

POLLUTION CONTROL HEARINGS BOARD
FOR THE STATE OF WASHINGTON

PUGET SOUNDKEEPER ALLIANCE and)
PEOPLE FOR PUGET SOUND; PIERCE) PCHB NOS. 07-021, 07-026, 07-027,
COUNTY PUBLIC WORKS AND UTILITIES) 07-028, 07-029, 07-030,
DEPARTMENT; CITY OF TACOMA; THE) 07-037
PORT OF SEATTLE; SNOHOMISH COUNTY;)
CLARK COUNTY; and PACIFICORP and)
PUGET SOUND ENERGY,) PUGET SOUNDKEEPER
Appellants,) ALLIANCE'S FIRST MOTION FOR
vs.) PARTIAL SUMMARY JUDGMENT
DEPARTMENT OF ECOLOGY,) (ISSUES F.1, F.2, F.5, F.6, AND
Respondent,) PROPOSED F.12) (PHASE I)
and) ORAL ARGUMENT REQUESTED
KING COUNTY; CITY OF SEATTLE; PORT OF)
TACOMA, and WASHINGTON STATE)
DEPARTMENT OF TRANSPORTATION,)
Intervenors.)

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1 INTRODUCTION

2 Stormwater—runoff of rain and snow from roads, structures and surfaces—is the number
3 one threat to water quality in Western Washington. Stormwater carries heavy loads of pollutants
4 like heavy metals, pesticides, and toxics that degrade water quality and impair beneficial uses.
5 Some of these pollutants can impair survival of aquatic species at extremely low levels, while in
6 other places pollutant loads are so high that returning adult salmon die within minutes of entering
7 a stream. Stormwater also has insidious hydrologic impacts on water quality and beneficial uses.
8 As watersheds are converted from native vegetation to roads, rooftops, and parking lots,
9 increased wet weather flows scour out streams while decreased dry weather flows desiccate
10 them. Among scientists and policy makers, there is now a broad consensus that the historic
11 approaches to dealing with stormwater have failed, and that in order to save Puget Sound from
12 collapse and protect water quality in Western Washington, more effective and more
13 comprehensive approaches are required.

14 The Washington Department of Ecology (“Ecology”) had a historic opportunity to rise to
15 this challenge when it reissued the 2007 Western Washington Phase I Municipal Stormwater
16 Permit (“Permit”), which governs stormwater programs in the most populous jurisdictions in the
17 region. Instead of embracing the most effective approaches to reduce stormwater impacts,
18 however, Ecology adopted a permit that largely locks in a failed status quo. Moreover, it did so
19 not based on an assessment of the most effective stormwater management techniques, but on
20 crabbed and incorrect interpretations of its own legal authorities. Because resolution of claims
21 related to these authorities turns on matters of legal interpretation, and because the relevant facts
22 are not in dispute, Puget Soundkeeper Alliance and People for Puget Sound (“PSA”) hereby
23 move for summary judgment on those claims, as well as a handful of other issues in this appeal.

24 This motion first describes the extraordinarily delays in reducing the harm caused by

1 municipal stormwater discharges, and the content of the Phase I permit that is required by law to
2 protect water quality. The majority of this motion is focused on the permit's unlawful failure to
3 require the use of "low impact development" practices, a substantially more effective stormwater
4 management strategy than the engineered, end-of-pipe technologies that are allowed and even
5 encouraged by the Permit. This motion additionally explains why, as a matter of law, the
6 Permit's exemption from its requirements for new development projects vested to older
7 standards violates federal law.¹ It also explains why the Permit's provisions for existing
8 development allow permittees to adopt plans that fail to meet legal standards, how the Permit's
9 extended compliance timelines collide with the Clean Water Act's strict time limits, and why its
10 provision for the use of alternative technical manuals is inconsistent with permit modification
11 requirements. With respect to the permit's failure to either require or even assess low impact
12 development practices, and the permit's provisions for existing development, PSA asks the
13 Board to remand the permit to Ecology with instructions to modify the permits. With respect to
14 the other issues, PSA asks the Board to simply invalidate the unlawful provisions. Other
15 provisions of the permit should remain in force until a revised permit issues.

16 BACKGROUND

17 I. THE HALTING HISTORY OF STORMWATER REGULATION IN WESTERN 18 WASHINGTON.

19 Urban stormwater is the most significant and fastest growing water quality problem in
20 Western Washington. See PSA's Motion for Summary Judgment on Condition S.4 at 1-4. Even
21 so, it would be difficult to find a regulatory program that has been the subject of greater delay
22 than the one intended to control stormwater pollution from municipal separate storm sewer

23 ¹ On January 9, the Board denied a request by PSA to add the vesting issue to the list of issues to
24 be considered. Concurrent with this summary judgment motion, PSA is moving for
reconsideration of that ruling.

1 systems (“MS4s”). Congress enacted the 1972 amendments to the Federal Water Pollution
2 Control Act, commonly known as the Clean Water Act (“CWA”), in order to eliminate the
3 discharge of pollutants into the nation’s waters. The National Pollutant Discharge Elimination
4 System (“NPDES”) provisions of the CWA prohibit the discharge of a pollutant from a point
5 source without a permit. Initially, the Environmental Protection Agency (“EPA”) issued
6 regulations exempting MS4s from NPDES altogether. These rules were challenged and struck
7 down by the Ninth Circuit. NRDC v. Costle, 568 F.2d 1369, 1377 (9th Cir. 1977). (Ex. A)

8 Further repeated delays by EPA in addressing the stormwater problem prompted
9 Congress to enact the Water Quality Act of 1987. Pub. L. No. 100-4, 101 Stat. 7 (1987). These
10 CWA amendments outlined a phased approach to issuing MS4 regulations, starting with the
11 largest jurisdictions. 33 U.S.C. § 1342(p)(2) (Ex. B). Regulations governing stormwater
12 discharges from large and medium municipalities (the “Phase I” rules) were to be issued by early
13 1989 and 1991, and permits were to be issued shortly thereafter, with compliance with permit
14 terms required “as expeditiously as practicable, but in no event later than 3 years after the date of
15 issuance of” the permit. § 1342(p)(4)(A). With respect to the content of the permits, Congress
16 directed that MS4 permits require “controls to reduce the discharge of pollutants to the maximum
17 extent practicable.” Id. § 1342(p)(3)(B). EPA issued its first set of regulations for large
18 municipalities almost two years after the deadline. 55 Fed. Reg. 47990 (Nov. 16, 1990) (Ex. C).

19 Pursuant to the CWA’s delegation provisions, Ecology has implemented NPDES in
20 Washington since the early 1970s. 33 U.S.C. § 1342(b). Ecology-issued permits must comply
21 with both federal and state clean water laws. See RCW 90.48.010. Ecology issued the first
22 Phase I permits, covering Seattle, Tacoma, King, Pierce, and Snohomish counties in 1995, and
23 issued a permit for Clark County a few years later. The heart of each permit was a requirement
24

1 that permittees develop and implement a stormwater management plan (“SMP”). SMPs were to
2 require various components, including monitoring, storm sewer system mapping, measures to
3 control runoff from new and redevelopment, treatment and source control requirements for
4 existing development, and public education programs. With respect to new and redevelopment,
5 the permit mandated ordinances with requirements and BMPs “equivalent” to those found in
6 Ecology’s stormwater management manual. The 1995 permits expired in 2000, but remained in
7 force pending the issuance of the new Phase I permit, which did not occur until 2007. That new
8 permit is the subject of this appeal.

9 II. THE PHASE I PERMITS AND THE 2005 STORMWATER MANUAL

10 The new Phase I Permit continues the direction of the 1995 permits. (Ex. 1). The
11 substantive heart of the permit, Condition S.5, requires permittees to adopt and implement a
12 SMP with several components. One of the most far-reaching components, and the primary focus
13 of this motion, is the requirement that permittees implement a program to control stormwater
14 runoff from new and redevelopment. Permit at 9-12. In order to do this, SMPs must adopt the
15 “minimum requirements, thresholds, and definitions” of the 2005 Ecology Stormwater Manual
16 for Western Washington (“Manual”) (Ex. 2), or alternative standards if individually approved by
17 Ecology. Id. at 9. Permittees must adopt a site planning and BMP selection process and
18 “document how the criteria and requirements will protect water quality, reduce the discharge of
19 pollutants to the maximum extent practicable, and satisfy the state AKART requirements.” Id. at
20 10. Permittees who simply adopt the site planning and BMP selection process from the 2005
21 Manual may cite that as their “sole documentation” to meet this requirement. Other elements of
22 the permit include provisions to address existing development, mapping, and monitoring.

23 The Manual, in turn, links specific stormwater management requirements for new and
24 redevelopment to different thresholds (e.g., specific amounts of new impervious surface or

clearing of native vegetation). Manual V.1 at 2-10. One of the Manual’s most significant requirements, flow control, is intended to address the changes in hydrology that occur with development. Under the flow control standard, post-development discharges above high thresholds—specifically, flow rates high enough to erode channels—must match the durations of pre-development flows. *Id.* at 2-33. This is accomplished by applying a hydrology model to a site to determine surface runoff rates and volumes. Deposition of Edward O’Brien (Ex. 3) (Ecology stormwater technical lead) at 37 . The most “common means” of meeting this standard is the construction of a stormwater detention pond. Manual V.1 at 1-5; V.3 at 2-5 (“The [Western Washington Hydrology Model] has been created for the specific purpose of sizing stormwater control facilities for new developments in Western Washington.”); O’Brien Dep. at 35.

The flow duration standard and the detention ponds typically used to meet it—which form the heart of the permit’s requirements for managing stormwater pollution from new and redevelopment—are not intended to mimic natural hydrology or protect beneficial uses.² As Ecology’s own technical expert testified, the flow duration standard only seeks to mitigate one of the many changes to basin hydrology that occur with development: stream channel erosion from very high, sustained flows. O’Brien Dep. at 41-42 (“The flow control standard is trying to prevent stream channel erosion that is caused by flows that occur less than 1 percent of the time [in most runoff situations] you’re not controlling the surface runoff rate through the flow control standard.”) It is not intended to address the many other changes to basin hydrology

² Indeed, the very concept of matching “pre-development flow durations” makes little sense. In general, there is little or no surface runoff from most pre-developed sites in Western Washington, and hence no surface flow durations to seek to match. See Douglas Beyerlein, Why Standard Stormwater Mitigation Doesn’t Work (Ex. 4); O’Brien Dep. at 40-41.

1 that occur with development, such as dramatically increased total volumes and reduced
2 groundwater recharge and subsurface flow. O'Brien Dep. at 38, 42-43 ("Q: So, what you're
3 saying is that the model and the manual are targeting this one particular concern and they're not
4 otherwise seeking to alter the dramatic increase in surface runoff that's identified [in the
5 Beyerlein paper] with additional development? A: Yes."); Deposition of Derek Booth, Vol. I
6 (Ex. 5) at 46, 54-55; Reducing Stormwater Costs Through LID (Ex. 6) at 2 (conventional
7 approaches fail to prevent hydrologic modification and fail to adequately remove pollutants of
8 concern).

9 Accordingly, application of the Manual's flow duration standard does not prevent the
10 dramatic disruption of a site or a watershed's natural hydrology—and its beneficial uses—from
11 stormwater runoff caused by new or redevelopment. O'Brien Dep. at 43-44, 57 ("if you
12 developed a watershed intensively and you apply just the flow control requirements of this
13 manual in that watershed, you would change the hydrology dramatically and have impacts."); see
14 also Deposition of Bill Moore (Ex. 7) (Ecology stormwater policy lead) at 133³ (Q: "So you
15 could be meeting the [flow duration] performance standard but not protecting beneficial uses in
16 some instances, is that right?" A: "That's correct.") For example, while surface runoff in a pre-
17 developed condition usually approaches zero, roughly 40% of annual precipitation in a typical
18 multi-family housing development is released as surface runoff; the figure for commercial
19 development is over 70%. Beyerlein at 1-2. This additional surface runoff also results in
20 increased discharges of pollutants to surface waters. O'Brien Dep. at 22.

21 The Manual itself openly acknowledges these shortcomings:

22 The manual's scope is limited to managing the surface runoff generated by a new
23 development or redevelopment project. The manual does not intend to delve

24 ³ Mr. Moore was produced by Ecology in response to a Rule 30(b)(6) notice. See CR 30(b)(6).

1 deeply into site development standards or where development should be allowed.
2 Those are land use decisions that should not be directed by this stormwater
3 manual. The manual applies after the decision to develop a site has been
4 made. . . . The engineered stormwater conveyance, treatment, and detention
5 systems advocated by this and other stormwater manuals can reduce the impacts
6 of development to water quality and hydrology. But they cannot replicate the
7 natural hydrologic function of the natural watershed that existed before
8 development, nor can they remove sufficient pollutants to replicate the water
9 quality of pre-development conditions. Ecology understands that despite the
10 application of appropriate practices and technologies identified in this manual, the
11 degradation of urban and suburban receiving waters will continue, and some
12 beneficial uses will continue to be impaired or lost to new development.

13 Manual at V.1 at 1-25 (emphasis added). Because the Manual chooses not to address “site
14 development standards,” nothing in the Manual prevents a developer from turning a wholly
15 undeveloped site—or an entire watershed—into 100% impervious surface, as long as the
16 developer meets the flow control standard of the Manual. O’Brien Dep. at 71; Scientists Letter
17 (Ex. 8) at 3 (“the scientific literature demonstrates that it is not possible to fully mitigate for any
18 such conversions regardless of hardware size.”). Ample evidence demonstrates that the
19 Manual’s approach is inadequate to protect water quality or even prevent new degradation. See
20 PSA’s Motion for Summary Judgment on Condition S.4, at 19-27. Ecology’s own technical
21 expert agreed that “if end-of-pipe stormwater management continues to be the only method
22 that’s used to adequately protect streams, wetlands and Puget Sound, then it has been and will
23 continue to be a failure.” O’Brien Dep. at 69; see also Booth Dep. at 76-77 (discussing other
24 adverse impacts of detention ponds). However, the Manual allows, emphasizes, and even
25 encourages such “end-of-pipe” management.

26 STANDARD OF REVIEW

Governing rules authorize the PCHB to set aside a permit that is “invalid in any respect.”
WAC 371-08-540(2). Summary judgment is appropriate where the moving party shows that
there are no genuine issues of material fact and that the moving party is entitled to judgment as a

1 matter of law. Magula v. Benton Franklin Title Co., Inc., 131 Wn.2d 171, 182 (1997). A
2 material fact is one that will affect the outcome under governing law. Eriks v. Denver, 118
3 Wn.2d 451, 456 (1992). PSA is entitled to summary judgment on its claims in this motion
4 because there are no genuine issues of material fact regarding them and it is entitled to judgment
5 as a matter of law.

6 ARGUMENT

7 I. THE PERMIT FAILS TO REDUCE STORMWATER IMPACTS TO THE 8 “MAXIMUM EXTENT PRACTICABLE” OR REQUIRE USE OF “ALL KNOWN 9 AVAILABLE AND REASONABLE” METHODS OF PREVENTION AND 10 CONTROL.

11 A. Stormwater Permits Must Reduce Discharges to the MEP and Apply AKART.

12 Section 402(p) of the CWA requires that stormwater permits reduce pollution to the
13 “maximum extent practicable” (“MEP”). EPA’s Phase I regulations do not set any specific set of
14 BMPs that satisfy the statutory “maximum extent practicable” (“MEP”) standard, instead opting
15 to provide flexibility to create programs appropriate for local conditions. 55 Fed. Reg. at 48038,
16 48053. However, as EPA recognized, “flexibility should not be built into the program to such an
17 extent that all municipalities do not face essentially the same responsibilities and commitment
18 for achieving the goals of the CWA.” Id. at 48038. The term “practicable” in the CWA has been
19 defined as meaning that technology is required unless the costs are “wholly disproportionate” to
20 pollution reduction benefits. Rybachek v. U.S. EPA, 904 F.2d 1276, 1289 (9th Cir. 1990) (Ex. D)
21 North Carolina Wildlife Fed. v. N.C. Division of Water Quality, 2006 WL 3890348 (N.C. Office
22 of Admin. Hearings, Oct. 13, 2006) (Ex. E) at 21-22 (applying standard to MS4 permit).
23 “Practicable” is also typically defined as synonymous with “feasible.” See Hamdan v. Rumsfeld,
24 127 Sup. Ct. 2749, 2801 (Ex. F). As analogous case law from other statutes has made clear, an
alternative is not “infeasible” simply because it is “financially burdensome” or even if it

1 “threatens the survival of some companies within an industry.” United Steelworkers of America,
2 AFL-CIO-CLC v. Marshall, 647 F.2d 1189, 1265 (D.C. Cir. 1980)) (Ex. G); Defenders of
3 Wildlife v. Babbitt, 130 F. Supp. 2d 121, 131 (D.D.C. 2001) (Ex. H) (“[T]he phrase ‘to the
4 maximum extent practicable’ does not permit an agency unbridled discretion. It imposes a clear
5 duty on the agency to fulfill the statutory command to the extent that it is feasible or possible.”);
6 Friends of Boundary Waters Wilderness v. Thomas, 53 F.3d 881, 885 (8th Cir. 1995) (Ex. I)
7 (“feasible” means physically possible.) Thus, § 402(p) of the CWA requires that stormwater
8 discharges be reduced to the maximum extent physically possible, as long as the costs of doing
9 so are not wholly disproportionate to the benefits.

10 Reviewing courts are to scrutinize stormwater permits to evaluate whether they reduce
11 stormwater pollution to the MEP. In a challenge to MS4 permits in North Carolina, for example,
12 a state hearings board found that the required controls were inconsistent with the MEP standard
13 because they allowed new development to generate substantial new impervious area with a
14 minimal stream setback. The board found that this standard would result in degradation of water
15 quality and beneficial uses, and that alternative approaches would be more effective.

16 [MEP] means to the fullest degree technologically feasible for the protection of
17 water quality, except where costs are wholly disproportionate to the potential
18 benefits This standard requires more of permittees than mere compliance
19 with water quality standards or numeric effluent limitations designed to meet such
20 standards. The term “maximum extent practicable” in the stormwater context
21 implies that the mitigation measures in a stormwater permit must be more than
simply adopting standard practices. This definition applies particularly in areas
where standard practices are already failing to protect water quality, such as the
Goose Creek watershed. Respondent violated 40 C.F.R. § 122.34(a) because it
failed to require stormwater measures that achieve the maximum extent
practicable standard.

22 North Carolina Wildlife Fed., 2006 WL 3890348, at 21-22 (internal citations omitted) (emphasis
23 added). The Board further found that the permits violated the MEP standard because alternative
24 controls, such as infiltration measures, “would reduce discharges more than the measures

1 contained in the permits.” Id. 19.

2 Washington state law embodies a similar concept. In order to meet the state’s goals “to
3 maintain the highest possible standards to insure the purity of all waters of the state,”
4 Washington law requires that all discharge permits, including MS4 permits, ensure that
5 discharges are treated with “all known, available and reasonable methods . . . to prevent and
6 control” the pollution of state waters (“AKART”). RCW 90.48.010; see also RCW 90.48.520;
7 90.54.020(3)(b); 90.54.040; WAC 173-216-020 & 110(1)(a). Ecology regulations define
8 AKART as representing “the most current methodology that can be reasonably required for
9 preventing, controlling, or abating the pollutants associated with a discharge.” WAC 173-201A-
10 020.

11 The “known” and “available” prongs of the AKART standard mean that permittees are
12 not required to use “new” technologies that don’t yet exist to advance pollution control. Puget
13 Soundkeeper Alliance v. Dept. of Ecology, 102 Wash. App. 783, 792-93 (2000). For example,
14 in Marine Envntl. Consortium v. Dept. of Ecology, 1998 WL 377649 (Wash. PCHB June 1, 1998)
15 (Ex. J) at *4, the Board found that alternative structural approaches to net pens for raising farmed
16 salmon were not “available” for purposes of determining AKART because there was no one in
17 the country that was using such approaches to raise salmon to adult size. However, the Board
18 did find that other non-structural approaches were known and available because they were used
19 in other places for the purposes of reducing risks from salmon farms. Id. at *5. As for the
20 “reasonableness” standard, Ecology is not required to mandate use of pollution control
21 approaches that are economically or technologically infeasible. PSA v. Ecology, 102 Wash.
22 App. at 793. However, the mere fact that an approach costs more does not render it infeasible.
23 In Port Angeles v. Dept. of Ecology, 1985 WL 21908 (Wash. PCHB Oct. 4, 1985) (Ex. K), the
24

Board rejected the City’s argument that secondary sewage treatment was not reasonable because it would be expensive and because of the city’s financial condition. The Board asked whether the City would bear “significantly greater costs” than others obliged to obtain the same level of treatment, and whether the control “was within the economic ability of the source” to bear. Id. at *12. While the Board found that secondary treatment would be “costly” to the City and its citizens, it was not unreasonable. Id. (nothing “fundamentally different” in City’s situation).

The AKART standard also imposes an affirmative duty on Ecology to assess and make a formal determination as to what approaches represent AKART. Port of Seattle v. Ecology, 2004 WL 2372063 (Wash. PCHB Oct. 18, 2004) (Ex. L) at *7; 1983 Atty Gen. Op. No. 23 (Ex. 9) at 9 (“a review must be conducted by the department of existing engineering technologies in order to enable it to decide which methods of treatment . . . are suitable with respect to the waste situation involved in the particular case”). The failure to conduct such an analysis is grounds for remanding the permit. In Port of Seattle, the Board found unlawful Ecology’s failure to conduct an analysis of a particular treatment approach, and remanded the permit to Ecology for additional AKART analysis. Id. at *17-18; see also Marine Environmental Consortium v. Ecology, 1997 WL 709347 (Wash. PCHB Oct. 22, 1997) (Ex. M) at *4 (referring to “the requisite, underlying engineering determinations” that Ecology must make to implement AKART standard).

B. Overview of Low Impact Development Stormwater Management.

1. *“Low Impact Development” defined*

Traditionally, stormwater has been managed through a collection and treatment system focusing on “end-of-pipe” control technologies. See Review of LID Policies: Removing Institutional Barriers to Adoption (Ex. 10) at 8. More recent additions to stormwater management plans to consider source control and pollution prevention, while helpful, “still largely preserve the centralized collection and treatment system of control.” Id. Low impact

1 development (“LID”) strategies take a very different approach. Ecology defines LID as “a
2 stormwater management and land development strategy applied at the parcel and subdivision
3 scale that emphasizes conservation and use of onsite natural features integrated with engineered,
4 small-scale hydrologic controls to more closely mimic pre-development hydrologic functions.”
5 Phase I Permit at 62. EPA’s definition is broader, encompassing not just site-scale approaches to
6 match pre-development hydrology but also landscape- or watershed-scale approaches. See infra
7 at 13-16. LID advocates a dispersed suite of site-appropriate BMPs that collectively store,
8 infiltrate, detain, and evaporate stormwater where it falls, rather than convey it to surface waters
9 offsite. At the site scale, LID BMPs include techniques like maintaining a substantial portion of
10 a site in natural vegetation; design features to reduce impervious surfaces (i.e., reduced road
11 widths, smaller building/driveway footprints); protection of natural drainage patterns; use of
12 vegetated swales to capture and retain runoff (i.e., rain gardens); green roofs; storage and reuse
13 of runoff (i.e., cisterns and rain barrels); and permeable pavements. At a watershed or landscape
14 scale, LID BMPs can include watershed-wide limits on imperviousness and protection of
15 sensitive areas like riparian zones, wetlands and steep slopes.⁴ As with any stormwater
16 management approach, no one BMP is appropriate for every site or project, and thus LID
17 emphasizes dispersed combinations of site-appropriate BMPs to reduce stormwater runoff to the
18 maximum extent feasible for the particular circumstances. LID techniques are primarily directed
19 towards new and redevelopment, although they can be used to retrofit existing development.

20
21 ⁴ “Basin planning”—watershed-level assessment and goal setting—is a technique that can be
22 considered a watershed-level LID BMP. See, e.g., Ecology Briefing Paper (Ex. 11). For
23 purposes of this motion, PSA considers basin planning to be one of many watershed-scale LID
24 BMPs that can be useful and effective in minimizing stormwater impacts, but not a separate
category that needs to necessarily be required in all cases. See, e.g., Moore Dep. at 144 (basin
plans need to be implemented to be effective).

Several detailed technical manuals are available that direct the implementation of LID BMPs. In this region, the Puget Sound Action Team (“PSAT”) published with Ecology funding the LID Technical Guidance Manual for Puget Sound in 2005. (Ex. 12) at 1; O’Brien Dep. at 92. The PSAT Manual runs to over 250 pages of detailed technical direction on many aspects of LID site design and BMP implementation. Pierce County devotes an entire chapter of its stormwater management manual to LID as a voluntary option for developers, based on a performance objective of maintaining near zero overland runoff. Pierce Co. Stormwater Management and Site Development Manual (Ex. 13) at 10-3. Outside of this region, Prince George’s County in Maryland, which pioneered the use of LID strategies in the early 1990s, published a comprehensive LID technical manual in 1999 that calls LID a “significant advancement in the state of the art in stormwater management.” LID Design Strategies: An Integrated Design Approach (Ex. 14) at ix. An accompanying volume provides detailed hydrologic analysis and computational procedures. LID Hydrologic Analysis (Ex. 15) at 1. The U.S. Department of Defense has also adopted a LID manual in light of the effectiveness of LID in managing runoff, and reducing construction and maintenance costs. Unified Facilities Criteria (Ex. 16) at 2. Other federal agencies, including the U.S. Department of Housing and Urban Development, have followed suit. See, e.g., The Practice of LID (Ex. 17) at 1. These are representative examples of LID technical documents, not a comprehensive list.

2. *EPA emphasizes LID as a best management practice for municipal stormwater*

EPA rules and guidance strongly support the use of site and watershed scale LID approaches to meet the MEP standard. At the time EPA adopted the Phase I rules in 1990, the term LID had not yet come into common use. Even so, the rules emphasize the use of “nonstructural” approaches, such as comprehensive land use planning and site development

standards, that prevent the generation of stormwater runoff. As EPA noted,

When enacting this provision, Congress was aware of the difficulties in regulating discharges from municipal separate storm sewers through traditional end-of-pipe treatment and intended for EPA and NPDES States to develop permit requirements that were much broader in nature than requirements which are traditionally found in NPDES for industrial process discharges or POTWs. The legislative history indicates, municipal storm sewer system “permits will not necessarily be like industrial discharge permits. Often, an end-of-the-pipe treatment technology is not appropriate for this type of discharge.”

55 Fed. Reg. at 48037-38; 40 C.F.R. § 122.26(iv)(A)(2) (Ex. N) (requiring “comprehensive master plan” to reduce stormwater discharges). EPA noted that the process of developing MS4 programs “provides an ideal opportunity . . . for considering the full range of nontraditional, preventive approaches, including . . . use of vegetation and/or land conservancy practices, alternative paving materials . . . and potentials for water reuse.” 55 Fed. Reg. at 47994.

The Phase II regulation goes into more detail, noting that “minimization of impervious areas, maintenance or restoration of natural infiltration, wetland protection, use of vegetated drainage ways, and use of riparian buffers”—all LID techniques—had been shown to be effective. 64 Fed. Reg. 68722, 68759 (Dec. 8, 1999).⁵ (Ex. O). EPA also instructs that BMPs chosen for new development and redevelopment should “attempt to maintain pre-development runoff conditions.” *Id.* at 68760. The rules specifically direct permittees to develop and implement structural and nonstructural BMPs, defining “nonstructural” options as follows:

Non-structural BMPs are preventative actions that involve management and source controls such as: policies and ordinances that provide requirements and standards to direct growth to identified areas, protect sensitive areas such as wetlands and riparian areas, maintain and/or increase open space (including a dedicated funding source for open space acquisition), provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation; policies or ordinances that encourage infill development in higher density urban areas, and areas with existing infrastructure; education

⁵ While the Phase II rules do not directly govern Phase I permits, EPA has emphasized that its Phase II standards are consistent with the Phase I requirements. *Id.* at 68761.

1 programs for developers and the public about project designs that minimize water
2 quality impacts; and measures such as minimization of percent impervious area
after development and minimization of directly connected impervious areas.

3 40 C.F.R. § 122.34(b)(5). EPA also discussed in considerable detail LID approaches such as use
4 of swales and reducing effective impervious areas. 64 Fed. Reg. at 68760. EPA further
5 encourages the use of “Smart Growth” land use planning approaches to controlling stormwater at
6 a landscape level. Id.

7 EPA guidance strongly emphasizes the use of LID under both the Phase I and II
8 programs. For example, EPA’s “Fact Sheet” on controlling post-construction runoff from new
9 development and redevelopment emphasizes both watershed-scale planning and site-based
10 BMPs that minimize impervious surfaces, maximize open space and protect sensitive areas.
11 Phase II Fact Sheet (Ex. 18) at 2 (“Runoff problems can be addressed efficiently with sound
12 planning procedures. Local master plans, comprehensive plans, and zoning ordinances can
13 promote improved water quality in many ways, such as guiding the growth of a community away
14 from sensitive areas . . .”). Similarly, EPA’s website for post-construction runoff states:

15 The best way to mitigate stormwater impacts from new developments is to use
16 practices to treat, store, and infiltrate runoff onsite before it can affect water
17 bodies downstream. Innovative site designs that reduce imperviousness and
smaller-scale low impact development practices dispersed throughout a site are
18 excellent ways to achieve the goals of reducing flows and improving water
quality.

19 EPA Menu of BMPs (Ex. 19) at 1. EPA guidance directs managers to a host of EPA and
20 external resources for implementing LID at the site and watershed scale, and provides extensive
21 guidance on individual LID BMPs such as pervious pavements, conservation easements, green
22 roofs, narrower streets, and many others. Id.; see also EPA Low Impact Design and Other Green
23 Strategies (Ex. 20); EPA Resource List (Ex. 21) at 6-8 (list of resources for post-construction

runoff exclusively address LID and “smart growth” approaches).⁶ The chapter on site development in EPA’s 520-page technical guidance manual on controlling urban runoff focuses almost completely on using LID techniques to maintain pre-development hydrology and minimize impervious areas. See EPA National Management Measures to Control Nonpoint Source Pollution From Urban Areas (Ex. 22) at ch. 4; see also EPA Asst. Administrator Memo (Ex. 23) (encouraging use of LID and listing benefits). EPA’s “model” Phase II permit requires permittees to include appropriate ordinances that “direct growth to identified areas, protect sensitive areas such as wetlands and riparian areas, maintain and/or increase open space” and other watershed level measures as well as requirements to minimize the percentage of impervious surface after development. EPA Model Small MS4 General Permit (Ex 24) at 15.

3. *LID in the Phase I Permit.*

Ecology has acknowledged that “[t]he use of LID can be very effective in mitigating the effects of new development and redevelopment. In many cases LID techniques may be less costly than traditional methods of managing stormwater runoff.” Response to Comments (Ex. 25) at 35. The Phase I Fact Sheet states that the “most effective way to minimize the impacts of stormwater discharges” is to design developments that use LID approaches as well as more traditional source control, treatment, and flow rate BMPs. Phase I Fact Sheet (Ex. 26) at 32 (emphasis added). The fact sheet acknowledges, however, that the Manual that lies at the heart of the permit does not address LID but that such approaches “should” be addressed by local governments through adoption of both site level LID requirements as well as comprehensive land use plans. *Id.* at 32-33. Ecology’s Stormwater Manual provides voluntary technical guidance on how certain LID approaches, including rain gardens, protection of natural

⁶ EPA also maintains a webpage devoted to LID at <www.epa.gov/owow/nps/lid/>.

1 vegetation, and green roofs, can be included in the hydrology modeling to reduce the required
2 size of detention ponds. See Manual App III-C. The Manual also provides some optional BMPs
3 that can be considered LID techniques. Under the BMP entitled “full dispersion,” for example,
4 stormwater runoff can be fully retained onsite where at least 65% of the site remains in a native
5 forested condition, and less than 10% of the total site is impervious. See Manual V.5 at 5-22
6 (BMP T5.30).⁷ Ecology also administers grant programs and other steps to encourage greater
7 awareness and use of LID.

8 Despite the urging of numerous commenters, Ecology did not mandate the use of LID.
9 Nor did Ecology adopt performance standards that are achievable using LID, for example,
10 matching pre-development hydrology or achieving as close to zero surface runoff as possible.
11 Instead, the Permit simply directs permittees not to prohibit LID. See Permit at 10. At the same
12 time, the permit contains provisions that make the adoption of LID by permittees more difficult.
13 For example, permittees must adopt an ordinance for controlling runoff from new and
14 redevelopment that includes standards from the Manual. See Permit at 9-10. While Ecology
15 allows the use of alternative standards such as LID, they must be approved by Ecology first, a
16 process that can take years. See Moore Dep. at 131. Thus, a permittee who wishes to simply
17 follow the 2005 Manual has little to do in order to comply, while a permittee who wishes to
18 adopt a stronger LID focus—for example, the PSAT LID Manual—would have to go through a
19 potentially expensive and time-consuming approval process before being allowed to do so.
20
21

22 ⁷ Ecology also argues that a separate Manual requirement—retaining sufficient soil depth post-
23 construction—is a BMP that could be considered LID. O’Brien Dep. at 106-07; but see Manual
24 V.5 at 5-13 (“Establishing a minimum soil quality and depth is not the same as preservation of
naturally occurring soil and vegetation.”).

1 C. LID Offers Greater Protection of Water Quality and Beneficial Uses Than the
2 Engineered Stormwater Systems Emphasized in the Permit.

3 In contrast to the flow control performance standard of the Phase I permit, the goal of
4 LID is to match, as closely as practicable, the natural hydrology of sites and watersheds. EPA
5 itself confirms that LID is the “best way” to mitigate the stormwater impacts of new
6 development, supra at 15, and a recent EPA study of multiple LID sites found that LID “in the
7 vast majority of cases” is more protective of water quality than engineered stormwater
8 management. Reducing Stormwater Costs Through LID at iii, 27; EPA Green Infrastructure
9 Statement of Intent (Ex. 27) at 2 (LID approaches are “both a cost effective and an
10 environmentally preferable approach to reduce stormwater and other excess flows . . . in
11 combination with, or in lieu of, centralized hard infrastructure solutions”). Another review of
12 numerous studies concluded that “LID approaches can manage stormwater quantity and quality
13 more effectively than the conventional approaches, either controlling more flow, or filtering
14 more pollutants, or both.” Economics of LID Literature Review (Ex. 28) at 7. Ecology’s
15 30(b)(6) deponent acknowledged that “[t]he use of low impact development practices can be
16 both effective from an environmental approach towards dealing with flows and pollutants, and it
17 can also be a cost-effective solution on a site level basis to prevent impacts to pollution and
18 flows.” Moore Dep. at 106. Similarly, the agency’s technical lead acknowledged that LID is
19 actually necessary to meet the CWA’s mandatory requirements of protecting water quality and
20 beneficial uses. See, e.g., O’Brien Dep. at 52-54, 121 (LID needs to “become the rule rather than
21 the exception in land development practices”), 73 (“[I]f we’re not protecting significant portions
22 of native land cover, we know we’re not going to get there.”); see also Deposition of Anne
23 Wessel (Ex. 29) (Phase I permit writer) at 75; Ecology Talking Points (Ex. 30) at 2 (“To be
24 successful at preventing significant harm to water and salmon resources, we must aggressively

1 apply low impact development practices”). Mr. O’Brien explained in detail how the Manual’s
2 flow control standard is insufficient to protect beneficial uses, and that in order to do so,
3 permittees will have to adopt both watershed scale protections of natural functions as well as site
4 scale approaches—using LID—to minimize hydrologic disruption in addition to the engineering
5 directives in the Manual. O’Brien Dep. at 52-54. Mr. O’Brien stated that he has emphasized
6 numerous times that “all three tools” are necessary to protect watersheds and aquatic resources in
7 streams, but that the Manual primarily addresses only the last of these tools. Id. at 53.

8 LID is not just effective at maintaining hydrology but it also is effective at removal of
9 chemical contaminants: one study showed that LID removed lead, copper and zinc—some of the
10 most toxic contaminants regularly found in Western Washington’s urban stormwater—at rates of
11 up to 100%. Water Quality Improvement through Bioretention (Ex. 31); see also Reducing
12 Stormwater Costs Through LID at 2; EPA LID Literature Review (Ex. 32) at i-ii; Booth Dep. at
13 91 (study of pervious parking lots showed virtually no runoff or chemical pollutants).

14 Mr. O’Brien noted that by taking steps to reduce hydrologic changes using LID and watershed
15 planning, “you also probably largely address the pollutant issues, too.” O’Brien Dep. at 52.

16 Many commenters urged Ecology to implement LID more directly through the permits in
17 light of its effectiveness. In fact, EPA itself specifically recommended strengthening the Phase I
18 permit’s LID provisions, noting that “increased emphasis on effective LID and non-structural
19 preventative actions will contribute to a more effective and protective stormwater management
20 program.” EPA Comments (Ex. 33) at 4.⁸ EPA’s comments were echoed by the federal wildlife
21 services in their comments, which noted that Ecology’s flow duration standard does not protect

22
23 ⁸ EPA’s comments defined LID to include the both site-scale and watershed-scale approaches.
Id. EPA also urged adoption of a “basin planning” requirement in the permits. Id. at 5.

1 beneficial uses. NMFS/FWS Comments (Ex. 34) at 6; see also WDFW Comments (Ex. 35) at 2
2 (LID “is a new concept that is in the forefront right now. There needs to be a shift in the manual
3 towards types of development that promote [LID] and away from ‘the way its always been
4 done.’”). Similarly, a group of stormwater experts that included PSA’s experts Dr. Derek Booth
5 and Dr. Richard Horner, as well as Ecology’s stormwater policy lead Bill Moore, authored a
6 paper that recommended developing and applying LID standards Puget Sound-wide, calling it an
7 area where there already is sufficient “scientific certainty” that no additional analyses are needed.
8 Problems, Issues, & Analyses Needed (Ex. 36) at 5.

9 The promise of LID stands in sharp contrast to the traditional end-of-pipe, engineered
10 solutions emphasized in the Manual. O’Brien Dep. at 49 (“There are lots of other needs to
11 protect beneficial uses than just keeping high flows under control.”). In its letter to the Puget
12 Sound Partnership, fourteen stormwater scientists urged widespread adoption of LID: “We have
13 sufficient experience with traditional end-of-pipe stormwater management to know that it is not
14 an alternative and we must turn from it as quickly as possible.” Scientists Letter at 4; see also
15 Booth Dep. at 79 (“If we had any other engineering infrastructure that performed as
16 demonstrably broadly poorly as detention ponds have over the last 30 years, we would have
17 pulled the licenses of the people who build them.”); PSA SJ Motion on S.4 at 19-27.

18 While LID BMPs are likely to offer benefits under virtually any circumstance, PSA does
19 not argue that LID can always perfectly match pre-development hydrology and water quality for
20 every project or site, or that engineered solutions like detention ponds will never have a role to
21 play. LID is not an “all or nothing” approach but a set of tools that can be applied in different
22 combinations in a site or watershed appropriate context to more closely mimic pre-development
23 hydrology. The undisputed evidence before the Board is that doing so is more protective of
24

water quality and beneficial uses than the minimum standards adopted in the Manual and Permit.

D. LID Approaches to Stormwater Management Are Known and Available

The various BMPs falling under the LID rubric—permeable pavements, native vegetation retention, reduced impervious area, green roofs and so on—are “known” and “available” within the meaning of state law. See O’Brien Dep. at 178-86 (discussing various LID BMPs); Moore Dep. at 134-38, 143 (basin planning is a “known and available means to control stormwater”); Wessel Dep. at 106 (same); Deposition of Kathleen Emmett (Ex. 37) (Phase II permit writer) at 83 (LID is AKART “in some cases”). LID plays an important role in stormwater management throughout the nation and in Western Washington jurisdictions, and countless LID projects operate effectively today to reduce stormwater impacts.

1. *LID in other stormwater permits*

Some MS4 permits explicitly mandate the use of LID approaches to meet the CWA’s MEP and water quality goals. Perhaps the most explicit is the Ventura County draft MS4 permit, which covers both Phase I and Phase II jurisdictions within Ventura County. The permit reads: “All new development and redevelopment projects . . . shall integrate Low Impact Development (LID) principles into project design.” Ventura Permit (Ex. 38) at 50-51. The permit further mandates a reduction of effective impervious area (“EIA”) to less than 5% of total project area for all new development and redevelopment and an “integrated” approach to reduce stormwater pollution that starts with LID techniques, and requires permittees to develop a LID technical guidance manual within one year of permit issuance. Id. Similarly, the existing San Diego County MS4 permit requires the implementation of LID BMPs and maximization of onsite infiltration and storage where applicable and feasible. San Diego Permit (Ex. 39) at 17-20. Other California MS4 permits, for example the draft San Francisco Bay area permit that covers scores of jurisdictions, contain similar requirements. See, e.g., Ex. 40 at 16-21.

1 2. *LID is required or encouraged in jurisdictions nationwide and regionally*

2 LID is already an established part of many jurisdictions' stormwater management
3 programs, both locally and nationally. In many cases, LID is not just encouraged but mandatory.
4 In 2007, for example, the Maryland legislature unanimously passed the Stormwater Management
5 Act, which sets a statewide stormwater goal that post-development runoff will match as nearly as
6 possible the pre-development runoff characteristics and makes implementation of LID
7 techniques mandatory. Md. Code Ann., Envir. §§ 4.201-215 (2007) (Ex. P). A handful of
8 Western Washington jurisdictions, including portions of Olympia, Graham, and Gig Harbor have
9 adopted LID stormwater requirements. See Green Cove Standards (Ex. 41); Graham
10 Community Plan, at 70, 87, 109, 149, 208 (Ex. 42); Gig Harbor Community Plan (Ex. 43) at 29,
11 41, 63, 117, 210. King County requires the use of numerous LID techniques, and encourages the
12 use of others in its stormwater manual. See King Co. Discovery Responses (Ex. 44) at 6-8
13 ("King County currently requires that most new building projects utilize some LID approaches to
14 manage stormwater" standards); King Co Surface Water Design Manual (Ex. 45) at 5-1 to 5-16.
15 So does Snohomish County. See Snohomish Co. Responses (Ex. 46) at 8-10 (LID techniques
16 required for certain projects). At the national level, § 438 of the Energy Independence and
17 Security Act of 2007 effectively requires the use of LID for federal facilities above a specific
18 size. Pub. L. No. 110-140, 121 Stat. 1492 (2007) (Ex. Q) at § 438 (mandating federal projects
19 match pre-development hydrology with regard to temperature, rate, volume, and duration of
20 flow).

21 Numerous other jurisdictions in Western Washington and nationally encourage or offer
22 LID as a voluntary option. See, e.g., Pierce County Stormwater manual. The 2000 Puget Sound
23 Water Quality Management Plan recommended adoption of LID and basin planning ordinances
24 to prevent stormwater impacts to Puget Sound. See 2000 Puget Sound Water Quality

1 Management Plan (Ex. 47) at 101. Snohomish County in 2006 adopted a voluntary LID
2 ordinance after first pilot testing a variety of LID BMPs, including porous concrete, cluster
3 housing and amended topsoils, over a six-year period, and encourages the use of LID and the
4 PSAT manual in various ways. See Snohomish County Responses at 8-14. Indeed, Snohomish
5 has received national awards for its LID projects. Id. at 14; see also Seattle Responses (Ex. 48)
6 at 8-14 (programs to encourage the use of LID). The City of Tumwater has a “Zero Effect
7 Drainage Discharge” ordinance that recognizes that typical stormwater management results in
8 offsite discharges that adversely impact fish habitat and streams, and strives to retain sufficient
9 forest function that a goal of zero effective impervious area is achieved. Tumwater Ord. No.
10 02000-010 (Ex. 49). A Kitsap County analysis found no less than 16 Western Washington
11 jurisdictions encouraged or required LID measures as part of their stormwater codes, and even
12 more that were considering such measures under other authorities such as critical areas
13 ordinances. (Ex. 50).

14 3. *Countless LID projects have been implemented regionally and nationally.*

15 Since LID techniques emerged in the early 1990s, innumerable projects have been
16 implemented using them. While there is no universally agreed LID performance standard, LID
17 BMPs are well known, well studied, and effective. Several reports provide many examples of
18 the effectiveness—and cost effectiveness—of LID techniques such as green roofs, rain barrels,
19 rain gardens, permeable pavements and site design techniques. See, e.g., Rooftops to Rivers
20 (Ex. 51); Reducing Stormwater Costs Through LID. For example, the City of Chicago’s green
21 roof program covers a million square feet and has dramatically reduced stormwater volumes.
22 Rooftops To Rivers at 18. Chicago has also garnered national attention for its program to repave
23 its entire alley network—which spans 2,000 miles—with permeable materials, allowing all
24 stormwater to infiltrate onsite. Green Alleys Handbook (Ex. 52). Portland, Oregon’s program to

1 disconnect downspouts from sewer systems and into rain gardens has taken a billion gallons of
2 water out of their sewer system and infiltrated it into the ground. Rooftops to Rivers at 26.
3 Vancouver, Canada has employed innovative street designs that retain 90% of annual runoff
4 volumes onsite and treat the remainder before discharge, and it has replaced alleys with
5 permeable alternatives that prevent runoff. Id. at 35. Other examples abound.

6 One of the national innovators in LID design is, in fact, the City of Seattle, whose
7 “natural drainage systems” (“NDS”) designs—which are based on LID principles—have
8 received national attention. One of Seattle’s most notable projects is the Street Edge Alternative
9 (“SEA”) Street retrofit project, in which residential streets were retrofitted with narrower
10 pavement areas and vegetated roadside swales to retain runoff. In several years of rigorous
11 monitoring, including some of the wettest months in Seattle history, the SEA Street project
12 retained all or virtually all of its stormwater onsite. See Reducing Stormwater Costs Through
13 LID at 13 (zero runoff recorded since December 2002). Seattle has also designed a large
14 redevelopment site, the High Point Project in West Seattle, that employs a number of LID
15 techniques such as compost amended soils, pervious concretes, and disconnected downspouts.
16 See High Point Revitalization Memo (Ex. 53). The Phase I permittees have identified literally
17 hundreds of projects either permitted or constructed by them that utilize LID approaches like rain
18 gardens, green roofs, roadside swales, and pervious pavements. See, e.g., Seattle Responses at
19 17-32; Tacoma Responses (Ex. 54) at 7-9; King County Responses at 7-9; Pierce County
20 Responses (Ex. 55) at 7-8; Snohomish County Responses at 19-21. Similarly, at the watershed
21 scale, many jurisdictions use basin planning as a stormwater management tool. Wessel Dep. at
22 97; Pierce County Responses at 7 (seven basin plans completed).

23 E. LID Approaches to Stormwater Management Are Reasonable and Practicable.

24 As discussed above, LID is “practicable” and “reasonable” under the MEP and AKART

standards as long as its costs are not “wholly disproportionate” to its benefits. See supra at 10-11. There can be no dispute that as a general matter LID satisfies this requirement. In fact, all of the available evidence demonstrates that LID is in most instances more cost-effective, less costly overall, and carries additional benefits besides those associated with stormwater management. See, e.g., Response to Comments at 35 (“In many cases LID techniques may be less costly than traditional methods of managing stormwater runoff.”); O’Brien Dep. at 103-04; Moore Dep. at 109 (“I think that in terms of initial construction costs, certainly it can be more cost-effective to prevent and to infiltrate flows rather than trying to contain them and then later provide flow controls”). A recent EPA review of numerous LID projects found that in almost all cases, LID approaches were less expensive to implement than conventional treatment. Reducing Stormwater Costs Through LID at iv (“[A]pplying LID techniques can reduce project costs and improve environmental performance. In most cases, LID practices were shown to be both fiscally and environmentally beneficial to communities”); see also EPA LID Literature Review at i (“In general LID measures are more cost effective and lower in maintenance than conventional, structural stormwater controls.”). EPA’s conclusion was echoed by a recent independent and extensive “literature review” of papers relating to LID. The Economics of LID. The report concluded:

Low-impact development (LID) methods can cost less to install, have lower operations and maintenance (O&M) costs, and provide more cost-effective stormwater management and water quality services than conventional stormwater controls. LID also provides ecosystem services and associated economic benefits that conventional stormwater controls do not.

Id. at iii; see also Rooftops to Rivers at 12.

LID approaches are often more cost-effective than engineered stormwater controls for several reasons. Structural stormwater controls—detention ponds, curbs, gutters, pipes—are costly. Id.; O’Brien Dep. at 104. LID eliminates the need for much of this infrastructure, and

1 can be much cheaper to build. See also Economics of LID at 24-28 (describing projects with
2 significant cost savings due to use of LID). Second, eliminating the need for structural
3 stormwater controls like detention ponds can increase the number of developable lots in a
4 project. Id.; Reducing Stormwater Costs at 8-9, 24. Third, LID tends to lower operations and
5 maintenance costs, and extend the useful life of any infrastructure that is used. Reducing
6 Stormwater Costs at 9-10; Economics of LID at 12. Finally, projects emphasizing LID controls
7 often sell for more than traditional lots, and appreciate faster. Reducing Stormwater Costs at 8;
8 Economics of LID at 24-25; Rooftops to Rivers at 12.

9 Moreover, by emphasizing onsite stormwater management and infiltration, LID provides
10 a wide range of additional economic and environmental benefits—including reduced flooding,
11 improved water quality, increased groundwater recharge, reduced public expenditures on
12 stormwater infrastructure, reduced ambient air temperatures and improved air quality, and
13 enhanced aesthetics and property values—that can be difficult to monetize but support their cost-
14 effectiveness. Economics of LID at 5; Reducing Stormwater Costs at 7. On the other side of the
15 same coin, many studies show that the historic failures to adequately manage stormwater—
16 reduced drinking water quality, loss of fish habitat, closure of shellfish growing areas, and
17 reduced recreational opportunities—are enormously costly, even in Puget Sound. See Booth,
18 Damages and Costs of Stormwater Runoff at 38-39 (Ex. 56).

19 The studies noted above describe scores of examples of successful LID projects that were
20 cheaper, sometimes dramatically so, to construct, operate and maintain. Many of these projects
21 were constructed in the Pacific Northwest. Reducing Stormwater Costs at i (6 of 17 projects
22 reviewed were in Western Washington, Portland and Vancouver, Canada). For example, even
23 the highly effective SEA Street project was substantially less expensive than a standard street
24

1 retrofit would have been, even though it was a pilot project with high initial costs that are certain
2 to fall as the technology is replicated. Id. at 13. The downspout disconnection program in
3 Portland that removed a billion gallons of runoff from its combined sewer system saved \$250
4 million in potential construction costs—for an investment of \$8.5 million. Id. at 21. A study
5 conducted by Pierce County showed that use of LID controls could dramatically reduce the
6 amount of effective impervious surfaces in residential subdivisions and save money relative to
7 structural controls. Pierce County LID Study (Ex. 57) at 5. A recent 20-unit subdivision in
8 Sultan, Washington saved over \$260,000 by using pervious concretes for roads and driveways by
9 eliminating the need for structural stormwater controls and gaining two buildable lots that would
10 have been used for that infrastructure. Concrete Network Release (Ex. 58). The use of LID in
11 Delaware shows substantially lower per-lot costs than traditional controls. See EPA, National
12 Management Measures at 4-15.

13 Unfortunately, Ecology has never conducted any kind of AKART analysis of LID
14 approaches to stormwater management, either for site-level BMPs like permeable pavements or
15 for watershed level approaches like basin planning. Moore Dep. at 144-45; see also id. at 135 (“I
16 have no idea whether [permeable pavements are] economically feasible”); Wessel Dep. at 106.
17 As the Phase I permit writer explained, the flow duration standard was adopted from the Manual,
18 and Ecology never evaluated whether a more protective standard associated with a LID
19 requirement would be feasible as part of the permit process. Wessel Dep. at 47-48. However,
20 Ecology had been presented with extensive evidence and comments—including from EPA, other
21 state agencies, and the public—encouraging the adoption of LID and a stricter performance
22 standard. The failure to conduct an analysis of whether LID represents AKART is itself a
23 violation of law that requires a remand. See, e.g., Port of Seattle, 2004 WL 2372063 at *7.

1 F. Ecology's Justification for Failing to Mandate LID Cannot Withstand Scrutiny.

2 For the reasons discussed above, LID approaches to stormwater management—
3 mimicking pre-development hydrology to the greatest extent feasible—are generally more
4 effective at protecting water quality and beneficial uses than the engineered, end-of-pipe
5 standards embraced in the Manual and Permit. They are also known, available and reasonable
6 (as well as “practicable”) in virtually all new and redevelopment situations. Accordingly,
7 resolution of this issue comes down to the question of whether or not Ecology’s justification for
8 not requiring LID—or setting a superior performance standard based on LID—is valid.

9 Ecology did not mandate LID in the permit because it believes that to do so would
10 constitute an intrusion into “land use” regulation by Ecology, something historically left to other
11 state agencies and local jurisdictions. As Ecology’s technical lead explained, “Ecology doesn’t
12 really have direct authority over traditionally, you know, what materials do you use for
13 sidewalks, what materials do you use for roofs, that kind of—and the site layout, how is it laid
14 out. We didn’t want to step into the land use arena too strongly because we’re definitely not the
15 lead state agency or even the lead agency at any level of government on those issues . . .”
16 O’Brien Dep. at 107-08; *id.* at 60-65 (Ecology made decision not to address “site development
17 standards”), Moore Dep. at 112-13; see also *Issues & Concerns* (Ex. 59) at 5 (“Elements of LID
18 (zoning, critical areas ordinances) gets into the realm of land use planning. State established
19 GMA to address land use issues. Mandating LID is beyond federal minimum requirements and
20 may be challenged.”); Manual at V.1 at 1-25 (“development standards are . . . land use decisions
21 that should not be directed by this stormwater manual”). Ecology’s policy lead asserted that
22 requiring LID BMPs like retention of native vegetation, green roofs, or permeable pavements
23 would be outside of Ecology’s authority. Moore Dep. at 115-17; see also *id.* at 141 (mandating
24 basin plans would be “very, very controversial” and “could be viewed as a stretch from an

1 authority standpoint”). In short, Ecology did not mandate use of LID because it believes that it
2 lacks authority to do so.

3 This justification is flawed, for several reasons. First and foremost, it is incorrect as
4 matter of law. Ecology’s authorities are not nearly so circumscribed. In 1970, the legislature
5 established Ecology as “a single state agency with the authority to manage and develop our air
6 and water resources in an orderly, efficient, and effective manner and to carry out a coordinated
7 program of pollution control involving these and related land resources.” RCW 43.21A.020
8 (emphasis added). In the state clean water act, the legislature instructed Ecology to promulgate
9 rules “it shall deem necessary” for maintaining clean water “including but not limited to rules
10 and regulations relating to standards of quality for waters of the state” RCW 90.48.035
11 (emphasis added). PSA can find no justification in the law or the record of this case to
12 demonstrate that Ecology lacks authority to require permittees to either implement LID or
13 achieve a more protective discharge standard that would require incorporation of appropriate
14 LID techniques, and Ecology has never offered one. See Moore Dep. at 115-16 (unaware of any
15 document or analysis with respect to Ecology’s authorities to mandate protection of native
16 vegetation); see also Port of Seattle v. Pollution Control Hearings Board, 151 Wn.2nd 568, 590
17 (2004) (state must exercise its authorities “as fully and as effectively as possible” to protect
18 water quality). In fact, the deposition testimony suggests that the issue has more to do with
19 culture and tradition than limits on actual legal authorities. See, e.g., O’Brien Dep. at 61-63.

20 Second, Ecology’s argument is inconsistent with the representations it had to make to
21 EPA to receive delegation to implement NPDES. The CWA is very specific about the
22 circumstances in which EPA can delegate NPDES authority to a state. Specifically, a NPDES
23 delegation is only permitted where the state can show that it has authority to “apply and insure
24

1 compliance with” various provisions of the act, including § 402(p). See 33 U.S.C.
2 § 1342(b)(1)(A), (c)(2). If Ecology lacks authority to ensure that stormwater discharges are
3 reduced to the MEP, it should not be a delegated state. Relatedly, issuance by Ecology of MS4
4 permits that fail to comply with the CWA’s MEP standard would trigger a mandatory duty by
5 EPA to revoke the delegation. Id. at 1342(c)(3) (EPA “shall withdraw approval” of state
6 program if not being administered in compliance with CWA). The “memorandum of agreement”
7 between Ecology and EPA governing the NPDES delegation specifically obligates Ecology to
8 “develop and maintain, to the maximum extent possible, the legal authority (including State
9 regulations) and the resources required to carry out all aspects of the NPDES program.” See
10 MOA Between Washington Dept. of Ecology and US EPA Region X (Ex. 60) at 2; id. at 5 (“All
11 state waste discharge permits issued to carry out federal programs within the scope of this
12 agreement will comply with applicable federal requirements.”) If Ecology truly lacks authority
13 to implement the MS4 program appropriately by requiring the most effective stormwater
14 management techniques and BMPs, it should not be implementing it at all.⁹

15 Third, it is simply impossible to untangle stormwater management at new and
16 redevelopment sites from “land use” in the first place: the two are inextricably intertwined. For
17 example, even meeting the existing stormwater management flow standards result in significant
18 impacts on land use. Stormwater detention ponds—the chief means by which the flow duration
19 standard is achieved—take up significant area in any development, reducing the number of
20 available sites. Similarly, other mandatory elements of the Manual, such as the soil depth
21 standards, clearly implicate “site development standards.” Manual V.5 at 5-13. If Ecology has

22
23 ⁹ Rather than assume such a defect in Ecology’s authority, however, it is much more reasonable
24 to conclude that Ecology has ample legal authority but has simply failed to exercise it.

1 the authority to require the use of detention ponds and dictate the thickness of landscaping soils,
2 it is unclear why it thinks that it does not also have the authority to mandate the use of rain
3 gardens, pervious pavements, or narrower streets. No distinction—outside of Ecology’s comfort
4 level—can be found between the approaches that are required and those that Ecology has
5 deemed outside of its authority.

6 In any event, the whole “land use” justification is a red herring. Ecology need not
7 directly prescribe site development standards or land use limitations to meet the MEP standard.
8 Rather, it can set a performance standard based on what the most effective approaches to
9 stormwater management will allow, and authorize permittees to achieve the standard however
10 they wish. For example, if Ecology were to set a “as close to zero surface runoff as technically
11 feasible” performance standard, individual projects could achieve it through any one of a number
12 of approaches that might work depending on the site and the project: retention of substantial
13 native vegetation and full dispersion, innovative site designs matched with LID BMPs like green
14 roofs, rain gardens; water harvesting and re-use, or—if applicants preferred and if it were
15 feasible—engineered methods. Ecology’s 30(b)(6) deponent acknowledged that Ecology does
16 have the authority to set such a performance standard. Moore Dep. at 113-17.

17 G. Conclusion Re LID

18 Throughout this litigation, the other parties have sought to justify the permit’s failure to
19 require LID by raising questions or concerns about its effectiveness. They claim, for example,
20 that it does not work on every possible site, such as steep slopes with high groundwater, see, e.g.,
21 Moore Dep. at 110; but see O’Brien Dep. at 120 (disagreeing that alternative reasons were relied
22 on for leaving LID out of permits and Manual), or that it doesn’t necessarily obviate the need for
23 engineered BMPs. The record reveals that LID can offer at least some benefits on virtually any
24 site. See, e.g., Green Infrastructure Statement at 2 (LID can be used “almost anywhere where

1 soil and vegetation can be worked into the urban or suburban landscape”); O’Brien Dep. at 121
2 (Q: “So, even if you can’t do perfect LID in one spot, you could have a green roof or you could
3 have permeable pavement?” A: “Yes.”); Moore Dep. at 121 (some LID methods appropriate to
4 most sites). But the disagreement about whether LID will work everywhere, or by itself, is a
5 distraction, not a substantial dispute of material fact, as there is no dispute that LID is both more
6 effective and more cost-effective than traditional stormwater controls in at least some places and
7 to some degree in most places, but is not required in those places. See, e.g., Emmet Dep. at 75
8 (Q: “So if LID is not appropriate for every site, how come it wasn’t required where it is
9 appropriate?” A: “That’s a good question. It is allowed.”). PSA is not asking the Board to apply
10 a one-size-fits-all solution or demand that specific LID BMPs be prescribed in every place for
11 every project. Rather we ask that the Board clarify that—as a matter of law—Ecology has the
12 authority and the obligation to impose the most protective standards feasible, authority it has
13 failed to employ in the Phase I permit. PSA requests that the Board remand the Permit with
14 instructions to modify its provisions for new and redevelopment to require LID provisions or
15 appropriate performance standards. In the alternative, and at a minimum, the Board should
16 remand the Permit to Ecology to conduct a full AKART analysis of LID technologies, with
17 appropriate public input, and include in a revised Permit those approaches found to be AKART.

18 **II. THE PHASE I PERMIT UNLAWFULLY FAILS TO REQUIRE NEW AND**
19 **REDEVELOPMENT VESTED TO OLDER STANDARDS TO REDUCE**
20 **STORMWATER POLLUTION TO THE MEP.**

21 Washington adheres to the “early vesting doctrine,” under which a party filing a timely
22 and complete building permit application obtains a “vested right” to have that application
23 processed according to the zoning, land use, and building ordinances in effect at the time the
24 application is submitted. See RCW 19.27.095(1); W. Main Assocs. v. Bellevue, 106 Wn.2d 47,

50-51 (1986).¹⁰ Ecology has indicated that the controls required for new and redevelopment in the Phase I permit “must be done within the context of state vesting laws.” Phase I Fact Sheet at 27; see also Response to Comments at 143 (“The post construction stormwater controls required by this permit are not required to be applied to projects which are vested to earlier standards.”). Thus, although the Permit purports to define what represents “maximum extent practicable” for new and redevelopment in the Permit, Ecology exempts Phase I municipalities from requiring projects vested to older regulations from meeting that standard. Such an exemption unlawfully results in less stringent control of stormwater pollution than required under federal law and calls into question the propriety of EPA’s delegation of NPDES permitting authority to Ecology.

There is no dispute that exempting vested projects from the requirements of the Permit represents a significant weakness in the Permit’s ability to meet the goals of protecting and recovering water quality in Western Washington. In a 2003 memo, Bill Moore identified “the vesting of projects under older inadequate development standards” as a key barrier to protecting water quality. See SMT Strategic Agenda at 1 (Ex. 61). Moore was also one of the authors of a paper identifying vesting as a challenge to stopping the decline of Puget Sound water quality.

State vesting laws work against the application of effective stormwater management by allowing development to occur in areas that have been subsequently shown to be inappropriate for development and by allowing vested development to be built under older, substandard stormwater standards.

Problems, Issues & Analyses Needed at 4. The paper recommended further analysis of local

¹⁰ Washington is one of only a few that take this approach. In the vast majority of states, development rights do not vest until the developer has relied in good faith on a validly issued development permit or some other government action. E.g., Mark S. Dennison, Zoning: Proof of Vested Right to Complete Development Project, 35 Am. Jur. Poof of Facts 3d. 385 at §§ 4-6 (June 2007 update) (Ex. R); see also Erickson & Assocs., Inc. v. McLerran, 123 Wn.2d 864, 868 (1994) (“Washington’s vesting rule runs counter to the overwhelming majority rule that ‘development is not immune from subsequently adopted regulations until a building permit has been obtained and substantial development has occurred in reliance on the permit.’”)

jurisdiction's authority to regulate stormwater in the context of vesting, and evaluation of changes to state vesting laws. Id. at 7. In his deposition, Moore described the vesting exception to the Permit's development standards as "potentially . . . pretty huge." Moore Dep. at 184.

It is well established that state CWA programs may not impose less stringent requirements than those mandated by Congress. 33 U.S.C. § 1370(1) (Ex. S); 40 C.F.R. § 123.25(a) (Ex. T). In Northern Plains Resource Council v. Fidelity Exploration & Development Co., 325 F.3d 1155 (9th Cir. 2003) (Ex. U), the Ninth Circuit rejected Montana's decision to exempt a discharge from the NPDES, finding that "Montana has no authority to create a permit exemption from the CWA for discharges that would otherwise be subject to the NPDES permitting process." Id. at 1164. The court reasoned that "absent statutory authority for Montana to create such exemptions, it cannot possibly be urged that Montana state law in itself can contradict or limit the scope of the CWA, for that would run squarely afoul of our Constitution's Supremacy Clause." Id. at 1165 (citing U.S. Const. art. VI, cl. 2 (Ex. V); Nat'l Audubon Soc'y v. Davis, 307 F.3d 835, 851 (9th Cir. 2002)) (Ex. W); see also Oregon State Pub. Research Group v. Pac. Coast Seafoods Co., 341 F. Supp. 2d 1170, 1178 (D. Or. 2004) (Ex. X) ("[B]y enacting the CWA Congress created a widespread federal system of regulation, from which an area for state enforcement was carved. To avoid violating federal law, state laws and regulations must satisfy the specific requirements set forth in the federal laws and regulations.")

In emails and deposition testimony, Moore explained that "practicability" under the CWA is "tempered" by state vesting laws—it is not, in Ecology's view, "practicable" to require projects vested to earlier standards to meet the permit's requirements. See Moore Email (Ex. 62); Moore Dep. at 185 ("I don't think this permit can require local governments to violate state law and still be practicable.") Ecology is wrong for two reasons. First, as discussed above,

1 “practicability” refers to the physical and, to a limited extent, economic feasibility of pollution
2 control approaches. Indeed, rather than exempting jurisdictions from meeting MEP where it
3 clashes with their other authorities, governing law requires that permittees demonstrate that they
4 have the legal authority to control discharges appropriately. 40 C.F.R. § 122.26(d)(1)(ii);
5 40 C.F.R. § 122.26(d)(2)(i). Requiring jurisdictions to meet the MEP standard, even where it
6 collides with state vesting law, is not a violation of the vesting law because the CWA supersedes
7 it.¹¹ Second, Ecology premises the vesting exception on an irreconcilable clash between the
8 MEP standard and state law that does not need to exist. The Permit need not mandate that
9 permittees “violate” state vesting law, as it could have required them to find alternative ways to
10 mitigate the impacts of vested projects built with inadequate development standards. For
11 example, permittees could allow developments vested to inadequate standards to proceed, but
12 apply some kind of mitigation, or raise standards for non-vested projects, so that the impacts of
13 vested projects are reduced. Ecology considered none of these options.

14 Congress has required that Phase I permittees reduce their discharges to the MEP and
15 neither the statute nor governing regulations provide a vested rights exemption to this
16 requirement. 33 U.S.C. § 1342(p)(3)(B). Ecology’s failure to require new development and
17 redevelopment to control stormwater pollution to the MEP when it is vested to an older standard
18 creates the type of exemption rejected in Northern Plains and violates the CWA. The Board
19 should find that the MEP standard must be harmonized with state vesting law so that projects
20 vested to older standards will not undermine permittees’ ability to meet the MEP requirement.

21
22
23 ¹¹ Similarly, if state vesting laws deprive Ecology of the authority to require permittees to control
24 stormwater discharges to the MEP, it arguably should not be implementing the NPDES program
at all. See supra at 29-30 (discussing delegation standards).

1 III. THE PERMIT UNLAWFULLY FAILS TO SET STANDARDS FOR REDUCING
2 IMPACTS FROM EXISTING DEVELOPMENT

3 While the dispute over LID arises mostly in the context of new and redevelopment, the
4 challenge of stormwater runoff from existing buildings, roads and other facilities calls for
5 additional approaches. Existing development is an acute problem, as all of the existing water
6 quality problems today are caused by development that already exists. Moore Dep. at 145 (not
7 possible to meet WQS without addressing runoff from existing development); O'Brien Dep. at
8 169. Impacts from existing development can be addressed through "structural" stormwater
9 controls (i.e., retrofitting or construction of treatment/flow control facilities) or "source control"
10 approaches (i.e., BMPs to reduce pollutants in runoff, such as restrictions on the use of pesticides
11 or downspout disconnection programs), and preferably a combination of both.¹²

12 The Phase I permit imposes requirements regarding both approaches. In each case,
13 permittees are required to develop a program to "reduce" impacts from existing development.
14 See Permit at 12-15. However, the Permit provides no direction on how much "reduction" is
15 required or any other objective standard by which to judge compliance with this provision.
16 Moore Dep. at 150. As Mr. Moore conceded, there is nothing in the Permit itself that prevents
17 permittees from adopting a *de minimis* reduction that meets the letter of this requirement but fails
18 to reduce pollutants to the MEP and/or apply AKART: no minimum number of projects, no
19 particular amount of investment, no pollution control goals that have to be met. Id. at 147-150;
20 see also Fact Sheet at 35 ("Ecology has not set a minimum expectation for the level of effort for
21 this requirement.").¹³ The same flaw is true of the source control program. See Moore Dep. at

22 ¹² LID is an available option for retrofitting where site conditions and constraints allow. See
23 O'Brien Dep. at 166. As noted above, the City of Chicago is retrofitting its entire alley network
24 to use pervious materials and infiltrate all runoff onsite. See supra at 23.

¹³ Moore stated that Ecology considered various objective standards but rejected them as

1 154-55. While Moore falls back on Ecology’s discretion to reject inadequate plans, it is
2 undisputed that there is no mechanism by which Ecology approves or disapproves of permittees’
3 SMPs. See Fact Sheet at 28 (“Ecology is not following EPA’s permitting strategy where each
4 permittee was to propose a SWMP for the term of the permit. Instead, Ecology is prescribing the
5 requirements in this permit.”); PMT Memo (Ex. 63) at 1 (rather than review every permit,
6 Ecology is being explicit with prescriptive requirements in the permit itself as to what represents
7 MEP). Moore merely refers to Ecology’s ability to review annual reports and “bring that issue
8 up” if plans are inadequate and Ecology decides to do so. Moore Dep. at 150. Since the
9 appropriate level of effort is left completely undefined, the issue is left within Ecology’s
10 unfettered discretion.

11 Ecology cannot simultaneously divest itself of review authority over permittees’ SMPs
12 while failing to set meaningful standards in the permit itself. This is precisely the issue—
13 creation of an “impermissible self-regulatory system”—that led to the rejection of the Phase II
14 rules by the Ninth Circuit. See Environmental Defense Ctr., Inc. v. EPA, 344 F.3d 832, 854-56
15 (9th Cir. 2003) (Ex. Y). In a conclusion that squarely applies to this Permit’s existing
16 development provisions, that Court held that the failure to oversee individual stormwater
17 programs was flawed because “nothing prevents the operator of a small MS4 from
18 misunderstanding or misrepresenting its own stormwater situation and proposing a set of
19 minimum measures for itself that would reduce discharges by far less than the maximum extent
20 practicable.” Id. at 855. Similarly, in the challenge to the industrial stormwater general permit,
21 the Board invalidated the permit’s compliance schedule that lacked a requirement that Ecology

22
23 arbitrary. See id. at 150-51. Mr. Moore did not explain why having no standard at all was less
24 arbitrary than the standards that it rejected.

1 approve of a permittee's BMPs. PSA v. Ecology, 2003 WL 21391316 (Wash. PCHB June 6,
2 2003) (Ex. Z). The Board found the approach represented an "abdication of [Ecology's]
3 responsibility to determine whether a permittee applies [AKART]." Id. at *6-7. "[I]t leaves the
4 choice of the appropriate BMPs entirely up to the permittee. If the permittee makes the wrong
5 choice, Ecology has no responsibility under this scheme to rectify the situation in a timely
6 manner." Id.; see also PSA v. Ecology, 2003 WL 21877231 (Wash. PCHB Aug. 4, 2003)
7 (Ex. AA) at *8 (industrial stormwater) (lack of monitoring coupled with lack of regulatory
8 oversight impermissible "self-enforcing" regulatory system); PSA v. Ecology, 2007 WL 314868
9 (Jan. 26, 2007) (Ex. AB) at *29-30 (boatyards general permit) (rejecting permit's approach to
10 addressing violations of benchmarks, as it offers no assurances that legal standards will be
11 satisfied).

12 The same flaws infect the provisions for regulating existing development here. Ecology
13 asks only that permittees "consider" particular approaches and "reduce" pollutants. It has done
14 no assessment of how much reduction represents AKART or MEP, it will never do any such
15 assessment, and it has set no standard by which to evaluate plans. Plans for structural
16 stormwater controls do not need to be submitted to Ecology and Ecology does not need to review
17 and approve them.¹⁴ Nothing prevents permittees from adopting programs that do little to
18 protect water quality and that fail to represent MEP/AKART. As the Phase I permit writer noted
19 in an email, "In the 10 years the phase I permit has been on the books, Ecology's oversight has
20 been abysmal." Wessel Email (Ex. 64). While PSA understands that permittees cannot solve
21 every impact from existing development overnight, the law requires accountability and
22

23 ¹⁴ While, in contrast, plans under the source control program apparently are to be reviewed and
24 approved by Ecology, there is no standard by which to evaluate such plans and hence approval
becomes an entirely discretionary affair.

assurances that permittees are doing everything possible. The permit fails to provide either.

IV. THE PERMIT DOES NOT REQUIRE COMPLIANCE WITHIN THE TIMELINES PRESCRIBED BY LAW.

As noted above, it would be difficult to identify a regulatory program that has suffered from greater delays than the control of MS4 discharges. NRDC v. U.S. EPA, 966 F.2d 1292, 1299-1300 (9th Cir. 1992) (Ex. AC) (referring to “extraordinary delays” in implementing stormwater program). While the context of endless delay is an important one, the issue before this Board is simple: in enacting § 402(p), Congress set a firm deadline for implementation of Phase I permits: “Any permit shall provide for compliance as expeditiously as practicable, but in no event later than 3 years after the date of issuance of such permit.” 33 U.S.C. § 1342(p)(4)(A), (B) (emphasis added). The Ninth Circuit referred to the three-year limit as the “outside” date for implementing permits. NRDC, 966 F.2d at 1300-01. However, the Phase I permit gives permittees more than three years to implement several of its provisions. For example, the permit allows mapping of stormwater system outfalls with certain attributes up to four years after issuance of the permit. Permit at 7.¹⁵ Screening for illicit discharges in portions of each jurisdiction need not be completed for four years. Id. at 18. Permittees have four years to develop a schedule to inspect treatment and flow control facilities. Id. at 20-21. Several of the duties imposed on secondary permittees are tiered to the expiration of the permit, i.e., 180 days prior to the expiration of the permit, or four and a half years as long as the permit is not extended. Ecology offers no explanation for ignoring the plain language of the statute. The Board should set aside any deadline in the permit that is longer than three years, including those that are tiered to the expiration of the permit. See PSA v. Ecology, 2003 WL 21391316 at *8

¹⁵ This deadline is particularly egregious in light of the fact that the Phase I municipalities had 12 years to implement the mapping requirements of the 1995 permits. See, e.g., Island/Snohomish Permit (Ex. 65) at 10 (requiring mapping of known stormwater outfalls).

(industrial stormwater) (permit fails to ensure compliance with WQS within three years).

V. THE PERMIT AUTHORIZES RELIANCE ON FUTURE TECHNICAL MANUALS THAT WILL NOT BE SUBJECT TO PUBLIC REVIEW.

In the appeal of the construction stormwater permit, PSA challenged a permit provision that allowed permittees to use manuals other than Ecology's to meet permit requirements. The Board found this provision unlawful, noting that it allowed Ecology to significantly modify the permit's terms without complying with mandatory permit modification procedures, and held open the possibility that alternative manuals could be developed and implemented with no provisions for public review and input. See Associated General Contractors v. Ecology, 2007 WL 81168 (Wash. PCHB, Jan. 4, 2007) (Ex. AD) at *4-5. Mysteiously, the Phase I permit contains the identical flaw. See Phase I Permit at 9; Wessel Email (Ex. 66) (Phase I permit writer notes that "[I]eaving the language in the preliminary draft was an oversight, and we cannot include it in the final permit.") It allows Ecology to find alternative requirements, thresholds and definitions to be "equivalent" to the 2005 Manual, but provides no process or standards by which such equivalency determination should be made. It effectively allows Ecology to approve significantly different standards without ever involving the public. The issue was decided in the construction stormwater permit and the same result should be reached here.

CONCLUSION

For the foregoing reasons, the Board should find unlawful and set aside the provisions of the Phase I permit discussed above, and remand it to Ecology for revision on an expeditious and binding schedule. Other attributes of the permit should remain in force while Ecology issues a revised permit that meets the requirements of the law.

1 Respectfully submitted this 15th day of January, 2008.

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