reasonable
20 methods of prevention, control, or treatment; or an amount of a *pollutant* that has a *reasonable potential* to cause a
21 violation of surface or *ground water quality standards* or *sediment management standards*.” ISGP, Appendix 2, p.
56.

³ “Reasonable Potential” means the likely probability for *pollutants* in the *discharge* to exceed the applicable water
quality criteria in the receiving water body.” ISGP, Appendix 2, p. 55.

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1 potential....)” (emphasis added), refers to the term “reasonable potential” as an alternative
2 method of defining the term “significant amount.” However, when read in the context of all
3 definitions, we cannot conclude that the term “significant process change” requires the kind of
4 analysis Boeing is concerned with. We also give some deference to Ecology’s interpretation of
5 the terms it has set forth in its permit, as an exercise of the agency’s discretion based on
6 professional judgment. *See PSA v. Ecology*, PCHB Nos. 07-021, 07-026 through -030, 07-037,
7 (Phase I Order on Dispositive Motions, April 8, 2008). We conclude the definition of
8 “significant process change” is a valid and well-defined permit term, and grant summary
9 judgment to Ecology on this issue.

10 3. [Issue No. 25] May Ecology lawfully modify a general NPDES permit through
11 modification of permit coverage as provided in Conditions S2.B, S8.C and S8.D?

12 This issue, raised by Boeing, raises questions about ISGP conditions that require a
13 permittee to apply to modify permit coverage in the event of a significant process change, or in
14 the event a permittee seeks an extension of time or waiver during the corrective action processes
15 of permit condition S8. PSA supports granting summary judgment to Ecology on this issue. In
16 its responsive brief Boeing states that it opposes summary judgment, “to the extent that it would
17 preclude a hearing on Legal Issue 63, which is necessary to address an apparent conflict between
18 the permit modification timelines under S2. and the modifications for permit waivers under S8.C.
19 and S8.D.” *Boeing Response at 5*. The Board addressed the issue of an apparent conflict in these
20 timelines in its Order on Summary Judgment (Legal Issues No. 18 and 23), December 10, 2010.

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1 We stated as follows in that decision:

2 “Under the ISGP, any permittee anticipating a “significant process change,” a
3 term defined in the General Permit, or otherwise seeking a modification of
4 permit coverage, must submit a “modification of coverage form” to Ecology.
5 *Condition S2.B. (p. 11)*. The General Permit then sets out timelines
6 governing the modification of coverage, if Ecology does not otherwise give
7 notice to the permittee. *Condition S2.C. (p. 12)*. This condition provides that
8 a permit modification automatically commences on whichever is later—the
9 31st day following Ecology’s receipt of a modification of coverage form, or
the 31st day following the end of a 30-day public comment period. PSA
points out that the permit modification timeline is inconsistent with the
provisions of Condition S8.C. and D., the latter timeframe stating that
Ecology will approve or deny a permit modification related to a time
extension or waiver within *60 days* of the modification request.”

10 The Board then concluded, in part: “We are also satisfied that when it comes to modifications
11 related extensions of time or waivers under the corrective action provisions of Condition S8., the
12 more specific permit term, which requires Ecology to approve or deny within 60 days, controls
13 over the more general permit modification provision of S2.C.” *See Order on Summary Judgment*
14 *at 11-13, December 10, 2010.*

15 Based on the same reasoning set forth in the previous Order on Summary Judgment
16 regarding Issue No. 23, we reject Boeing’s argument in the instant motion that there is an
17 apparent conflict between the permit modification timelines of Condition S2., and those of S8.C.
18 and S8.D. Summary Judgment is granted to Ecology on Issue No. 25, and on Issue No. 63,
19 which is simply another statement of the same issue. Summary Judgment has already been
20 granted to Ecology on Issue No. 23.

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1 4. [Issue No. 31] Does the permit require in Condition S3.A.2.a, or in any other
2 condition of the permit, facilities to install process, source and treatment stormwater
3 best management practices (BMPs) that are not described in either the Western
4 Washington or Eastern Washington Stormwater Management Manuals? If the permit
5 requires BMPs that are not described in the Ecology stormwater management
6 manuals, are those requirements vague, unreasonable and unlawful?

7 Ecology moves for summary judgment on both parts of this issue, which was raised by
8 Boeing. In the first part of this issue, Boeing asks whether the ISGP requires permittees to install
9 BMPs that are not described in the Eastern or Western Washington Stormwater Management
10 Manuals (Manuals). If so, the second part of the issue asks whether this is a lawful and valid
11 permit requirement. PSA agrees that Summary Judgment should be granted to Ecology on this
12 issue.

13 Ecology argues that the ISGP correctly requires permittees to install BMPs that are not
14 described in the Manuals because a permittee must comply both with technology-based effluent
15 limitations and any water quality based effluent limitations necessary to meet water quality
16 standards, citing 33 U.S.C. § 1311(b)(1)(C). Ecology explains that technology-based effluent
17 limits are the BMPs contained in the Manuals, or otherwise approved by Ecology, and that such
18 mandatory BMPs are necessary to meet state law requirements to apply all know, available and
19 reasonable methods of treatment (the AKART standard). However, in addition to such a
20 requirement, the ISGP also requires permittees make on-going efforts to meet benchmarks as
21 part of the adaptive management regime of the permit, which is a narrative water quality based
effluent limitation designed to ensure compliance with water quality standards. Because these

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1 are water quality based effluent limitations, permittees may be required to install BMPs that go
2 beyond those described in the Manuals to meet water quality standards. The ISGP requires that a
3 permittee that reaches a Level 3 corrective action must review its stormwater pollution
4 prevention plan (SWPPP), and have a licensed professional engineer, geologist, hydrogeologist,
5 or Certified Professional in Storm Water Quality design and stamp the portion of the SWPPP
6 that addresses stormwater treatment structures and processes. *Condition S8.D.2.*

7 Boeing asserts that Ecology's position is contrary to the RCW 90.48.555(6), which states
8 that compliance with water quality standards is presumed, unless discharge monitoring data or
9 other site specific information demonstrates that a discharge causes or contributes to a violation
10 of water quality standards. Boeing argues that requiring a permittee to employ unspecified
11 BMPs is a vague permit term, and converts the benchmarks of the adaptive management scheme
12 into numeric effluent limitations. Boeing also argues that the ISGP lacks clarity as to what a
13 permittee is to do if they reach Level 3 in the adaptive management process, but is still unable to
14 reach the benchmark(s).

15 The Board concludes that this issue presents a purely legal question of whether the ISGP
16 may lawfully require permittees to implement BMPs beyond those set out in the Manuals. The
17 Board concludes that the ISGP requires permittees to install BMPs beyond those described in the
18 Manuals in defined circumstances, and that this is a lawful and valid permit term, for many of
19 the reasons outlined in Ecology's motion. The ISGP must ensure compliance with water quality
20 standards, and in order to do so, exceedances of benchmarks must continue to trigger an adaptive

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1 management response. Ecology would be remiss if it crafted a permit that condoned continued
2 benchmark exceedances, or ignored the relationship between benchmark exceedances and
3 potential water quality violations, as the agency points out in its Reply brief.

4 Boeing's reliance on the "presumption of compliance" of RCW 90.48.555(6) is
5 misplaced. The requirement to implement more aggressive BMPs, and those outside the
6 Manuals, would be triggered when a permittee is already at a Level 3 corrective action response,
7 presumably based on data or other site-specific information that demonstrates continued inability
8 to meet the benchmarks, and the possibility of discharges that cause or contribute to a violation
9 of water quality standards. In such circumstances, no presumption of compliance is afforded the
10 permittee under RCW 90.48.555(6).

11 We conclude that the ISGP term that anticipates a site-specific, professionally engineered
12 response to ongoing exceedances of the benchmarks is a necessary and reasonable part of the
13 adaptive management response required of this permit. *See* RCW 90.48.555(8). Such a
14 requirement does not convert benchmarks into numeric effluent limitations, but rather puts the
15 burden on the permittee to find solutions to meet benchmarks and ensure compliance with water
16 quality standards. The permittee is advised when such a requirement is triggered (Level 3 of the
17 corrective action), and given the opportunity to use professionally engineered solutions in a site-
18 specific manner. We conclude that summary judgment should be granted to Ecology on Issue
19 No. 31.

20
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1 5. [Issue No. 44] Does Ecology's development of numeric benchmarks for copper, zinc,
2 and turbidity constitute rules of general applicability adopted in violation of Ch. 34.05
3 RCW?

4 This issue, raised by Boeing, asks whether Ecology violated the Administrative
5 Procedures Act (APA) by including numeric benchmarks in the ISGP without following rule-
6 making procedures of the APA. Although this issue was initially raised by Boeing, it now
7 concedes that the Board lacks jurisdiction over this question. PSA agrees that summary
8 judgment should be granted to Ecology. Because there is no opposition to Ecology's motion,
9 and for the same reasons set out in this Board's decision in the appeal of the Phase II municipal
10 stormwater permit, this issue is dismissed for lack of jurisdiction. *Puget Soundkeeper Alliance v.*
11 *Ecology*, PCHB Nos. 07-22, 07-23 at pp. 17-21 (Order on Summary Judgment, Sept. 29, 2008).

12 6. [Issue No. 46] Did Ecology invalidly fail to perform reasonable potential analysis in
13 the development of the permit?

14 This issue, raised by PSA, presents the question of whether or not Ecology performed a
15 reasonable potential analysis to determine if discharges covered under the ISGP have the
16 reasonable potential to cause or contribute to violations of water quality standards. In response
17 to Ecology's motion, PSA now concedes that it "is satisfied with the reasonable potential
18 analysis performed by Ecology and thus willing to see Issue 46 dismissed..." Boeing joins in
19 Ecology's motion. It is clear from the record that there is no dispute that Ecology did perform a
20 generalized reasonable potential analysis related to stormwater discharges from industrial
21 facilities. *Fact Sheet at 48; Young Decl., Ex. A at 61-62 (Killelea Dep., Vol. I)*. Accordingly,

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1 summary judgment is granted to Ecology, and Issue 46 is dismissed from this appeal.

2 7. [Issue No. 47] Did Ecology invalidly fail to make the determinations required by
3 RCW 90.48.555 in the development of the permit?

4 This issue, also raised by PSA, raises a second aspect of the same question presented in
5 Issue No. 46—whether Ecology made a determination that effluent limitations based on
6 nonnumeric best management practices were not effective in achieving compliance with water
7 quality standards, as required by RCW 90.48.555(3)(d). In response to Ecology's motion, PSA
8 now also agrees that Issue 47 should be dismissed, as Ecology did make the required
9 determination under the statute. *Young Decl., Ex. A at 93 (Killelea Dep., Vol. I)*. We grant
10 summary judgment to Ecology and dismiss Issue No. 47 from this appeal.

11 8. [Issue No. 48] Is the permit's failure to establish numeric water quality-based
12 effluent limitations invalid?

13 This issue, also raised by PSA, presents the question of whether the ISGP must include
14 numeric water quality based effluent limitations, under RCW 90.48.555. We conclude that
15 Ecology is not required to include such numeric effluent limitations, with some exceptions. As
16 discussed above, Ecology performed a generalized reasonable potential analysis on industrial
17 stormwater discharges. The agency then determined that application of Best Management
18 Practices (BMPs) would be effective in achieving compliance with water quality standards in
19 most cases. *Young Decl., Ex. A at 93 (Killelea Dep., Vol. I)*. Having made these determinations,
20 RCW 90.48.555 (3)(d) does not require Ecology to develop numeric effluent limitations, except

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1 for impaired water bodies, as required under RCW 90.48.555(7). *See Order on Summary*
2 *Judgment (PSA's Fourth Motion for Summary Judgment), December 23, 2010.*

3 As we noted in our previous Order on Summary Judgment in this case, the iterative
4 adaptive management process of the ISGP is required by RCW 90.48.555(8), and, in turn,
5 requires permittees to take corrective actions to meet numerically-stated benchmarks. However,
6 the Board has consistently held in the context of other general permit appeals that while NPDES
7 permits must contain conditions to ensure water quality standards are met, this does not require
8 numeric water quality-based effluent limitations (unless otherwise specifically required in
9 relation to 303(d) listed impaired water bodies or some other authority). *Id.*

10 We grant summary judgment on Issue No. 48 to Ecology. In doing so, we note that the
11 issues of the adequacy of the adaptive management requirements of the ISGP, as well as issues
12 related to development of numeric effluent limitations for certain discharges to impaired water
13 bodies, will go to hearing.

14 9. [Issue No. 56] Do the numeric effluent limits applicable to discharges into Section
15 303(d) listed water bodies in Condition S6.C, Table 5, violate RCW 90.48.555?
(West) Are the additional sampling requirements of Table 5 adequate to ensure
16 protection of impaired bodies of water?

17 This issue raises the question of whether the numeric effluent limitation in Condition
18 S6.C., Table 5, of the ISGP, which are applicable to 303(d) listed impaired water bodies, violate
19 RCW 90.48.555(7)(a). Although there is confusion among the parties as to who raised this issue,
20 the first part of the issue raises an identical issue to that presented in Issue No. 52, raised by PSA.
The Board addressed this question in the Order on Summary Judgment (PSA's Fourth Motion

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1 for Summary Judgment), December 23, 2010. In that decision we determined that there were
2 material issues of disputed fact on the question of whether Ecology appropriately derived
3 numeric water quality based effluent limitations for discharges to impaired water bodies, as
4 required by RCW 90.48.555(7), or correctly omitted such limitations for certain parameters
5 (dissolved oxygen, temperature, and fish tissue/bioassay). Accordingly, we deny summary
6 judgment to Ecology on this issue, and it will proceed to hearing.⁴

7 10. [Issue No. 61] Is Condition S8.A of the permit vague, unreasonable and unlawful by
8 requiring compliance with a prior expired permit?

9 This issue, raised by Boeing, asks whether Condition S8.A. of the ISGP is unlawfully
10 vague because it requires the permittee to implement applicable levels of corrective action
11 responses that had been required under the previous version of the ISGP. Boeing now states that
12 this issue is moot. PSA states summary judgment should be granted to Ecology. In the absence
13 of disputed facts or any opposition to Ecology's motion, Issue No. 61 is dismissed from the
14 appeal.

15 11. [Issue No. 62] Are Conditions S8.C.4 and S8.D.4 of the permit invalid in requiring
16 source control BMPs and treatment BMPs "with the goal of achieving the applicable
17 benchmark" without defining the specific BMPs or level of adaptive management
18 necessary to meet the stated "goal"?

19 This issue, raised by Boeing, asks whether the Level 2 and Level 3 corrective action
20 provisions of Condition S8.C. and D. are invalid because they require source control and
21 treatment BMPs with the goal of achieving compliance with benchmark values, but without

⁴ Ecology's motion did not address the second portion of Legal Issue No. 56, related to sampling plans, and we do not address it on summary judgment.

1 defining the specific BMP or level of adaptive management necessary to meet that goal. PSA
2 agrees that summary judgment should go to Ecology on this issue.

3 As presented, this issue involves the purely legal question of whether Condition S8.,
4 which sets forth the adaptive management scheme of the ISGP, must specify which BMPs a
5 permittee must install to comply with the permit. Boeing additionally asserts that this issue
6 involves a challenge to the implicit requirement that a permittee meet a benchmark value, when
7 benchmarks are not numeric effluent limitations.

8 The Board concludes that it has addressed the specific issue presented in Legal Issue No.
9 62 in other analysis in this opinion, and in its Order on Summary Judgment (PSA's Fourth
10 Motion for Summary Judgment), dated December 23, 2010. There is no legal requirement for
11 Ecology to define in the ISGP the precise BMPs a permittee must install under any given set of
12 circumstances—to do so would be impossible. RCW 90.48.555(8) requires Ecology to include
13 an adaptive management program in the ISGP, with certain minimum elements, including
14 monitoring benchmarks, and documentation of remedial actions taken. Condition S8. is
15 responsive to this requirement, and it need not detail BMPs in a more precise manner. Ecology
16 correctly places the burden on the permittee to meet these benchmarks through implementation
17 of that adaptive management response. We concluded in our December 23, 2010 Order on
18 Summary Judgment that there are factual questions that preclude summary judgment on the
19 adequacy of the adaptive management program, particularly as it relates to the extent of a
20 permittee's obligations under the permit, the timelines and triggers for corrective actions, and

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1 how the permit will address failure to meet benchmarks, However, the question presented in
2 Legal Issue No. 62 is a different legal question involving how specific Ecology must be in
3 setting out the details of the adaptive management requirements. Because we conclude the ISGP
4 sets out adequate detail in this regard, we grant summary judgment to Ecology on this issue.

5 12. [Issue No. 65] Are Conditions S8.C.4, S8.D.4 and S10 of the permit invalid by
6 requiring a demonstration as to the feasibility and necessity for additional BMPs?

7 This issue, raised by Boeing, raises the question of whether the ISGP is unlawful or
8 invalid because it does not define the circumstances under which Ecology may grant waivers
9 from certain aspects of the corrective action levels under Condition S8. Boeing complains that
10 the ISGP does not set forth any explanation or criteria about what would constitute either “not
11 feasible” or “not necessary” under Condition S8 Level 2 or 3 corrective action responses. PSA
12 does not oppose giving summary judgment to Ecology on this issue. Ecology asserts that it
13 cannot be expected to define all terms in the permit, and that when a waiver is ultimately
14 granted, there will be comment and appeal opportunities, protecting the public and permittees
15 from an abuse of discretion by Ecology.

16 It is undisputed that Ecology continues to work on guidelines or criteria for granting
17 waivers under this section of the permit. *Doll Decl., Ex. B. at 442 (Killelea Dep., Vol. III)*. The
18 Board considered arguments advanced by PSA related to the waiver provisions in an earlier
19 summary judgment motion. The Board concluded in the December 23, 2010 Order on Summary
20 Judgment as follows: “[T]estimony must also clarify how these adaptive response levels are
21 triggered, *how waiver provisions apply*, and whether the calendar year system will result in

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1 unduly long delays in implementing corrective action BMPs, such that the adaptive management
2 term is invalid.” (emphasis added.) *Order on Summary Judgment, December 23, 2010 at 21.*
3 We deny summary judgment to Ecology on this issue, as the waiver provisions go to the overall
4 adequacy of the adaptive management requirements of the permit, and we have concluded that
5 issues of fact preclude summary judgment. This issue will proceed to hearing.

6 13. [Issue No. 66] Are the provisions of S9.F concerning public access to stormwater
7 pollution prevention plans arbitrary and capricious, insufficiently clear or otherwise
8 invalid?

9 This issue, raised by Boeing, presents the question of whether Condition S9.F. is
10 unlawful by requiring public access to stormwater pollution prevention plans. No party,
11 including Boeing, opposes summary judgment on this issue at this time. Ecology correctly
12 points out that the Board has rejected a similar argument in other cases, concluding the public
13 has a legitimate interest in the Stormwater Pollution Prevention Plans. *Puget Soundkeeper*
14 *Alliance v. Ecology*, PCHB Nos. 05-150, 05-151, 06-034, 06-040 (January 26, 2007), COL 28.

15 This issue is dismissed.

16 14. [Issue No. 67] Is Condition S10.C of the permit vague, unreasonable and unlawful by
17 requiring application of AKART to achieve water quality standards?

18 Boeing raises this issue, asserting that while state law requires the ISGP to require
19 compliance with AKART (RCW 90.48.520), it is unclear how permittees, agency inspectors, and
20 third parties are to define these requirements. Boeing’s argument also restates its position that it
21 is unreasonable for Ecology to require compliance or implementation of BMPs beyond those set
22 out in the Stormwater Management Manuals. PSA agrees with Ecology’s motion on this issue.

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1 We conclude that the permit condition at issue, S10.C. (p. 40) is a correct statement of
2 state law, and that the permit term is not invalid. See RCW 90.48.010, .520. We have concluded
3 above that Ecology may, as part of the adaptive management regime, require implementation of
4 BMPs beyond those specified in the Manuals. Accordingly, summary judgment is granted to
5 Ecology on Legal Issue No. 67, and it is dismissed from the appeal.

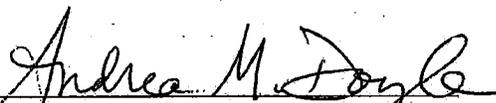
6 ORDER

7 The Board **GRANTS** summary Judgment to Ecology on Legal Issues No. 15, 24, 25, 31,
8 46, 47, 48, 62, 63, 66, and 67. The Board **DISMISSES** Legal Issues No. 44 and 61 for lack of
9 jurisdiction, and as moot, respectively. The Board **DENIES** summary judgment to Ecology on
10 Legal Issues No. 56 and 65, and those issues will proceed to hearing.

11 DONE this 5th day of January, 2011.

12 POLLUTION CONTROL HEARINGS BOARD

13 
14 KATHLEEN D. MIX, Presiding

15 
16 ANDREA MCNAMARA DOYLE, Chair

17 
18 WILLIAM H. LYNCH, Member

19
20
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APPENDIX G

Pollution Control Hearings Board

Findings of Fact, Conclusions of Law, and Order

April 25, 2011

(CP 15-90)

1 **BEFORE THE POLLUTION CONTROL HEARINGS BOARD**
2 **STATE OF WASHINGTON**

3 **COPPER DEVELOPMENT**
4 **ASSOCIATION, INC., and THE**
5 **INTERNATIONAL COPPER**
6 **ASSOCIATION, LTD., OLYMPIANS FOR**
7 **PUBLIC ACCOUNTABILITY, ARTHUR**
8 **WEST, PUGET SOUNDKEEPER**
9 **ALLIANCE, COLUMBIA RIVERKEEPER,**
10 **THE BOEING COMPANY, and**
11 **GUNDERSON RAIL SERVICES,**

12 **Appellants,**

13 **v.**

14 **STATE OF WASHINGTON,**
15 **DEPARTMENT OF ECOLOGY, and the**
16 **PORT OF OLYMPIA,**

17 **Respondents,**

18 **WEYERHAEUSER COMPANY,**

19 **Intervenor.**

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**FINDINGS OF FACT, CONCLUSIONS OF
LAW, AND ORDER**

20 **INTRODUCTION AND PROCEDURAL HISTORY**

21 **Multiple parties filed appeals of the Industrial Stormwater General Permit (ISGP or**
22 **General Permit) issued by the Department of Ecology (Ecology) in October 2009. Attorney**
23 **Richard A. Smith represented Appellants Puget Soundkeeper Alliance, Columbia Riverkeeper,**
24 **and Olympians For Public Accountability (collectively referred to as PSA). Attorneys James A.**
25 **Tupper and Bradford Doll represented Appellant The Boeing Company (Boeing). Attorney Beth**
26 **Ginsberg represented Appellant Copper Development Association and the International Copper**
27 **Association, Ltd. (collectively referred to as Copper Groups). Assistant Attorney General**

**FINDINGS OF FACT, CONCLUSIONS
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1 Thomas J. Young and Senior Counsel Ronald L. Lavigne represented Respondent Department of
2 Ecology (Ecology). Attorney Carolyn Lake represented Respondent Port of Olympia (Port).
3 Attorney Charles Douthwaite represented Respondent-Intervenor Weyerhaeuser NR Company
4 (Weyerhaeuser). The Board dismissed Appellant Arthur West as a party to this appeal by Order
5 dated February 7, 2011, for failing to appear and participate in any manner at hearing, and failing
6 to comply with aspects of the Pre-Hearing Order.

7 A Pre-Hearing Order dated January 25, 2010, identified seventy-one (71) legal issues
8 which governed the proceedings and controlled the issues before the Board on appeal. The
9 Board entered seven Orders on Summary Judgment addressing many of the legal issues raised by
10 the parties, while requiring others to proceed to hearing.¹ After the completion of motion
11 practice, thirty-one (31) issues remained for hearing. For ease of reference those issues are set
12 out in Appendix A to this decision. The issues remaining for hearing addressed the validity of a
13 number of aspects of the ISGP, and generally include the following: 1) the basic framework of
14 the permit, with its combination of benchmarks and numeric effluent limitations; 2) specific
15 benchmark values, and the methodology to derive them, including those for copper, zinc, oil, and
16 those applicable to the timber and paper products industry; 3) several of the numeric effluent
17 limitations for discharges to 303(d)-listed water bodies, or the omission of such limitations; 4)
18 compliance with antidegradation requirements of state law; 5) monitoring and sampling
19 requirements; 6) adaptive management/corrective action requirements, including the associated

20
21

¹ Boeing filed a motion for reconsideration of one aspect of the Board's January 5, 2011 Order on Summary Judgment (Legal Issues No. 31 and 62). The Board allowed Boeing to present evidence on the disputed issues and addresses the Motion further below.

1 waiver and extension provisions; 7) backsliding prohibitions; 8) standing; and 9) miscellaneous
2 other issues that we conclude have been abandoned.

3 The Board held a hearing in this matter on January 24 through February 3, 2011, at the
4 Board's offices in Tumwater, Washington. Board Member Kathleen D. Mix presided for the
5 Pollution Control Hearings Board, joined by Board Member William H. Lynch and Board Chair
6 Andrea McNamara Doyle. Randi Hamilton and Kim Otis of Gene Barker and Associates,
7 Olympia, Washington provided court-reporting services.

8 The Board received the sworn testimony of witnesses, admitted exhibits, and heard
9 arguments on behalf of the parties. Having fully considered the record, the Board enters the
10 following:

11 FINDINGS OF FACT

12 A. Background to Permit Development

13 [1]

14 Ecology issued the ISGP on October 21, 2009, with an effective period of five years,
15 from January 1, 2010, to January 1, 2015. This version of the General Permit replaces the 2004
16 ISGP, which was re-issued without changes on August 15, 2007, and October 15, 2008. The
17 ISGP is a National Pollutant Discharge Elimination System (NPDES) permit, issued on a
18 statewide basis to regulate stormwater discharges at approximately 1200 industrial facilities that
19 discharge stormwater to surface waters or to a storm sewer system that drains to surface waters.
20 The ISGP, like other general permits, allows Ecology to regulate and administer a single permit
21 for multiple industries that discharge to waters of the State, rather than issuing individual

1 NPDES discharge permits to multiple industrial dischargers.² *ISGP, Fact Sheet; Killelea*
2 *Testimony.*

3 [2]

4 Ecology's decisions on the final terms of the 2010 ISGP were informed by several
5 processes. Consultants Envirovision and Herrera Environmental prepared a 2006 evaluation of
6 possible methods to improve the effectiveness of the ISGP, studying extensive sets of data to
7 examine issues related to monitoring and the use of numeric effluent limitations in the permit. A
8 2008 survey of field inspectors and enforcement staff identified areas where the previous permit
9 had worked well or needed improvement. Ecology also used an internal and external committee
10 process to develop the 2009 ISGP. An internal Ecology team, comprised of inspection and
11 enforcement staff, engineers, and policy managers, developed permit terms. An external
12 committee comprised of environmental and business interests, local government representatives,
13 and others reviewed, commented, and also helped develop the final version of the ISGP. In 2006
14 and 2007 Ecology released draft permits for public comment, but these drafts were highly
15 controversial. Both Ecology and the regulated community had substantial concerns about the
16 cost of implementation. Concerned with the legal defensibility of the permit terms, Ecology
17 continued to refine permit terms. *Exs. B-35, P-6; Killelea Testimony.*

18 [3]

19 As it developed the 2010-2015 iteration of the ISGP, Ecology sought to address several
20 problems it had identified with the prior permitting approach. First, Ecology considered the

21 ² Boeing, PSA, and Ecology each offered the 2010 ISGP and related draft Fact Sheet into evidence, and the Board admitted the same. Exs. B-1, P-1, E-1, B-3, P-2, E-2. For ease of reference in this opinion those exhibits will be referred to as the "ISGP," or "Fact Sheet," or reference will be made directly to the relevant permit condition.

1 previous permit to be overly complex, confusing, and long. Second, the corrective action
2 provisions of the previous permit had proved ineffective and difficult to enforce. Finally,
3 Ecology had questions as to whether or not the benchmark values of the previous permit were
4 protective enough of water quality, and also wanted to clarify the requirements that must be
5 included in a facility Stormwater Pollution Prevention Plan (SWPPP), a centerpiece of
6 stormwater management. *Ex. P-6; Killelea Testimony.*

7 [4]

8 Historically, full compliance with all the terms of the ISGP by regulated facilities has
9 been low. In 2009, when Ecology issued the Fact Sheet which accompanied the draft permit, it
10 provided statistics showing varying compliance rates on key permit terms, stating “[F]acility
11 inspections have revealed that many facilities with permit coverage are not in compliance with
12 permit provisions.” Facilities were not submitting discharge monitoring reports (DMRS) (30%
13 not submitting in 2008). While three quarters of facilities could provide their stormwater
14 pollution prevention plan at the time of inspection, forty percent or less of permitted sites had up-
15 to-date, fully implemented SWPPPs. Sixty to seventy percent of facilities could identify one or
16 more best management practices (BMPs) that were maintained to manage stormwater. Ecology
17 concluded that the overly complex and confusing aspects of the previous permit, in addition to its
18 sheer length, made it difficult for permittees to fully comply with its requirements. *Exs. E-6,*
19 *Fact Sheet, p. 36; Kaufman, Stasch Testimony.*

20 [5]

21 Despite this lack of full compliance by the regulated industrial sector, the rate of
compliance with key permit terms has consistently improved over the last five years, in areas

1 such as implementing BMPs and complying with monitoring requirements. Ecology is
2 combining technical assistance with effective enforcement strategies in order to improve permit
3 compliance. Ecology has made a concerted effort to improve the submittal rates for DMRs, with
4 an escalating series of warning letters and “field ticket” enforcement efforts. This latter effort
5 results in a \$3000 penalty where there has been a repeated failure to submit DMRs over three
6 reporting quarters. Despite widespread and substantial budget reductions in state government
7 generally, and at the agency specifically, Ecology is attempting to maintain stormwater
8 inspection and enforcement staff as a high priority. *Moore, Stasch, Kaufman Testimony.*

9 [6]

10 Ecology also developed the framework and specific terms of the 2010 ISGP in
11 recognition of the unique nature of stormwater. In contrast to other wastewater discharges and
12 point sources of pollution, stormwater runoff exhibits highly variable flow rates and flow
13 volumes, a fact this Board has repeatedly recognized in appeals of stormwater general permits.
14 Pollutant concentrations can vary greatly. Stormwater monitoring data reveals far greater
15 variability than other types of pollutant discharges regulated by other NPDES permits.
16 Derivation of effluent limitations or determination of patterns in discharges is made more
17 difficult because of this, and there is a recognized need for large, comprehensive data sets to
18 adequately characterize industrial stormwater discharges, including such characteristics as flow
19 volumes and rates and constituent concentrations. Based on this understanding of the complexity
20 and variability of industrial stormwater discharges, Ecology determined that stormwater
21 discharges from industrial facilities, as a general matter, may cause a violation of water quality

1 standards for a number of pollutant parameters, and the agency developed effluent limitations to
2 address the same. *Fact Sheet, Ex. B-35; Killelea Testimony, Paulsen Testimony.*

3 [7]

4 The federal Environmental Protection Agency (EPA) provides permit coverage for
5 industrial facilities in geographic areas and for classes of discharges that are outside the scope of
6 a state's NPDES program. EPA does this through the current version of the Multi-Sector
7 General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP), which is
8 effective from September 2008 through September 2013. *Exs. B-59, E-3.* Ecology both relied
9 on and borrowed from terms and approaches in the MSGP, but the two permits are not identical.
10 EPA commented favorably on many of the terms of Ecology's ISGP, concluding that in many
11 respects the state version is more robust and effective at regulating industrial stormwater
12 discharges than the MSGP. *Ex. P- 21; Killelea Testimony.*

13 **B. Overview of Relevant Permit Terms**

14 [8]

15 The ISGP regulates multiple industrial sectors. These broad sectors of industries are
16 identified by the Standard Industrial Classification (SIC) Code system. In drafting the permit,
17 Ecology considered the manner in which stormwater may become contaminated by industrial
18 activities as a result of industrial processes, such as contact with material stored outside or during
19 loading, unloading or transfer, spills and leaks, and from airborne contaminants. Ecology
20 recognized that potential pollutants were often industry specific, but that there were also
21 significant common sources of stormwater contamination from the industrial sector (*e.g.*

petroleum products and metals are common to most facilities). Using DMR data submitted by

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1 permittees, Ecology compiled a characterization of pollutant concentrations present in the
2 discharges from various industry sectors. This data was consistent with other observations and
3 studies, to the effect that “first flush” events (runoff after a dry period) are associated with high
4 pollutant concentrations, and that there is a high degree of variability in stormwater runoff. *Fact*
5 *Sheet, pp. 3-34.*

6 [9]

7 *Stormwater Pollution Prevention Plans (Condition S3.)*

8 As with other general permits issued by Ecology to regulate stormwater discharges, a key
9 provision of the ISGP is the requirement that all permittees develop and implement a Stormwater
10 Pollution Prevention Plan (SWPPP). The ISGP sets out the items that the SWPPP must address
11 at each facility. The SWPPP must specify the best management practices (BMPs) necessary to
12 implement all known, available and reasonable methods of treatment (AKART), ensure
13 compliance with state water quality standards, and comply with applicable federal technology-
14 based treatment requirements. The ISGP requires the SWPPP to contain a site map, a detailed
15 facility assessment, a detailed description of BMPs, a spill prevention and emergency cleanup
16 plan, and a sampling plan. The SWPPP must contain certain “mandatory BMPs” (defined in the
17 permit), including a number of operational source control BMPs. The SWPPP must also include
18 structural source control BMPs that are listed as applicable in Ecology’s Stormwater
19 Management Manual (SWMM). The ISGP defines the manner and use of treatment BMPs.
20 Finally, the SWPPP is to contain a sampling plan, with identified points of discharge, and
21 documentation of why each discharge point is not sampled, consistent with other permit terms.

Condition S3.

1 [10]

2 *General Sampling Requirements (Condition S4.)*

3 General sampling requirements are set out in Condition S4. of the ISGP, requiring
4 discharge sampling from each designated location at least once per quarter, and more specific
5 provisions applicable to sampling required at the first fall storm event of each year. The permit
6 allows a permittee to suspend sampling for one or more parameters (other than “visible oil
7 sheen”) based on “consistent attainment” of benchmark value after four consecutive quarterly
8 samples. *Condition S4.B.6.* The prior permit required eight consecutive quarters of attainment
9 before a permittee could suspend sampling. *Exs. P-5, B-36.* A permittee may not suspend
10 sampling based on consistent attainment for pollutant parameters that are subject to numeric
11 effluent limits based on federal guidelines or a 303(d) listing as an impaired water body.
12 *Condition S4.B.8.* Permittees monitoring more than once per quarter may average all the
13 monitoring results for each parameter (except pH and “visible oil sheen”), and compare that
14 value to the benchmark. *Condition S4.; Killelea Testimony.*

15 [11]

16 *Benchmarks, Effluent Limitations, and Specific Sampling Requirements (Condition S5.)*

17 Condition S5 of the ISGP establishes benchmarks (stated numerically) that are applicable
18 to all facilities, and additional benchmarks that are applicable to specific industry sectors.
19 *Condition S5., Table 2 and Table 3.* The term “benchmark” is defined in the permit as “a
20 pollutant concentration used as a permit threshold, below which a pollutant is considered
21 unlikely to cause a water quality violation, and above which it may.” The definitions also states
that when a pollutant concentration exceeds the benchmark, corrective action requirements are

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1 triggered, but emphasizes that benchmark values “are not water quality standards and are not
2 numeric effluent limitations; they are indicator values.” *ISGP, Appendix 2*. Thus, benchmarks
3 are predictive of potential water quality violations, and trigger a BMP-based response by the
4 permittee. Ecology’s definition of “benchmark” in the ISGP mirrors the definition used by EPA
5 in the MSGP, with minor wording changes. The prior permit had a combination of benchmark
6 values and “action levels,” but this two-tiered system was confusing and complex to administer.
7 *Ex. P-21; Killelea Testimony.*

8 [12]

9 The five benchmarks that are applicable to all facilities are as follows: 1) Turbidity at 25
10 NTU, 2) pH at between 5.0 and 9.0 Standard Units, 3) Oil Sheen at “no visible sheen,” 4) Total
11 Copper at 14 µg/L for Western Washington and 32µg/L for Eastern Washington, and 5) Total
12 Zinc at 117µg/L. The permit requires sampling once per quarter for each of these parameters.
13 *Condition S5., Table 2*. The copper benchmark is substantially lower (more stringent) than the
14 previous permit, and now applies to all permittees, but the zinc benchmark remains the same.
15 Both PSA and Copper Groups dispute the methodology used to establish the copper benchmark,
16 and argue that it is either underprotective (PSA), or overprotective (Copper Groups) of beneficial
17 uses. *Horner Testimony, Paulsen Testimony*. PSA also disputes the change to a “no visible
18 sheen” measurement of for oil and grease, and takes issue with the zinc benchmark. *Killelea*
19 *Testimony.*

20 [13]

21 The only additional benchmarks and sampling requirements at issue in this appeal are
those applicable to the Timber Product Industry and Paper and Allied Products Industry. PSA

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1 asserts these are less stringent than the previous iteration of the ISGP. The permit sets a
2 benchmark of 120 mg/L for COD (chemical oxygen demand) and a benchmark of 100 mg/L for
3 TSS (total suspended solids). The prior permit had a lower benchmark for Biological Oxygen
4 Demand (BOD), and a dissolved oxygen (DO) benchmark for certain industries or facilities.
5 *Condition S5.B., Table 3; Horner Testimony, Johnson Testimony, Killelea Testimony.*

6 [14]

7 *Discharges to 303(d)-listed or TMDL Waters (Condition S6.)*

8 In addition to the benchmarks of Condition S5., Condition S6. of the ISGP sets out eleven
9 (11) numeric effluent limitations, and associated sampling requirements, for discharges to
10 303(d)-listed water bodies.³ Facilities that are subject to these numeric effluent limitations are
11 set forth (although not limited to) the facilities listed in Appendix 4 to the permit. *Condition*
12 *S6.C.a., and Table 5.* Boeing and PSA each challenge limited aspects of this condition of the
13 ISGP related to impaired water bodies. Boeing asserts that the Total Suspended Solids (TSS)
14 effluent limit of 30 mg/L is too stringent, as is the limit for fecal coliform bacteria, which is set at
15 the water recreation bacteria criteria of WAC 173-201A. Boeing asserts these were not
16 “appropriately derived” effluent limitations as directed by RCW 90.48.555, and are not science-
17 based. *Paulsen Testimony.* PSA, on the other hand, asserts that Ecology erred in failing to set
18 numeric effluent limitations for three additional parameters of concern in 303(d)-listed waters:
19 temperature, dissolved oxygen, and impairment based on fish tissue/bioassay. *Horner*
20 *Testimony.*

21 _____
³ 303(d)-listed water bodies is a reference to those segments of water bodies that have been listed as impaired pursuant to the federal Clean Water Act, at 33 U.S.C. § 1313(d).

2 *Corrective Actions (Condition S8.)*

3 Condition S8. of the ISGP requires three increasingly demanding levels of corrective
4 action when a permittee exceeds applicable benchmark values set out in the other terms of the
5 permit. These corrective actions begin with the assumption that the permittee has in place a
6 SWPPP that represents AKART, and the corrective actions steps will result in incremental
7 improvement in the application or use of BMPs to address the benchmark exceedance(s). A
8 Level 1 corrective action is required for any exceedance of the applicable benchmark, and
9 requires the permittee to make appropriate revisions to the SWPPP to include additional
10 Operational Source Control BMPs with the goal of achieving applicable benchmark values in
11 future discharges. The permittee must summarize the Level 1 corrective actions in its annual
12 report to Ecology. The permit establishes a deadline to fully implement the revised SWPPP “as
13 soon as possible, but no later than the DMR due date for the quarter the benchmark was
14 exceeded” (which is forty-five days after the end of the quarter, per Condition S9.A.4.).

15 *Condition S8.B.* Although Ecology views this Level 1 provision as substantially identical to the
16 previous permit, the 2010 ISGP does not have a specific timeframe by which a permittee must
17 initiate a response to a benchmark exceedence, whereas the previous permit required a facility
18 inspection “as promptly as possible but no later than two weeks after sampling results.” Exs. P-
19 5, B-36; *Killelea Testimony*.

21 The permit requires a Level 2 corrective action when a permittee exceeds an applicable
benchmark value for any parameter for any two quarters during a calendar year. At a Level 2

1 corrective action, the permittee must review the SWPPP and revise it to include additional
2 structural source control BMPs, with the goal of meeting the benchmark values in future
3 discharges. Corrective actions planned or taken must be summarized in the Annual Report to
4 Ecology (due May 15 of the following calendar year, per Condition S9.B.1.). The deadline is for
5 implementation of the revised SWPPP is “as soon as possible, but no later than September 30th
6 the following year.” *Condition S8.C.* The permit includes no deadline by which a permittee must
7 begin a Level 2 response. Ecology expects some permittees will begin implementing Level 2
8 structural source control BMPs as soon as possible in an effort to avoid a third benchmark
9 exceedence in the same calendar year, which would trigger a Level 3 response; however, the
10 agency is interpreting the permit and advising permittees that they may wait until the end of a
11 calendar year to begin a Level 2 response even if a benchmark was exceeded in the first two
12 quarters. *Killelea Testimony; Stasch Testimony.*

13 [17]

14 The permit requires a Level 3 corrective action when a permittee exceeds an applicable
15 benchmark value for any single parameter for any three quarters during a calendar year. At a
16 Level 3 corrective action level, the permittee must revise the SWPPP and include additional
17 treatment BMPs with the goal of achieving the benchmark in future discharges. The permittee
18 must sign and certify the revised SWPPP, and also have a licensed professional engineer,
19 geologist, hydrogeologist, or Certified Professional in Storm Water Quality (CPSWQ) design
20 and stamp the portion of the SWPPP that addresses stormwater treatment structures or processes.
21 Ecology may waive this certification requirement one time during the permit cycle when the

permittee demonstrates that either the permittee or a treatment device vendor can properly design

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1 and install the treatment device. The permittee must fully implement the revised SWPPP as soon
2 as possible, but no later than September 30th the following year. *Condition S8.D.4.; Killelea*
3 *Testimony.*

4 [18]

5 Ecology may modify the deadlines for a Level 2 or Level 3 corrective actions if
6 installation of necessary structural source control BMPs (Level 2) or treatment BMPs (Level 3)
7 is not feasible by the permit's deadline. If installation of structural source control or treatment
8 BMPs is "not feasible or not necessary" to prevent discharges that may cause or contribute to a
9 violation of a water quality standard, Ecology may waive the requirement altogether. Both
10 modifications of the deadlines and waiver of the requirements are accomplished through a
11 "modification of coverage" request, which results in a formal modification of the permit to that
12 particular permittee. Boeing asserts that the waiver provisions are unclear and ambiguous,
13 particularly as it relates to other requirements of the permit to implement the adaptive
14 management scheme in an effort to meet benchmarks. PSA says the waiver provision is
15 unlawful as the permit then fails to require compliance with water quality standards.

16 [19]

17 In addition to the permit terms allowing modification of deadlines, or waivers of the
18 Level 2 and Level 3 requirements, Condition S8. contains two footnotes that have cast confusion
19 on when a Level 3 deadline is triggered if a permittee has already undertaken a Level 2 response.
20 *Condition S8.C. and D. (footnotes 4 and 5).* Ecology intended that these footnotes would clarify
21 that a permittee must consider an entire calendar year of sampling results before determining

whether to implement a Level 2 or 3 corrective action, but the language of footnote 4 in

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1 particular, suggests otherwise. Ecology's interpretation would result in "alternating years" for
2 implementation of such corrective actions, something Ecology wanted in the permit's adaptive
3 management scheme in order to give facilities adequate time to address reported problems.

4 *Killelea Testimony.*

5 [20]

6 Both PSA and Boeing criticize the ISGP's fundamental reliance on a combination
7 effluent limitations expressed either as benchmarks, which are part of the adaptive management
8 scheme of the permit, and the numeric effluent limitations applicable to particular discharges.
9 PSA asserts that Ecology should establish numeric effluent limitations for all industrial
10 discharges, and that it is feasible to do so. PSA reasons that this would force facilities to transfer
11 industrial activities and material out of contact with rainfall and runoff, resulting in maximum
12 reuse of industrial stormwater, and treatment of the remainder with the best available
13 technologies. PSA asserts that these numeric effluent limitations should be based on a
14 "reasonable potential analysis" that would assess whether there is a reasonable potential for
15 discharges to cause or contribute to water quality standards exceedances, where non-numeric,
16 BMP-based approaches are ineffective. *Horner Testimony.* Boeing, on the other hand, presented
17 evidence criticizing both the benchmark-based BMP aspects of the permit, and the inclusion of
18 any numeric effluent limitations. Boeing asserts that existing datasets are insufficient to allow
19 determination of "reasonable potential," or to serve as the basis for the calculation of
20 scientifically sound effluent limitations or benchmarks. While agreeing that a BMP-based
21 approach is both feasible and improves water quality, Boeing asserts this approach should be

1 paired not with “benchmarks,” but rather with “action levels,” which are a less rigorous trigger
2 for adaptive management at a particular facility. *Paulsen Testimony*.

3 [21]

4 Business entities subject to regulation under the terms of the ISGP offer conflicting views
5 as to the clarity, lawfulness and acceptability of various permit terms. Boeing and
6 Weyerhaeuser, both parties to this case presented contrasting views of their ability to understand
7 and comply with permit terms. Boeing testified that the adaptive management provisions of the
8 permit are extremely confusing, and that they are unsure of the meaning of waiver provisions
9 that provide facilities relief from aspects of the corrective action provisions of the permit.
10 Boeing questions whether the corrective action scheme of the ISGP actually represents a real
11 adaptive management process that includes planning, implementation, monitoring, and
12 responding, as was intended, or whether the permit’s prescriptive emphasis on meeting
13 benchmarks that apply uniformly across industrial sectors will drive an excessive amount of
14 needless corrective action by business. *Oleson Testimony*. In contrast, Weyerhaeuser states the
15 new permit provides site managers with a confident path to compliance, giving them a good
16 balance of mandatory BMPs and industry specific BMPs, as well as associated “waiver”
17 provisions that allow the facility to show it can still comply with water quality provisions, even if
18 it cannot consistently meet the permit’s benchmark indicator values. The company’s corporate
19 environmental manager expressed a clear understanding of what the business would do if one of
20 its facilities continued to fail to meet benchmark values, and needed a waiver of the corrective
21 action level responses under Condition S8. Weyerhaeuser states that the new permit is less

1 complex than the last iteration, particularly in the corrective action provisions. *Johnson*

2 *Testimony.*

3 C. Development of Benchmarks

4 1. *Copper and Zinc Benchmarks*

5 [22]

6 The previous version of the ISGP had a copper benchmark of 63.6 µg/L and a zinc
7 benchmark of 117 µg/L. *Ex. P-5.* Ecology's decision to include a much lower copper
8 benchmark in this version of the ISGP was influenced by experience in setting a very high
9 copper benchmark in the 2005 Boatyard General Permit (which was set aside on appeal), and a
10 turbidity benchmark in the 2005 Construction Stormwater General Permit (which was affirmed
11 on appeal). With the ISGP benchmark value for copper and zinc, Ecology sought to protect
12 beneficial uses in the vast majority of conditions, balancing that goal with a recognition that
13 toxicity of metals (and some other pollutants) is influenced by factors in the receiving waters,
14 where the discharge is dispersed. *Killelea Testimony.*

15 [23]

16 Copper can decrease survival, growth, and reproduction of aquatic organisms. Copper
17 concentrations in stormwater discharges have a number of serious sublethal effects on salmonids.
18 Copper can interact with the olfactory system of fish and aquatic invertebrates, causing them to
19 avoid copper-containing water. Once impaired by copper exposure, fish and organisms will lose
20 important functions such as attraction to food odors and reproductive pheromones, or avoidance
21 of predators. Studies have demonstrated avoidance of copper or impairment of olfaction in
salmonid fishes exposed to very low levels of copper concentrations (as low as 1 to 2µg Cu/L).

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1 In addition to disrupted osmoregulation, inhibited migration, and olfactory impairment, other
2 studies identify copper exposure as contributing to impaired disease resistance, impaired
3 respiration and brain function, and altered blood chemistry. While experts largely agree on the
4 range of lethal and sublethal effects of copper on salmonids and other aquatic organisms, there is
5 sharper disagreement about the extent to which water chemistry, and Washington specific water
6 chemistry, modifies the acute and chronic toxicity of copper to these organisms. There is related
7 disagreement as to the interpretation of various studies, and at what copper concentration levels
8 adverse effects appear in salmonid fish. *Meyer Testimony, Horner Testimony; Exs. C-7, C-10.*

9 [24]

10 In order to develop the copper benchmark for this iteration of the ISGP, Ecology hired
11 Herrera Environmental Consultants to evaluate the effects of receiving water chemistry on the
12 toxicity of copper discharges. Herrera evaluated the probability of exceeding the acute water
13 quality standards for copper, lead, and zinc based on receiving water conditions having the
14 highest potential for occurrence. *Killelea Testimony, Lenth Testimony.* Herrera, lead by
15 principle scientist John Lenth, produced a report in February 2009 addressing this issue. *Water*
16 *Quality Risk Evaluation for Proposed Benchmarks/Action Levels in the Industrial Stormwater*
17 *General Permit. Exs. B-20, P-12, E-6; Lenth Testimony.*

18 [25]

19 The Herrera report relies on a Monte Carlo simulation, a well-established statistical
20 method utilized to estimate possible outcomes from a model by performing repeated calculations
21 a large number of times and observing the outcomes. When the results from all the repeated
calculations are combined, a probability distribution can be derived for the model output that

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1 indicates which predicted values have a higher probability of occurrence. In this case, Herrera
2 used the Monte Carlo simulation to give a realistic prediction of the probability of industrial
3 stormwater discharges exceeding the acute water quality criteria for copper, lead, and zinc, given
4 one of three dilution factors in the receiving water (1, 5, or 10). Experts agree that the dynamic
5 modeling approach of a Monte Carlo simulation provides a more realistic representation of
6 receiving water concentrations and/or toxicity than steady-state models used to evaluate less
7 variable effluent discharges such as those from waste water treatment plants. *Lenth Testimony,*
8 *Paulsen Testimony.* The Herrera report presented the results of the simulation as a series of
9 graphs that depict the percentage (%) probability of exceeding water quality standards as a
10 function of effluent concentrations given one of these three dilution factors. These graphs
11 presented Ecology a picture of the likelihood, or risk, of exceeding water quality criteria for each
12 of these pollutants, depending on the given dilution factor. Ecology then had a policy choice to
13 determine which of the risk levels, and associated discharge effluent limitations, were acceptable
14 and could be used for permit benchmarks. The Herrera report also used a “translator value” to
15 facilitate comparison of the acute water quality standard for copper in the receiving water with
16 the predicted concentration of copper at the point of discharge. The translator value allowed
17 Herrera to estimate the dissolved fraction of copper that would be present in the receiving water
18 for effluent concentrations that are required by federal regulations to be expressed as total
19 recoverable metals. The evaluation also factored in the hardness of receiving waters in Western
20 and Eastern Washington. The author of the Herrera report sets out the data relied upon, and in
21 pre-filed testimony clarifies and responds to criticisms levied by other experts of that data. *Lenth*

Testimony, Exs. B-20, P-12, E-6.

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1 [26]

2 Based on the Herrera analysis and probability “risk curves,” Ecology made the decision
3 to base the copper benchmark in the ISGP on a dilution factor of 5 and a 10% probability of
4 exceeding the acute water quality standard for copper. Ecology recognized that the
5 concentration of the metal in a stormwater discharge is dispersed to some degree in the receiving
6 water. Ecology did not consider use of a dilution factor as a method to evaluate probability of
7 exceeding water quality standards to be the same as granting a “mixing zone,” which is allowed
8 by regulation under limited circumstances. Rather, the agency concluded that the copper
9 benchmark level of the final ISGP would be protective of water quality in the vast majority of
10 conditions. Where a modest amount of dilution is available in the receiving water, the agency
11 further determined that, in order to meet a benchmark of 14µg/L (Western WA) and 32 µg/L
12 (Eastern WA), a facility will need to be implementing all necessary and relevant BMPs, and
13 AKART. *Killelea Testimony; Exs. B-20, P-12, E-6.*

14 [27]

15 EPA supported Ecology’s selection of copper benchmarks at 14 µg/L and 32 µg/L for
16 western and eastern Washington, respectively. EPA noted that the benchmarks were
17 significantly lower than the 63.6 µg/L of the previous permit and more representative of a level
18 that would ensure attainment of the copper water quality standard and avoid or minimize adverse
19 effects to aquatic species. While EPA’s own MSGP includes a lower copper benchmark level
20 (5.6 µg/L for Western Washington freshwaters), EPA concluded that the ISGP contained “more
21 robust non-numeric effluent limitations” such as specific corrective action steps and vacuum
sweeping, which provided a similar level of protection to the MSGP. *Ex. P-20; Killelea*

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1 *Testimony.* On the other hand, the National Marine Fisheries Service (NMFS) was more critical
2 of these benchmark levels, and concluded in comments on the draft permit that benchmarks
3 based on a dilution factor of 5, and a 10% risk for exceeding the applicable water quality
4 standard for each metal, is not an approach that provides adequate protection for listed salmon.
5 NMFS did not believe more than minor detrimental effects to listed salmon and steelhead would
6 be avoided under the draft terms of the ISGP. *Ex. P-21.*

7 [28]

8 Both Boeing and Copper Groups criticize the copper benchmarks as unreasonably
9 stringent. They contend the benchmark is overprotective, and that Ecology failed to use best
10 available science to calculate appropriate values. Copper Groups opines that Ecology should
11 have employed a water effects ratio (WER) or biotic ligand modeling (BLM), two procedures
12 that could take into account chemical and physical factors that mitigate the toxicity of copper to
13 aquatic organisms. Copper Groups asserts that the Herrera report provides an insufficient basis
14 to support the technical validity of the copper benchmarks, and that using only water hardness as
15 a modifying factor for the toxicity of copper is now an outdated approach. Copper Groups,
16 through their expert, Dr. Meyer, advances use of the BLM as a method to account for the ways in
17 which pH, alkalinity, hardness, and dissolved organic carbon modify the toxicity of metals to
18 fish and other aquatic organisms. Dr. Meyer opines that given Ecology's use of a dilution factor
19 of 5, the ISGP's authorized instream concentrations of copper are even lower than expressed in
20 the permit's effluent limitation, ensuring they are protective, or over-protective, of salmonid fish.
21 *Ex. C-11; Meyer Testimony.* Dr. Meyer and PSA's expert, Dr. Horner, disagree on many

elements of this issue, with Dr. Horner criticizing Ecology's use of a dilution factor, allowance

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1 of a 10% risk of exceedance factor, on the basis that they allow benchmarks that will result in
2 harm to salmonid fish. Dr. Horner agrees that dissolved organic carbon, a key factor in the biotic
3 ligand model, tends to ameliorate the negative effects of copper, but states that it is generally is
4 not in sufficient supply in Washington's water to protect fish. *Horner Testimony.*

5 [29]

6 EPA recently modified its water quality criteria to be based on a biotic ligand model,
7 rather than water hardness based criteria, which is the current basis of Washington's water
8 quality standard for copper. Although EPA has taken this step, the new BLM-based copper
9 criteria have not been adopted by any of the states in which migration and spawning of Pacific
10 salmonids are a major concern (or any other states), nor has it been used to develop NPDES
11 permit conditions to date. *Ex. C-7; Meyer Testimony.*

12 [30]

13 Ecology has previously used a WER to account for the mitigating effects of receiving
14 water on the toxicity of metals in limited circumstances, including in at least one individual
15 permit, and in one general permit. Ecology used a modified form of a WER in development of
16 the last iteration of the Boatyard General Permit in 2005, but rejected a similar use in the
17 development of the ISGP for several reasons. First, the water quality standards state that a WER
18 is to be applied on a site-specific basis. The ISGP represents a much more diverse set of
19 discharges and receiving water conditions than were present in the somewhat more limited
20 situation of western Washington boatyard-specific discharges. More importantly, since
21 Ecology's use of a WER in the Boatyard General Permit, EPA has informed Ecology that use of
a WER is a change to the state water quality standards, creating a new water quality standard for

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1 a particular body of water. EPA has informed Ecology that such a change requires EPA
2 approval and a rule revision process by Ecology, a costly and lengthy process. The last revision
3 of the state water quality standards, with attendant EPA review and approval, took ten years.
4 This has effectively taken use of the site specific WER off the table as a tool to adjust water
5 quality criteria, at least until such time as EPA modifies its stance. Rather than attempt to utilize
6 a WER in the modified manner it has used it in other settings, Ecology chose instead to take into
7 account receiving water characteristics through use of the Monte Carlo simulation, which
8 factored in hardness, a dilution factor, and a translator value to facilitate a comparison of
9 dissolved fractions of metals to total recoverable metals in the discharge versus receiving waters.

10 *Gildersleeve Testimony, Killelea Testimony.*

11 [31]

12 The conflicting expert opinions and evidence on the proper approach to establishing a
13 copper benchmark, and what the proper value for a benchmark should be, demonstrate the
14 difficulty of arriving at an adequately protective benchmark that is also achievable by industry
15 and moves industry towards compliance with the water quality standards. While Boeing and the
16 Copper Groups experts disagree with the methodology for arriving at the copper benchmark,
17 they agreed the benchmark is sufficiently protective, if not overly protective, of salmon and
18 trout, disagreeing with the opinions of PSA's expert. *Ex. C-10; Meyer Testimony, Paulsen*
19 *Testimony.* PSA's expert criticizes the benchmark as being far higher than that set out in the
20 MSGP, but disregards EPA's own analysis of how the benchmark works in relation to other
21 demanding permit terms. *Horner Testimony.*

1 [32]

2 The Board was presented with little evidence supporting a challenge to the zinc
3 benchmark of the ISGP. The zinc benchmark of the ISGP is set at 117µg/L and is unchanged
4 from the prior permit. The Herrera report analyzed zinc in the same manner as copper, and
5 presented Ecology with three risk curves based on dilution factors of 1, 5, and 10. If Ecology
6 had applied the same standard that it applied to copper (dilution factor of 5, and a 10% risk
7 threshold for exceeding the applicable water quality standard), the zinc benchmark would have
8 been higher, and the permit could have been challenged for backsliding on this effluent
9 limitation. *Lenth Testimony, Killelea Testimony; Ex. B-21.*

10 2. *Timber Product Industry, Paper and Allied Products Benchmarks – COD and TSS*

11 [33]

12 The 2010 ISGP benchmark for the timber product industry and paper and allied products
13 industry differs from the benchmark in the prior permit. The last permit had a benchmark for
14 BOD at 30 mg/l, and no benchmark for Total Suspended Solids (TSS). The current ISGP, with
15 benchmarks of COD at 120mg/l and TSS at 100 mg/l, is consistent with EPA's MSGP (in the
16 case of TSS), and represents a more complete and accurate measure of oxygen demanding
17 substances in the water (in the case of COD). The change to the new benchmark was responsive
18 to public and industry comment, and took into account the limitations of a sampling regime
19 based on BOD, which can be interfered with by toxic materials, and was developed more for use
20 in the sampling of sewage wastewater, not stormwater. The COD benchmark value is four times
21 higher than the previous BOD benchmark. To establish this 4:1 ratio, Ecology relied on

information used by EPA in establishing the same benchmark in the MSGP, which was, in turn,

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1 based on a North Carolina study that established a 4:1 equivalency ratio (COD to BOD).
2 Ecology's permit writer, Jeff Killelea also looked at other data that evaluated the relationship of
3 BOD to COD in stormwater, including stormwater from industrial land uses, which showed even
4 greater ratios of COD to BOD, leading him to conclude that although higher in number (100
5 mg/l), the COD benchmark may be more protective of water quality than the previous lower
6 BOD limit. *Killelea Testimony.*

7 [34]

8 PSA contends that the benchmark of 120 mg/L COD is less demanding than the 30 mg/l
9 BOD of the previous permit, and therefore represents backsliding in permit terms. PSA states
10 that it is widely held that the relationship between BOD and COD is highly variable and that a
11 reliable conversion can only be obtained through side-by-side measurements of the two variables
12 over time. While not objecting to use of COD as a replacement to a BOD benchmark, PSA
13 asserts the benchmark value must rest on a stronger analytical foundation, and that there should
14 be parallel analyses of both BOD and COD to determine if a reliable conversion can be
15 developed to translate from one measure to the other under conditions in Washington waters.
16 *Horner Testimony.*

17 [35]

18 Weyerhaeuser, a permittee specifically affected by the COD and TSS benchmarks,
19 considers the new combination of benchmarks to be more demanding than the previous permit,
20 and states there will be no reduction of effort due to the change to a COD benchmark.
21 Weyerhaeuser also agrees that the relationship between BOD and COD is variable, but provided
convincing evidence from literature reviews, regulatory discussion, and specific sampling results

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1 demonstrating that COD is always the higher of the two values, usually materially higher. The
2 Weyerhaeuser sampling results demonstrate that a 4:1 ratio, BOD to COD, is well-founded, if
3 not conservative. *Exs. W-1, W-2, W-3A, W-3B, W-3C; Johnson Testimony.*

4 *3. Oil/visible sheen benchmark*

5 The prior version of the ISGP had a benchmark of 15 mg/l for oil and grease. The
6 current version of the ISGP changed to a benchmark of "no visible oil sheen," applicable to all
7 facilities. *Condition S5.A. (Table 2).* Ecology also set an additional related benchmark for
8 specific, higher risk industries for a Total Petroleum Hydrocarbons (TPH). *Condition S5.A.*
9 *(Table 3).* Ecology made this decision based on a consultant report that concluded only a low
10 level of industrial facilities exceeded the prior benchmark, and because the changed standard
11 could provide more instantaneous results to a facility, and therefore, more immediate corrective
12 action. Ecology's decision was also based on problems encountered by permittees in obtaining
13 grab samples with representative amounts of oil/grease for reliable lab analysis. *Killelea*
14 *Testimony.* PSA's testimony asserts that the switch to a "visible oil sheen" benchmark is a
15 weakening of the permit, because it accounts for only floating oil, not dissolved, solidified, or
16 emulsified petroleum fractions in the water, which do not show as an oil sheen. PSA states that
17 observing stormwater discharges for oil sheen will likely be ineffective, because there is no
18 requirement to observe receiving waters, and the turbulence associated with stormwater runoff
19 will not lend itself to visual detection of an oil sheen. Other circumstances, such as evaporation,
20 may also render this an unreliable benchmark standard, according to PSA. *Horner Testimony.*
21 Ecology rejects these criticisms as improbable, and has provided guidance on how to sample for

this modified parameter. Ecology states that the addition of TPH as a parameter for industries of

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1 particular concern for petroleum discharges is an improvement over the prior permit. *Ex. P-9;*

2 *Killelea Testimony.*

3 D. Numeric Effluent Limitations for Discharges to 303(d)-listed Water Bodies

4 1. *Total Suspended Solids (TSS)*

5 [36]

6 Permittees who discharge to water bodies 303(d)-listed for any *sediment* quality
7 parameter are required to sample the discharge for TSS. *Condition S6. C. (Table 5).* The TSS
8 effluent limit is set at 30mg/L for both fresh and marine water. Boeing contends that the TSS
9 effluent limitation is not based on sound science, and that a site-specific evaluation is needed to
10 determine if any given industrial facility discharge will cause or contribute to an exceedance of
11 sediment management standards. Boeing states that the mixing behavior and sediment
12 deposition patterns within receiving waters are complex and the concentrations of pollutants on
13 sediment particles varies widely. Boeing also contends that TSS is not correlated with other
14 pollutant concentrations, and cannot serve as a surrogate for those pollutants. For these reasons,
15 Boeing asks the Board to conclude that Ecology could not appropriately derive a limit for TSS
16 and that the ISGP should not contain a TSS effluent limitation. *Paulsen Testimony.*

17 [37]

18 Ecology included the TSS limitation in the ISGP because NPDES permitted discharges
19 result in recontamination and exacerbation of problems at sites being addressed, and remediated,
20 under Ecology's Toxics Cleanup Program. Ecology staff in that program concluded that both
21 municipal and industrial stormwater discharges have contributed to exceedances of sediment
management standards and impacts to sediment quality at various sites, including several

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1 Superfund clean-up sites. The Toxics Cleanup Program offered ISGP permit writers several
2 options to address potential recontamination of aquatic sediment sites by industrial discharges,
3 including options that would require monitoring of effluents for a variety of pollutants that
4 contribute to violations of sediment management standards (such as PCBs). The ISGP permit
5 writing team rejected other options as unreasonable, as such options involved substantial costs
6 for permittees to monitor effluent, and a substantial burden on Ecology to evaluate data collected
7 by permittees. The option that ultimately became the effluent limitation of the permit assumed
8 that compliance with a 30mg/L TSS parameter would be sufficient to maintain compliance with
9 sediment management standards, so long as other operational source control BMPs, such as
10 sweeping and catch basin cleaning, were aggressively implemented at facilities. Implementation
11 of such BMPs is expected to capture particulates that attach to sediments (such as PCBs,
12 pesticides, phthalates), and protect against contamination and recontamination of sediments in
13 the receiving water. The Toxics Cleanup Program did not agree that the effluent limitation of
14 30mg/L was adequate to ensure compliance with the sediment management standards. *Ex. B-89;*
15 *Killelea Testimony.*

16 2. *Fecal Coliform*

17 [38]

18 The presence of fecal coliform bacteria in state waters is one of the primary water quality
19 problems that has led to listing some water bodies on the 303(d) list as impaired (along with
20 impairment due to temperature). *Ex. P-26.* The ISGP sets a numeric effluent limitation for
21 discharges to water bodies 303(d)-listed for fecal coliform bacteria at the water recreation
bacteria criteria (WAC 173-201A) applicable to the receiving water body. *Condition S6.C.,*

1 *Table 5.* Boeing criticizes this limitation as unnecessary, asserting that it is too stringent, and
2 that fecal coliform is unlikely to be present in runoff from industrial facilities. *Paulsen*
3 *Testimony.* While Ecology recognized that fecal coliform is generally associated with nonpoint
4 source pollution or diffuse sources, the agency considered the permit effluent limitation to be an
5 easily applied standard. *Ex. P-26; Killelea Testimony.*

6 *3. Omission of Specific Numeric Effluent Limitations to Water Bodies Impaired for*
7 *Dissolved Oxygen, Temperature, and Fish Tissue/Bioassessment.*

8 [39]

9 At the time of the development of the 2010 ISGP, approximately 172 facilities, out of the
10 nearly 1200 regulated by the permit, discharged to a 303(d)-listed water body. According to
11 Ecology's data, most of those facilities discharged to water bodies impaired due to high
12 temperature, high bacteria, and low dissolved oxygen. *Ex. P-26.* In developing the numeric
13 effluent limitations for discharges to 303(d)-listed water bodies (set out at Condition S6.),
14 Ecology applied a qualifying factor, and established effluent limitations only if the pollutants
15 causing the impairment reasonably could be expected to be a component of stormwater
16 discharges associated with industrial activity. *Fact Sheet, pp. 49-50.* This assumption resulted in
17 the exclusion of dissolved oxygen (DO), temperature, and impairment due to contaminated fish
18 tissue or bioassessment from the numeric effluent limitations of the ISGP. Ecology's conclusion
19 on these three parameters also rested on the difficulty in deriving an effluent limitation that could
20 be tied directly back to industrial dischargers, although the Fact Sheet for the ISGP did not
21 express the conclusion in such terms. *Moore Testimony.* In December 2008 Ecology prepared a

Draft Report to the Legislature on the question of how to implement numeric effluent limitations

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1 for discharges to 303(d)-listed water bodies, a requirement of state law. Although the report
2 explored several options, Ecology never submitted the report to the Legislature. In that
3 document, the agency considered several options for establishing water-quality based numeric
4 effluent limits for discharges to 303(d)-listed waters, one using regional or statewide
5 assumptions of the discharge and receiving water characteristics, the second using site specific
6 information to derive limits. Ultimately, Ecology decided to not develop effluent limitations for
7 DO, temperature and impairment due to contaminated fish tissue/bioassessment, and, instead,
8 applied numeric limits only to facilities discharging to impaired water bodies that were listed due
9 to pollutants that are typically present in industrial stormwater discharges at concentrations that
10 could cause further impairment. *Ex. P-26; Killelea Testimony, Moore Testimony.*

11 [40]

12 In the prior version of the ISGP, approximately 80 facilities were subject to a benchmark
13 for dissolved oxygen discharges to impaired water bodies. *Exs. P-5, P-25, P-27, P-30.* The
14 benchmark was set at the water quality criteria for DO, which is expressed in terms of a relative
15 standard that takes into account receiving water concentrations, uses of the water body at the
16 point of discharge, the frequency/persistence of the measurements over time, and whether
17 background levels of DO are due to natural versus human-caused conditions. *WAC 173-201A.*
18 Yet the permit only required sampling of the industrial stormwater discharge at the point of
19 discharge. *Ex. P-5.* Discharge sampling results could not be readily analyzed in the context of
20 the other variables contained in the DO water quality criteria, and therefore provided no
21 meaningful information about an industrial stormwater discharge's potential contribution to any
violations of dissolved oxygen standards. *Moore Testimony.* The current ISGP omits a similar

1 benchmark for that group of industrial dischargers, as well as omitting any numeric effluent
2 limitation for facilities that discharge to water bodies impaired for dissolved oxygen. Some of
3 the 80 or so facilities that had been subject to a dissolved oxygen benchmark in the old permit
4 are now subject to a new requirement to monitor against the COD and TSS benchmarks. For
5 example, Weyerhaeuser had facilities that were previously required to monitor and report for
6 dissolved oxygen when discharging to an impaired water body (e.g. Willapa River), but no
7 longer has such a requirement. The facility does have an applicable COD and TSS benchmark,
8 however. *Ex. W-3A; Johnson Testimony.*

9 [41]

10 PSA argues that Ecology could and should have derived an effluent limitation for DO,
11 temperature, and contaminated fish tissue impairment. PSA asserts that industrial discharges,
12 which contain substances which have a high oxygen demand, will negatively affect dissolved
13 oxygen levels in impaired waters. PSA also asserts that the lack of a DO effluent limitation for
14 the 80 facilities that used to have it represents impermissible backsliding. *Horner Testimony.*

15 [42]

16 *Dissolved Oxygen:* Ecology did not set a numeric effluent limitation for water bodies
17 303(d)-listed due to low dissolved oxygen primarily because low DO is a seasonal (summer)
18 impairment problem, while stormwater discharges in Washington commonly occur from October
19 through April. Also, industrial stormwater discharges do not typically involve low levels of DO
20 in the discharge itself, but rather are more likely to contain pollutants that will affect DO levels
21 in the receiving water at some later point. Low DO level in impaired water bodies is typically

attributable to heavy loading of nutrients such as nitrogen or phosphorus that cause excessive

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1 algae and plant growth, the decay of which depletes oxygen levels in the summer. Such low DO
2 levels are also attributable to the presence of other wastewater or substances with a high
3 biochemical oxygen demand (BOD). However, Ecology considers these kinds of pollutants to
4 have a “far field” effect, meaning the demand for oxygen in the water does not occur close in
5 time or physically close to where the effluent or runoff water is discharged, but further
6 downstream and on a delayed timeframe. Thus, Ecology concluded that these temporal and
7 spatial variables make it exceedingly difficult to correlate a particular stormwater discharge from
8 an industrial facility to a low DO problem in a water body. Ecology concluded that intensive
9 modeling would be necessary to make the correlation to support a connection between particular
10 types of stormwater discharges and low DO in an impaired segment of a water body, distant
11 from a discharge point. It was not practicable to do so, nor a cost effective effort given
12 Ecology’s determination that industrial stormwater discharges are not likely to be a significant
13 contributor to low DO in most instances. For these same reasons, Ecology did not impose a DO
14 limit on the 80 or so facilities that previously had been subject to such a benchmark. *Moore*
15 *Testimony; Fact Sheet, pp. 49-51.*

16 [43]

17 *Temperature:* Setting a numeric effluent limitation for discharges to water bodies
18 impaired for temperature presented Ecology similar challenges to that of dissolved oxygen.
19 Ecology concluded that temperature is a seasonal water quality problem, and that stormwater
20 discharges do not typically occur during the late summer months when temperature impaired
21 water bodies are warmer and susceptible to thermal loading (discharge of heated water). Again,

1 the agency concluded it could not effectively derive a meaningful effluent limitation for
2 temperature.

3 [44]

4 *Impairment due to Contaminated Fish Tissue:* Setting a numeric effluent limitation for
5 discharges to water bodies impaired due to contaminated fish tissue, such as PCBs, mercury,
6 DDT, or bioassessment (surveys of benthic invertebrate communities) presented a similar
7 challenge to that of dissolved oxygen and temperature. Ecology concluded that it would be
8 extremely difficult to identify a direct relationship or any correlation between stormwater
9 discharges from an industrial facility and the contamination present in a fish or invertebrate
10 community, sometimes far removed from that area. Again, Ecology concluded that it could not
11 derive a science-based, defensible number to serve as a numeric effluent limitation for discharges
12 to water bodies impaired for this parameter. *Moore Testimony.*

13 4. *TMDLs*

14 [45]

15 The ISGP requires Permittees to comply with applicable TMDL (total maximum daily
16 load) determinations, which are essentially water clean-up plans that limit the amount of a
17 particular pollutant that various contributing sources may discharge into the impaired water
18 body. Where Ecology has established a TMDL wasteload allocation and sampling requirements
19 for a permittee's discharge, the permittee is required to comply with "all requirements of the
20 TMDL as listed in Appendix 5" to the permit. *Condition S6.D.2-7.* However, Appendix 5 states
21 the Ecology has performed a review of TMDL documents and determined that "no facilities
currently covered under the ISGP discharge to a water body with a TMDL wasteload allocation

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1 for stormwater associated with industrial activity.” Ecology then concludes that no facilities
2 covered by the ISGP are subject to additional sampling or effluent limitations related to TMDLs.
3 *Ex. B-1A (Appendix 5 to ISGP)*. Ecology testified that industrial facilities typically have not
4 been given part of the wasteload allocation in the TMDL process because such facilities are
5 generally a de minimis source of the pollutant of concern compared to the larger watershed, and
6 the related difficulty of providing a particular discharge limitation for a specific industrial
7 permittee. So, while the permit requires compliance with applicable TMDL determinations,
8 there are none, at least at this time. *Killelea Testimony, Moore Testimony.*

9 [46]

10 PSA criticizes Ecology’s conclusion that additional sampling and monitoring is not
11 required because of the lack of connection between ISGP permittees and the waste load
12 allocation in an impaired water body that is subject to a TMDL. PSA asserts that while there
13 may be a recognition that stormwater discharges are of concern to the TMDL, without targeted
14 sampling and monitoring to better define the stormwater contribution to the problem, it will
15 remain difficult to develop a strategy to begin addressing it. Characterizing this as a “great flaw
16 in Ecology’s management of the state’s water resources,” PSA asks that the Board direct that the
17 permit be amended to provide for setting waste load allocations tied to industrial stormwater
18 discharges, or, at a minimum, require sampling to determine industrial stormwater contributions
19 for the problem and/or if TMDLs are being met. *Horner Testimony.*

1 for evaluating and reporting on the performance and appropriate uses of emerging stormwater
2 treatment technologies. *Order Granting Partial Stay and Denying Summary Judgment (Legal*
3 *Issue No. 12), July 30, 2010.*

4 [48]

5 Since issuance of the Stay by the Board in July 2010, the discontinued TAPE process has
6 resumed through a Technical Resource Center managed by Washington State University and the
7 City of Puyallup, with Ecology involvement. The protocol requires vendors or permittees to
8 bring forward BMPs, typically a treatment BMP, and demonstrate that the new BMP is
9 equivalent to those of the Stormwater Management Manuals issued by Ecology. A Board of
10 Reviewers is in place to consider new ideas or technology. As these are approved, Ecology is
11 poised to add the approved BMPs to the Stormwater Management Manuals (SWMMs) as it
12 updates the Manuals. The next such update will occur in the next one to two years. Ecology
13 does not, however, solicit or force reviews through the TAPE process—it is a market-driven
14 process for enhancing BMPs. PSA criticizes the lack of opportunity for public comment on
15 Ecology’s antidegradation plan. Ecology contends that there is a public comment opportunity
16 both through the granting of coverage to individual permittees, and as the ISGP itself is renewed
17 on five year cycles. Ecology also contends that both the adaptive management scheme of the
18 ISGP, and the permit renewal process offer the opportunity and incentive for new technology to
19 emerge, consistent with antidegradation rules. *Ex. E-12; Killelea Testimony, Moore Testimony.*

1 F. Monitoring Requirements

2 [49]

3 As with the previous permit, the ISGP requires permittees to obtain representative
4 samples on a quarterly basis, and from the first fall storm event of each year, at designated
5 sampling locations. *Condition S4*. Instead of allowing permittees to identify and monitor the
6 outfall with the highest concentration of pollutants, the new permit requires sampling of all
7 discharge points (unless substantially identical under Condition S4.B.2.c.). Ecology chose this
8 approach as technically superior in light of difficulties many permittees had in identifying
9 appropriate sampling points under the previous permit, and because it is consistent with EPA's
10 approach under the MSGP. Both the old permit and new permit allow averaging of samples on a
11 quarterly basis. If a permittee samples any pollutant at a designated sampling point more
12 frequently than required by the permit, the permittee must include the results in both the
13 calculation and data submitted on the Discharge Monitoring Report (DMR). *Condition S9.D.;*
14 *Killelea Testimony.*

15 [50]

16 The consistent attainment provisions of the 2010 ISGP were controversial, with wide
17 disagreement among stakeholders as to the appropriate number of samples needed to adequately
18 characterize site-specific stormwater discharges for purposes of suspending further sampling.
19 Ecology ultimately also chose to allow a facility to have the benefit of suspension of sampling
20 after four quarters of meeting benchmark values (consistent attainment), rather than the eight
21 quarters required under the previous version of the ISGP. This decision was based in part on

Ecology's recognition that the new permit imposed a greatly reduced copper benchmark applied

1 across industrial sectors covered by the permit, as compared to the much higher copper
2 benchmark that only applied to certain permittees under the previous version of the permit. It
3 was also based on a desire to counterbalance the fact that the 2010 permit requires all discharge
4 points to be monitored (unless substantially similar), rather than just one outfall as the previous
5 permit required. Ecology's decision to reduce the number of samples from eight to four was not
6 based on any scientific or technical analysis, although one briefing paper the agency received
7 pointed out that seven samples are adequate to characterize a discharge. Ecology concluded that
8 lowering the number of quarters necessary to qualify for a suspension of sampling under the
9 consistent attainment provision would motivate facilities to achieve compliance, and thereby
10 reduce permittees' sampling costs. In response to permittees' concerns about having to re-
11 accumulate quarters of attainment under the new permit, the 2010 ISGP allows a facility to count
12 attainment of the benchmarks under the prior permit towards the four quarters needed under the
13 current version of the permit. Suspension of sampling based on consistent attainment is not
14 applicable to sampling at facilities subject to numeric effluent limitations based on 303(d)
15 listings, as set forth in Condition S5.C. This was a change from the previous permit, which made
16 the consistent attainment provisions available to all discharges, including those into 303(d)-listed
17 waters. *Exs. P-10, P-21; Killelea Testimony; Condition S9.D.*

18 [51]

19 PSA asserts the permit's monitoring provisions are inadequate in several respects. PSA
20 first states that the new consistent attainment provision (Condition S4.B.6.a.), which allows
21 suspension of sampling after four quarters, would lead to a substantial percentage of facilities
exceeding the benchmarks on an ongoing basis. PSA supports this position based on Dr.

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1 Horner's review of monitoring data from the previous version of the ISGP, which indicates that
2 many facilities that achieved a benchmark for four consecutive sampling events later exceeded
3 the benchmark in future quarters. Dr. Horner's own research also found that, for all parameters
4 but one that he studied, discharges can be adequately characterized after about twelve samples.
5 *Horner Testimony.* PSA also asserts that the permit provision that allows averaging of samples
6 (Condition S4.B.6.c.) invites manipulation by permittees who may modify facility operations
7 and/or sampling techniques to influence the average, a suggestion that one permittee,
8 Weyerhaeuser, calls "inconceivable." *Johnson Testimony.* Finally PSA's expert opines that he
9 would simply design "a thoroughly different program," including a requirement to take a
10 minimum number of annual samples (10-12), and require analysis for dissolved as well as total
11 recoverable metals. *Horner Testimony.*

12 G. Adaptive Management/Corrective Action Requirements

13 [52]

14 Boeing and PSA both criticize the three-level adaptive management/corrective action
15 provisions of the ISGP contained at Condition S8., for different reasons. Boeing asserts the
16 provisions are vague and arbitrary, for failing to define when a permittee can "off-ramp" from an
17 endless series of unsuccessful attempts to meet the benchmarks. Boeing asserts that the ISGP
18 lacks adequate guidance or definition of the "waiver" provisions of the Level 2 and Level 3
19 corrective action requirements, which offer the permittee a way to show they are not violating
20 water quality standards even if they fail to meet benchmarks, among other purposes. Boeing
21 argues that Ecology's position that a permittee must take continued steps to meet the benchmark
values of the permit, through implementation of the corrective action levels, effectively turns

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1 those benchmarks into numeric effluent limitations, an arbitrary result. Taking issue with a
2 portion of the Board's ruling in one summary judgment order, Boeing asserts that facilities that
3 have fully implemented BMPs described in Ecology's SWMMs as part of a Level 3 corrective
4 action should not be expected to do more, and are by law, presumed to be compliant with water
5 quality standards.⁴

6 PSA criticizes the Condition S8. provisions as vague or too loosely written, asserting that
7 there are extended timeframes for completion of corrective actions, legally invalid bases for
8 waivers, and unacceptably vague terms, such as footnote 4 to Condition S8., that appears to
9 make it impossible for a permittee to ever move from a Level 2 to a Level 3 corrective action.
10 PSA criticizes the calendar year system of the corrective action scheme, which allows a "reset"
11 of benchmark exceedances for each year of the permit term. PSA complains that these
12 provisions do not require the permittee to ever meet the benchmarks, or specify consequences if
13 there is ongoing failure to do so after completion of prescribed corrective actions. PSA also
14 contends the waiver provisions excuse compliance with water quality standards, and are
15 therefore unlawful.

16 [53]

17 While the permit does not require mandatory compliance with benchmarks, it does
18 require timely implementation of corrective actions with the goal of achieving benchmarks in
19 future discharges. An exceedance of a benchmark value is not conclusive of a violation of water

20 _____
21 ⁴ Boeing filed a Motion for Reconsideration of the Board's Order on Summary Judgment, dated January 5, 2011, (dismissing Legal Issues 31 and 62), and requested the opportunity to present factual evidence on questions related to the proper role of benchmarks and their relationship to the corrective action levels of the permit. The Board allowed Boeing to proceed to present testimony on this issue, but did not rule on the substance of the Motion. It is addressed in the Conclusions of Law that follow.

1 quality standards. However, sampling results that show exceedances of the benchmark values
2 have the potential to violate, or may indicate a violation of, water quality standards. In
3 reviewing the draft ISGP, EPA commented that despite significant concerns in the regulated
4 community that the benchmarks of the ISGP were, in effect, numeric effluent limits, it was clear
5 to EPA that Ecology was not intending benchmarks to be such numeric limits. EPA commented
6 that like the MSGP, the benchmarks are intended to be used as an adaptive management
7 mechanism, triggering revisions to the SWPPP, and adoption of additional control measures
8 when benchmarks were exceeded. EPA notes that when a facility's monitoring data exceeds the
9 benchmark levels, "the facility can be in full compliance with the permit as long as it follows all
10 the corrective action and subsequent reporting steps." EPA recommended clarification in the
11 permit on this point. *Ex. P-21*. Corrective actions responsive to such benchmark exceedances
12 include revision of the SWPPP and implementation of additional BMPs, as prescribed at each
13 corrective action level. In Ecology's professional judgment, if a facility properly implements the
14 corrective actions required by the ISGP, it is likely to bring the facility's stormwater discharges
15 to at or below the benchmark level. If the permittee does not timely and correctly implement the
16 corrective action steps of the permit, or cannot meet the benchmark value after Level 3 corrective
17 action steps, Ecology has the option of issuing an Administrative Order or an individual permit
18 for discharges from a particular facility. The permittee can also request a waiver of the
19 requirements under Level 2 and Level 3, as discussed further below. *Killelea Testimony*.

20 [54]

21 The three level corrective action provisions of Condition S8. of the ISGP set out a

logical, increasingly stringent set of responses required of the permittee, should quarterly

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1 samples reveal continued exceedances of applicable benchmark values. At a Level 1 corrective
2 action, a permittee would be expected to make incremental improvement in the application of
3 BMPs, such as more frequent vacuum sweeping, cleaning catch basins, or other housekeeping
4 items. Similarly, the Level 2 response expects additional source control BMPs, while the Level
5 3 requires installation of necessary treatment BMPs. At Level 3, the permittee must revise the
6 SWPPP, but with input and review of a licensed professional, which is intended to improve the
7 quality of the response at this level of corrective action (Condition S8.D.2.). The permit states
8 that Level 2 corrective actions are triggered by an exceedance of an applicable benchmark value
9 for a single parameter for any two quarters during a calendar year, and that Level 3 corrective
10 actions are triggered by an exceedance for any three quarter during a calendar year. Ecology
11 interprets this to mean that the permittee must look back for an entire calendar year in order to
12 determine whether it is at a Level 2 or Level 3 corrective action. Ecology intended that there be
13 alternating years for corrective action efforts by permittees in order to allow adequate time for
14 corrective actions to achieve their intended effect on discharges. Ecology also expects that a
15 permittee at a Level 3 corrective action will achieve compliance with the benchmark, and that
16 Ecology will be working with the permittee to evaluate the adequacy of the corrective action
17 response. In this iterative process between the agency and permittee, a decision can be made
18 whether an individual permit, more refined BMPs, or an administrative order are necessary.

19 *Killelea Testimony.*

20 [55]

21 While the permit itself, as well as Ecology's explanation of the meaning of the terms,
offers a rational escalation of corrective actions, the calendar year system of corrective actions is

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1 confusing, and offers extended timeframes for implementing corrective actions required by the
2 permit. The permit provides no deadline to initiate a response to a benchmark exceedance and
3 no time limit for the required revision of the SWPPP, so it is unclear when the implementation
4 steps begin. Once the SWPPP is revised, a permittee with two quarters of exceedances in one
5 calendar year, say 2011, has until September 2012 to implement the revised SWPPP. If the
6 facility then has three or more exceedances of a benchmark in 2012, it becomes unclear whether
7 the facility has until September of the next year, 2013, to wait to see the effectiveness of the
8 Level 2 response, or whether it must move to Level 3 if it has three more exceedances in 2013.
9 This result is possible due to the language of footnote 4 to the Level 2 Corrective Action
10 provision, which states that “[F]acilities that continue to exceed benchmarks after a Level 2
11 Corrective Action is triggered, but prior to the Level 2 Deadline, are not required to complete
12 another Level 2 or 3 Corrective Action the following year for the same parameter.” This could
13 be read to mean that a Level 3 corrective action cannot be triggered until three years after the
14 initial exceedances triggering the Level 2 response, even if a permittee consistently continues to
15 exceed the benchmarks every quarter thereafter.

16 [56]

17 The waiver provisions of the 2010 ISGP are a critical aspect of the benchmark and
18 adaptive management scheme of the ISGP. The waiver provisions allow a permittee to show that
19 they do not need to proceed with a required Level 2 or Level 3 response by demonstrating that
20 the installation of either structural source control or treatment BMPs “is not feasible or not
21 necessary to prevent discharges that may cause or contribute to a violation of a water quality
standard.” *Condition S8.C.4. and D.4.* The previous permit included a similar waiver provision,

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1 with the primary difference being that it required a permittee to demonstrate that the corrective
2 action was both infeasible *and* not necessary for compliance with water quality standards. *Ex. P-*
3 *5.* While the terms “feasible” and “necessary” are not defined in the permit (nor were they
4 defined in the previous permit), they have commonly understood meanings in this context.
5 Among other items, the waiver provisions allow a permittee to develop information to show they
6 are in compliance with water quality standards, even if they have had one or more discharges
7 that exceeded a permit benchmark. Ecology testified that a facility could base a waiver request
8 on a showing that a particular benchmark was too high for specific site conditions, that the
9 discharges did not cause or contribute to a water quality standards violation, or that water quality
10 standards are otherwise being met at the site. Such a showing may require a site-specific
11 analysis or receiving water study before the facility can show there is no need to implement
12 either structural source control or treatment BMPs to avoid discharges that may cause or
13 contribute to violation of water quality standards. While economic feasibility will not be
14 allowed as a basis for a waiver from permit corrective action requirements, Ecology has
15 identified other feasibility considerations that may form the basis for a valid waiver request, such
16 as when a permittee operates at a leased facility and the lessor will not allow necessary
17 alterations at the site. Weyerhaeuser testified it understood the kind of data it would need to
18 qualify for a waiver under this term of the ISGP, and that it did not need additional guidance.
19 Boeing criticizes the waivers as vague and uncertain in application. *Killelea Testimony,*
20 *Johnson Testimony, Oleson Testimony.*

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[57]

Ecology has provided some informal guidance as to how to apply the provisions of Condition S8. that allows “waivers” from the requirements for installing or implementing structural source control or treatment BMPs under the Level 2 and Level 3 corrective action provisions of the permit. Ecology has not finalized guidance for its own staff in applying this provision, in part because the agency does not expect any request for waivers until later in the permit cycle, and has time to develop further guidance. *Killelea Testimony.*

[58]

PSA is an organization that works to protect and preserve Puget Sound. Columbia Riverkeeper has a similar mission to protect and restore the Columbia River and its tributaries. Olympians for Public Accountability work for accountability of public agencies involved in toxic cleanup issues in the Olympia area. The Executive Director of PSA is a member of each of these organizations, and makes personal use of the recreational opportunities in the Puget Sound region. *Wilke Testimony.* No party has contested the standing of PSA and the other organizations to bring this appeal. Copper Groups presented no testimony regarding the standing of its organizations to bring this appeal. However, the standing of Copper Groups was raised as an issue for the first time in closing arguments.

Any Conclusion of Law deemed a Finding of Fact is hereby adopted as such.

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1 CONCLUSIONS OF LAW

2 A. Standard of Review

3 [1]

4 The Board has jurisdiction over the subject matter and parties pursuant to RCW
5 43.21B.110. The Board reviews the issues raised in an appeal *de novo*. WAC 371-08-485(1).
6 The burden is on the appealing party as to each issue. WAC 371-08-485(3). Pursuant to WAC
7 371-080-540(2), in those cases where the Board determines that Ecology has issued a permit
8 “that is invalid in any respect,” the Board shall order the agency to reissue the permit, consistent
9 with applicable statutes and guidelines. *PSA v. Ecology*, PCHB Nos. 07-022, 07-023 (February
10 2, 2009) (Phase II Municipal Stormwater Permit Decision).

11 [2]

12 RCW 90.48.260 authorizes Ecology to implement and enforce all programs necessary to
13 comply with the Clean Water Act (CWA), 33 U.S.C. § 1251 *et seq.* Such powers include the
14 authority to administer the NPDES permit program (Ch. 173-220 WAC) and to establish water
15 quality standards for both surface water and groundwater (Ch. 173-201A and Ch. 173-200
16 WAC). The ISGP is required under both the CWA, and state law authority which requires a
17 discharge permit for the disposal of any waste material into waters of the state by any type of
18 commercial or industrial operation. 33 U.S.C. § 1342(p)(2)(B); RCW 90.48.160. The ISGP is
19 also a State Waste Discharge Permit that operates to protect groundwater from stormwater
20 discharged or infiltrated to groundwater under the authority of RCW Chapter 90.48. *Condition*
21 *SI.E.*

1 [3]

2 The Pollution Control Hearings Board must provide due deference to the specialized
3 knowledge and expertise of Ecology on technical issues and judgments. *Port of Seattle v.*
4 *Pollution Control Hearings Board*, 151 Wn.2d 568, 595, 90 P.3d 659 (2004). In the appeal of
5 the ISGP, the Board concludes that some of the terms of the ISGP are particularly technically
6 complex, and required Ecology to consider and weigh complex science, and often competing
7 expert opinions and views on the best approach to manage industrial stormwater. Accordingly,
8 we give deference to Ecology on several of the most technical aspects of the unique terms of the
9 ISGP. Similarly, Ecology's interpretations of water quality statutes and its own regulations are
10 entitled to great weight, unless such interpretation conflicts with the statute's plain language. In
11 several instances, we give deference to Ecology's interpretation of relevant regulations. *Port of*
12 *Seattle* at 593-594.

13 [4]

14 Section 402(o)(1) of the CWA (33 U.S.C. § 1342(o)) states that an NPDES permit may
15 not contain effluent limitations which are less stringent than the previous permit, with certain
16 exceptions. In addition to challenging a number of permit terms as invalid or arbitrary, PSA has
17 asserted that some conditions of the ISGP are less stringent, or represent impermissible
18 backsliding in violation of the CWA. Ecology argued on summary judgment that if the Board
19 were to find certain aspects of the ISGP less stringent, Ecology may still act to correct a
20 "technical mistake" in the previous effluent limitation, under 33 U.S.C. § 1342(o)(2)(B)(ii). The
21 Board addresses both the backsliding and other arguments about these permit terms in the
following conclusions.

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1 management/corrective action scheme that is the method to drive ultimate, and required,
2 compliance with water quality standards. The role of benchmarks in this scheme is once again at
3 issue in this case. In the context of the Construction Stormwater General Permit, we interpreted
4 RCW 90.48.555(8), which requires an enforceable adaptive management mechanism in both the
5 industrial and construction stormwater general permits, as follows: “A benchmark is not a
6 numeric effluent limitation, even if it is stated in numeric terms. Exceedances of the benchmark
7 are not permit violations. Rather, the benchmark is a threshold or indicator value. When that
8 threshold is reached, a permittee must implement a responsive protocol....” *Id.* at COL 22.

9 [7]

10 To meet the requirements of the CWA and state law, the ISGP contains both technology-
11 based and water quality-based effluent limitations, which are two different kinds of restrictions
12 on the quantity, rate, and concentration of pollutants that are discharged in the stormwater from
13 industrial facilities. The Clean Water Act requires that stormwater discharges from existing
14 industrial facilities meet technology-based effluent limitations that reflect the technological and
15 economic capability of permittees to control pollutants in discharges. 33 U.S.C. § 1342(a). They
16 are also based on State law that requires the use of AKART. RCW 90.48.010. NPDES permits,
17 including the ISGP, may express these effluent limitations as either numeric or, if numeric limits
18 are considered “infeasible,” non-numeric narrative standards, or as a combination of numeric and
19 narrative effluent limitations. RCW 90.48.555(2); 40 C.F.R. § 122.44(k)(3). Because of the
20 variable and intermittent nature of stormwater, both EPA and Ecology determined that it is not
21 feasible to calculate numeric, technology-based effluent limitations for many of the discharges
covered under the ISGP. Accordingly, Ecology included many non-numeric narrative

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1 limitations in the permit. These technology-based effluent limits are reflected in those conditions
2 of the ISGP, for example, that require implementation of a SWPPP, and implementation of best
3 management practices to prevent and control stormwater runoff. *Condition S3.; Fact Sheet, pp.*
4 *38-42.*

5 [8]

6 RCW 90.48.555(1), and federal regulations at 40 CFR Part 122.44, require the ISGP
7 include water quality-based effluent limitations if there is a reasonable potential to cause or
8 contribute to an excursion of a state water quality standard. RCW 90.48.555(3) requires that
9 Ecology condition the ISGP to require compliance with numeric effluent discharge limits where
10 the department has determined that stormwater discharges have a reasonable potential to cause or
11 contribute to violation of state water quality standards, and effluent limitations based on
12 nonnumeric BMPs are not effective in achieving compliance with water quality standards. As
13 we concluded in an earlier Order on Summary Judgment, Ecology made a determination that
14 stormwater discharges from industrial facilities, on a general and ongoing basis, may cause, or
15 have a reasonable potential to cause a violation of water quality standards for a variety of
16 pollutant parameters. *Order on Summary Judgment, December 23, 2010; Killelea Testimony.*
17 *Fact Sheet at 48.* We conclude that such a generalized “reasonable potential analysis” is
18 appropriate in the context of a general permit, where, as here, there is significant background
19 information about the nature of industrial and urban runoff, sufficient to inform Ecology’s
20 conclusions in this regard (*see, e.g., Ex. B-35, the 2006 EnviroVision/Herrera Evaluation*). We
21 also conclude that Ecology appropriately complied with these statutory and regulatory

requirements by establishing several permit provisions, which are stated in both numeric and

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1 narrative forms, as follows: numeric effluent limitations for discharges to 303(d)-listed water
2 bodies at (Condition S6.C., Table 5); requirements for facilities to comply with TMDLs
3 (Condition S6.D.); adaptive management response provisions, which require facilities that
4 exceed numerically-stated benchmark values to implement escalating levels of source control
5 and treatment BMPs (Conditions S5.A. and B., and S8.); prohibitions on discharges that violate
6 listed water quality surface, groundwater, sediment standards, or human health-based criteria
7 (Condition S10.); and finally, solid and liquid waste management provisions.(Condition S12.).

8 [9]

9 In addition to the requirements to develop effluent limitations in response to a reasonable
10 potential analysis, RCW 90.58.555 (7) provides further, and specific direction to Ecology to
11 require compliance with “appropriately derived numeric water quality-based effluent limitations
12 for existing discharges to water bodies listed as impaired according to 33 U.S.C. Sec. 1313(d)
13 (Sec. 303(d) of the federal clean water act, 33 U.S.C. Sec. 1251 et seq.)” The permit complies
14 with this requirement by including numeric effluent limitations applicable to discharges to
15 303(d)-listed waters for a number of different parameters, including, TSS, fecal coliform, and
16 others that are not in dispute in this case. *Condition S6., Table 5.* Whether such limitations are
17 “appropriately derived,” and whether additional numeric limitations should have been included,
18 is addressed later in this opinion, the Board having ruled on summary judgment that there were
19 questions of fact related to the specific limitations contained in Condition S6. *Order on*
20 *Summary Judgment, December 23, 2010.*

1 [10]

2 RCW 90 48.555 (8) requires the ISGP to include “an enforceable adaptive management
3 mechanism that includes appropriate monitoring, evaluation, and reporting.” At a minimum, the
4 adaptive management mechanisms must include an indicator, such as *monitoring benchmarks*,
5 monitoring, review and revisions to stormwater pollution prevention plans, documentation of
6 remedial actions taken, and reporting to Ecology. RCW 90.48.555(8)(a)(i)-(v) (*emphasis*
7 *added*). The adaptive management/corrective action scheme of the ISGP (Condition S8.) goes
8 hand-in-hand with the benchmark provisions of the permit, and together they form a key
9 narrative effluent limitation for the ISGP, requiring industrial facilities to take steps to ensure
10 compliance with water quality standards.

11 [11]

12 In the remand of the 2005 Boatyard General Permit, the Board ordered that the permit be
13 modified to require implementation of remedial actions required at the three corrective action
14 levels set out in that permit. The Board stated that the permit must “explicitly require that
15 permittees must continue implementing required remedial actions unless and until the
16 benchmarks and other limits are achieved,” and further required the permit to address the
17 contingency that implementation of all BMPs and corrective actions might fail to achieve the
18 benchmarks. Ecology was directed to include provisions specifying that the agency may require
19 individual, site-specific conditions, such as additional BMPs, numeric limits, or compliance
20 schedules, or an individual NPDES permit. While the Board did not construe the benchmark as a
21 numeric effluent limitation, or nonattainment of a benchmark as a permit violation, the Board
nonetheless required Ecology to modify the permit to specify further actions Ecology would take

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1 in response to continued failure of a permittee to achieve the benchmark. *PSA v. Northwest*
2 *Marine Trade Association*, PCHB Nos. 05-150, 05-151, 06-034, 06-040, at pp. 65-66 January
3 26, 2007.

4 [12]

5 We see no reason to depart from these decisions at this time. The Board concludes that
6 the ISGP's combination of benchmarks that trigger an adaptive management response, narrative
7 effluent limitations, and numeric effluent limitations for defined parameters applicable to
8 discharges to 303(d)-listed waters, is a valid and lawful framework for regulating industrial
9 stormwater discharges at this time. This framework correctly implements specific provisions of
10 RCW 90.48.555, discussed above, and complies with the Clean Water Act, even if we find
11 specific provisions invalid in some respect. Subject to the more detailed discussion below of
12 specific benchmark, numeric limits, and other permit issues, the Board rejects PSA's assertion
13 that the ISGP framework is inadequate and should be based on more extensive numeric effluent
14 limitations. We also reject Boeing assertion that the permit framework should have more
15 flexible benchmarks, or that it is premature to establish such benchmarks due to lack of adequate
16 data.

17 C. Validity of Benchmarks

18 [13]

19 The Board concludes that none of the Appellants have met their burden to demonstrate
20 that the copper and zinc benchmarks of the ISGP are invalid, arbitrary and capricious, or in
21 violation of applicable law. The Board concludes that Ecology developed a rational method to
reach a reasonable and achievable benchmark for copper. As the level of professional

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1 disagreement indicates, there is considerable room for debate about the appropriate benchmark
2 level for copper, and the precise levels at which the benchmark will protect beneficial uses, or
3 become overly burdensome or overly protective of receiving waters.

4 [14]

5 We conclude that the copper benchmark was set in consideration of both the effects on
6 beneficial uses in the receiving water, and in particular, the effects on salmonid fish, as it should
7 have been. At the same time, Ecology concluded that in order to meet the benchmarks of the
8 permit, a facility would have to be implementing AKART. Ecology also applied the dilution
9 factor of 5 in a manner distinct from methods used in some other permitting contexts, using it as
10 a method to inform the agency as to the probability of violating water quality standards, should
11 the benchmark for copper be set at varying levels. In this respect, Ecology used the dilution
12 factor, not to justify artificially high benchmarks, but rather to assess the effectiveness of the
13 benchmark value, from both the perspective of protection of beneficial uses and the ability of
14 industrial facilities to meet the benchmark. We conclude that consideration of the effects of
15 receiving water dilution and chemistry on the toxicity of discharges in the manner accomplished
16 by the Herrera report is not equivalent to granting a mixing zone under WAC 173-201A-400. In
17 this case, the dilution factor was not used to allow a violation of water quality standards in an
18 area of the receiving water. Instead, the Herrera analysis recognized some dilution would occur
19 in receiving water, and provided Ecology data to assess at what level a benchmark would be
20 protective of beneficial uses in the vast majority of conditions. This is a valid and lawful
21 approach.

1 [15]

2 We also conclude that Ecology was not required to use either the biotic ligand model
3 (BLM), or a water effects ratio (WER) in setting the copper benchmark. Neither of these
4 approaches is consistent with the current water quality standards of Washington, implemented at
5 WAC 173-201A. While the BLM may be the approach of the future, particularly as a new basis
6 to set the copper criteria in state water quality standards (as opposed to at the permit stage), it has
7 yet to be adopted in Washington, or any other state, and state water quality regulations for copper
8 remain hardness-based. Ecology correctly relied on existing water quality standard
9 methodologies to formulate the copper benchmark, as did the Herrera analysis that provided the
10 foundation for Ecology's decision on the copper benchmark.

11 [16]

12 It was neither an abuse of discretion nor arbitrary and capricious for Ecology to decline to
13 apply a WER in the development of the copper benchmark. Not only is the use of a WER
14 generally limited to site-specific application, EPA has put limits on Ecology's use of a WER to
15 modify the water quality standards for particular water bodies or discharges. Ecology's
16 interpretation of the water quality standards, including the limits placed thereon by EPA, is
17 entitled to great weight, and we give deference to Ecology's interpretation of WAC 173-201A-
18 240 (footnote dd) and how to apply it in the context of a general permit. The Board also
19 distinguishes the facts and conclusions here from those before the Board in the appeal of the
20 2005 Boatyard General Permit. *PSA v. Northwest Marine Trade Assc., supra*. In that case the
21 Board held that the methodology used to establish the copper benchmark relied on several flawed
and unfounded factors to establish a benchmark that was many times higher than the water

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1 quality criteria for copper, and invalidated the copper benchmark. The Board concluded that
2 although Ecology had not applied required prerequisites to the use of a WER, Appellant PSA had
3 not presented adequate evidence that the WER values that Ecology had relied were not
4 representative of western Washington waters. Since that time, EPA has put further limits on the
5 use of the WER to adjust water quality criteria. Thus, while the Board's conclusion allowed a
6 limited use of a WER in the Boatyard General Permit to account for the mitigation effects of
7 receiving water quality on the toxicity of metals in stormwater discharges, the case does not
8 stand for as broad a proposition as advanced by Copper Groups. We conclude that Ecology
9 more correctly accounted for the effects of receiving water chemistry on copper through the
10 analysis contained in the Herrera report.

11 [17]

12 The Board concludes that the new COD and TSS benchmarks for the timber and paper
13 industry and paper and allied products industries are valid, and supported in relevant science and
14 literature. There was little dispute that COD itself is the more accurate measure of oxygen
15 demanding substances in the water, and even PSA's expert had no quarrel that COD was the
16 preferable benchmark parameter, not BOD. We also conclude that the COD benchmark value
17 (120 mg/l) is not less demanding than the lower BOD benchmark of the previous permit (30
18 mg/l). Relevant studies and site specific sampling results demonstrate that a COD benchmark
19 that is four times higher than the BOD benchmark offers equivalent protection to receiving
20 waters. With the addition of a second benchmark for TSS (100 mg/l), we conclude that this
21 industrial sector is subject to more stringent permit requirements with this iteration of the ISGP.

The ISGP does not represent backsliding in this respect, as argued by PSA.

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1 [18]

2 The Board concludes that the new benchmark of “no visible oil sheen” is a valid
3 benchmark, and does not represent backsliding from the prior permit’s numerically stated
4 benchmark of 15mg/l for oil and grease. The Board is satisfied that Ecology has valid, well-
5 based reasons to change to a benchmark based on “no visible sheen,” and has improved the
6 permit over the last iteration by adding a second, related benchmark of for TPH for certain
7 higher risk industries. *Condition S5.A. (Table 3).*

8 D. Numeric Effluent Limitations for Discharges to 303(d)-Listed Waters

9 [19]

10 RCW 90.48.555(7) addresses effluent limitations for existing discharges to water bodies
11 listed as impaired under the CWA. It states as follows:

12 (7)(a) By November 1, 2009, the department shall modify or reissue the industrial storm
13 water general permit *to require compliance with appropriately derived numeric water*
14 *quality-based effluent limitations for existing discharges to water bodies listed as*
impaired according to 33 U.S.C. Sec. 1313(d) (Sec. 303(d) of the federal clean water act,
33 U.S.C. Sec. 1251 et seq.).

15 (b) The industrial storm water general permit must require permittees to comply
16 with appropriately derived numeric water quality-based effluent limitations in the
17 permit, as described in (a) of this subsection, by no later than six months after the
effective date of the modified or reissued industrial storm water general permit.

18 On summary judgment, the Board concluded that RCW 90.48.555(7) clearly and
19 unambiguously requires Ecology to include in the ISGP “appropriately derived” numeric water
20 quality-based effluent limitations for discharges to 303(d)-listed water bodies. The Board noted
21 that the statutory requirement of sub-section (7) embodies the assumption that impaired water
bodies do not meet water quality standards, and that further discharges will continue to

1 contribute to such impairment. We held there were factual questions as to whether or not
2 Ecology could appropriately derive such limitations with respect to several pollutants that are
3 associated with impaired water bodies. Boeing and PSA challenge different aspects of the
4 effluent limitations applicable to discharges to 303(d)-listed waters. Boeing asserts the fecal
5 coliform bacteria limit and the TSS limit are invalid, for different reasons. PSA argues that
6 Ecology violated RCW 90.48.555(7) by excluding effluent limitations for dissolved oxygen,
7 temperature, and fish tissue/bioassay, as many water bodies are listed as impaired for these
8 parameters.

9 [20]

10 The Board concludes that the TSS effluent limitation applicable to discharges to 303(d)-
11 listed waters is valid and was appropriately derived under RCW 90.48.555(7). In arriving at this
12 limitation, Ecology evaluated several options to address the likelihood that discharges from
13 industrial sites lead to violation of sediment quality standards and recontamination of sites
14 already being addressed under the Toxics Clean-up Program. The effluent standard selected, at
15 30 mg/L is not an unreasonable standard, nor does it impose inordinately high costs on the
16 regulated community, as did other options considered and rejected by Ecology. We give
17 deference to Ecology's conclusion that TSS is a reasonable surrogate to regulate discharges to
18 water bodies that are 303(d)-listed for sediment quality parameters, allowing an effective way to
19 begin to control sediment contamination problems identified by Ecology.

20 [21]

21 Boeing has not met its burden to demonstrate that the fecal coliform bacteria effluent
limitation for discharges to 303(d)-listed water bodies is invalid. Ecology developed this

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1 limitation because many segments of water bodies have been listed as impaired for fecal
2 coliform. Because Ecology could “appropriately derive” an effluent limitation based on existing
3 water quality criteria, and it is an easily applied standard, the numeric effluent limitation is
4 required under RCW 90.48.555(7). Other than disagreeing with the need to monitor for this
5 parameter, no persuasive evidence was offered to show that the fecal coliform effluent limitation
6 could not be “appropriately derived” or was otherwise unsupportable.

7 [22]

8 The Board concludes that Ecology did not err in omitting numeric effluent limitations for
9 discharges to water bodies impaired due to temperature, dissolved oxygen and fish tissue
10 contamination or bioassessment. Ecology was unable to “appropriately derive” such limitations
11 as called for in the statute because in each case, the agency could not reasonably correlate the
12 discharge from an industrial facility with the impairment or water quality problem. Because of
13 this, Ecology lacked a science-based method to define a fair or rational numeric effluent
14 limitation with respect to each of these parameters. With respect to dissolved oxygen and
15 temperature, Ecology could not come up with a defensible effluent limitation number because it
16 is not the stormwater discharge itself causing the impairment in the water body. In the case of
17 dissolved oxygen, it is the oxygen-demanding substances that cause the DO impairment, and
18 setting dissolved oxygen effluent limitation fails to address the impairment problem. It was also
19 reasonable for Ecology to conclude that it made little sense to set an effluent limitation for
20 temperature, on the basis that it is a seasonal impairment problem, and again, a problem that
21 could not be correlated with industrial stormwater discharges. Setting an effluent limitation
under such circumstances would not be based in any supportable science. Ecology was also

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1 unable to defensibly tie industrial stormwater discharges to pollutants that bioaccumulate in fish
2 tissue, again supporting the decision to omit numeric limits for this parameter. In the face of
3 this evidence, we conclude that Ecology met the requirements of RCW 90.48.555(7), as the
4 agency could not, at this time, “appropriately derive” numeric water quality-based effluent
5 limitations for these three types of industrial discharges to impaired water bodies.

6 [23]

7 As discussed above with respect to the omission of a DO effluent limitation, the Board
8 also concludes that it was neither invalid, nor impermissible backsliding, for Ecology to not
9 include a DO benchmark for the same 80 facilities that had such a benchmark in the previous
10 permit. Some unspecified number of these same facilities will be subject to the new COD and
11 TSS benchmarks. Elimination of the DO benchmark on the basis discussed in the findings of
12 fact, that it is a nearly irrelevant measure of the actual problem in the water body, is a legitimate
13 basis upon which to modify the ISGP on a going-forward basis. A permit is not made less
14 stringent by elimination of a condition that provided no meaningful information about
15 impairment or water quality in receiving waters.

16 [24]

17 The Board concludes that the manner in which Ecology addressed TMDLs in the permit
18 is valid. At this point in time, no industrial facilities covered by the ISGP are subject to
19 additional sampling or effluent limitations related to TMDLs, in large part because these
20 facilities are viewed as a small, de minimis source of the pollution contributing to the impaired
21 state of the water body and the need for a TMDL. As with temperature and DO, Ecology faces
substantial difficulty in defining a particular pollutant discharge limitation for a specific

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1 industrial discharge. PSA's case on this issue is primarily one of a criticism of water resource
2 policy approach by Ecology, and not something the Board believes can be addressed in the
3 context of the challenge to a General Permit. Indeed, it would be inappropriate for the Board to
4 direct Ecology to set a wasteload allocation in relation to a TMDL as part of a remedy in an
5 appeal of a general permit, and we have no basis to do so.

6 E. Compliance with Antidegradation Requirements

7 [25]

8 As the Board discussed on summary judgment, the purposes of Washington's
9 Antidegradation Policy, as set forth in WAC 173-201A Part III, are several. First, the policy
10 seeks to maintain and restore the highest possible quality of surface waters in the State. The
11 policy also describes situations under which water quality may be lowered from its current
12 condition. The policy applies to human activities that are likely to lower the water quality of
13 surface water and ensures that such activities apply AKART. To achieve these ends, the policy
14 applies three "tiers" of protection for surface waters. WAC 173-201A-300. Tier I applies water
15 quality-based limitations to point source discharges. Tier II seeks to protect waters of higher
16 quality than the water quality standards by requiring a more detailed analysis (the Tier II
17 analysis) for any new or expanded actions that are expected to cause a measureable change in the
18 quality of the water body. Tier III prevents the degradation of waters formally listed as
19 "outstanding resource waters" and applies to all sources of pollution. At issue in this case is
20 compliance with the Tier II analysis requirements.

2 The rule governing the Tier II analysis requirements allows an alternative method of
3 compliance for general permits, where those permits have a formal adaptive process “to select,
4 develop, adopt, and refine control practices for protecting water quality.” The adaptive process
5 must ensure that information is developed and used expeditiously to revise permit or program
6 requirements. Among other requirements, the plan under this section must be developed and
7 documented in advance of permit or program approval. WAC 173-201A-320(6)(c)(i)-(iii). The
8 relevant portion of the rule provides as follows:

9 c) The department recognizes that many water quality protection
10 programs and their associated control technologies are in a
11 continual state of improvement and development. As a result,
12 information regarding the existence, effectiveness, or costs of
13 control practices for reducing pollution and meeting the water
14 quality standards may be incomplete. *In these instances, the
antidegradation requirements of this section can be considered met
for general permits and programs that have a formal process to
select, develop, adopt, and refine control practices for protecting
water quality and meeting the intent of this section.* This adaptive
process must:

15 (i) Ensure that information is developed and used expeditiously to
16 revise permit or program requirements;

17 (ii) Review and refine management and control programs in cycles
not to exceed five years or the period of permit reissuance; and

18 (iii) Include a plan that describes how information will be obtained
19 and used to ensure full compliance with this chapter. *The plan must
be developed and documented in advance of permit or program
approval under this section.*

20 WAC 173-201A-320(6) (*emphasis added*).
21

1 [27]

2 On summary judgment, the Board concluded that PSA had shown a likelihood of success
3 on the merits on the question of whether Ecology had complied with antidegradation rules at the
4 time of issuance of the ISGP. The Board reached this conclusion because at the time Ecology
5 issued the ISGP, there was no adaptive process in place as required by the antidegradation rule.
6 WAC 173-201A-320(6)(iii). The TAPE process, referred to in the permit's Fact Sheet as the
7 basis for compliance, had been discontinued by Ecology. Although planning may have begun
8 for a transition to a new TAPE process, the record before the Board on summary judgment
9 indicated that it was not currently operational. The Board also expressed substantial concerns as
10 to whether the TAPE process, even if it were in place, had results or outcomes that were "used
11 expeditiously" to revise this, or future, iterations of the General Permit, as the rule requires. The
12 Board concluded that Ecology had failed to meet its burden in response to PSA's motion. The
13 Board entered a stay which prohibited Ecology from granting coverage under the ISGP for new
14 or expanded actions until there was compliance with Tier II antidegradation requirements. The
15 matter was set over for hearing, to allow Ecology to demonstrate it had come into compliance
16 with the antidegradation rule.

17 [28]

18 At hearing Ecology contended that it had complied with the antidegradation rule, and the
19 alternative process allowed for general permits, in three ways. First, Ecology has resumed the
20 TAPE process, which encourages development of pilot or emerging technologies. Second, the
21 adaptive management scheme of the ISGP allows assessment of existing and developing BMPs.

Third, Ecology regularly updates the agency's Stormwater Management Manual to capture these

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1 new and developing BMPs, making them more widely available to the regulated community.
2 Ecology also asserts that the public comment aspects of the antidegradation regulation have been
3 met, not just by the initial opportunity to comment on the draft ISGP, which relied on TAPE and
4 described the adaptive management permit scheme, but also as coverage is granted to any facility
5 with a new or expanded operation.

6 [29]

7 After hearing on the merits, the Board concludes that Ecology has complied with the Tier
8 II antidegradation requirements, and that the previously issued Stay should be dissolved. In
9 2009, after discontinuance of the TAPE program, the Legislature directed Ecology to create a
10 Stormwater Technical Resource Center to provide tools for stormwater management, as funding
11 becomes available. RCW 90.48.545. Initial funding has allowed this effort to proceed through
12 TAPE, and the process described in the original Fact Sheet and public notice has resumed after
13 an initial delay. We also give deference to Ecology's interpretation of WAC 173-201A-320(6)
14 and how it should be applied in the context of general permits. It is reasonable and valid for
15 Ecology to conclude that this rule allows the adaptive management scheme of the permit,
16 combined with regular updates of the SWMM which capture new and emerging technologies, to
17 stand as the method to comply with antidegradation requirements in the general permit context.

18 F. Monitoring and Sampling Provisions

19 [30]

20 The Board concludes that the general sampling requirements of the ISGP are valid, both
21 with respect to the amount of required sampling, and the provisions that allow averaging of such
samples. The quarterly sampling regime now requires sampling of all discharge points, unless

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1 they are substantially identical, an improvement over the approach of the last permit, which
2 allowed the permittee to monitor the outfall with the highest concentration of pollutants, an
3 uncertain endeavor when it comes to variable stormwater discharges. We also conclude that the
4 sampling provision that allows permittees monitoring more than once per quarter to average all
5 the monitoring results for each parameter to be valid. *Condition S4.B.6.c.* PSA's argument that
6 this averaging provision will invite manipulation is not well-founded, because those permittees
7 who take advantage of the sample averaging provision must provide Ecology the results of both
8 the averaging calculation and documentation related to all samples taken. *Condition S9.D.*
9 Moreover, should a given facility wish to ignore the requirements of the permit in favor of
10 manipulation of sampling results, a speculative proposition at best, Ecology could take
11 enforcement action. However, the remote possibility of such behavior on the part of a rogue
12 facility does not render the permit's sampling scheme invalid.

13 [31]

14 We conclude the consistent attainment provision of Condition S4.B.6., which allows a
15 permittee to suspend sampling after four consecutive quarters of sampling demonstrate a
16 reported value equal to or less than the benchmark value is invalid, and appears to have been
17 somewhat arbitrarily selected by Ecology. Although the consistent attainment provision is not
18 applicable to sampling at facilities subject to numeric effluent limitations for discharges to
19 303(d)-listed waters, the last permit required a full eight quarters of sampling of applicable
20 parameters before a permittee could take advantage of this provision. Ecology's decision to
21 reduce the number of quarters necessary to achieve consistent attainment is not based on any
data, nor on an underlying assessment of how many compliant sampling periods are reasonably

FINDINGS OF FACT, CONCLUSIONS
OF LAW, AND ORDER

PCHB Nos. 09-135 through 09-141 (*consolidated*)

1 predictive of future attainment of benchmarks. Ecology recognized this in the Fact Sheet for the
2 draft permit (p. 70), concluding “four samples are not sufficient to adequately characterize the
3 discharge from a facility,” while an internal briefing paper stated that seven samples are
4 adequate. Some limited evidence before the Board suggests a relatively large percentage of
5 facilities will again exceed benchmarks after a period of four quarters of attainment of
6 benchmarks for particular pollutant parameters (*Horner Testimony*). Given the variable nature of
7 stormwater, allowing a suspension of sampling for the remainder of a five year permit term
8 based on only four quarters does not appear to be designed to achieve compliance with
9 benchmarks, and may lead to violations of water quality standards. While the Board concludes
10 that it is reasonable to “carry forward” quarters of attainment of benchmarks from the prior
11 permit period and count those toward consistent attainment under the current permit, we
12 conclude that at least seven quarters of meeting benchmark values should be expected prior to a
13 suspension of sampling for the remainder of the permit term. Alternatively, the permit could
14 allow a fewer number of quarters to serve as the basis for a determination of consistent
15 attainment (such as four quarters), but require a resumption of sampling within a reasonable time
16 frame within this permit term (two to three years appears reasonable, given the five year permit
17 cycle). We leave it to Ecology’s discretion which of these two approaches will work best in the
18 application of the ISGP. We remand the consistent attainment provision of S4B.6. to Ecology
19 for amendment consistent with this opinion.

1 implement, become effective, and be evaluated, this timeframe is unreasonably long. We
2 conclude that footnote 4 must be eliminated and that the permit must clarify when and how a
3 permittee escalates from a Level 2 to a Level 3 when a Level 2 corrective action is already
4 underway.

5 [33]

6 The Board concludes that the waiver provisions of Condition S8. are valid. Although
7 Ecology has not yet issued guidance on how to apply this provision, the terms of the permit are
8 commonly used words, capable of application by the regulated community. Ecology has
9 testified that the term “feasibility” under the waiver provisions will not include “economic
10 feasibility” to excuse a permittee’s compliance with the corrective action provisions due to the
11 cost of structural or treatment BMPs. The weight of evidence before the Board demonstrates that
12 waivers will be most useful where a permittee is able to demonstrate that its discharges do not
13 cause or contribute to a violation of water quality standards, or that water quality standards are
14 otherwise being met, even though the permittee does not meet a benchmark specified in the
15 permit. Given the use of the terms, and their likely application, we find the waiver sections
16 adequately clear and valid.

17 [34]

18 On summary judgment, the Board held that where a permittee continues to exceed
19 benchmark values, it must install BMPs beyond those described in Ecology’s SWMMs. We
20 noted that the ISGP requires site-specific, professionally engineered solutions to ongoing
21 exceedances of benchmarks, at the Level 3 corrective action time. *ConditonS8.D.2.* BMPs

“demonstrably equivalent” to those of the SWMM may also be required, and emerging

FINDINGS OF FACT, CONCLUSIONS
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PCHB Nos. 09-135 through 09-141 (*consolidated*)

1 technologies, not yet in the SWMM, may also be available to a facility at a Level 3 corrective
2 action. We stated that the requirement to implement these additional BMPs would be triggered
3 when a permittee was at a Level 3 corrective action, “presumably based on data or other site-
4 specific information that demonstrates continued inability to meet the benchmarks, and the
5 possibility of discharges that cause or contribute to a violation of water quality standards.” The
6 Board’s holding on summary judgment makes clear that site-specific solutions are called for by
7 Condition S8. of the ISGP, and may be beyond those BMPs described in the SWMM. Such
8 steps are, however, part of the adaptive management response of the permit. Those
9 requirements are triggered by sampling that demonstrates continued exceedances of benchmark
10 values. Boeing disagrees with the Board’s conclusion, and asked the Board to reconsider and
11 allow evidence on this question. The Board did allow evidence, but the evidence presented at
12 hearing does not change our conclusion.

13 [35]

14 RCW 90.48.555(6) affords industrial permittees a “presumption of compliance” with
15 water quality standards when the permittee is in full compliance with *all permit conditions, and*
16 *fully implementing stormwater best management practices* contained in stormwater technical
17 manuals approved by Ecology (or demonstrably equivalent practices) (emphasis added). RCW
18 90.48.555(6)(b). Boeing has argued that so long as it is implementing Ecology’s stormwater
19 management manuals, and BMPs described therein, it is entitled to this presumption of
20 compliance with water quality standards, and need not take further corrective action steps, even
21 if it is not meeting benchmarks. Boeing asserts that discharge monitoring data or sampling
results that demonstrate a failure to meet the benchmark are not indicative of a violation of water

FINDINGS OF FACT, CONCLUSIONS
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1 quality standards and do not negate the presumption of compliance. Boeing argues that the
2 benchmarks themselves are not accurate measurements of water quality, and expecting on-going
3 efforts to comply with the benchmarks converts them into numeric effluent limitations. Boeing
4 appears to be stating that the Board's ruling on summary judgment is tantamount to a holding
5 that a failure to meet the benchmarks is equivalent to a violation of water quality standards.
6 Boeing argues that ISGP benchmarks, if interpreted in this manner, are arbitrary and capricious.

7 [36]

8 Boeing misconstrues both the Board's ruling on summary judgment, and the manner in
9 which the presumption of compliance stated at RCW 90.48.555(6) must be applied. As we have
10 repeatedly stated, while an exceedance of a benchmark is not, in and of itself, a violation of a
11 water quality standard, the benchmarks are indicator values--values that are predictive of
12 potential, or actual, water quality violations. *PSA v. Northwest Marine Trade Assc.; Association*
13 *of General Contractors v. Ecology, supra*. A failure to meet benchmarks requires a permittee to
14 make continued efforts to improve application and performance of BMPs. The statutory
15 "presumption of compliance" requires a permittee to comply with "all permit conditions,"
16 including those that require increasing levels of corrective actions to meet the benchmark values.
17 This calls for professional level involvement in the modification of the SWPPP, and
18 implementation of new or site-specific BMPs. *Condition S8.D.2.b*. The permittee may have to
19 pursue industry specific responses to meet benchmarks.

20 If, in the course of the adaptive management process, the permittee has AKART in place
21 and has implemented a Level 3 response but continues to not meet the benchmarks, the ISGP
offers two paths. The first option is to seek a waiver, and to demonstrate that installation of

FINDINGS OF FACT, CONCLUSIONS
OF LAW, AND ORDER

PCHB Nos. 09-135 through 09-141 (*consolidated*)

1 additional BMPs is not feasible or not necessary to prevent discharges that may cause of
2 contribute to violations of water quality standards. The second option is to take further steps to
3 attain the benchmark or, alternatively, bring a facility into compliance with water quality
4 standards as the case may be. Ecology may require this second option through the issuance of an
5 administrative order.

6 The adaptive management process envisioned by the permit is iterative, and does not
7 necessarily anticipate the kind of definitive cut-off point Boeing appears to seek. The permittee
8 is ultimately required to comply with water quality standards, both under the law, and under the
9 terms of the ISGP. *Condition S10*. To work as an effective adaptive management process,
10 however, Condition S8. requires further refinement. This Board has previously recognized that,
11 to be valid, an adaptive management program in a general permit requires a meaningful
12 mechanism for feedback, to allow evaluation of the effectiveness of the measures and to make
13 any necessary changes in response to such results in order to achieve the desired goal. *Puget*
14 *Soundkeeper Alliance v. Ecology*, PCHB Nos. 07-021, 07-026 through 07-030, 07-037 (Phase I)
15 and 07-022 & 07-023 (Phase II), Findings of Fact, Conclusions of Law, and Order, (2008)
16 (Municipal Stormwater General Permit, Condition S4., Phase I and Phase II). Quarterly
17 discharge monitoring reports may be sufficient feedback in some circumstances, particularly
18 with Level 1 and Level 2 actions, but they are likely inadequate in more complex situations such
19 as Level 3 treatment BMPs. *Id.* at COL 22. Ecology's lead permit writer has explained that at a
20 Level 3 corrective action, Ecology and the permittee will be engaged in an iterative exchange
21 and evaluation of BMPs, to bring the facility to compliance with benchmarks. We conclude that

Condition S8.D. (Level Three Corrective Actions) of the ISGP should also require the use of

FINDINGS OF FACT, CONCLUSIONS
OF LAW, AND ORDER

PCHB Nos. 09-135 through 09-141 (*consolidated*)

ORDER

A. The Board concludes that the majority of provisions of the 2010 Industrial Stormwater General Permit are valid and lawful. Pursuant to WAC 371-08-540, we remand the following limited aspects of the permit to Ecology for modifications.

1. Ecology shall modify Condition S4.B.6., the "Consistent Attainment" provision consistent with the alternatives discussed in this opinion.
2. Ecology shall modify the provisions of Condition S8., "Corrective Actions" consistent with this opinion.

B. The previously entered STAY related to compliance with Antidegradation requirements is VACATED.

C. Having allowed the presentation of evidence on Legal Issues No. 31 and 62, as requested by Boeing, the Board DENIES the motion to Reconsider its January 5, 2011 Order on Summary Judgment addressing these issues.

DONE this 25th day of April, 2011.

POLLUTION CONTROL HEARINGS BOARD
KATHLEEN D. MIX, Presiding
SEE CONCURRENCE
WILLIAM H. LYNCH, Member
ANDREA McNAMARA DOYLE, Chair

1 **COPPER DEVELOPMENT ET AL. v. ECOLOGY ET AL.**
2 **P 10-135 THROUGH P 10-141**

3 **APPENDIX A**
4 **(to Findings of Fact, Conclusions of Law, and Order)**

- 5 5. Does the issuance of the general permit violate the total maximum daily load (TMDL)
6 requirements of the federal and state Clean Water Acts by authorizing a discharge by a
7 new source into 303(d) listed waters?
- 8 6. Are the Permit's monitoring, application and reporting requirements consistent with
9 federal and state law requirements?
- 10 7. Are the Permit's effluent limitations consistent with federal and state law requirements?
- 11 8. Does the permit lack All Known and Reasonable Technologies?
- 12 9. Are the Permit's adaptive management requirements (corrective actions) inconsistent
13 with state law?
- 14 10. If the Board does have jurisdiction to consider this appeal, are Ecology's provisions for
15 modifications of the permit arbitrary and capricious?
- 16 11. Is the permit consistent with the requirements for general industrial stormwater permits
17 under RCW 90.48.555?
- 18 12. In its development of the permit, has Ecology violated the requirements of the anti-
19 degradation policy, WAC 173-201A, Part III?
- 20 13. Is the permit consistent with the regulations and procedural requirements for issuing a
21 NPDES and general permit, including chapters 173-201A, 173-204, 173-220 and 173-
226 WAC?
14. Are the permit coverage requirements for transportation facilities in Condition S1.A.1,
Table 1, arbitrary, capricious, or otherwise unlawful?
16. Is S1.A.1 invalid in its omission of a coverage requirement for transportation facilities
that have material handling facilities?
19. Is Condition S.1.C.4 of the permit invalid by failing to adequately define what facilities
used for office buildings and administrative parking lots are exempt from permit
coverage?

- 1 20. Should Condition S.1.C.4 exempt all parking lots from coverage under the permit where
2 stormwater does not commingle with stormwater from areas associated with industrial
activities?
- 3 34. Are the provisions of S4 concerning monitoring arbitrary and capricious or otherwise
4 invalid?
- 5 35. Are the provisions of S4.B concerning sampling timing requirements invalid?
- 6 42. Are the copper benchmarks in Condition S5.A of the permit arbitrary and capricious, not
based on substantial evidence and otherwise unreasonable and unlawful?
- 7 43. Does the ability to grant site-specific waivers or permit modifications cure the alleged
8 legal defects associated with the copper benchmarks in Condition S5.A of the permit?
- 9 45. Are the provisions of S5.A concerning the oil benchmark and accompanying monitoring
requirements invalid?
- 10 49. Are the provisions of S5.B.5 concerning benchmarks for the timber and paper products
11 industries invalid?
- 12 50. Are the provisions of S5.D.1 concerning conditionally authorized stormwater discharges invalid?
- 13 51. Are the provisions of S6.C concerning compliance schedules for effluent limitations for
14 discharges to 303(d)-listed waters invalid, in that no provision is made to ensure
satisfaction of the requirements of WAC 173-226-180 regarding interim requirements
and reporting?
- 15 52. Is the permit's omission and/or limited application of numeric water quality-based
16 effluent limitations for discharges to some categories of 303(d)-listed water bodies
inconsistent with the requirements of RCW 90.48.555 or otherwise invalid?
- 17 53. Are the provisions of S6.D concerning discharges to water bodies with TMDLs invalid?
- 18 54. Is Condition S.6.C of the permit arbitrary and capricious or otherwise invalid by
19 requiring monitoring and compliance with a TSS effluent limitation as a surrogate for a
303(d) listing based on a sediment quality parameter?
- 20 55. Is Condition S.6.C of the permit arbitrary and capricious or invalid by requiring
21 monitoring and compliance with a fecal coliform effluent limitation by all SIC codes
covered under the permit?

FINDINGS OF FACT, CONCLUSIONS
OF LAW, AND ORDER

PCHB Nos. 09-135 through 09-141 (*consolidated*)

- 1 56. Do the numeric effluent limits applicable to discharges into Section 303(d) listed water
bodies in Condition S6.C, Table 5, violate RCW 90.48.555?
- 2 (West) Are the additional sampling requirements of Table 5 adequate to ensure protection
3 of impaired bodies of water?
- 4 58. Are the provisions of S8 concerning timelines and triggers for corrective actions arbitrary
and capricious or otherwise invalid?
- 5 59. Are the provisions of S8 concerning waivers from the requirements of Level 2 and Level
6 3 responses arbitrary and capricious or otherwise invalid?
- 7 60. Are the provisions of S8.D concerning the requirements for treatment BMPs invalid?
- 8 64. Are Conditions S8.C.4 and S8.D.4 of the permit invalid by failing to define when it may
be unnecessary to achieve a benchmark?
- 9 65. Are Conditions S8.C.4, S8.D.4 and S10 of the permit invalid by requiring a
10 demonstration as to the feasibility and necessity for additional BMPs?
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APPENDIX H

**Pollution Control Hearings Board
Hearing Testimony of Jeff Killelea**

February 1, 2011

(excerpts)

BEFORE THE POLLUTION CONTROL HEARINGS BOARD

STATE OF WASHINGTON

COPPER DEVELOPMENT ASSOCIATION,)
 INC., and THE INTERNATIONAL COPPER)
 ASSOCIATION, LTD.; OLYMPIANS FOR)
 PUBLIC ACCOUNTABILITY; ARTHUR WEST;))
 PUGET SOUNDKEEPER ALLIANCE;)
 COLUMBIA RIVERKEEPER; THE BOEING)
 COMPANY; and GUNDERSON RAIL)
 SERVICES,)
 Appellants,) PCHB No. 09-135
 vs.) through
) PCHB No. 09-141
 STATE OF WASHINGTON,)
 DEPARTMENT OF ECOLOGY,)
)
 Respondent.)
)
 WEYERHAEUSER NR COMPANY,)
)
 Intervenor.)

HEARING TESTIMONY OF JEFF KILLELEA

February 1, 2011
 Tumwater, Washington

Randi R. Hamilton
 Certified Court Reporter
 Washington CCR No. 2260
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I N D E X

EXAMINATION OF JEFF KILLELEA

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objection, Mr. Tupper?

MR. TUPPER: Yes. Thank you, Your Honor.

Thank you, counsel.

MS. MIX: Thank you, Mr. Smith.

Q (Continuing by Mr. Smith) I wanted to look at the fact sheet again, which is Exhibit B-3 in the Boeing book, the one on the desk.

A Okay.

Q On page 48, starting towards the bottom of page 48, and going onto page 49 are a series of bullet points that are identified as a list of the permits, WQBELs.

That stands for water quality based effluent limitations, right?

A Yes.

Q Is that list of water quality based effluent limitations accurate and complete?

A Yes.

Q Now, the third bullet is:

(READING) Conditions S5.A and B and S8 require facilities that exceed water quality based benchmark values to implement escalating levels of source control and treatment BMPs to ensure that future discharges do not cause or contribute to violations of water quality standards.

Did I read that right?

1

2 A Yes.

3 Q Okay. Of the water quality based effluent limitations
4 here, is this the one, the one I just read, is that
5 the one that's necessary to ensure that discharges do
6 not cause or contribute to violations of water quality
7 standards?

8 A I believe it's one of them. It's not the only one.

9 Q Let me ask you this. If the permit didn't have those
10 requirements in it, that S5.A and B plus S8, would the
11 permit be adequate to ensure that discharges don't
12 cause or contribute to violations of water quality
13 standards?

14 A No.

15 Q I'm jumping around a little bit here. Please turn to
16 page 72.

17 Now, this is about the visible sheen on the oil and
18 grease benchmark, and I believe that Mr. Lavigne asked
19 you about this, I think it was yesterday afternoon,
20 and you talked about the recommendation from the
21 Herrera evaluation that's cited in here, right?

22 A Yes.

23 Q And that was one of the reasons that the benchmark was
24 changed from 15 milligrams per liter oil and grease --
25 the generally applicable benchmark was changed from
26 15 milligrams per liter oil and grease to visible

C E R T I F I C A T E

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STATE OF WASHINGTON)
COUNTY OF PIERCE)

I, Randi R. Hamilton, Notary Public in and for the State of Washington, residing at Lakewood, do hereby certify:

That the annexed and foregoing Excerpt of Transcript of Proceedings consisting of the hearing proceedings of February 1, 2011, was reported by me and reduced to typewriting by means of computer-aided transcription;

That said transcript as above transcribed is a full, true and correct transcript of my shorthand notes of the aforementioned proceedings heard before the Pollution Control Hearings Board on February 1, 2011.

Notary Public in and for the State
of Washington, residing at Tacoma.
My commission expires May 3, 2014.

Randi R. Hamilton
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APPENDIX I

Industrial Stormwater General Permit – Fact Sheet

June 3, 2009

(Ex. B-3)

(excerpts)

INDUSTRIAL STORMWATER GENERAL PERMIT – FACT SHEET

June 3, 2009 Public Comment Draft

The Washington State Department of Ecology is proposing to reissue the Industrial Stormwater General Permit (ISWGP). The permit will replace the permit that expired on April 30, 2009. The permit authorizes stormwater discharges associated with industrial activities and a limited number of non-stormwater discharges. The permit limits the *discharge* of pollutants to surface waters under the authority of the Federal Water Pollution Control Act (U.S.C.S. 1251) and limits the discharge of pollutants to surface and ground water under the authority of Chapter 90.48 RCW. Ecology anticipates that Permittees' diligent implementation of the requirements of this permit will result in discharges that do not cause or contribute to violations of state water quality standards.

This fact sheet is a companion document to the draft National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge General Permit for Stormwater Discharges Associated with Industrial Activities (Industrial Stormwater General Permit, or ISWGP). The draft permit authorizes discharge of stormwater only. Discharges of process wastewater are not authorized by this permit and require a separate permit. This fact sheet explains the nature of authorized discharges, Ecology's decisions on limiting the pollutants in stormwater and non-stormwater discharges, and the regulatory and technical bases for those decisions.

The draft permit retains the existing concept of stormwater sampling, benchmarks, and escalating levels of adaptive management that was instituted in 2005. However, many of the SWPPP/BMP requirements, sampling and inspection requirements, benchmark concentrations, and specific elements of the adaptive management program have been revised. The primary changes are summarized in the following table.

Change	Previous Permit	Draft Permit
S1. Permit Coverage		
S1.A Facilities required to seek permit coverage	<ul style="list-style-type: none"> • Applicable in 40 CFR, but unclear in previous permit language 	<ul style="list-style-type: none"> • Adds category of hazardous waste treatment, storage, and disposal facilities (TSDs)
S2. Application For Coverage		
S2.A. Obtaining permit coverage	<ul style="list-style-type: none"> • Required new facilities to submit SWPPP during application process • Required existing, but unpermitted, facilities to submit SWPPP within 30 days of receiving permit coverage 	<ul style="list-style-type: none"> • Eliminates requirement for SWPPP to be submitted in relation to application process. • Retains requirement for SWPPPs to be submitted to Ecology or public upon request.
S3. Stormwater Pollution Prevention Plan		
S3.A.6 Signatory Requirements	<ul style="list-style-type: none"> • Unclear that SWPPP subject to G2 Signatory Requirements 	<ul style="list-style-type: none"> • Requires SWPPP to be signed according to G2 Signatory Requirements
S3.B Specific SWPPP requirements	<ul style="list-style-type: none"> • BMPs from applicable Stormwater Management Manuals 	<ul style="list-style-type: none"> • Specified mandatory BMPs, including monthly vacuum sweeping, catch basin maintenance standards, etc.
S4. Sampling		
S4.B. Sampling Requirements	<ul style="list-style-type: none"> • Sample required during first hour of discharge. • 24-hour antecedent dry period • At least 0.1 inches of rain in 24-hour period 	<ul style="list-style-type: none"> • Sample anytime during discharge • If a discharge from the facility occurs, then it can be sampled, as long as at least 24 hrs between samples
S5. Benchmarks and Effluent Limitations		
S5.A Benchmark and Sampling Requirements	<ul style="list-style-type: none"> • Metals benchmarks based on EPA values in 2006 Multi-sector General Permit 	<ul style="list-style-type: none"> • Copper and zinc benchmarks reflect Washington State stream conditions
S5.A Benchmark and Sampling Requirements	<ul style="list-style-type: none"> • Copper and lead sampling triggered by 2 zinc exceedances 	<ul style="list-style-type: none"> • Cooper and lead not triggered by zinc exceedances; only applied to specific sectors.
S5.B Sector-specific benchmarks	<ul style="list-style-type: none"> • Ammonia and metals benchmarks based on EPA values in Multi-sector General Permit 	<ul style="list-style-type: none"> • Ammonia benchmarks reflect updated EPA values • Added benchmarks for Hazardous waste TSDs • Added TPH sampling to "metals" industries
S7. Inspections		

S7.A Inspection Frequency	<ul style="list-style-type: none"> • Quarterly inspections • Dry season inspections • Visual monitoring 	<ul style="list-style-type: none"> • All forms of inspections consolidated into monthly inspections • 2012/2013 deadlines for inspections to be conducted by Certified Industrial Stormwater Manager
S8. Corrective Actions		
S8.A,B, C.	<ul style="list-style-type: none"> • See previous permit 	<ul style="list-style-type: none"> • Numerous changes to clarify requirements, timelines, and expectations <ul style="list-style-type: none"> • Added allowance for Level 2 time extension or waiver • Added requirement for Level 3 treatment to be certified by P.E.
S8.D Level 4 Corrective Action	<ul style="list-style-type: none"> • Not applicable 	<ul style="list-style-type: none"> • Level 4-Triggers site specific regulatory action by Ecology if 4 more benchmark exceedances after Level 3.
S13. Notice of Termination		
S13.A Submittal of NOT	<ul style="list-style-type: none"> • Submit Notice of Termination if Conditional No Exposure granted. 	<ul style="list-style-type: none"> • Not necessary to submit Notice of Termination if Conditional No Exposure granted.

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INTRODUCTION

The federal Clean Water Act (CWA, 1972, and later modifications, 1977, 1981, and 1987) established water quality goals for the navigable (surface) waters of the United States. The National Pollutant Discharge Elimination System (NPDES) permit program is one of the mechanisms for achieving the goals of the CWA. The NPDES Permit program is administered by the Environmental Protection Agency (EPA). The EPA has delegated responsibility to administer the NPDES permit program to the state of Washington on the basis of Chapter 90.48 RCW. Chapter 90.48 RCW defines the Department of Ecology's authority and obligations in administering the wastewater discharge permit program.

State regulations specify procedures for issuing general permits (Chapter 173-226 WAC), water quality criteria for surface and ground waters (Chapters 173-201A and 173-200 WAC), and sediment management standards (Chapter 173-204 WAC). These regulations require that Ecology issue a permit before allowing discharge of wastewater to waters of the state. The regulations also establish the basis for effluent limitations and other requirements which are to be included in the draft permit. WAC 173-226-110 requires the preparation of a draft permit and an accompanying fact sheet before issuing a general permit under the NPDES permit program. The fact sheet and draft permit are available for review (see Appendix A—Public Involvement of the fact sheet for more detail on the Public Notice procedures).

After the public comment period has closed, The Department of Ecology (Ecology) will summarize the substantive comments and respond to each comment. The summary and response to comments will become part of the administrative record. Parties submitting comments will receive a copy of Ecology's response. Ecology will summarize comments and the resultant changes to the draft permit in Appendix C—Response to Comments.

BACKGROUND INFORMATION

DESCRIPTION OF PERMIT COVERAGE

History

Ecology first issued a baseline stormwater general permit for stormwater discharges on November 18, 1992. The general permit covered both industrial and construction activities. When reissued in 1995, Ecology separated the construction and industrial permits. Ecology issued the Industrial Stormwater General Permit (ISWGP) on November 18, 1995 with an expiration date of November 18, 2000.

Ecology reissued the ISWGP on October 4, 2000. The permit, which became effective on November 18, 2000, had no substantive changes from the 1995 permit. Only changes that made the permit consistent with the revised timeframe were made. The reissued permit became effective on November 18, 2000 with an expiration date of November 18, 2005. However, Ecology fully intended to revise and replace this permit before the expiration date to incorporate the newly-issued Phase II stormwater regulations. The intent was to reissue the permit before March 10, 2003.

A Notice of Appeal was filed on November 17, 2000 by a coalition of environmental groups. The Association of Washington Business (AWB) filed a motion to intervene and became party to the case. In response to the litigation, Ecology altered its approach to revising the permit. Ecology did not conduct a formal public process to examine stormwater issues associated with the reissued permit. However, Ecology examined the issues raised by the appeal, and issues and proposals made by parties to the appeal. Ecology also consulted with staff responsible for managing the coverage of facilities under the permit. Ecology made revisions to address these issues and to implement EPA's Phase II Storm Water Regulations.

On August 21, 2002 Ecology issued the current ISWGP. The permit was appealed to the Pollution Control Hearings Board (PCHB) by Snohomish County, The Boeing Company, and a coalition of environmental groups. The AWB later joined the appeal as an intervening party. Eight of the 11 appeal issues were settled through negotiations or dismissed by the PCHB. During the fall and early winter of 2003, Ecology, the AWB, and the environmental groups made several attempts to reach a negotiated settlement on the remaining three appeal issues.

Early in the 2004 state legislative session, the business community introduced legislation in both the Senate and the House in an attempt to resolve the ongoing appeal of the ISWGP. Eventually, the Senate and the House passed Engrossed Substitute Senate Bill 6415 (ESSB 6415), and the bill was signed into law by the governor on March 31, 2004. The passage of ESSB 6415 led directly to an agreement between the AWB, the environmental groups, and Ecology to drop the on-going permit appeal and to proceed with the modification of the ISWGP which incorporated the settlement agreements reached between Ecology and the appealing parties, the PCHB's rulings, and some of the provisions of ESSB 6415. Ecology issued the modified permit on December 1, 2004 to address the settlement agreements and legislation. The 2004 ISWGP was reissued without changes on August 15, 2007, and October 15, 2008.

This draft permit (released for public comment on June 3, 2009) incorporates lessons learned from the previous permit cycles, and new science; and streamlines monitoring and reporting requirements.

General Permit Approach

Ecology has determined that the general permit approach to regulate industrial stormwater is appropriate for the following reasons:

- A general permit is the most efficient method to handle the large number of industrial stormwater permit applications;
- The application requirements for coverage under a general permit are far less rigorous than individual permit application requirements and more cost effective;
- A general permit is consistent with EPA's four-tier permitting strategy, the purpose of which is to use the flexibility provided by the Clean Water Act in designing a workable and reasonable permitting system; and,
- A general permit is an efficient method to establish the essential regulatory requirements that are appropriate for a broad spectrum of industrial facilities with similar pollutant-generating activities.

In most cases, the draft general permit will provide sufficient and appropriate stormwater management requirements for discharges of stormwater from industrial sites.

SOURCES OF STORMWATER POLLUTANTS

Stormwater may become contaminated by industrial activities as a result of contact with materials stored outside, spills and leaks from equipment or materials used onsite, contact with materials during loading, unloading or transfer from one location to another, and from airborne contaminants.

Many of the potential pollutants in stormwater discharges are industry specific but there are also significant commonalities among various industrial activities. Motorized equipment, cars, trucks, and heavy equipment are typically used at industrial sites. They represent a source of contamination by petroleum products and metals that are common to most facilities with coverage under this permit. Industrial activities are typically associated with impervious surfaces and the collection of dirt and other debris that stormwater may mobilize. This can result in high levels of suspended solids and turbidity in the stormwater discharge. Metals are also common contaminants at industrial sites. Sources of metals pollution include oils and lubricants from motor vehicles, tire dust, brake pad dust, raw material and products, and exposed galvanized metal surfaces on buildings, fences, and equipment.

STORMWATER CHARACTERIZATION BY INDUSTRIAL GROUP

This section of the fact sheet provides descriptions of many industrial groups covered by the permit and the associated stormwater characterization for each group. Characterizations are arranged alphabetically by industrial sector. Industrial sectors reflect the format of the Standard Industrial Classification (SIC) code system. A SIC code describes a broad sector of industries

with a similar type of product or purpose. A SIC code group is denoted by a four-digit alphanumeric code. For example, SIC code group 49xx – Electric, Gas and Sanitary Services, includes Electric Services (491x), Gas Production and Distribution (492x), and Sanitary Services (495x). More specifically, a sewerage system and wastewater treatment plant is identified by the SIC code 4952. For more detailed information about SIC codes, please refer to the Standard Industrial Classification Manual, 1987.

Each of the following SIC code groups contains abbreviated descriptions of the activities common to industries in the group. Only the primary SIC code directly associated with the descriptive title is cited. For example, chemical manufacturing is generally contained in group 28xx; however, the production of chemicals associated with photography is identified with SIC code 3861. This format is consistent with the organization of the legislatively-mandated 6415 report, which provides a stormwater characterization for each SIC industrial category.

Ecology compiled the characterization data from Discharge Monitoring Reports submitted by Permittees. These data were initially entered into a database that is maintained at Ecology's headquarters building and were exported for analysis. The data characterize sampling conducted over 11 quarters: the second, third and fourth quarters of 2003 and all four quarters of 2004 and 2005. These data were obtained from a total of 808 permitted facilities, with 758 located in western Washington and 45 in eastern Washington. Eight facilities were unclassified because no address information was provided in the database download. The number of facilities issued permit coverage may differ from the number of facilities characterized in the data tables due to Permittee reports of "no qualify storm event." Detailed analysis of the data can be found in the 6415 report, *Data Analysis Report: Evaluation of Monitoring Data from General NPDES Permits for Industrial and Construction Stormwater*, October 2006 (2006 Herrera Analysis); available online: <http://www.ecy.wa.gov/programs/wq/stormwater/industrial/Evaliswgp.pdf>.

The data tables cite the minimum, median and maximum concentrations for each pollutant. The median, rather than the average, value is given because the median is more appropriate to describe non-parametric data. Data not normally distributed around the mean of a dataset cannot be assessed using the standard parametric statistics (e.g., mean, standard deviation) because the data violate the underlying assumptions. Non-parametric statistics are appropriate for such data and were used in 2006 Herrera analysis. Thus, Herrera used the median value - a non-parametric statistic, rather than the mean, because the raw data are not normally distributed. The median value is the middle value when data are arranged from lowest to highest or highest to lowest.

A summary of the data and a short discussion are provided at the end of this section of the fact sheet.

Detailed information about the following industries, activities that generate pollution, and pollution prevention opportunities, may be found in EPA's sector notebook series at: <http://www.epa.gov/compliance/resources/publications/assistance/sectors/notebooks/index.html>

The subsequent sections describe industrial categories currently covered by the permit. Data presented were obtained from discharge monitoring reports (DMRs) submitted by Permittees between 2003 and 2005. In some instances the number of Permittees regulated is greater than the number who had submitted data via DMRs. More recently, Ecology has received DMR data from a greater proportion of the Permittees.

DRAFT PERMIT LIMITATIONS

Introduction to Legal Requirements For Limitations to Control Pollutants in Discharges

Section 502(11) of the CWA defines “effluent limitation” as *any restriction on the quantity, rate, and concentration of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters, the waters of the contiguous zone, or the ocean, including schedules of compliance*. Effluent limitations are among the permit conditions and limitations prescribed in NPDES permits issued under Section 402(a) of the Act, 33 U.S.C. §1342(a).

Types of Effluent Limitations: Technology-Based & Water-Quality Based

The CWA requires that discharges from existing facilities, at a minimum, meet technology-based effluent limitations reflecting, among other things, the technological capability of permittees to control pollutants in their discharges which are economically achievable. State laws (RCW 90.48.010, 90.52.040 and 90.54.020) require the use of “all known, available and reasonable methods of prevention, control and treatment” (AKART).

Water quality-based effluent limitations (WQBELs) are required by CWA Section 301(b)(1)(C) and, in Washington State, are based upon compliance with the Surface Water Quality Standards (Chapter 173-201A WAC), Ground Water Standards (Chapter 173-200 WAC), Sediment Quality Standards (Chapter 173-204 WAC) or the National Toxics Rule (40 CFR 131.36). The more stringent of these two limits (technology or water quality-based) must be chosen for each of the parameters of concern, and implemented through NPDES permits. [CWA sections 301(a) and (b)].

Effluent limitations in NPDES permits may be expressed as numeric or non-numeric standards. Under EPA’s regulations, non-numeric effluent limits are authorized in lieu of numeric limits, where “[n]umeric effluent limitations are infeasible.” [40 CFR 122.44(k)(3).] Courts have recognized that there are circumstances when numeric effluent limitations are infeasible and have held that EPA may issue permits with conditions (e.g., Best Management Practices or “BMPs”) designed to reduce the level of effluent discharges to acceptable levels:

Natural Res. Def. Council, Inc. v. EPA, 673 F.2d 400, 403 (D.C. Cir. 1982) (noting that “section 502(11) defines ‘effluent limitation’ as ‘any restriction’ on the amounts of pollutants discharged, not just a numerical restriction”; holding that section of CWA authorizing courts of appeals to review promulgation of “any effluent limitation or other limitation” did not confine the court’s review to the EPA’s establishment of numerical limitations on pollutant discharges, but instead authorized review of other limitations under the definition) (emphasis added).

In *Natural Res. Def. Council, Inc. v. Costle*, 568 F.2d 1369 (D.C. Cir. 1977), the D.C. Circuit stressed that when numerical effluent limitations are infeasible, EPA may issue permits with conditions designed to reduce the level of effluent discharges to acceptable levels.

TECHNOLOGY-BASED LIMITATIONS

Types of Technology-Based Effluent Limitations

Technology-based effluent limitations are in many cases established by EPA in regulations known as effluent limitations guidelines, or “ELGs.” EPA establishes these regulations for specific industry categories or subcategories after conducting an in-depth analysis of that industry.¹

The Act sets forth different standards for the effluent limitations based upon the type of pollutant or the type of permittee involved.

The CWA establishes two levels of pollution control for existing sources. In the first stage, existing sources that discharge pollutants directly to receiving waters were initially subject to effluent limitations based on the “best practicable control technology currently available” or “BPT.” 33 U.S.C. § 1314(b)(1)(B). BPT applies to all pollutants. In the second stage, existing sources that discharge conventional pollutants are subject to effluent limitations based on the “best conventional pollutant control technology,” or “BCT.” 33 U.S.C. §1314(b)(4)(A); see also 40 C.F.R. §401.16 (list of conventional pollutants) while existing sources that discharge toxic pollutants or “nonconventional” pollutants (*i.e.*, pollutants that are neither “toxic” nor “conventional”) are subject to effluent limitations based on “best available technology economically achievable,” or “BAT.” 33 U.S.C. §1311(b)(2)(A); see also 40 C.F.R. §401.15 (list of toxic pollutants).

The factors to be considered in establishing the levels of these control technologies are specified in section 304(b) of the CWA and EPA’s regulations at 40 CFR §125.3.

All NPDES permits are required to consider technology-based limitations (water quality-based effluent limitations may be more stringent). 40 CFR §§122.44(a)(1) and 125.3. CWA sections 301(b)(1)(A) for (BPT); 301(b)(2)(A) for (BAT); and 301(b)(2)(E) for (BCT). Technology-based limits in this permit represent the BPT (for conventional, toxic, and non-conventional pollutants), BCT (for conventional pollutants), and BAT (for toxic pollutants and non-conventional) levels of control for the applicable pollutants. When EPA has not promulgated effluent limitation guidelines for an industry, or if an operator is discharging a pollutant not covered by the effluent guideline, permit limitations may be based on the best professional judgment (BPJ, sometimes also referred to as “best engineering judgment”) of the permit writer. 33 U.S.C. § 1342(a)(1); 40 CFR 125.3(c). See *Student Public Interest Group v. Fritzsche, Dodge & Olcott*, 759 F.2d 1131, 1134 (3d Cir. 1985); *American Petroleum Inst. v. EPA*, 787 F.2d 965, 971 (5th Cir. 1986). For this permit, most of the technology-based limits are based on BPJ decision-making because no ELG applies. However, the permit also includes technology-based limits based on the stormwater-specific ELGs, where applicable.

Authority to Include Non-Numeric Technology-Based Limits in NPDES Permits

¹ Where EPA has not issued effluent guidelines for an industry, EPA and State permitting authorities establish effluent limitations for NPDES permits on a case-by-case basis based on their best professional judgment. See 33 U.S.C. § 1342(a)(1); 40 C.F.R. § 125.3(c)(2).

Under EPA's regulations, non-numeric effluent limits are authorized in lieu of numeric limits, where "[n]umeric effluent limitations are infeasible." 40 CFR 122.44(k)(3). As far back as 1977, courts have recognized that there are circumstances when numeric effluent limitations are infeasible and have held that EPA may issue permits with conditions (e.g., Best Management Practices or "BMPs") designed to reduce the level of effluent discharges to acceptable levels. *Natural Res. Def. Council, Inc. v. Costle*, 568 F.2d 1369 (D.C.Cir.1977).

Through the Agency's NPDES permit regulations, EPA interpreted the CWA to allow BMPs to take the place of numeric effluent limitations under certain circumstances. 40 C.F.R. §122.44(k), entitled "Establishing limitations, standards, and other permit conditions (applicable to State NPDES programs ...)," provides that permits may include BMPs to control or abate the discharge of pollutants when: (1) "[a]uthorized under section 402(p) of the CWA for the control of stormwater discharges"; or (2) "[n]umeric effluent limitations are infeasible." 40 C.F.R. § 122.44(k).

As recently as 2006, The U.S. Court of Appeals for the Sixth Circuit has once again held that the CWA does not require the EPA to set numeric limits where such limits are infeasible. *Citizens Coal Council v. United States Environmental Protection Agency*, 447 F3d 879, 895-96 (6th Cir. 2006). The *Citizens Coal* court cited to *Waterkeeper Alliance, Inc. v. EPA*, 399 F.3d 486, 502 (2d Cir. 2005), stating "site-specific BMPs are effluent limitations under the CWA." "In sum, the EPA's inclusion of numeric and non-numeric limitations in the guideline for the coal remining subcategory was a reasonable exercise of its authority under the CWA."

Additionally, the Sixth Circuit cited to *Natural Res. Def. Council, Inc. v. EPA*, 673 F.2d 400, 403 (D.C.Cir.1982) noting that "section 502(11) [of the CWA] defines 'effluent limitation' as 'any restriction' on the amounts of pollutants discharged, not just a numerical restriction." EPA has substantial discretion to impose non-quantitative permit requirements pursuant to Section 402(a)(1)), especially when the use of numeric limits is infeasible. See *NRDC v. EPA*, 822 F.2d 104, 122-24 (D.C. Cir. 1987) and 40 CFR 122.44(k)(3).

Rationale for Non-Numeric Technology-Based Effluent Limits in This Permit

Numeric effluent limitations are not always feasible for industrial stormwater discharges as such discharges pose challenges not presented by the vast majority of NPDES-regulated discharges. Stormwater discharges can be highly intermittent, they are usually characterized by very high flows occurring over relatively short time intervals, and they carry a variety of pollutants whose source, nature and extent varies. See 55 FR at 48,038; 53 FR at 49,443. This is in contrast to process wastewater discharges from a particular industrial or commercial facility where the effluent is more predictable and can be more effectively analyzed to develop numeric effluent limitations.

To develop numeric technology-based effluent limitations, EPA generally obtains efficacy data concerning removals achieved from representative facilities employing the technology viewed as representing the BAT level of control. Even in this situation, there is some variability in performance at facilities properly using the BAT levels of control and EPA is often subject to

challenge that it did not sufficiently take into account the variability that occurs even in a well-controlled discharge. In other words, facilities argue that the numeric effluent limits cannot be met even when they are properly operating BAT levels of control.

The variability of effluent and efficacy of appropriate control measures makes setting uniform effluent limits for stormwater extremely difficult. There is a high level of variability among stormwater discharges, in terms of both flow rates and volumes and levels of pollutants, since the volume and quality of stormwater discharges associated with industrial activity depend on a number of factors. These factors include:

- the industrial activities occurring at the facility,
- the nature of precipitation, and
- the degree of surface imperviousness.

Due to the dissimilarity among the different industrial sectors covered by this permit, and among the individual facilities within the different industrial sectors, the sources of pollutants in stormwater discharges differ with the type of industry operation and specific facility features. For example, material storage operations may be a significant source of pollutants at some facilities, shipping and receiving areas at others, while runoff from such areas at other facilities may result in insignificant levels of pollutants. Additionally, because it is often not reasonable to use traditional wastewater treatment technologies to control industrial stormwater discharges due to the absence of a steady flow of wastewater, control measures for such discharges tend to focus on pollution prevention measures, called Best Management Practices (BMPs). In addition, the same set of pollution prevention measures or BMPs typically is not appropriate for all the different types of facilities and discharges covered by this permit. The pollutant removal/reduction efficacies of these pollution prevention and BMP-based control measures are not amenable to the type of comparative analyses conducted for non-stormwater treatment technologies and used to set numeric limits.

While EPA continues to study the efficacy of various types of pollution prevention measures and BMPs, EPA at this time does not have a basis for developing numeric limits that would reasonably represent a well-run application of BMPs. Because the flow and content is so variable, if EPA were to try to base numeric limits on a few sites, it is likely that any number it would develop would not be technologically available and economically achievable by all well-run facilities.

These factors create a situation where, at this time, it is generally not feasible for EPA or Ecology to calculate numeric effluent limitations, with the limited exception of certain effluent limitations guidelines that have already been established through EPA rulemaking. For example, covering exposed areas where feasible and cleaning them regularly where they are not covered may be an effective way of significantly reducing stormwater pollutant discharges, but the degree of pollutant reduction will be highly site-specific and cannot be generally quantified. Therefore, EPA and Ecology have determined that it is not feasible to calculate numeric, technology-based limitations for many of the discharges covered under this general permit and, based on the authority of 40 CFR 122.44(k), has chosen to adopt non-numeric technology-based effluent limitations.

The AKART/BAT/BPT/BCT (technology-based) effluent limitations in this permit are expressed as specific pollution prevention requirements for minimizing the pollutant levels in stormwater discharges. In the context of this general permit, these requirements represent AKART and the best technologically available and economically practicable and achievable controls. Ecology has determined that the combination of pollution prevention approaches and structural management practices required by these limits are the most practical and environmentally sound way to control the discharge of pollutants in stormwater runoff. Pollution prevention (source control of pollutants) continues to be the cornerstone of the NPDES stormwater program.

Ecology has determined that permittees in full compliance with the Industrial Stormwater General Permit meet the state AKART requirements in Chapter 90.48 RCW.

Rationale for Numeric Technology-Based Effluent Limitations in this Permit

Technology-based effluent limitations are in many cases established by EPA in regulations known as effluent limitations guidelines, or "ELGs." EPA establishes these regulations for specific industry categories or subcategories after conducting an in-depth analysis of that industry.

This requirement holds permittees responsible for complying with any applicable Federal effluent limitations guidelines eligible and authorized for coverage under this permit. Although the 2002 permit included limits based upon three different ELGs (hazardous waste landfills, non-hazardous waste landfills, and coal storage piles), Ecology has decided to retain only the limits for non-hazardous waste landfills. The limits for hazardous waste landfills were deleted because there currently are none of these facilities covered under the permit, and Ecology has determined that if any needed an NPDES permit in the future, an individual permit would be issued. The limits for coal runoff piles were deleted because EPA has recently clarified in the 2008 Multi-Sector General Permit that these limits only pertain to coal piles at steam electric generating facilities. Although two facilities had been subject to effluent limits for coal piles, these facilities are not steam electric generating facilities, and therefore are not subject to the limits set forth in the ELG (40 CFR Part 423).

Non-hazardous waste landfills subject to the provisions of 40 CFR Part 445 Subpart B must comply with the applicable EPA technology-based limits. These limits are contained in Condition S5.C of the permit and are as follows:

SURFACE WATER QUALITY LIMITATIONS

In order to protect existing water quality and preserve the designated beneficial uses of Washington's surface waters, WAC 173-201A-060 states that waste discharge permits shall be conditioned such that the discharge will not cause a violation of established Surface Water Quality Standards. The Washington State Surface Water Quality Standards (Chapter 173-201A WAC) is a state regulation designed to protect the beneficial uses of the surface waters of the state. Surface water quality-based effluent limitations may be based on an individual waste load allocation (WLA) or on a WLA developed during a basin-wide total maximum daily loading study (TMDL).

Numerical Criteria for the Protection of Aquatic Life

"Numerical" water quality criteria are numerical values set forth in the State of Washington's Water Quality Standards for Surface Waters (Chapter 173-201A WAC). They specify the maximum levels of pollutants allowed in receiving waters to be protective of aquatic life. Numerical criteria set forth in the Water Quality Standards are used along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in a discharge permit. When surface water quality-based limits are more stringent or potentially more stringent than technology-based limitations, they must be used in a discharge permit.

Numerical Criteria for the Protection of Human Health

The EPA has promulgated 91 numeric water quality criteria for the protection of human health that are applicable to Washington State (40 CFR 131.36). These criteria are designed to protect humans from cancer and other diseases, primarily from fish and shellfish consumption and drinking water from surface waters. Because most human health-based criteria are based on lifetime exposures, direct comparisons of receiving water criteria with pollutant concentrations in intermittent stormwater discharges may not be appropriate. This and the high variation in stormwater pollutant concentrations, both between storms and during a single storm make the application of human health criteria to stormwater particularly problematic.

Narrative Criteria

In addition to numerical criteria, "narrative" water quality criteria (WAC 173-201A-030) limit toxic, radioactive, or deleterious material concentrations below those which have the potential to adversely affect characteristic water uses, cause acute or chronic toxicity to biota, impair aesthetic values, or adversely affect human health. Narrative criteria protect the specific beneficial uses of all fresh water (WAC 173-201A-130) and marine water (WAC 173-201A-140) in the state of Washington.

Antidegradation

The purpose of Washington's Antidegradation Policy (WAC 173-201A-300-330; 2006) is to:

- Restore and maintain the highest possible quality of the surface waters of Washington.
- Describe situations under which water quality may be lowered from its current condition.
- Apply to human activities that are likely to have an impact on the water quality of surface water.

- Ensure that all human activities likely to contribute to a lowering of water quality, at a minimum, apply all known, available, and reasonable methods of prevention, control, and treatment (AKART).
- Apply three Tiers of protection (described below) for surface waters of the state.

Tier I ensures existing and designated uses are maintained and protected and applies to all waters and all sources of pollutions. Tier II ensures that waters of a higher quality than the criteria assigned are not degraded unless such lowering of water quality is necessary and in the overriding public interest. Tier II applies only to a specific list of polluting activities. Tier III prevents the degradation of waters formally listed as "outstanding resource waters," and applies to all sources of pollution.

Tier I and Tier II are considered in this permit. Ecology has determined there are no coverages under this permit to Tier III waters.

Tier I applies water quality-based limitations to point source discharges and is discussed below.

Tier II requirements for general permits are given in 173-201A-320(6) as follows:

(a) Individual activities covered under these general permits or programs will not require a Tier II analysis.

(b) The department will describe in writing how the general permit or control program meets the antidegradation requirements of this section.

(c) The department recognizes that many water quality protection programs and their associated control technologies are in a continual state of improvement and development. As a result, information regarding the existence, effectiveness, or costs of control practices for reducing pollution and meeting the water quality standards may be incomplete. In these instances, the antidegradation requirements of this section can be considered met for general permits and programs that have a formal process to select, develop, adopt, and refine control practices for protecting water quality and meeting the intent of this section. This adaptive process must:

(i) Ensure that information is developed and used expeditiously to revise permit or program requirements;

(ii) Review and refine management and control programs in cycles not to exceed five years or the period of permit reissuance; and

(iii) Include a plan that describes how information will be obtained and used to ensure full compliance with this chapter. The plan must be developed and documented in advance of permit or program approval under this section.

(7) All authorizations under this section must still comply with the provisions of Tier I (WAC 173-201A-310).

This fact sheet describes how the permit and control program meets the antidegradation requirement.

The formal process for updating stormwater pollutant control technology is described in a January 2008 Ecology publication entitled Guidance for Evaluating Emerging Stormwater

Treatment Technologies, Technology Assessment Protocol - Ecology (TAPE). The guidance documents primary purpose is to establish a testing protocol and process for evaluating and reporting on the performance and appropriate uses of emerging stormwater treatment technologies. This document is also intended for use in evaluating public domain practices possibly resulting in changes to the design standards for these practices in the Stormwater Management Manual.

Critical Conditions

Surface water quality-based limits are derived for the water body's critical condition, which represents the receiving water and waste discharge condition with the highest potential for adverse impact on the aquatic biota, human health, and existing or characteristic water body uses. The factors include the flow and background level of toxic substances in the receiving water and the flow and concentration of toxic substances in the discharge. The inherent variability of storm events and stormwater discharges add complexity to defining critical conditions. Storm events are naturally occurring and affect the characteristics of both the stormwater discharge and the receiving water body. They vary in intensity and duration; they can be isolated events or part of storm event pattern. All these factors affect flows and water quality.

Acute conditions are changes in the physical, chemical, or biological environment which are expected or demonstrated to result in injury or death to an organism as a result of short-term exposure to the substance or detrimental environmental condition. The acute criteria for metals are one-hour concentrations not to be exceeded more than once every three years. The most likely critical stormwater conditions for acute toxicity would be a high intensity short duration storm event that occurs after a long period of no rain. Under this scenario, the receiving water experiences low flows and the stormwater has a high potential to mobilize pollutants. The critical condition for acute toxicity is most likely to occur during a summer-time or early fall storm event.

Chronic conditions are changes in the physical, chemical, or biological environment which are expected or demonstrated to result in injury or death to an organism as a result of repeated or constant exposure over an extended period of time to a substance or detrimental environmental condition. The chronic criteria for metals are four-day averages not to be exceeded more than once every three years. Since chronic exposure is over several days, the "first flush" effect that occurs after a dry period is not as likely to be significant. Chronic exposure also requires storm events that result in stormwater discharge over a four-day period. However, the critical condition is still most likely to occur after the summer drought when water body flows are low. Much of the stormwater that falls in a drainage basin at the beginning of the wet season will be absorbed reducing the impact on flow in the receiving water body. During the same time the stormwater discharge off a developed site is likely to be in direct proportion to the storm event.

Due to the variability of storm events and the characteristics of stormwater discharges, the critical condition of a receiving water body is difficult to quantify. For example, after the beginning of a storm event the hardness of a stream typically decreases, depending on the intensity and duration of the storm. As the hardness of the stream decreases, the water quality criteria of some metals change and the toxicity of these metals increases. The variability of storm events makes the determination of critical conditions very difficult. Ecology believes that

with the infrequent occurrence of summer storms in Washington, the critical period for stormwater discharge is in the fall when storms are more frequent and runoff becomes more consistent. This period is approximately October 1.

Mixing Zones

The Water Quality Standards allow the Ecology to authorize mixing zones around a point of discharge in establishing surface water quality-based effluent limits. Ecology may authorize both "acute" and "chronic" mixing zones for pollutants that can have a toxic effect on the aquatic environment near the point of discharge. The concentration of pollutants at the boundary of these mixing zones may not exceed the numerical criteria for that type of zone. Mixing zones can only be authorized for discharges that are receiving AKART and in accordance with other mixing zone requirements of WAC 173-201A-400.

RCW 90.48.555(12) applies to this permit and addresses mixing zones. It states: "The department may authorize mixing zones only in compliance with and after making determinations mandated by the procedural and substantive requirements of applicable laws and regulations."

The applicable laws and regulations include federal Clean Water Act, RCW 90.48, WAC 173-200, WAC 173-201A, WAC 173-204, and human health based criteria in the National Toxics Rule (40 CFR 131.36).

No mixing zones are authorized in this permit. Since a general permit must apply to a number of different sites, precise mixing zones and the resultant dilution are not applicable to facilities covered under a general permit.

Any discharger may request a mixing zone through an application for an individual permit in accordance with WAC 173-220-040 or WAC 173-216-070.

Description of the Receiving Water

This draft general permit applies to facilities across the state that may discharge to many different receiving waters. Stormwater may be discharged to a municipal separate stormwater sewer system, a stormwater conveyance system such as a roadside ditch, or directly to a creek, lake, pond or other surface water body. The discharge will enter waters assigned designated uses intended to protect aquatic life and human health.

In highly urbanized areas, the discharge likely enters a collection system and commingles with other sources of stormwater before discharging to a water body. In these urbanized locations, the receiving water is likely to be more than a small creek in size but also likely to be subject to a significant number of municipal and industrial stormwater discharges. In a more suburban setting, the receiving water is not as likely to be subject to multiple municipal and industrial stormwater discharges, but is more likely to be a small creek or intermittent stream. In both cases, the potential impact of stormwater can be significant. Ecology anticipates that the diligent implementation and maintenance of BMPs identified in the Permittee's SWPPP will result in stormwater discharges that do not cause or contribute to violations of the state's Surface Water Quality Standards (Chapter 173-201A WAC).

Surface Water Quality Criteria

WACs 173-201A-200 through -260 define applicable surface water quality criteria for aquatic biota. These criteria were established to protect existing and potential uses of the surface waters of the state. Consideration was also given to both the natural water quality and its limitations. The surface water quality criteria are an important component of the state's Surface Water Quality Standards (Chapter 173-201A WAC).

Application of the surface water quality criteria to a discharge requires site-specific analysis of the discharge and the receiving water. Such analysis is not possible in a statewide general permit that covers more than 1,200 facilities. However, the criteria influenced calculation of the benchmarks for turbidity, copper, lead and zinc. See section S5. Benchmarks and Effluent Limitations of this fact sheet for a discussion of this issue.

Consideration of Surface Water Quality-Based Limits for Numeric Criteria

40 CFR Part 122.44 and RCW 90.48.555 require the permit to contain effluent limitations to control all pollutants or pollutant parameters which are, or may be, discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any water quality standard.

Based upon EPA's Nationwide Urban Runoff Program (NURP), *Evaluation of Washington's Industrial Stormwater General Permit* (2006 Herrera Evaluation), and best professional judgment, Ecology has determined that stormwater discharges may cause a violation of water quality standards for a variety of pollutant parameters. Therefore, the draft permit includes water quality-based effluent limits (WQBELs) to control discharges as necessary to meet applicable water quality standards. The provisions of Conditions S6.C & D (303(d) and TMDLs), S8 (Corrective Actions), S10.A (Compliance with Standards) and S12 (Solid Waste Management) constitute the WQBELs of this permit. These WQBELs supplement the permit's technology-based effluent limits in S3 (SWPPP), S5.C (ELGs), S5.E (Prohibited Discharges), S5.F (General Prohibitions), and S10.B (AKART).

The following is a list of the permit's WQBELs:

- Condition S6.C requires certain facilities who discharge to 303(d) listed waterbodies to comply with water quality-based numeric effluent limitations in accordance with RCW 90.48.555(7)(a).
- Condition S6.D requires facilities to comply with TMDLs, including any applicable wasteload allocations.
- Conditions S5 A & B, and S8 requires facilities that exceed (water quality-based) benchmark values to implement escalating levels of source control and treatment BMPs to ensure that future discharges do not cause or contribute to violations of water quality standards.
- Condition S10.A prohibits discharges that cause or contribute to violations of Surface Water Quality Standards (Chapter 173-201A WAC), Ground Water Quality Standards

(Chapter 173-200 WAC), and Sediment Management Standards (Chapter 173-204 WAC), and human health-based criteria in the National Toxics Rule (40 CFR 131.36).

- Condition S12 requires facilities to prevent solid waste material or leachate from causing violations of the Surface Water Quality Standards (Chapter 173-201A WAC), Ground Water Quality Standards (Chapter 173-200 WAC), and Sediment Management Standards (Chapter 173-204 WAC).

The rationale for water quality based effluent limitations in the draft permit are discussed below.

Condition S6.C. Water Quality-Based Effluent Limitations for Certain Discharges to 303(d)-Listed Waters

The Washington State Water Pollution Control Act RCW 90.48.555 requires the Department of Ecology (Ecology) to develop appropriately derived water quality-based numeric effluent limitations for discharges regulated by the Industrial Stormwater General Permit (ISWGP).

Specifically, RCW 90.48.555(7) states:

- (a) By November 1, 2009, the department shall modify or reissue the industrial storm water general permit to require compliance with appropriately derived numeric water quality-based effluent limitations for existing discharges to water bodies listed as impaired according to 33 U.S.C. Sec. 1313(d) (Sec. 303(d) of the federal clean water act, 33 U.S.C. Sec. 1251 et seq.).
- (b) The industrial storm water general permit must require permittees to comply with appropriately derived numeric water quality-based effluent limitations in the permit, as described in (a) of this subsection, by no later than six months after the effective date of the modified or reissued industrial storm water general permit.
- (c) For permittees that the department determines are unable to comply with the numeric water quality-based effluent limitations required by (a) of this subsection, within the timeline established in (b) of this subsection, the department shall establish a compliance schedule as follows:
 - (i) Any compliance schedule provided by the department must require compliance as soon as possible, and must require compliance by no later than twenty-four months, or two complete wet seasons, after the effective date of the industrial storm water general permit. For purposes of this subsection (7)(c)(i), "wet seasons" means October 1st through June 30th.
 - (ii) The department shall post on its web site the name, location, industrial storm water permit number, and the reason for requesting a compliance schedule for each permittee who requests a compliance schedule according to this subsection (7)(c). The department shall post this information no later than thirty days after receiving a permittee's request for a compliance schedule under this subsection (7)(c). The department shall also prepare a list of organizations and individuals seeking to be notified when such requests for compliance schedules are made, and notify them within thirty days after receiving a permittee's request for a compliance schedule. Notification under this subsection may be accomplished electronically.

To meet RCW 90.48.555(7)(a), Ecology applied the basic assumption that numeric effluent limitations would only be applied to facilities discharging to impaired waterbodies that were “listed” due to pollutants that are typically present in industrial stormwater discharges.

Under this assumption, water quality-based numeric effluent limitations would not be required for discharges to the following types of 303(d)-listed waterbodies:

- *Temperature.* Numeric effluent limits would not apply to dischargers to waterbodies listed for temperature. The rationale is that temperature is a seasonal water quality problem, and considering weather patterns in Washington State, stormwater discharges typically do not occur during the late summer months when temperature impaired waterbodies are relatively warm and more susceptible to thermal loading (discharges of heated water).
- *Fecal Coliform.* Numeric effluent limits would not apply to dischargers to waterbodies listed for fecal coliform bacteria, unless the industrial facility is determined by Ecology to be a source of fecal coliform bacteria to the receiving water, based upon Standard Industrial Classification (SIC). Specifically, facilities in the following categories are subject to effluent limitations for fecal coliform bacteria, unless the facility provides documentation and certification that there is no potential for their stormwater associated with industrial activity to contribute fecal coliform bacteria to the 303(d)-listed waterbody:
 - Food and Kindred Products (SIC Codes 20xx);
 - Treatment Works (SIC Code 4952);
 - Landfills (SIC Code 4953); and
 - Compost facilities (SIC Code 2873),
- *Low Dissolved Oxygen.* Numeric effluent limits would not apply to waterbodies listed for low dissolved oxygen (D.O.). Low D.O. impairments are seasonal (summer) problems, while stormwater discharges in Washington commonly occur from October through April. Low D.O. impairments are typically attributed to:
 - Heavy loading of nutrients (e.g., nitrogen or phosphorus) that cause excessive algae and plant growth, the decay of which depletes oxygen levels in the summer-time (eutrophication), or
 - Excessive discharges of wastewater or other substances with a high biochemical oxygen demand, expressed as BOD₅ - a test to see how fast biological organisms use up oxygen in a waterbody. These kinds of pollutants have a “far field” effect – which means the demand for oxygen doesn’t occur directly where the effluent or runoff water is discharged; it occurs somewhere downstream where decomposition finally occurs. This can make it difficult to show a direct relationship between the discharge of oxygen demanding substance and a low D.O. problem without site-specific water quality modeling.
- *Fish Tissue/Bioassessment.* Numeric effluent limits would not apply to waterbodies

303(d)-listed due contaminated fish tissue (e.g., PCBs, DDT, etc.) or bioassessment (surveys of benthic invertebrate communities). It would be extremely difficult to show a direct relationship between stormwater discharges and impairments due to contaminated fish tissue or bioassessment.

As described above, discharges to water bodies listed for temperature, and low dissolved oxygen, would not trigger a numeric effluent limitation. Discharges to water bodies impaired for fecal coliform bacteria would only be required if the industrial facility is a potential source of bacteria. In addition, 303(d) listings related to contaminated fish tissue (e.g., PCBs, DDT, etc.) or bioassessment (surveys of benthic invertebrate communities), would not trigger numeric effluent limitations. However, facilities discharging to any other waterbodies with 303(d)-listings (Category 5) would be subject to numeric effluent limitations for the 303(d)-listed parameter (e.g., if receiving waterbody listed for total zinc, the facility would be subject to a numeric effluent limitation for total zinc), or in the case of a sediment quality listing, a numeric effluent limitation for Total Suspended Solids (30 mg/L). The technical basis for these limitations is described below.

- *Fecal Coliform.* Facilities with outfalls to freshwater that are subject to a numeric effluent limitation for fecal coliform bacteria will be assigned a water quality based numeric effluent limitation of 100 colonies/100 mL fecal coliform bacteria. This limitation is based upon WAC 173-201-200(2)(b) [Table 200 (2)(b)], which lists the bacteria criteria to protect water contact recreation in fresh waters. Specifically, the effluent limitation is based on Table 200(2)(b), which states that fecal coliform organism levels in the “Extraordinary Primary Contact Recreation” category must not exceed a geometric mean value of 50 colonies/100 mL, with not more than 10 percent of all samples (or any single sample when less than ten sample points exist) obtained for calculating the geometric mean value exceeding 100 colonies/100 mL. Since the general permit only requires one grab sample per quarter, facilities will have fewer than 10 sample points. Therefore, the numeric effluent limitation is 100 colonies/100 mL fecal coliform bacteria.

Facilities with outfalls to marine waters that are subject to a numeric effluent limitation for fecal coliform bacteria will be assigned a water quality based numeric effluent limitation of 43 colonies/100 mL. This limitation is based upon WAC 173-201A-210(2)(b) [Table 200 (2)(b)], which lists the bacteria criteria to protect shellfish harvesting and primary contact recreation in marine waters. Both criterion state that fecal coliform organism must not exceed a geometric mean value of 14 colonies/100 mL, with not more than 10 percent of all samples (or any single sample when less than ten sample points exist) obtained for calculating the geometric mean value exceeding 43 colonies/100 mL. Since the general permit only requires one grab sample per quarter, facilities will have fewer than 10 sample points. Therefore, the numeric effluent limitation is 43 colonies/100 mL fecal coliform bacteria.

- *pH.* Facilities with outfalls to freshwater on the 303(d) list for pH are subject to a water quality based numeric effluent limitation, applied end-of-pipe, as follows:
 - Between 6.0 and 8.5 if the 303(d) listing was for high pH only;
 - Between 6.5 and 9.0 if the 303(d) listing was for low pH only; and
 - Between 6.5 and 8.5 if the 303(d) listing was for both low and high pH.

Condition S6.D. Effluent Limitations for Discharges to Waterbodies with Approved TMDLs

Ecology plans to continue implementing a permit application review process to identify discharges to impaired waters with an approved or established Total Maximum Daily Load (TMDL). Where an operator indicates on its application for coverage form that the discharge is to one of these waters, Ecology will review the applicable TMDL to determine as a threshold matter whether the TMDL includes requirements that apply to the individual discharger or its industrial sector. Ecology will determine whether any more stringent requirements are necessary to comply with the WLA, whether compliance with the existing permit limits is sufficient, or, alternatively, whether an individual permit application is necessary. If Ecology determines that additional requirements are necessary, Ecology will incorporate the final limits as site-specific terms to the facilities general permit coverage.

Condition S6.D is intended to implement the requirements of 40 CFR 122.44(d)(1)(vii)(B), which requires that water quality based effluent limits “are consistent with the assumptions and requirements of any available wasteload allocation for the discharge” Because WLAs for stormwater discharges may be specified in many different formats, Ecology plans to ensure that these requirements are properly interpreted and communicated to the permittee in way that can be implemented.

Condition S5.A&B and S8. Benchmarks and Corrective Actions

Special Condition S8 includes a non-numeric effluent limitation that requires facilities that exceed water quality-based numeric benchmark values (Special Condition S5.A&B) trigger incremental revisions to the facilities Stormwater Pollution Prevention Plan (SWPPP) to include additional Best Management Practices (BMPs). In accordance with RCW 90.48.555(8), the adaptive management mechanism requires monitoring, evaluation, and reporting requirements to ensure that stormwater discharges are controlled by adequate best management practices (BMPs) that prevent violations of water quality standards.

RCW 90.48.555(8)(a) states that “...the adaptive management mechanism shall include elements designed to result in permit compliance and shall include, at a minimum, the following elements:

- (i) An adaptive management indicator, such as monitoring benchmarks;
- (ii) Monitoring;
- (iii) Review and revisions to the storm water pollution prevention plan;
- (iv) Documentation of remedial actions taken; and
- (v) Reporting to the department.”

RCW 90.48.555(8)(b) requires the permit to include the “timing and mechanisms for implementation of treatment best management practices”.

To comply with these statutory requirements, the permit continues the previous permits’ adaptive management approach that requires facilities to monitor stormwater quality against several water quality-based benchmarks (indicator values). The rationale for the selection and derivation of benchmark values for specific pollutant parameters is described in Special Condition S5 of this fact sheet.

If the benchmark for a particular pollutant parameter is met, the discharge is presumed to not cause or contribute to a violation of water quality standards for that parameter. If a (water quality-based) benchmark is exceeded numerous times, the potential for a violation of water quality standards increases, and the facility is required to implement escalating levels of SWPPP review and the implementation of additional BMPs. With emphasis on pollution prevention rather than treatment, the adaptive management system directs facilities who exceed one or more benchmark begins with Level 1 operational source control BMPs. If a benchmark is exceed 4 more quarters, Level 2 requires additional structural source control BMPs. If a benchmark is exceeded 4 more times, then Level 3 requires treatment BMPs.

Since benchmark values are not numeric effluent limitations, discharges that exceed a benchmark value are not automatically considered a permit violation or a violation of water quality standards. However, if a permittee exceeds benchmarks that trigger a corrective action, but does not comply with the specific corrective action requirements in Special Condition S8, it would be a permit violation.

The rationale for the benchmark values is provided in Special Condition S5, and the rationale for the adaptive management mechanism is provided in Special Condition S8.

Condition S10.A. Water Quality Standards

Condition S10.A prohibits discharges that cause or contribute to violations of Surface Water Quality Standards (Chapter 173-201A WAC), Ground Water Quality Standards (Chapter 173-200 WAC), and Sediment Management Standards (Chapter 173-204 WAC), and human health-based criteria in the National Toxics Rule (40 CFR 131.36).

Each permittee is required to control its discharge as necessary to meet applicable water quality standards. Ecology expects that compliance with the other conditions in this permit (e.g., the technology-based limits, Stormwater Pollution Prevention Plan (SWPPP), monitoring, corrective actions, etc.) will result in discharges that are controlled as necessary to meet applicable water quality standards. This “presumptive approach” is consistent with RCW 90.48.555(6), which states:

(6) Compliance with water quality standards shall be presumed, unless discharge monitoring data or other site specific information demonstrates that a discharge causes or contributes to violation of water quality standards, when the permittee is:

(a) In full compliance with all permit conditions, including planning, sampling, monitoring, reporting, and recordkeeping conditions; and

(b)(i) Fully implementing storm water best management practices contained in storm water technical manuals approved by the department, or practices that are demonstrably equivalent to practices contained in storm water technical manuals approved by the department, including the proper selection, implementation, and maintenance of all applicable and appropriate best management practices for on-site pollution control.

(ii) For the purposes of this section, "demonstrably equivalent" means that the technical basis for the selection of all storm water best management practices are

documented within a storm water pollution prevention plan. The storm water pollution prevention plan must document:

(A) The method and reasons for choosing the storm water best management practices selected;

(B) The pollutant removal performance expected from the practices selected;

(C) The technical basis supporting the performance claims for the practices selected, including any available existing data concerning field performance of the practices selected;

(D) An assessment of how the selected practices will comply with state water quality standards; and

(E) An assessment of how the selected practices will satisfy both applicable federal technology-based treatment requirements and state requirements to use all known, available, and reasonable methods of prevention, control, and treatment.

In addition, if the permittee becomes aware, or Ecology determines, that the discharge causes or contributes to a water quality standards exceedance, corrective actions and Ecology non-compliance notification is required. In addition, at any time Ecology may require additional monitoring or an individual permit, if information suggests that the discharge is not controlled as necessary to meet applicable water quality standards.

Ecology has determined that, in general, the effluent limits contained in this permit, combined with the other requirements concerning corrective actions, inspections, and monitoring, will control discharges as necessary to meet applicable water quality standards. Condition S8 requires each facility to implement an enforceable adaptive management program with monitoring and benchmarks that may trigger escalating levels of corrective actions (SWPPP revisions), to ensure that best management practices (BMPs) are adequate to prevent violations of water quality standards.

The permit also requires that permittees modify their SWPPP, if during inspections or investigations by the permittee (Condition S7) or Ecology (Condition G3), it is determined that the SWPPP is, or would be, ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the facility. In this way, the permittee may improve upon the initial selection, design, installation, or implementation of BMPs to further ensure that its discharges are controlled as necessary to meet applicable water quality standards.

Other information that may identify discharges that may cause or contribute to a violation of water quality standards and trigger a need for corrective actions include:

- Monthly visual inspections of the facility (Condition S7);
- Additional water quality sampling (Condition G12);
- Required monitoring for numeric effluent limitations guidelines for sectors subject to effluent limitation guidelines, or for discharges to 303(d) listed waters; or
- Information provided to Ecology or the operator by the public (including State or local authorities) suggestive that the control measures are not stringent enough meet the water quality standards.

an Ecology web page for public review. The “no exposure” certificate conveys to Ecology the right to enter and inspect the facility and, according to EPA Rules, facilities must re-apply every five years.

S2. Application Requirements

40 CFR 122.21(a)(1) requires any facility that “discharges or proposes to discharge pollutants” to surface waters to apply for permit coverage. 40 CFR 122.22 specifies the person or persons within the applicant's organization who may sign the application. WAC 173-226-200 describes the application process to obtain coverage, as required in Condition S2, Coverage Requirements. The regulation explains public notice requirements, SEPA compliance, and the effective date of coverage. There are some differences in application requirements for new facilities versus existing facilities. WAC 173-226-130 requires facilities under permit that are increasing or altering their discharge, to notify the public of this intent in a newspaper of general circulation within the geographical area of the draft discharge or change in discharge. Existing facilities (except those modifying their permit coverage) are not subject to that requirement. Chapter 173-226 WAC defines “new operation” as one that begins activities on or after the effective date of the permit. For purposes of this permit, “new operation”, “new discharge(r)”, and “new facility” have the same meaning. The draft permit defines existing facilities as those that were in operation prior to the permit effective date so, under the draft permit, these facilities would not be subject to public notice requirements.

Continuity of Permit Coverage

Condition S2.A.1 of the draft permit states that on the effective date of the draft permit, permittees with coverage under the existing industrial stormwater general permit (effective date Nov 15, 2008) are automatically covered under this permit unless otherwise notified by Ecology.

Timing of Application

Condition S2.A.3 and A.4 of the draft permit requires new facilities or existing facilities not previously under permit coverage to submit their application for coverage at least 60 days before beginning operation or implementing a significant process change. This is the minimum amount of time that is legally required to issue coverage. The minimum amount of time is only possible when the applicant has submitted all the necessary paperwork, completed the public notice process, submitted a SWPPP, and there are no factors that require additional time such as a request for public hearing. In addition, a new or newly established facility must complete the SEPA process, in accordance with Chapter 197-11 WAC. Since the applicant is required to have permit coverage before they are authorized to discharge stormwater from an operating site, applicants should allow more time than 60 days prior to discharging stormwater from the facility. Issues such as discharging to impaired waters or environmentally sensitive waters likely require additional time to process the application for coverage.

S3. Stormwater Pollution Prevention Plan (SWPPP)

SWPPP Requirement

In accordance with 40 CFR 122.44(k) and 40 CFR 122.44 (s), the draft general permit includes requirements for the development and implementation of SWPPPs along with BMPs to minimize or prevent the discharge of pollutants to waters of the state. BMPs constitute Best Conventional

Pollutant Control Technology (BCT) and Best Available Technology Economically Achievable (BAT) for stormwater discharges. Ecology has determined that development of a SWPPP and implementation of adequate BMPs in accordance with this permit constitutes “all known, available, and reasonable methods of prevention, control, and treatment” (AKART).

The SWPPP is a vital element of the ISWGP. A site-specific SWPPP requires implementation of actions necessary to manage stormwater to comply with the state’s requirement under Chapter 90.48 RCW to protect the beneficial uses of waters of the state. The permit identifies a few situations such as existing facilities coming under permit for the first time, where time is allowed to fully develop and implement the SWPPP. For those facilities currently under permit coverage and for all new facilities, the permit requires a fully developed and implemented SWPPP prior to application for coverage.

The SWPPP must identify potential sources of stormwater contamination from industrial activities and how those sources of contamination are managed to prevent or minimize contamination of stormwater. If contamination of stormwater is unavoidable, the SWPPP will quantify the environmental risk and determine if treatment of the stormwater is necessary to prevent a violation of water quality standards and loss of beneficial uses in waters of the state. The SWPPP must be a “living” document that the Permittee continuously reviews and revises as necessary to assure that stormwater discharges do not degrade water quality. Pollution prevention requires constant vigilance and full participation if it is to be effective. Like maintaining safety at the site, the SWPPP will only be successful when it becomes part of the way all employees at the site perform activities that could affect stormwater quality. The SWPPP must be retained on-site or within reasonable access to the site and available for review by Ecology.

Ecology does not review a SWPPP for formal approval or denial for several reasons. The development and implementation of the SWPPP are the responsibility of the Permittee. Ecology feels the existing and draft permits clearly specify the required minimum elements of the SWPPP. With the aid of Ecology-approved stormwater management manuals, the permit allows the Permittee the flexibility to select and implement those BMPs that fit the characteristics of the site, stormwater pollutant concentrations, and the Permittee's resources. Ecology intends the SWPPP to be used together with sampling results and the corrective action program to allow the Permittee to design the most effective stormwater management plan for the site.

SWPPP Signature and Certification Requirements

The draft permit requires the permittee to sign and date the SWPPP consistent with procedures detailed in General Condition G2 (Signatory Requirements). Specifically, S3.A.6 states:

The Permittee shall sign and certify all SWPPPs, inspection reports, and Level 1, 2, and 3 SWPPP Certification Forms in accordance with General Condition G2.

This requirement is consistent with standard NPDES permit conditions described in 40 CFR 122.22 and is intended to ensure that the permittee understands its responsibility to create and maintain a complete and accurate SWPPP. Permittees are allowed to appoint delegate an authorized representative consistent with the regulations. Therefore, if a facility feels it is more appropriate for a member of the stormwater pollution prevention plan team to sign the documentation, that option is

available under the permit. The signature requirement includes an acknowledgment that there are significant penalties for submitting false information.

Best Management Practices (BMPs)

BMPs are the actions identified in the SWPPP to manage, prevent contamination of, and treat stormwater. BMPs include schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the state. BMPs also include treatment systems, operating procedures, and practices used to control plant site runoff, spillage or leaks, sludge or waste disposal, and drainage from raw material storage. In Condition S3.B.3, BMPs are categorized as *operational source control*, *structural source control*, and *treatment BMPs*. Under each category, specific (mandatory) BMPs are required to be included in the SWPPP and implemented, unless site conditions render the BMP unnecessary, and the exception is clearly justified in the SWPPP. In addition to the specific BMPs listed in S3.B.3, (e.g., vacuum sweep paved surfaces, etc.) , the permittee must ensure that their SWPPP includes the operational and structural source control BMPs listed as “applicable” in Ecology’s stormwater management manuals. Many of these “applicable” BMPs are sector-specific or activity-specific, and are not required at facilities engaged in other industrial sectors or activities.

Ecology-Approved Stormwater Management Manuals

Consistent with RCW 90.48.555 (5) and (6), the permit contains a narrative effluent limitation which requires the implementation of BMPs that are contained in stormwater technical manuals approved by Ecology, or practices that are demonstrably equivalent to practices contained in stormwater technical manuals approved by Ecology. This is intended to ensure that BMPs will prevent violations of state water quality standards, and satisfy the state AKART requirements and the federal technology-based treatment requirements under 40 CFR part 125.3. Specifically, Condition S.3.A.3 states that BMPs shall be consistent with:

- a. Stormwater Management Manual for Western Washington (2005 edition), for sites west of the crest of the Cascade Mountains; or
- b. Stormwater Management Manual for Eastern Washington (2004 edition), for sites east of the crest of the Cascade Mountains; or
- c. Revisions to the manuals in S3.A.3. a & b., or other stormwater management guidance documents or manuals which provide an equivalent level of pollution prevention, that are approved by Ecology and incorporated into this permit in accordance with the permit modification requirements of WAC 173-220-190; or
- d. Documentation in the SWPPP that the BMPs selected provide an equivalent level of pollution prevention, compared to the applicable Stormwater Management Manuals, including:
 - i. The technical basis for the selection for all stormwater BMPs (scientific, technical studies, and/or modeling) which support the performance claims for the BMPs selected; and

- ii. An assessment of how the BMPs will satisfy AKART requirements and the applicable technology-based treatment requirements under 40 CFR part 125.3.

Western Washington

The *Stormwater Management Manual for Western Washington* (SWMM) is the current standard for minimum technical requirements addressing water quality of stormwater through treatment BMPs for facilities in western Washington. Ecology released the original *Western Washington* SWMM in September 2001. The *Western Washington* SWMM was revised in February 2005. Many facilities already under permit based their BMPs on the previous version. The draft permit does not require current Permittees to revise their SWPPP and implement all changes found in the revised SWMM. Although the revisions may be applicable to existing facilities, new and revised BMPs in the updated SWMM were evaluated within the context of new and redevelopment projects. Wholesale updating to the new manual may provide little gain for the expense. Therefore, current Permittees need only apply BMPs from the new manual if their stormwater discharge fails to achieve compliance with water quality standards or where redevelopment at the site fits the manual definition.

Under the SWMM for western Washington, the design basis for volume-based treatment systems is the 6-month, 24-hour storm event. For flow rate-based treatment systems, the design basis is the flow rate at, or below which, 91% of the runoff volume, as estimated by an approved continuous runoff model, will be effectively treated. This design storm was derived to assure that stormwater treatment facilities were sized to treat 91% of the stormwater.

Eastern Washington

The *Eastern Washington* SWMM is the current standard for minimum technical requirements addressing water quality of stormwater through treatment BMPs for facilities in eastern Washington. Ecology released the *Eastern Washington* SWMM in September 2004.

The design basis for volume based treatment systems in eastern Washington is defined in several ways:

1. A six-month regional storm,
2. A six-month, 24-hour U. S. Department of Agriculture Soil Conservation Service (SCS) Type IA storm,
3. A six-month, 24-hour SCS Type II storm, or,
4. 0.5 inch of predicted runoff from the site.

Although the storm event differs from the 6-month 24-hour event defined for western Washington, it meets the same type of standard, 91% of stormwater treated, as western Washington. Treatment systems must be fully functional for all storm events that do not exceed the design storm.

Alternative Manuals and BMPs

Condition S3.A.3 has provisions for the use of BMPs other than those contained in Ecology's Stormwater Management Manuals (SWMM). Specifically, permittees may use BMPs consistent with:

- Revisions to the manuals in S3.A.3. a & b., or other stormwater management guidance documents or manuals which provide an equivalent level of pollution prevention, that are approved by Ecology and incorporated into this permit in accordance with the permit modification requirements of WAC 173-220-190; or
- Documentation in the SWPPP that the BMPs selected provide an equivalent level of pollution prevention, compared to the applicable Stormwater Management Manuals, including:
 - The technical basis for the selection for all stormwater BMPs (scientific, technical studies, and/or modeling) which support the performance claims for the BMPs selected; and
 - An assessment of how the BMPs will satisfy AKART requirements and the applicable technology-based treatment requirements under 40 CFR part 125.3.

Operational Source Control BMPs

Operational source control BMPs include a schedule of activities, prohibition of practices, maintenance procedures, employee training, good housekeeping, and other managerial practices to prevent or reduce the pollution of waters of the state. These activities do not require construction of pollution control devices but are very important components of a successful SWPPP. Employee training, for instance, is critical to achieving timely and consistent spill response. Pollution prevention is likely to fail if the employees do not understand the importance and objectives of BMPs. Prohibitions might include eliminating outdoor repair work on equipment and certainly would include the elimination of intentional draining of crankcase oil on the ground. Good housekeeping and maintenance schedules help prevent incidents that could result in the release of pollutants. Operational BMPs represent a cost-effective way to control pollutants and protect the environment. The SWPPP must identify all the operational BMPs and how and where they are implemented. For example, the SWPPP must identify what training will consist of, when training will take place, and who is responsible to assure that employee training happens.

Chapter 2 of volume 4 in the *Western Washington SWMM* and Chapter 8 of the *Eastern Washington SWMM* provides detailed lists of operational source control measures that apply to virtually all industrial activities. These chapters provide the required BMPs for each major category listed in the permit and include "recommended additional... BMPs" for good housekeeping, preventative maintenance, and spill prevention and cleanup. Specific BMPs are not required, but a suite of BMPs is likely necessary to achieve compliance with water quality standards.

Structural Source Control BMPs

Structural source control BMPs include physical, structural, or mechanical devices or facilities intended to prevent pollutants from entering stormwater. Examples of source control BMPs include erosion control practices, maintenance of stormwater facilities (e.g., cleaning out sediment traps), construction of roofs over storage and working areas, and direction of equipment wash water and similar discharges to the sanitary sewer or a dead end sump. Structural source control BMPs likely include a capital investment but are cost effective compared to cleaning up pollutants after they have entered stormwater. Structural source control BMPs are also identified in Chapter 2 of volume 4 in the *Stormwater Management Manual for Western Washington* and Chapter 8 of the *Eastern Washington SWMM*. Some of the control measures are specific to an industrial group such as “Commercial Composting” while others apply to general industrial activities such as “Mobil Fueling of Vehicles and Heavy Equipment.”

Treatment BMPs

The previously described BMPs are designed to prevent pollutants from entering stormwater. However, even with an aggressive and successful program, stormwater may still require treatment to achieve compliance with water quality standards. Treatment BMPs are intended to remove pollutants from stormwater. Examples of treatment BMPs are detention ponds, oil/water separators, biofiltration, and constructed wetlands³. Volume 5 of the *Western Washington SWMM* and Chapter 5 of the *Eastern Washington SWMM* provides information on treatment BMPs including guidance on selecting appropriate treatment BMPs. All facilities are encouraged to review these *SWMM* chapters and select and implement appropriate treatment BMPs. Facilities that are unable to achieve discharge compliance through source control BMPs must implement appropriate treatment BMPs. If treatment BMPs are not required, the facility must still include in their SWPPP a description of how they arrived at that conclusion.

Volume/Flow Control BMPs

Ecology recognizes the need to include specific BMP requirements for stormwater runoff quantity control to protect beneficial water uses, including fish habitat. New facilities and existing facilities undergoing redevelopment must implement the requirements for peak runoff rate and volume control identified by volume 1 of the *Western Washington SWMM* and Chapter 2 in the *Eastern Washington SWMM* as applicable to their development. Chapter 3 of volume 3 *Western Washington SWMM* and Chapter 6 in the *Eastern Washington SWMM* lists BMPs to accomplish rate and volume control. Existing facilities in western Washington should also review the requirements of volumes 1 (Minimum Technical Requirements) and Chapter 3 of volume 3 in the *Western Washington SWMM*. Chapter 2 (Core Elements for New Development and Redevelopment) in the *Eastern Washington SWMM* contains the minimum technical requirements for facilities east of the Cascades. Although not required to implement these

³Developing a constructed wetland can be an effective way to treat stormwater. However, wetlands constructed for treatment of stormwater are not eligible for use as compensatory mitigation for authorized impacts to regulated wetland systems.

BMPs, controlling rate and volume of stormwater discharge maintains the health of the watershed. Existing facilities should identify control measures that they can implement over time to reduce the impact of uncontrolled release of stormwater.

S4. Sampling

WAC 173-220-210 and 40 CFR 122.41 require sampling, recording, and reporting for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act. RCW 90.48.555(8), requires an enforceable adaptive management mechanism with monitoring, evaluation, and reporting requirements to ensure that stormwater discharges are controlled by adequate best management practices (BMPs) that prevent violations of water quality standards. 90.48.555(8)(a) states that "...the adaptive management mechanism shall include elements designed to result in permit compliance and shall include, at a minimum, the following elements:

- (i) An adaptive management indicator, such as monitoring benchmarks;
- (ii) Monitoring;
- (iii) Review and revisions to the storm water pollution prevention plan;
- (iv) Documentation of remedial actions taken; and
- (iv) Reporting to the department."

The draft permit requires Permittees to conduct stormwater sampling and analysis as well as visual inspections of the facility. The Permittee is required to report sampling results to Ecology on a quarterly basis.

Sampling data, when compared to benchmark indicator values, provides tangible evidence of the effectiveness of the permit to control pollutants in stormwater, both at specific sites and statewide. The permit requires that all Permittees conduct sampling for a core set of pollutant parameters. The core set of parameters required in the permit should be adequate under most conditions to identify sites that are most likely to pose a risk to water quality. In addition to core sampling requirements, certain industrial sectors are subject to additional sampling parameters and benchmarks, based on the stormwater pollutants that are typically associated with the industrial activity in these sectors.

Sample Timing

The previous permit required that Permittees sample stormwater discharges within the first hour after a discharge begins from a qualifying storm event (first flush). A qualifying storm is defined as a storm with at least 0.1 inches of precipitation within a 24-hour period (intensity) which is preceded by at least 24 hours of no measurable precipitation. The previous permit required the collection, analysis, and submission of stormwater sampling results even when Permittees did not fully meet these conditions. Many Permittees found these criteria difficult to meet. Ecology has concluded that complex criteria for sample timing resulted in many facilities failure to collect stormwater samples, even during the wet season in Western Washington.

During the 11-quarter data characterization period from 2003 through 2005, the *6415 Data Analysis Report* counted 22,794 entries in the Ecology's database with no value reported for various reasons. The *6415 Final Data Analysis Report* states that "No Qualifying Storm Event" accounted for 72 percent or 16,434 entries as the primary reason for Permittees non-reported sample results.

During the previous permit cycle only one out of 1,100+ permittees applied for, and was granted, a reduced sampling schedule. Therefore, the extreme hardship reduction/waiver provision is being dropped from the draft permit, to reduce complexity of the general permit.

S5. Benchmarks, Action Levels, and Discharge Limitations

RCW 90.48.555(8)(a) requires Ecology to establish an enforceable adaptive management mechanism in the permit. Adaptive management includes the establishment of benchmarks and action levels for selected parameters, sampling for these parameters, and a corrective action program to reduce and eliminate exceedances of benchmarks and action levels.

The draft permit contains benchmarks and action levels for selected pollutant parameters likely to be present in stormwater discharges. Benchmarks are not water quality criteria or numeric effluent limitations; benchmarks are numeric indicator values used to assess compliance with a water quality-based narrative effluent limitation. Benchmarks are intended to identify discharges that are at low risk of violating water quality standards. Discharges that do not exceed a benchmark are typically not likely to cause a violation of water quality standards. Discharges that exceed one or more benchmarks represent a higher risk of violating water quality standards. An actual water quality standards violation can only be confirmed after site-specific conditions of the discharge and receiving water body are evaluated.

The following narrative describes Ecology's rationale in establishing benchmarks. Section 1 explains Ecology's rationale for selecting the core benchmark parameters in the draft permit. Sections 2 and 3 describe the methodology Ecology used to derive core and sector-specific benchmark values. Section 4 provides Ecology's rationale for requirement for permittees to use specified analytical methods and comply with associated laboratory quantitation levels. Section 5 describes benchmarks and sampling requirements applicable to Permittees in specific industries. Section 6 discusses permit requirements for facilities subject to federal effluent limits (non-hazardous waste landfills). Section 8 addresses stormwater discharges that are conditionally approved or prohibited by the draft permit.

1. Core Benchmark Parameters and Sampling Rationale

Condition S5.A requires all Permittees with stormwater discharges to surface water to conduct base level sampling for five core pollutant parameters. Ecology does not attempt to address all the possible pollutants from each industrial facility. Instead, a basic set of parameters was selected to provide an indication of how well the facilities BMPs are functioning to prevent violations of the state surface water quality standards. The representative parameters are pH, turbidity, total zinc, and oil and grease. Ecology selected these parameters to reasonably indicate the overall effectiveness of each facility's BMPs to reduce and prevent stormwater discharges that could cause a violation of water quality standards. A secondary objective was to minimize the level of laboratory expenses to what is necessary to reasonably ensure compliance with permit conditions.

The draft permit retains the requirement for all facilities to conduct quarterly sampling for four core parameters. These include: turbidity, pH, zinc, and oil and grease. However, oil and grease sampling/analysis is being replaced by a visual assessment for the presence of "visible oil sheen".

Visual inspections are an important part of the discharge monitoring schedule, verification of BMP effectiveness, and the adaptive management program.

The previous permit required quarterly inspections. However, the Condition S7.A of the draft permit requires all Permittees to conduct monthly visual inspections. This is intended, in part, to simplify the requirements 2008 MSGP, which requires permittees to conduct three types of inspections: routine facility inspections, quarterly visual assessments, and comprehensive site inspections. In an effort to reduce complexity, the draft ISWGP incorporates the elements of these three types of inspections into the routine monthly inspections. Ecology determined that monthly visual inspections are a reasonable and cost-effective measure to prevent stormwater contamination.

EPA requires that “qualified personnel” conduct inspections. According to EPA’s 2008 MSGP Fact Sheet “Qualified personnel are those who possess the knowledge and skills to assess conditions and activities that could impact stormwater quality at the facility, and who can also evaluate the effectiveness of controls selected.” Ecology has found that many permittees lack the knowledge and skills to recognize problems with pollution prevention, monitoring and other permit compliance issues. Therefore, Ecology has added a new requirement for inspectors to receive training and certification.

Specifically, S7.A.2 states:

2. Beginning January 1, 2012, visual inspections shall be conducted by a Certified Industrial Stormwater Manager (CISM), Certified Professional in Stormwater Quality (CPSWQ), or Professional Engineer.
 - a. This requirement does not apply to *small businesses* until January 1, 2013.

Ecology plans to develop Washington-specific training program, tentatively called “Certified Industrial Stormwater Manager (CISM)”, which would be similar to the Certified Erosion and Sediment Control Lead (CESCL) program for construction operators in Washington State. The program would need to be up and running well in advance so that industrial stormwater permittees could receive certifications by January 2012, and permittees defined as “small businesses” (defined as businesses with fewer than 50 employees) could receive training and certification by January 2013. Personnel who have received national certification as a “Certified Professional in Stormwater Quality (CPSWQ)”, or licensed Professional Engineer, would receive reciprocity, and not need to become trained or certified as a “Certified Industrial Stormwater Manager (CISM)” in order to perform inspections at industrial sites under the ISWGP.

S8. Corrective Actions

The draft permit contains stormwater sampling, benchmarks, and corrective actions. Together, these elements comprise an adaptive management program as required by the RCW 90.48.555(8)(a). Facilities that exceed water quality-based numeric benchmark values (Special Condition S5.A&B) trigger incremental revisions to the facilities Stormwater Pollution Prevention Plan (SWPPP) to include additional Best Management Practices (BMPs).

In accordance with RCW 90.48.555(8), the adaptive management mechanism requires monitoring, evaluation, and reporting requirements to ensure that stormwater discharges are

controlled by adequate best management practices (BMPs) that prevent violations of water quality standards.

90.48.555(8)(a) states that "...the adaptive management mechanism shall include elements designed to result in permit compliance and shall include, at a minimum, the following elements:

- (i) An adaptive management indicator, such as monitoring benchmarks;
- (ii) Monitoring;
- (iii) Review and revisions to the storm water pollution prevention plan;
- (iv) Documentation of remedial actions taken; and
- (v) Reporting to the department."

90.48.555(8)(b) states that the permit must include the "timing and mechanisms for implementation of treatment best management practices".

To comply with these statutory requirements, the permit continues the previous permits' adaptive management approach that requires facilities to monitor stormwater quality against several water quality-based benchmarks (indicator values). The rationale for the selection and derivation of benchmark values for specific pollutant parameters is described in Special Condition S5.

This adaptive management program constitutes a water quality-based non-numeric (narrative) effluent limitation, as provided for in WAC 173-226-070(1)(d) and 40 CFR 122.44(k).

If the benchmark for a particular pollutant parameter is met, the discharge is presumed to not cause or contribute to a violation of water quality standards for that parameter. If a (water quality-based) benchmark is exceeded numerous times, the potential for a violation of water quality standards increases, and the facility is required to implement escalating levels of SWPPP review and the implementation of additional BMPs. With emphasis on pollution prevention rather than treatment, the adaptive management system directs facilities who exceed one or more benchmark begins with Level 1 operational source control BMPs. If a benchmark is exceed 4 more quarters, Level 2 requires additional structural source control BMPs. If a benchmark is exceeded 4 more times Level 3 requires treatment BMPs.

Since benchmark values are not numeric effluent limitations, discharges that exceed a benchmark value are not automatically considered a permit violation or a violation of water quality standards. However, if a permittee exceeds benchmarks that trigger a corrective action, but does not comply with the specific corrective action requirements in S8, it would be considered a permit violation. The rationale for the derivation of benchmark values is provided in Special Condition S5

If a benchmark is exceeded in a stormwater discharge, the draft permit requires the Permittee to take appropriate actions to identify and correct the problem(s) causing the benchmark exceedance. Compliance with these adaptive management actions ensures that:

1. Aquatic life and the other beneficial uses of state waters are likely protected by minimizing the concentrations and volumes of stormwater pollutants discharged into surface waters;

2. Permittees meet AKART; and
3. Permittees who discharge stormwater meet the intent of the Clean Water Act and Chapter 90.48 RCW.

The corrective action requirements and timelines were developed in consideration of Ecology's best professional judgment and experience with the success and failure of adaptive management requirements in the previous permit cycle.

Ecology also incorporated input from the 2008/2009 Industrial Stormwater Stakeholder Workgroup (ISSW), who reviewed examples of Level 2 and 3 Source Control Reports under the previous permit, and expressed concern that the adaptive management scheme lacked clarity, certainty and a well-defined compliance end-point. Several stakeholders requested that the new permit eliminate the "endless do-loop" that occurred when a Level 2 or 3 Corrective Action did not result in discharges below the action level, or was between the benchmark and action level. The ISSW also recommended that the new permit:

- Not trigger capital expenditures on a single benchmark exceedance, in recognition of the highly variable nature of stormwater discharges and limited value of quarterly grab samples to characterize facilities stormwater characteristics.
- Have an adaptive management scheme include mechanisms for that allow for flexibility and "off-ramps" for certain facilities, including the ability for facilities to obtain individual permits or other site-specific permitting actions.
- Transition existing facilities from the previous permit to the new one in a way that maintains forward progress through the adaptive management scheme.

To address internal and external objectives of a more effective adaptive management within the context of 90.48.555(8)(a), the draft permit has more clearly defined corrective actions requirements, performance expectations, and timelines.

Level 1, 2 and 3 SWPPP Review and Certification

S8 requires permittees who trigger a Level 1, 2 or 3 corrective action to review their SWPPP and ensure it is in full compliance with S3 (SWPPP), and contains the correct BMPs from the applicable Stormwater Management Manuals. This requirement is consistent with standard NPDES permit conditions described in 40 CFR 122.22 and is intended to ensure that the permittee understands its responsibility to create and maintain a complete and accurate SWPPP. Permittees are allowed to appoint an authorized representative consistent with the regulations. Therefore, if a facility feels it is more appropriate for a member of the stormwater pollution prevention plan team to sign the documentation, that option is available under the permit. The signature requirement includes an acknowledgment that there are significant penalties for submitting false information.

Level 1

Similar to the previous permit, the draft permit requires permittees to complete a Level 1 corrective action for any facility that exceeds a benchmark one time. Specifically, S8.A states:

Facilities not listed in Appendix 6 (at Level 2 or 3), that exceed any benchmark value [in tables (2-6)] during a single monitoring period (quarter) after January 1, 2010, shall complete a Level 1 Corrective Action in accordance with S8.A.1-4:

1. Review the SWPPP and ensure that it is in full compliance with Permit Condition S3, and contains the correct BMPs from the applicable Stormwater Management Manual.
2. Make appropriate revisions to the SWPPP to include additional *Operational Source Control BMPs* with the goal of achieving all benchmark values in future discharges.
3. Complete a Level 1 SWPPP Certification Form (Appendix 3) and attach to SWPPP.
4. **Level One Deadline:** Fully implement the revised SWPPP according to Permit Condition S3 and the applicable Stormwater Management Manual immediately, but no later than the deadline specified in Table 6.

Operational Source Control BMPs means schedule of activities, prohibition of practices, maintenance procedures, employee training, good housekeeping, and other managerial practices to prevent or reduce the pollution of waters of the state. Not included are BMPs that require construction of pollution control devices.

* = **Operational source control BMPs** for Western Washington that may apply are on Ecology's web site at: <http://www.ecy.wa.gov/biblio/0510032.html>

* = **Operational source control BMPs** for Eastern Washington that may apply are on Ecology's web site at: <http://www.ecy.wa.gov/biblio/0410076.html>

Level 2

The previous permit required a Level 2 Response whenever "two out of the previous four quarterly sampling results... are above the action level." Ecology has decided to revise the trigger for Level 2, based on internal and external concerns that the "two out of the previous four" criteria created unnecessary confusion, tracking problems, and caused some facilities repeat a Level 2 response numerous times. In order to make sure the adaptive management scheme progresses facilities in a linear matter (from Level 1 to 2, etc.), without repeating corrective action levels; and also transition existing facilities who reached Level 2 or 3 from the old permit into the new permit at Level 2, Condition S8.B requires the following:

Level Two Corrective Actions – Structural Source Control BMPs

The following facilities shall complete a Level 2 Corrective Action in accordance with S8.B.1-4:

- Facilities not listed in Appendix 6 that exceed any benchmark value [in tables (2-6)] during any 4 separate quarterly monitoring periods after January 1, 2010; and
 - Facilities listed in Appendix 6 (Level 2).
1. Review the SWPPP and ensure that it is in full compliance with Permit Condition S3, and contains the correct BMPs from the applicable Stormwater Management Manual.

2. Make appropriate revisions to the SWPPP to include additional *Structural Source Control BMPs* with the goal of achieving all benchmark values in future discharges.
3. Complete a Level 2 SWPPP Certification Form (Appendix 3) and attach to SWPPP.
4. **Level 2 Deadline:** Fully implement the revised SWPPP according to Permit Condition S3 and the applicable Stormwater Management Manual immediately, but no later than the deadline specified in Table 6.
 - a. If installation of necessary *Structural Source Control BMPs* is not feasible within applicable *Corrective Action Deadline*; Ecology may approve additional time, by approving a *Modification of Permit Coverage*.
 - b. If installation of *Structural Source Control BMPs* is not feasible or not necessary to prevent discharges that may cause or contribute to a violation of a water quality standard, Ecology may waive the requirement for *Structural Source Control BMPs* by approving a *Modification of Permit Coverage*.
 - c. To request a time extension or waiver, a permittee shall submit an *Application for Coverage* form to Ecology in accordance with Condition S2.B, at least 90 days prior to the applicable Corrective Action Deadline, requesting "Modification of Coverage". Within 60 days of receipt of a complete *Modification of Coverage* request, Ecology will approve or deny the request.

Structural Source Control BMPs means physical, structural, or mechanical devices or facilities that are intended to prevent pollutants from entering stormwater.

Examples of Structural Source Control BMPs include, but are not limited to:

- Enclosing and/or covering the pollutant sources (e.g., within a building or other enclosure, a roof over storage and/or working areas, temporary tarps, etc.
- Physically separating the pollutant source to prevent run-on of uncontaminated stormwater (e.g., preventing clean stormwater from getting contaminated).
- Devices that direct contaminated stormwater to appropriate treatment BMPs (e.g., discharge to sanitary sewer if allowed by local sewer authority).

Structural Source Control BMPs for Western Washington that may apply are on Ecology's web site at: <http://www.ecy.wa.gov/biblio/0510032.html>.

Structural Source Control BMPs for Eastern Washington that may apply are on Ecology's web site at: <http://www.ecy.wa.gov/biblio/0410076.html>.

The draft permit requires permittees to revise their SWPPP to include additional structural source control BMPs, and certify that the SWPPP is consistent with the permit and applicable stormwater management manual. This requirement is consistent with standard NPDES permit conditions described in 40 CFR 122.22 and is intended to ensure that the permittee understands its responsibility to create and maintain a complete and accurate SWPPP.

The deadline for completing Level 2 is approximately 135 days following the DMR deadline for the monitoring period (quarter) that triggered the Level 2 response. In the case of facilities that enter the permit at Level 2, the Level 2 deadline is 135 days after the effective date of the permit. This timeframe was based upon Ecology best professional judgment with a recognition that in some cases, it will be infeasible for the permittee to meet the Level 2 deadline (e.g., due to local permitting delays, fish-windows, weather, etc.) so an extension of time may be requested and approved through a modification of permit coverage.

The draft permit includes a mechanism for permittees to request a waiver from installing additional structural source control BMPs, if it is infeasible or not necessary to prevent violations of water quality standards. If approved, this waiver would be authorized through a modification of permit coverage.

Level 3

The draft permit continues the previous permits' emphasis on the installation of Treatment BMPs. However, Ecology has decided to refine and clarify the substance of Level 3, and clearly articulate the performance goal of Level 3 is attainment of the benchmark in future discharges. To ensure that the Level 3 response is effective, the portion of the SWPPP that deals with stormwater treatment structures or processes needs to be stamped by a professional Engineer, and the SWPPP needs to be submitted by the applicable Level 3 deadline.

Specifically, Condition S8.C states:

Level Three Corrective Actions – Treatment BMPs

The following facilities shall complete a Level 3 Corrective Action in accordance with S8.C.1-4:

- Facilities not listed in Appendix 6 that exceed any benchmark value [in tables (2-6)] during any 8 separate quarterly monitoring periods after January 1, 2010; and
 - Facilities listed in Appendix 6 (Level 2) that exceed any benchmark value [in tables (2-6)] during any 4 separate quarterly monitoring periods after January 1, 2010; and
1. Review the SWPPP and ensure that it is in full compliance with Permit Condition S3, and contains the correct BMPs from the applicable Stormwater Management Manual.
 2. Make appropriate revisions to the SWPPP to include additional *Treatment BMPs* with the goal of achieving all benchmark values in future discharges.
 3. Complete a Level 3 SWPPP Certification Form (Appendix 3) and attach to SWPPP. The portion of the SWPPP that addresses stormwater treatment structures or processes shall be designed and stamped by a professional Engineer, with certification that the SWPPP is consistent with Condition S3.A. Submit the revised SWPPP to Ecology by the Level 3 Deadline.

4. **Level 3 Deadline:** Fully implement the revised SWPPP according to Permit Condition S3 and the applicable Stormwater Management Manual immediately, but no later than the deadline specified in Table 6.
 - a. If installation of necessary *Treatment BMPs* is not feasible within applicable *Corrective Action Deadline*; Ecology may approve additional time by approving a *Modification of Permit Coverage*.
 - b. If installation of *Treatment BMPs* is not feasible or not necessary to prevent discharges that may cause or contribute to violation of a water quality standard, Ecology may waive the requirement for *Treatment BMPs* by approving a *Modification of Permit Coverage*.
 - c. To request a time extension or waiver, a permittee shall submit an Application for Coverage form to Ecology in accordance with Condition S2.B, at least 90 days prior to the applicable Corrective Action Deadline, requesting "Modification of Coverage". Within 60 days of receipt of a complete *Modification of Coverage* request, Ecology will approve or deny the request.

Treatment BMPs are defined in Appendix 2. Treatment BMPs include, but are not limited to detention ponds, oil/water separators, biofiltration, sand filtration, constructed wetlands, etc.

Treatment ***BMPs*** for Western Washington that may apply are on Ecology's web site at: <http://www.ecy.wa.gov/biblio/0510033.html>

Treatment ***BMPs*** for Eastern Washington that may apply are on Ecology's web site at: <http://www.ecy.wa.gov/biblio/0410076.html>

The draft permit requires permittees to revise their SWPPP to include treatment BMPs, and certify that the SWPPP is consistent with the permit and applicable stormwater management manual. This requirement is consistent with standard NPDES permit conditions described in 40 CFR 122.22 and is intended to ensure that the permittee understands its responsibility to create and maintain a complete and accurate SWPPP.

RCW 90.48.555(8)(b) states that the permit must include the "timing and mechanisms for implementation of treatment best management practices". The deadline for completing Level 3 Treatment BMPs is 135 days following the DMR deadline for the monitoring period (quarter) that triggered the Level 3 response. In the case of facilities that enter the permit at Level 3, the Level 3 deadline is 135 days after the effective date of the permit. This timeframe was based upon Ecology best professional judgment with a recognition that in some cases, it will be infeasible for the permittee to meet the Level 3 deadline (e.g., due to local permitting delays, fish-windows, weather, etc.) so an extension of time may be requested and approved through a modification of permit coverage.

The draft permit includes a mechanism for permittees to request a waiver from installing additional structural source control BMPs, if it is infeasible or not necessary to prevent violations of water quality standards. If approved, this waiver would be authorized through a modification of permit coverage.

Level 4

To address ongoing benchmark exceedances after Level 3 treatment is installed, the draft permit contains a new Level 4 Corrective Action. To address concerns about the previous permits' "endless do-loop", Level 4 is intended to provide an endpoint to the facilities adaptive management process, and ensure that Ecology considers site-specific conditions before taking regulatory action, such as issuing an administrative order for additional monitoring, active stormwater treatment, or an engineering report; or notifying the permittee to obtain an individual permit.

Specifically, S8.D states:

Level Four Corrective Action

The following facilities shall submit a Level 4 Notification Form to Ecology no later than 45 days after the applicable DMR deadline. See Table 6 for additional information:

- Facilities not listed in Appendix 6 that exceed any benchmark value [in tables (2-6)] during any 12 separate quarterly monitoring periods after January 1, 2010; and
 - Facilities listed in Appendix 6 (Level 2) that exceed any benchmark value [in tables (2-6)] during any 8 separate quarterly monitoring periods after January 1, 2010; and
1. When a facility triggers a Level 4 Corrective Action, Ecology will take one or more the following actions:
 - a. Issue an administrative order, requiring the permittee to:
 - i. Submit a receiving water study;
 - ii. Submit an engineering report in accordance with WAC 173-240-130;
 - iii. Perform additional water quality monitoring per Condition G12; or
 - iv. Perform additional pollution prevention and/or treatment measures at the facility, including but not limited to the installation of an *Active Stormwater Treatment System*.
 - b. Notify the permittee in writing to apply for a *Modification of Permit Coverage* in accordance with WAC 173-226-200(3)(f); or
 - i. Ecology may issue modified permit coverage based upon a site specific assessment that no additional pollution prevention and/or treatment measures are necessary to comply with AKART and the discharge is not causing or contributing to a violation of water quality standards.

- c. Notify the permittee in writing to apply for and obtain an individual permit or obtain coverage another more specific general permit, in accordance with WAC 173-226-240(2); or
- d. Notify the discharger in accordance with WAC 173-226-240(5) that coverage under the permit is no longer appropriate, and any actions required by the permittee in order for coverage under the permit to remain effective. The discharger shall have 30 days to respond to any notification provided by WAC 173-226-240(5) before coverage under the permit shall be automatically revoked.
- e. Terminate coverage under a general permit, in accordance with WAC 173-226-240(1).

Active Stormwater Treatment Systems include, but are not limited to, chemical treatment, enhanced media filtration, electro-coagulation and ion exchange.

S9. Reporting and Recordkeeping Requirements

The reporting and recordkeeping requirements of Special Conditions S9. are based on Ecology's authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges. Reporting of monitoring results are specified in 40 CFR 122.44(i)(3 and 4) and WAC 173-226-090(3). Discharge Monitoring Reports must be submitted to Ecology even if there was no discharge or if sampling was suspended based on consistent attainment of benchmark values. Recordkeeping requirements in the draft permit are specified in 40 CFR 122.41(j)(2) and WAC 173-220-210(2)(b). The requirements of Condition S9 will assure that Ecology records are maintained and demonstrate compliance with sampling requirements by the facility.

S10. Compliance With Standards

Condition S10 requires that discharges associated with industrial activity comply with all applicable state water quality and sediment management standards. Compliance with water quality standards is required in 40 CFR 122.44(d) and WAC 173-226-070(3)(a). Discharges that are not in compliance with these standards are not authorized by the permit and are subject to enforcement action.

In recognition of the difficulty stormwater presents in determining when a discharge is causing a water quality violation, the draft permit emphasizes BMPs and monitoring to prevent stormwater discharges from causing or contributing to violations of water quality standards. All Permittees are required to apply AKART, including the preparation and implementation of an adequate SWPPP, and the installation and maintenance of BMPs in accordance with the SWPPP and the terms and conditions of this permit.

RCW 90.48.555 directs Ecology's determination of compliance with water quality standards in this general permit. RCW 90.48.555(6) provides:

“Compliance with water quality standards shall be presumed, unless discharge monitoring data or other site specific information demonstrates that a discharge causes or contributes to violation of water quality standards, when the Permittee is:

1. In full compliance with all permit conditions, including planning, sampling, monitoring, reporting, and recordkeeping conditions; and
2. Fully implementing stormwater BMPs contained in stormwater technical manuals approved by Ecology, or practices that are “demonstrably equivalent” to practices contained in stormwater technical manuals approved by Ecology, including the proper selection, implementation, and maintenance of all applicable and appropriate BMPs for on-site pollution control. "Demonstrably equivalent" means that the technical basis for the selection of all stormwater BMPs is documented within a SWPPP, including:
 - a. The method and reasons for choosing the stormwater BMPs selected;
 - b. The pollutant removal performance expected from the BMPs selected;
 - c. The technical basis supporting the performance claims for the BMPs selected, including any available existing data concerning field performance of the BMPs selected;
 - d. An assessment of how the selected BMPs will comply with state water quality standards; and
 - e. An assessment of how the selected BMPs will satisfy both applicable federal technology-based treatment requirements and state requirements to use AKART.

To ensure compliance with the Clean Water Act, stormwater treatment systems must be properly designed, constructed, maintained, and operated to:

1. Prevent pollution of state waters and protect water quality, including compliance with state water quality standards;
2. Satisfy state requirements for all known available and reasonable methods of prevention, control and treatment (AKART) of wastes (including construction stormwater runoff) prior to discharge to waters of the state; and
3. Satisfy the federal technology based treatment requirements under 40 CFR part 125.3.

Permittees must implement all the BMPs as identified in Special Condition S3, Stormwater Pollution Prevention Plan. Permittees must ensure that all BMPs are in place, operational, and routinely maintained. Treatment BMPs are also required for industrial activities that unavoidably lead to stormwater contamination. The SWMMs identify BMPs necessary to limit the exposure of stormwater to pollutants and in some cases to apply treatment. Ecology presumes that implementation of these BMPs will typically result in discharges of stormwater that will not violate water quality standards. If the prescribed BMPs fail to be protective, the Permittee must add additional BMPs to achieve compliance. Sampling and analysis provide an indication of when water quality violations may be a concern and additional BMPs required.

APPENDIX J

Industrial Stormwater General Permit Addendum to Fact Sheet: Appendix C – Response to Public Comments

October 21, 2009

(Ex. B-5)

(excerpts)

Industrial Stormwater General Permit

**Addendum to Fact Sheet:
Appendix C - Response to Public Comments**

October 21, 2009

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LIST OF COMMENTORS

Alaska Airlines/Horizon Air
Albert, Leon and others
Anchor QEA, LLC
Associated Hygienic Products, LLC
Association of Washington Business
Bell Lumber and Pole Company
Block, Jeremy
BNSF Railway
Boeing Company, The
Boise Building Solutions Manufacturing, LLC
BP West Coast Products, LLC
Brincefield, Elvin
Brownle, Tom and others
Buse Timber & Sales
Buse Timber & Sales
Cambria Corporation
Cappaert, Cynthia
City of Bellingham
City of Everett
City of Longview
Clancy, Jon and Cheryl
Clough, Wally
Columbia Riverkeeper
Columbia Vista
Compass Aerospace Northwest
Copper Development Association
Covey, Tim
Crop Production Services
Darigold, Inc.
Dawson Consulting, LLC
Dickmeyer, Roy
Dion, Donna
Drake, William
Echo Bay Minerals
Emerald Services, Inc.
Environmental Compliance Tools, LLC
Fabricated Products, Inc.
Fazekas, Bill

List of Commentors Continued:

Fleming, Barry
Fry, Travis
Gandalf Consulting Ltd.
Gary Merlino Construction Co. Inc.
General Recycling of Washington, LLC
Green Garden Food Products, Inc.
Greenwalt, Stacie
Hecla Limited
Hector, Jeff
Hock, Lee
Houston, William R.
Howden, Sean
Independent Business Association
Interfor Pacific
J.R. Simplot Company
Jensen Shipyard
Johnson, David T.
Johnson, Robert N.
Jorgensen Forge
Kennedy/Jenks Consultants
Kennedy/Jenks Consultants
King County
King County
Klitzke, John M.
Lakes Auto Wrecking, Midland Auto Wrecking
Landau Associates, Inc.
MacMillan-Piper, Inc.
Manufacturing Industrial Council
McCart, Chris
Miller Nash
Miller Shingle Company, Inc.
Milne Fruit Products, Inc.
Murphy
NAI Puget Sound Properties
National Oceanic and Atmospheric Administration
Niebuhr, Carl
Nisqually Environmental Sampling and Consulting
Northland Services, Inc.
Northwest Food Processors Association

List of Commentors Continued:

Northwest Pulp & Paper Association
Nykreim, Mike
Ocean Beauty Seafoods, LLC
Olympic Panel Products
Pacific Topsoils, Inc.
People for Puget Sound
Phelps, Don
Pierce County Recycling, Composting and Disposal, LLC
Port of Bellingham
Port of Seattle
Port of Vancouver
Precision Iron Works, Inc.
Puget Sound Energy
Puget Soundkeeper Alliance, Columbia Riverkeeper, and Spokane Riverkeeper
Rice, Richard D.
Schnitzer Steel Industries
Smith, Gary
Smith, Kendal
Teck American Incorporated
Thong, Darlene
TMI Forest Products, Inc.
Trident Seafood Corporation
Unimin Corporation
Union Pacific Railroad Company
Vanderburgh, Ken and others
WaferTech, LLC
Washington Public Ports Association
Washington State Department of Natural Resources
Washington State Department of Transportation
Waste Management of Washington, Inc.
West, Arthur
Weyerhaeuser
White, David

Summary of Significant Changes to the Draft Industrial Stormwater General Permit

Ecology reviewed and considered all comments submitted on the Draft Industrial Stormwater General Permit. Ecology has made significant changes to the draft permit, which are included in the final Industrial Stormwater General Permit, issued October 21, 2009.

The most significant changes are summarized below. The legal and technical basis for changes related to each public comment is included, as appropriate. Where language has been added, the new permit language is underlined. Deleted language is denoted with a “~~strikethrough~~” line, e.g., ~~stormwater~~.

Individual comments and responses are provided in the attached spreadsheet.

S1.A. Facilities Required to Seek Coverage Under This General Permit

Several commentors requested clarification on the permit requirements for facilities in the transportation sector (SIC codes 40XX, 41XX, 42XX, 43XX, 44XX, 45XX, and 5171). Ecology reviewed the applicable federal regulations, EPA’s Multi-Sector General Permit, discussed the issue with EPA (Region 10 and Headquarters). Changes have been made to Table 1 to improve clarity. One of these changes is to include “material handling facilities” in the criteria for permit coverage at transportation facilities [40 CFR 122.26(b)(14)]. Once a transportation facility obtains permit coverage, the specific areas and stormwater discharges authorized by the permit become site specific. Ecology disagrees with one commentor’s suggestion that maintenance activity conducted away from the maintenance shop is not covered under the permit. The intent of the ISWGP is to cover all vehicle maintenance activities at industrial facilities, not just those performed at the physical location of the shop. Since this section of the permit is to specify which type of facilities require permit coverage, Ecology has decided to take the approach in EPA’s MSGP and not include the “only those portions of the facility that are involved in vehicle maintenance...” statement requested by several commentors. Ecology also added definitions of “vehicle maintenance” and “material handling” based on EPA’s Final Phase I Stormwater Rule.

Revise S1.A.1 Table 1; Add “material handling facilities”:

Transportation facilities which have <i>vehicle maintenance</i> shops, <u>material handling facilities</u> , equipment cleaning operations, or airport deicing operations:	
• Railroad Transportation	40xx
• Local and Suburban Transit and Interurban Highway Passenger Transportation	41xx
• Motor Freight Transportation (except SIC 4221–25)	42xx
• United States Postal Service	43xx
• Water Transportation	44xx
• Air Transportation	45xx
• Petroleum Bulk Stations and Terminals	5171

S5. Benchmark Definition

A commentor requested that the benchmark definition from Section S4.D.2. of the current permit be retained: "Benchmark values are not water quality standards and are not permit limits. They are indicator values." Ecology has added that statement to the definition of Benchmark in Appendix 2:

Revise Appendix 2:

Benchmark means a *pollutant* concentration used as a permit threshold, below which a pollutant is considered unlikely to cause a water quality violation, and above which it may. When pollutant concentrations exceed benchmarks, corrective action requirements take effect.

Benchmark values are not *water quality standards* and are not numeric effluent limitations; they are indicator values.

S5.A Benchmarks and Sampling Requirements

Copper. Several commentors objected to Ecology's proposal to assign copper sampling and benchmarks only to specific industrial sectors, rather to all facilities under the permit. Other commentors supported Ecology's proposal to limit copper sampling to specific industrial sectors. Numerous commentors are opposed to Ecology's proposed copper benchmark values, which are significantly lower than the benchmark and action level in the previous permit. Commentors also cited concerns about the economy, and the practical achievability of the benchmarks without expensive treatment systems. Ecology received comments opposing the water quality-based methodology used to derive the benchmark values, i.e., Monte Carlo Simulation. Some of these comments requested that the benchmark be set at a level that facilities could consistently achieve with existing BMPs, based on DMR data submitted under the previous permit cycle. Other commentors believe that benchmarks should be site-specific, based on site and receiving water conditions. Several commentors are opposed to Ecology's assessment that discharges at or below the benchmark concentration had a 90% probability of meeting in-stream water quality criteria with a dilution factor of 5. Commentors stated that consideration of dilution in setting the benchmark is inconsistent with applicable regulations, based on recent PCHB rulings on mixing zones in general permits.

Ecology gave carefully consideration to all comments about copper, and has decided to set the copper benchmark value at 14 ug/L (western WA) and 32 ug/L (eastern WA), based on the legal and technical basis set forth in the fact sheet and Herrera risk analysis [Water Quality Risk Evaluation for Proposed Benchmarks/Action Levels in the Industrial Stormwater General Permit]. Ecology has decided to add total copper as a core sampling requirement for all facilities under the permit regardless of SIC code or industrial activity. This change was based on ubiquitous nature of copper in stormwater discharges associated with industrial activity, and the known toxicity of copper on endangered salmon and trout species found in receiving waters throughout Washington State. Condition S5.A has been revised accordingly.

Zinc. Several commentors objected to Ecology's proposal to replace the previous permits' zinc benchmark (117 ug/L) and action level (372 ug/L), with new benchmark values: 200 ug/L (western WA) and 255 ug/L, based on a water quality-based risk assessment. The previous

S6.A Additional Sampling Requirements and Effluent Limits for Discharges to Certain 303(d)-listed Waters

Ecology received several comments about the applicability and derivation of effluent limits for discharges to 303(d)-listed waterbodies. The following is a summary of significant changes to Table 5. Sampling and Effluent Limits Applicable to Discharges to 303(d)-listed Waters:

Fecal Coliform Bacteria: *Based on comments received, the final permit was revised to require all facilities discharging to 303(d)-listed waterbodies (Category 5) subject to fecal coliform effluent limitation, rather than only applying limit to certain SIC codes. Effluent limit for fecal coliform was revised from 100 (freshwater)/43 (marine) # colonies/100 ml to the applicable water recreation bacteria criteria (WAC 173-201A) that pertains to the receiving waterbody (site-specific).*

Mercury: *Based on a comment received, Table 5 was revised to include the mercury limits, which are not hardness dependant. The mercury effluent limits added to Table 5 are 2.1 ug/L (freshwater) and 1.8 ug/L (marine), based upon the acute criteria in WAC 173-201A, with a translator value of 0.85, applied end-of-pipe.*

pH: *Based on comments received, Table 5 was revised to correct error and make consistent with the Fact Sheet. The following footnote for pH was added to Table 5: The effluent limit for a Permittee who discharges to a fresh water body 303(d)-listed for pH is: Between 6.0 and 8.5, if the 303(d)-listing is for high pH only; Between 6.5 and 9.0, if the 303(d)-listing is for low pH only; and Between 6.5 and 8.5 if the 303(d)-listing is for both low and high pH. For marine waters: 7.0 - 8.5.*

S7. Inspections

Ecology received numerous comments opposing the draft permit requirement for routine facility inspections to be conducted by a Certified Industrial Stormwater Manager (CISM). Many comments included questions and concerns about the specific details of the yet-to-be developed CISM training program.

Based on public comments received and other considerations, Ecology has deleted the requirement for inspections to be conducted by a Certified Industrial Stormwater Manager (CISM), Certified Professional in Stormwater Quality (CPSWQ), or Professional Engineer. The final permit requires inspections to be conducted by "qualified personnel". The following definition (adapted from EPA MSGP) was added to Appendix 2: Qualified personnel means those who possess the knowledge and skills to assess conditions and activities that could impact stormwater quality at the facility, and evaluate the effectiveness of best management practices required by this permit.

Following permit issuance, Ecology plans to work with stakeholders on developing a "CESCL-like" training program for industrial permittees, as training and education has been identified as

possible solution to reduce compliance problems related to SWPPPs, BMPs, sampling, inspections and reporting.

S8. Corrective Actions

Ecology received numerous comments opposing the draft permits' corrective action requirements. Commentors cited concerns with the way permittees that triggered a Level 2 or 3 response under the previous permit were identified or "labeled" in the permit, requiring implementation of a Level 2 Corrective Action when the final permit become effective. Some commentors expressed concern that such a "cross-walk" from the old permit to new, was demotivating because it fails to recognize the significant investment and progress some facilities made in their Level 2 or 3 responses under the old permit. Many commentors suggested ways to de-list or lower a facilities' Corrective Action status based on DMR data, consistent attainment, petitions, or other site specific considerations. Ecology found many of these suggestions overly complex or otherwise not implementable within the context of a general permit. Many commentors asserted that Ecology's adaptive management approach effectively means the benchmark values "numeric effluent limits" rather than adaptive management indicators. Many commentors stated that they Corrective Action requirements are overly prescriptive and unworkable in terms of cost and timing, especially for treatment BMPs to remove dissolved metals from stormwater. A common concern raised was the triggering of corrective actions based on any parameter benchmark being exceeded – as opposed to the same parameter being exceeded more than once – as this significantly increases the likelihood of corrective actions being taken, and does not allow for adequate source control investigations or other actions based on a particular pollutant.

Many commentors expressed the concern that the proposed Corrective Action requirements were not stringent enough, citing concerns that the triggers for adaptive management were lax, allowed too much time to implement additional BMPs, and was a violation of the anti-backsliding provisions of the Clean Water Act. Some concerns were based on the interpretation that the permit excused permittees from implementing Level 3 Treatment BMPs that were triggered under the previous permit. Significant concern was expressed about the reduction in paperwork requirements for Level 1, 2 and 3 corrective actions, compared to the previous permit, stating that it severely diminishes public oversight of permit compliance.

Many commentors opposed the Level 4 requirements as vague, uncertain, and some claimed the approach was illegal. The provisions for Level 2 and 3 time extensions and waivers were also the subject of many comments and questions.

Ecology has considered all comments related to Corrective Actions has made significant changes to Condition S8.

Ecology has determined that it is not necessary to include a cross-walk from the old permit to the new. Ecology decided to delete the list of facilities that triggered corrective actions under the previous permit, and has chosen to address the issue more simply in a revised S8.A:

In addition to the Corrective Action Requirements of S8.B-D, Permittees shall implement any applicable Level 1, 2 or 3 Responses required by the previous Industrial Stormwater

General Permit(s). Permittees shall continue to operate and/or maintain any source control or treatment BMPs related to Level 1, 2 or 3 Responses implemented prior to the effective date of this permit.

Ecology has revised the Level 1, 2 and 3 Corrective Action requirements. Level 2 and 3 corrective actions are pollutant parameter-specific, i.e., are triggered by multiple exceedances of the same benchmark parameter. The revised S8 Corrective Actions are an "enforceable adaptive management mechanism" consistent with RCW 90.48.555(8)(a). The final permit makes it clear that a facilities' status at Level 1, 2, 3 is not permanent. Rather, Level 1, 2 or 3 corrective actions may be triggered and completed multiple times during the permit cycle depending site conditions, industrial activity, efficacy and consistency of corrective actions taken, and other factors.

- *Level 1 corrective action is required each time a benchmark is exceeded, with a corrective action deadline set at the DMR due date.*
- *The final permit requires permittees to submit Annual Reports which will contain documentation of Level 1, 2 and/or 3 corrective actions, if applicable. This approach is used by EPA and other states. Ecology believes this is more trackable compared to the Level 2 and 3 Source Control Reports required under the previous permit. Ecology plans to provide education and outreach to ensure permittees are aware of Annual Report requirements and deadlines.*
- *Level 2 corrective action is required a facility exceeds a benchmark value (for a single parameter) for any two quarters during a calendar year. The deadline is Sept 30th the following year.*
- *Level 3 corrective action is required a facility exceeds a benchmark value (for a single parameter) for any three quarters during a calendar year. The deadline is Sept 30th the following year.*
- *Language has been added to ensure that benchmark exceedances that occur while a facility is completing a Level 2 or 3 corrective action will not trigger an additional Level 2 or 3 corrective action the following year.*
- *The timelines and process for requesting waivers or time extensions have been revised to facilitate Ecology review and still allow enough time if the request is denied.*
- *Table 6 (Corrective Action Deadlines) has been deleted, since the deadlines in the final permit are straightforward.*
- *Level 4 has been deleted. Ecology retains the authority to issue orders, revoke permit coverage, require individual permits, and take other administrative actions proposed in Level 4, on a case-by-case basis.*

Draft Permit:

Level One Corrective Actions—Operational Source Control BMPs

~~Facilities not listed in Appendix 6 (at Level 2), that exceed any benchmark value [in tables (2-6)] during a single monitoring period (quarter) after January 1, 2010, shall complete a Level 1 Corrective Action in accordance with S8.A.1.4:~~

~~Review the SWPPP and ensure that it is in full compliance with Permit Condition S3, and contains the correct BMPs from the applicable Stormwater Management Manual.~~

~~Make appropriate revisions to the SWPPP to include additional *Operational Source Control BMPs* with the goal of achieving all benchmark values in future discharges.~~

~~Complete a Level 1 SWPPP Certification Form (Appendix 3) and attach to SWPPP.~~

~~**Level One Deadline:** Fully implement the revised SWPPP according to Permit Condition S3 and the applicable Stormwater Management Manual immediately, but no later than the deadline specified in Table 6.~~

Operational Source Control BMPs means schedule of activities, prohibition of practices, maintenance procedures, employee training, good housekeeping, and other managerial practices to prevent or reduce the pollution of waters of the state. Not included are BMPs that require construction of pollution control devices.

* – **Operational source control** BMPs for Western Washington that may apply are on Ecology's web site at: <http://www.ecy.wa.gov/biblio/0510032.html>

* – **Operational source control** BMPs for Eastern Washington that may apply are on Ecology's web site at: <http://www.ecy.wa.gov/biblio/0410076.html>

Final Permit:

Level One Corrective Actions – Operational Source Control BMPs

Permittees that exceed any applicable benchmark value(s) in Table 2 or Table 3, shall complete a Level 1 Corrective Action for each parameter exceeded in accordance with the following:

1. Review the SWPPP and ensure that it fully complies with Permit Condition S3, and contains the correct BMPs from the applicable *Stormwater Management Manual*.
2. Make appropriate revisions to the SWPPP to include additional *Operational Source Control BMPs* with the goal of achieving the applicable benchmark value(s) in future discharges. The Permittee shall sign and certify the revised SWPPP in accordance with S3.A.6.
3. Summarize the Level 1 Corrective Actions in the Annual Report (Condition S9.B)
4. **Level One Deadline:** The Permittee shall fully implement the revised SWPPP according to Permit Condition S3 and the applicable *Stormwater Management Manual* as soon as possible, but no later than the DMR due date for the quarter the benchmark was exceeded.

Draft Permit:

Level Two Corrective Actions – Structural Source Control BMPs

The following facilities shall complete a Level 2 Corrective Action in accordance with Condition S8.B.1-4:

— Facilities not listed in Appendix 6 that exceed any benchmark value [in tables (2-6)] during any 4 separate quarterly monitoring periods after January 1, 2010; and

— Facilities listed in Appendix 6 (Level 2).

— 1. Review the SWPPP and ensure that it is in full compliance with Permit Condition S3, and contains the correct BMPs from the applicable Stormwater Management Manual.

— 2. Make appropriate revisions to the SWPPP to include additional *Structural Source Control BMPs* with the goal of achieving all benchmark values in future discharges.

— 3. Complete a Level 2 SWPPP Certification Form (Appendix 3) and attach to SWPPP.

—4. **Level 2 Deadline:** Fully implement the revised SWPPP according to Permit Condition S3 and the applicable Stormwater Management Manual immediately, but no later than the deadline specified in Table 6.

- a. If installation of necessary *Structural Source Control BMPs* is not feasible within applicable *Corrective Action Deadline*, Ecology may approve additional time, by approving a *Modification of Permit Coverage*.
- b. If installation of *Structural Source Control BMPs* is not feasible or not necessary to prevent discharges that may cause or contribute to a violation of a water quality standard, Ecology may waive the requirement for *Structural Source Control BMPs* by approving a *Modification of Permit Coverage*.
- c. To request a time extension or waiver, a permittee shall submit an *Application for Coverage* form to Ecology in accordance with Condition S2.B, at least 90 days prior to the applicable *Corrective Action Deadline*, requesting “Modification of Coverage”. Within 60 days of receipt of a complete *Modification of Coverage* request, Ecology will approve or deny the request.

Structural Source Control BMPs means physical, structural, or mechanical devices or facilities that are intended to prevent pollutants from entering stormwater. Examples of Structural Source Control BMPs include, but are not limited to:

- Enclosing and/or covering the pollutant sources (e.g., within a building or other enclosure, a roof over storage and/or working areas, temporary tarps, etc.
- Physically separating the pollutant source to prevent run-on of uncontaminated stormwater (e.g., preventing clean stormwater from getting contaminated).
- Devices that direct contaminated stormwater to appropriate treatment BMPs (e.g., discharge to sanitary sewer if allowed by local sewer authority).

Structural Source Control BMPs for Western Washington that may apply are on Ecology’s web site at: <http://www.ecy.wa.gov/biblio/0510032.html>.

Structural Source Control BMPs for Eastern Washington that may apply are on Ecology’s web site at: <http://www.ecy.wa.gov/biblio/0410076.html>.

Final Permit:

C. Level Two Corrective Actions – Structural Source Control BMPs

Permittees that exceed an applicable *benchmark* value (for a single parameter) for any two quarters during a calendar year shall complete a Level 2 Corrective Action in accordance with the following⁴:

1. Review the SWPPP and ensure that it fully complies with Permit Condition S3.
2. Make appropriate revisions to the SWPPP to include additional *Structural Source Control BMPs* with the goal of achieving the applicable *benchmark* value(s) in future discharges. The Permittee shall sign and certify the revised SWPPP in accordance with S3.A.6.
3. Summarize the Level 2 Corrective Actions (planned or taken) in the Annual Report (Condition S9.B).

⁴ Facilities that continue to exceed benchmarks after a Level 2 Corrective Action is triggered, but prior to the Level 2 Deadline, are not required to complete another Level 2 or 3 Corrective Action the following year for the same parameter. However, a Level 1 Corrective Action is required each time a benchmark is exceeded.

4. Level 2 Deadline: The Permittee shall fully implement the revised SWPPP according to Permit Condition S3 and the applicable Stormwater Management Manual as soon as possible, but no later than September 30th the following year.
 - a. If installation of necessary Structural Source Control BMPs is not feasible by September 30th the following year, Ecology may approve additional time, by approving a Modification of Permit Coverage.
 - b. If installation of Structural Source Control BMPs is not feasible or not necessary to prevent discharges that may cause or contribute to a violation of a water quality standard, Ecology may waive the requirement for additional Structural Source Control BMPs by approving a Modification of Permit Coverage.
 - c. To request a time extension or waiver, a Permittee shall submit a detailed explanation of why it is making the request (technical basis), and a Modification of Coverage form to Ecology in accordance with Condition S2.B, by June 1st prior to Level 2 Deadline. Ecology will approve or deny the request within 60 days of receipt of a complete Modification of Coverage request.

Draft Permit:

~~Level Three Corrective Actions – Treatment BMPs~~

~~The following facilities shall complete a Level 3 Corrective Action in accordance with Condition S8.C.1-4:~~

~~Facilities not listed in Appendix 6 that exceed any benchmark value [in tables (2-6)] during any 8 separate quarterly monitoring periods after January 1, 2010; and~~

~~Facilities listed in Appendix 6 (Level 2) that exceed any benchmark value [in tables (2-6)] during any 4 separate quarterly monitoring periods after January 1, 2010; and~~

~~Review the SWPPP and ensure that it is in full compliance with Permit Condition S3, and contains the correct BMPs from the applicable Stormwater Management Manual.~~

~~Make appropriate revisions to the SWPPP to include additional Treatment BMPs with the goal of achieving all benchmark values in future discharges.~~

~~Complete a Level 3 SWPPP Certification Form (Appendix 3) and attach to SWPPP. The portion of the SWPPP that addresses stormwater treatment structures or processes shall be designed and stamped by a professional Engineer, with certification that the SWPPP is consistent with Condition S3.A. Submit the revised SWPPP to Ecology by the Level 3 Deadline.~~

~~**Level 3 Deadline:** Fully implement the revised SWPPP according to Permit Condition S3 and the applicable Stormwater Management Manual immediately, but no later than the deadline specified in Table 6.~~

~~a. If installation of necessary Treatment BMPs is not feasible within applicable Corrective Action Deadline; Ecology may approve additional time by approving a Modification of Permit Coverage.~~

~~b. If installation of Treatment BMPs is not feasible or not necessary to prevent discharges that may cause or contribute to violation of a water quality standard, Ecology may waive the requirement for Treatment BMPs by approving a Modification of Permit Coverage.~~

~~c. To request a time extension or waiver, a permittee shall submit an Application for Coverage form to Ecology in accordance with Condition S2.B, at least 90 days prior to the applicable~~

Corrective Action Deadline, requesting "Modification of Coverage". Within 60 days of receipt of a complete *Modification of Coverage* request, Ecology will approve or deny the request.

Treatment BMPs are defined in Appendix 2. Treatment BMPs include, but are not limited to detention ponds, oil/water separators, biofiltration, sand filtration, constructed wetlands, etc.

Treatment *BMPs* for Western Washington that may apply are on Ecology's web site at: <http://www.ecy.wa.gov/biblio/0510033.html>

Treatment *BMPs* for Eastern Washington that may apply are on Ecology's web site at: <http://www.ecy.wa.gov/biblio/0410076.html>

Final Permit:

D. Level Three Corrective Actions – Treatment BMPs

Permittees that exceed an applicable *benchmark* value (for a single parameter) for any three quarters during a calendar year shall complete a Level 3 Corrective Action in accordance with the following⁵:

1. Review the SWPPP and ensure that it fully complies with Permit Condition S3.
2. Make appropriate revisions to the SWPPP to include additional *Treatment BMPs* with the goal of achieving the applicable *benchmark* value(s) in future discharges.
 - a. The Permittee shall sign and certify the revised SWPPP in accordance with S3.A.6.
 - b. A licensed professional engineer, geologist, hydrogeologist, or Certified Professional in Storm Water Quality (CPSWQ) shall design and stamp the portion of the SWPPP that addresses *stormwater* treatment structures or processes.
 - i. Ecology may waive the requirement for a licensed or certified professional upon request of the Permittee and demonstration that the Permittee or treatment device vendor can properly design and install the treatment device.
 - ii. Ecology will not waive the Level 3 requirement for a licensed or certified professional more than one time during the permit cycle.
3. Summarize the Level 3 Corrective Actions (planned or taken) in the Annual Report (Condition S9.B).
4. Level 3 Deadline: The Permittee shall fully implement the revised SWPPP according to Permit Condition S3 and the applicable *Stormwater Management Manual* as soon as possible, but no later than September 30th the following year.
 - a. If installation of necessary *Treatment BMPs* is not feasible by the Level 3 Deadline; Ecology may approve additional time by approving a *Modification of Permit Coverage*.
 - b. If installation of *Treatment BMPs* is not feasible or not necessary to prevent discharges that may cause or contribute to violation of a water quality standard,

⁵ Facilities that continue to exceed benchmarks after a Level 3 Corrective Action is triggered, but prior to the Level 3 Deadline, are not required to complete another Level 2 or 3 Corrective Action the following year for the same parameter. However, a Level 1 Corrective Action is required each time a benchmark is exceeded.

Ecology may waive the requirement for Treatment BMPs by approving a Modification of Permit Coverage.

- c. To request a time extension or waiver, a Permittee shall submit a detailed explanation of why it is making the request (technical basis), and a Modification of Coverage form to Ecology in accordance with Condition S2.B, by June 1st prior to the Level 3 Deadline. Ecology will approve or deny the request within 60 days of receipt of a complete Modification of Coverage request.

S9.A Discharge Monitoring Reports

Ecology received several comments regarding the electronic Discharge Monitoring Report system (eDMR), which has been renamed WebDMRs. Changes have been made, making WebDMR an optional way to submit DMRs to Ecology, rather than a requirement:

- ~~1. Beginning with the DMR due August 14, 2010, all DMRs shall be submitted using Ecology's electronic DMR system (eDMR). DMRs due February 14, 2010 and May 15, 2010 shall be submitted either using eDMR or mail to the following address:~~
2. DMRs shall be submitted using Ecology's WebDMR system or by mail to the following address:

S9.B Annual Reports

Ecology added a subsection to S9.B, to require Annual Reports. This change was necessary to address public comments, and resulting changes made to S8. Corrective Actions.

1. The Permittee shall submit a complete and accurate Annual Report to the Department of Ecology no later than May 15th of each year (except 2010) using a form provided by or otherwise approved by Ecology.
2. The annual report shall include corrective action documentation as required in S8.B-D. If corrective action is not yet completed at the time of submission of this annual report, the Permittee must describe the status of any outstanding corrective action(s).
3. Permittees shall include the following information with each annual report. The Permittee shall:
 - a. Identify the condition triggering the need for corrective action review.
 - b. Describe the problem(s) and identify the dates they were discovered.
 - c. Summarize any Level 1, 2 or 3 corrective actions completed during the previous calendar year and include the dates it completed the corrective actions.
 - d. Describe the status of any Level 2 or 3 corrective actions triggered during the previous calendar year, and identify the date it expects to complete corrective actions.
4. Permittees shall retain a copy of all annual reports onsite for Ecology review.

3. Provide a copy of the plans and records to Ecology, where the requestor may view the records, within 14 days of a request; or may arrange with the requestor for an alternative, mutually agreed upon location for viewing and/or copying of the plans and records. If access to the plans and records is provided at a location other than at an Ecology office, the Permittee will provide reasonable access to copying services for which it may charge a reasonable fee.

S10.C Compliance with Standards

Several commentors requested that the permit restate the "presumption of compliance" language from RCW 90.48.555. Ecology has revised S10 A and has also added the definition of "demonstrably equivalent" to Appendix 2 Definitions:

Revise S10.B:

Ecology will presume compliance with water quality standards, unless discharge monitoring data or other site specific information demonstrates that a discharge causes or contributes to violation of water quality standards, when the Permittee is:

1. In full compliance with all permit conditions, including planning, sampling, monitoring, reporting, and recordkeeping conditions.
2. Fully implementing storm water best management practices contained in storm water technical manuals approved by the department, or practices that are demonstrably equivalent to practices contained in storm water technical manuals approved by Ecology, including the proper selection, implementation, and maintenance of all applicable and appropriate best management practices for on-site pollution control.

Revise Appendix 2 Definitions:

Demonstrably equivalent means that the technical basis for the selection of all storm water best management practices are documented within a storm water pollution prevention plan. The storm water pollution prevention plan must document:

- (A) The method and reasons for choosing the storm water best management practices selected;*
- (B) The pollutant removal performance expected from the practices selected;*
- (C) The technical basis supporting the performance claims for the practices selected, including any available existing data concerning field performance of the practices selected;*
- (D) An assessment of how the selected practices will comply with state water quality standards;*
and
- (E) An assessment of how the selected practices will satisfy both applicable federal technology-based treatment requirements and state requirements to use all known, available, and reasonable methods of prevention, control, and treatment.*

S13.A Conditions for a Notice of Termination

Several commentors requested that Condition S13 be revised to allow permit termination if a facility uses dry well, swales or other BMPs to contain all stormwater on-site. Such BMPs are well represented in Ecology's Stormwater management manuals; use of BMPs to eliminate discharges to surface water should be included in allowed conditions for a Notice of

APPENDIX K

Industrial Stormwater General Permit Response to Comments Part Two, Spreadsheet

(excerpts)

ISWGP Response to Comments Part 1 (A-C)

Commenter	Comment	Issue	Sub-Issue	Condition	Response	Change?	If Yes, summary of change to Final Permit
Alaska Airlines/ Horizon Air	S1.A.1, Table 1 - Ecology should retain the language in Appendix 1, Section C.8. of the current permit, requiring permit coverage for Transportation Facilities (SIC codes 40XX, 41XX, 42XX, 43XX, 44XX, 45XX and 5171), which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Also retain the language in the body of the permit that "only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations or which are otherwise identified under one of the other 11 categories of industrial activities listed in this appendix, are associated with industrial activity." Though this language is provided by reference to 40 CFR 122.26(b)(14)(i-xi) in the glossary definition of Industrial Activity, the limitation of permit coverage is difficult to recognize in the glossary. Please clarify the definition of vehicle maintenance provided in the definition of Industrial Activity included in the glossary. The definition of maintenance provided includes broad categories, including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication. Mechanical repairs may be performed at numerous locations at many facilities. Aircraft and vehicle maintenance activities may vary from rehabilitation in designated maintenance shops to replacing mechanical or electrical component parts that have no potential to contribute pollutants to stormwater. Some Ecology inspectors have indicated that the area where any vehicle maintenance is performed at a facility requires coverage under the ISGP. The perceived intent of the ISGP is to cover maintenance performed outdoors at a maintenance shop that may contribute a significant amount of pollutants. General maintenance performed outside of the vehicle maintenance shop area, while implementing appropriate source and operational control best management practices (BMPs), should not be covered under this definition. Please clarify whether mobile or fixed fueling alone are operations requiring coverage under the ISGP at sites without vehicle maintenance shops. At many sites, only those portions of the site where vehicle maintenance occurs are covered and included in the facility Stormwater Pollution Prevention Plan (SWPPP). Requiring coverage for areas where fueling alone occurs would expand coverage considerably, including marinas and many commercial and general aviation operations. Many mobile fueling activities are covered under Federal Spill Prevention Control and Countermeasures and other regulations. BMPs for proper storage and transfer of fuel are clearly defined in these regulations. Ecology should provide clarification that areas beyond vehicle maintenance shops, where fueling is performed, do not require coverage under the ISGP. In an airport environment, aircraft are typically fueled by a mobile fueling company, which conducts all aircraft fueling operations. Horizon Air and Alaska Airlines do not have operational control over the fueler.	Permit Coverage	Vehicle Maintenance	S1.A.1	Ecology disagrees with the commenter's suggestion that maintenance activity conducted away from the maintenance shop is not covered under the permit. The intent of the ISWGP is to cover all vehicle maintenance activities at industrial facilities, not just those performed at the physical location of the shop. Changes have been made to Table 1 to improve clarity. One of these changes is to include "material handling facilities" in the criteria for permit coverage at transportation facilities (40 CFR 122.26(b)(14)). Once a transportation facility obtains permit coverage, the specific areas and stormwater discharges authorized by the permit become site specific. Ecology has decided to take the approach in EPA's MSGP and not include the "only those portions of the facility that are involved in vehicle maintenance..." statement.	Yes	Clarification added to S1, Table 1, clarifying what kinds of transportation facilities require permit coverage.
Alaska Airlines/ Horizon Air	S1.E.1. - Please clarify which permit conditions apply to discharges to groundwater, including monitoring, inspections, etc. The statement included in S4.B.2.b. that "onsite discharges to ground (e.g., infiltration, etc.) are not sampled unless specifically required by Ecology (Condition G12)" should be included in this section. S1.E. does not address discharges to ground water only (e.g., passive infiltration) where there is no surface water discharge and when there is no Underground Injection Control Well. Does this permit apply to such conditions?	Permit Coverage	Discharges to Groundwater	S1.E.1	Certain sites that discharge stormwater to ground water are covered under the permit. Some of these covered facilities discharge only a portion of their stormwater to ground (e.g., only certain drainage areas, or only during certain time of the year), and others may discharge all of their stormwater to ground (e.g., significant contributor or pollutants). Under the authority of Chapter 90.48 RCW, if a facility has the permit, any discharges to ground are subject to applicable permit conditions (including, but not limited to, Conditions S1.E., S3, S7, S10, and S12) to ensure ground water quality is protected. Discharges to ground do not require sampling (per S4), unless specifically required by Ecology order.	No	
Alaska Airlines/ Horizon Air	S10.B. - How should a permittee verify that they have installed all applicable and appropriate BMPs necessary to meet Condition S10.A.?	Compliance with Standards	AKART	S10.B	Permittees that implement a SWPPP consistent with Condition S3, including the BMPs considered "applicable BMPs" from the Stormwater Management Manuals, are presumed to be in compliance with S10.A [RCW 90.48.555 (6)]. The Stormwater Management Manual for Eastern Washington explains the difference between applicable BMPs and recommended BMPs: Chapter 8, Section 8.1.5 <i>Distinction between Applicable and Recommended BMPs</i> .	No	

ISWGP Response to Comments Part 4 (P-W)

Commenter	Comment	Issue	Sub-Issue	Condition	Response	Change?	If yes, summary of change to Final Permit
<p>Puget Soundkeeper Alliance, Columbia Riverkeeper, and Spokane Riverkeeper</p>	<p>The fact sheet explains that the permit does not set numeric WQBELs because Ecology has found setting them "not feasible," and therefore that the federal regulations do not require them. However, Ecology is setting numeric WQBELs in this permit for many dischargers – those who are discharging pollutants of concern to most categories of 303(d)-listed waters. This shows that it is indeed feasible to set numeric WQBELs in this permit and thus the federal regulations require them. Please explain the basis for Ecology's decision that setting numeric WQBELs in this permit is "not feasible" when Ecology is in fact doing so for a substantial category of dischargers covered by this very permit? RCW 90.48.555(3)(d) requires this permit to include numeric WQBELs if Ecology determines that dischargers have a reasonable potential to cause or contribute to violations of water quality standards and that "effluent limitations based on nonnumeric best management practices are not effective in achieving compliance with state water quality standards." As the PCHB explained in Puget Soundkeeper Alliance et al. v. State of Washington, Department of Ecology, PCHB Nos. 05-150, 151, 06-034, and 06-040 (January 26, 2007) (the "batyard permit case"), at n. 8, in drafting the ISGP Ecology must make the determinations mandated by RCW 90.48.555(3)(d). The inclusion of numeric WQBELs in this permit is required by RCW90.48.555(3)(d). Every reasonable study or consideration indicates that discharges regulated by this permit have a strong potential to cause or contribute to violations of water quality standards. Does Ecology disagree? Please explain what Ecology has done and concluded with respect to the reasonable potential for authorized discharges to cause or contribute to water quality standards. In addition, based on the continued elevated levels of metals shown by monitoring results and the low rates of compliance with the permit's very subjective and difficult to enforce nonnumeric requirements, it is plain that nonnumeric BMP-based conditions are inadequate to ensure compliance with water quality standards and that objective numeric WQBELs are necessary to allow enforcement and measure and ensure compliance. Does Ecology disagree? If so, please explain the basis for Ecology's disagreement and specify which nonnumeric BMP-based effluent limitations it sees as being effective in achieving compliance with water quality standards and why.</p>	<p>Effluent Limits</p>	<p>Permit not protective</p>	<p>S5, S2</p>	<p>Ecology has concluded it is not feasible to establish numeric water quality based effluent limits for all the discharges regulated by the industrial stormwater general permit because such discharges are highly variable both in terms of flow and pollutant concentrations. In addition, the discharges regulated by the industrial stormwater general permit are discharged to receiving waters with highly variable receiving water characteristics. With respect to discharges into 303(d) listed waterbodies, the industrial stormwater general permit establishes numeric water quality based effluent limits for those pollutants that are not dependent on receiving water characteristics, other than dilution, for the development of numeric water effluent limits. Since impaired water bodies have little or no dilution capacity with respect to the listed pollutants, this was feasible for discharges of particular pollutants into 303(d) listed waterbodies. However, many pollutants are dependent on receiving water characteristics in addition to dilution for the development of numeric water quality based effluent limits. It is not feasible to establish numeric water quality based effluent limits for these pollutants for the reasons discussed above, which is why numeric effluent limits for these pollutants will be established at the time of permit coverage when Ecology will be able to evaluate specific discharge and receiving water characteristics. Ecology has considered the effectiveness of implementing the new BMPs required by the industrial stormwater general permit and has concluded that the BMPs, coupled with the benchmarks and required responses to benchmark exceedences, will be an effective approach to bring permittees into compliance with water quality standards.</p>	<p>No</p>	<p></p>
<p>Puget Soundkeeper Alliance, Columbia Riverkeeper, and Spokane Riverkeeper</p>	<p>PSA is deeply disappointed with the contents of the draft ISGP. During the course of our participation in the ISGP Work Group, we learned that industrial stormwater is likely to violate water quality standards, and that permittees in general are not doing a good job of complying with the permit's adaptive management, sampling Best Management Practices ("BMP"), Stormwater Pollution Prevention Plan ("SWPPP"), and Discharge Monitoring Report ("DMR") requirements. We anticipated that Ecology's reaction to this information would be to draft a permit that is more protective of water quality. Instead, the draft ISGP allows permittees to sample discharges for less parameters; it contains higher benchmarks by illegally using dilution factors in benchmark calculations; it allows permittees to exceed benchmarks more often before requiring adaptive management actions; it requires less permittee accountability; it allows for less public oversight; and it excuses permittees who have already triggered the requirement to implement treatment under the current permit from doing so under the draft permit. On that last point in particular, this permit appears to be getting worse, rather than better, since the Work Group completed its work. In sum, this permit is less protective of water quality and, frankly, represents a backslide on a permit-wide level. We are dismayed that after participating in the ISGP Work Group for nine months that Ecology is once again backing away from its responsibility to protect water quality. The general permit is not supposed to be a vehicle for regulating to the lowest common denominator. Instead, Ecology should use conservative assumptions in the development of the general permit because of the recognition of the significance of stormwater discharges to the contamination of Puget Sound. If permittees are able to show that they deserve more liberal permit terms than are contained in a properly drafted general permit, Ecology should issue them an individual permit. Ecology should not, as it did in this permit, relax general permit terms for all permittees. PSA is extremely frustrated with the Department of Ecology.</p>	<p>General</p>	<p>Permit not protective</p>	<p>S3</p>	<p>Ecology disagrees with the claim that the draft permit was weaker than the previous permit. Ecology believes that the new permit is consistent with state and federal laws, as well as Governor Gregoire's Puget Sound Initiative and the new Puget Sound Partnership Action Agenda. Ecology has made significant revisions to S3 so it is less complicated, more flexible, and has clear performance expectations and timelines. The revised S3 includes an annual cycle of sampling and, if necessary, Level 1, 2 or 3 corrective actions for specific pollutant parameters. Level 4 has been eliminated. Appendix 6 has been eliminated.</p>	<p>Yes</p>	<p>Numerous change to S3 Corrective Actions.</p>

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