

POLLUTION CONTROL HEARINGS BOARD
STATE OF WASHINGTON

ROSEMERE NEIGHBORHOOD
ASSOCIATION; COLUMBIA
RIVERKEEPER; and NORTHWEST
ENVIRONMENTAL DEFENSE CENTER,

Appellants,

v.

WASHINGTON STATE DEPARTMENT
OF ECOLOGY, and CLARK COUNTY,

Respondents,

BUILDING INDUSTRY ASSOCIATION
OF CLARK COUNTY,

Intervenor-Respondent.

PCHB NO. 10-013

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

Appellants Rosemere Neighborhood Association, Columbia Riverkeeper, and Northwest Environmental Defense Center (“Appellants” or “Rosemere”) challenge Agreed Order No. 7273, entered into by the Respondents Washington State Department of Ecology (Ecology) and Clark County, related to achieving compliance with the National Pollution Discharge Elimination System Phase I Municipal Stormwater General Permit (Phase I Permit).

The Pollution Control Hearings Board (PCHB or Board) conducted a hearing in this matter on September 28 – October 1, 2010, at the Board’s offices in Tumwater. Attorneys Jan Hasselman and Janette K. Brimmer, Earthjustice, represented Appellants. Assistant Attorney General Ronald L. Lavigne, Senior Counsel, represented Respondent Department of Ecology (“Ecology”). Chief Civil Deputy E. Bronson Potter, and Christine M. Cook, Deputy Prosecuting

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**EXHIBIT B
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1 Attorney, represented Clark County. Intervenor-Respondent Building Industry Association of
2 Clark County (BIA Clark Co.) was represented by James D. Howsley, of Miller Nash LLP.

3 The Board hearing the case was comprised of Andrea McNamara Doyle, Presiding, and
4 Kathleen D. Mix and William H. Lynch, Members. Court reporting services were provided by
5 Kim Otis and Randi Hamilton of Olympia Court Reporters.

6 FINDINGS OF FACT

7 1.

8 This appeal challenges Agreed Order No. 7273, entered into by Ecology and Clark
9 County, related to achieving compliance with one aspect of the National Pollution Discharge
10 Elimination System (NPDES) Phase I Municipal Stormwater General Permit (Phase I Permit).
11 The history and scope of the Phase I Permit are discussed at length in this Board’s decision on
12 review of that permit. *See Puget Soundkeeper Alliance v. Ecology*, PCHB Nos. 07-021, -026, -
13 027, -028, -029, -030, -037 (2008) (hereinafter “Phase I Decision”). Ecology developed the
14 Phase I Permit through an eight year long process. *Id.* at FOF 1. Several events delayed the
15 issuance of the Phase I Permit, including the federal listing of Puget Sound Chinook Salmon in
16 1999, and Ecology’s decision to revise the states’ Stormwater Management Manuals. *Id.* at FOF
17 3. The Phase I Permit, a “programmatic permit,” requires municipal permittees to implement
18 area-wide stormwater management programs, rather than regulating discharges from individual
19 outfalls. *Id.* at FOF 6. The heart of the Phase I Permit requires that permittees implement a
20 Stormwater Management Program (SWMP), which has ten component parts,¹ including

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¹ Listed in Condition S5.

1 requirements to map municipal systems, detect and eliminate illicit discharges, engage in
2 structural retrofits, and require source controls at existing development. *Id.* at FOF 9. Of
3 particular relevance to this case is the SWMP component that requires permittees, including
4 Clark County, to implement a program to prevent and control the impacts of runoff from new
5 development, redevelopment, and construction sites. The Phase I Permit anticipates that the
6 permittees will adopt ordinances that require implementation of many aspects of the SWMP,
7 either by the municipality or by the regulated community which discharges to the municipal
8 storm sewer system.

9 2.

10 In the Phase I Permit, Ecology chose to regulate stormwater discharges from new
11 development and redevelopment primarily through the imposition of a new flow control
12 standard. Permit Condition S5.C.5.b.i. *Phase I Decision* at FOF 38. The flow control standard
13 is set out in Ecology's 2005 Stormwater Management Manual (2005 Manual), and required for
14 development projects over certain size thresholds. *Ex. J-16 (Phase I Permit)* at Condition
15 S5.C.5.b.i.² Under this updated flow control requirement, Phase I permittees must require new
16 development and redevelopment projects to control the rate at which stormwater is released from
17 the site to match historical pre-developed (typically forested) conditions, rather than existing site
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21 ² Ex. J-16 is the version of the Phase I Permit issued on January 17, 2007, and modified on June 17, 2009. The most recent version of the Phase I Permit, Ex. J-23, was modified on September 1, 2010, to incorporate, among other things, the Agreed Order that is the subject of this appeal.

1 condition runoff.³ The flow control standard, which is contained in the 2005 Manual, represents
2 a “default” standard under the Phase I Permit. If certain criteria are met (discussed further in this
3 opinion), a permittee can implement an alternative program to the flow control standard. Under
4 the same section of the Phase I Permit addressing controlling runoff from new development,
5 redevelopment, and construction sites, the permittee must also require use of non-structural
6 preventive actions and source reduction approaches, including Low Impact Development (LID),
7 to minimize the creation of impervious surfaces and the disturbance of soils and vegetation
8 where feasible. *Ex. J-16* at Condition S5.C.5.b.iii. The Phase I Permit required the ordinances
9 necessary to implement this section of the permit to be adopted no later than 18 months from the
10 effective date of the permit, by August 16, 2008. *Id.* at Condition S.5.C.b.iv.

11 3.

12 On January 13, 2009, Clark County adopted Ordinance No. 2009-01-01, with an effective
13 date of 90 days later, or April 13, 2009. Among other things, the ordinance requires the flow
14 duration standard for high flows to be engineered to match the *existing* conditions on the site
15 rather than historic, pre-development conditions, as required by the Phase I Permit. Clark Co.
16 Code 40.385.020.C.2.a. Clark County did not offer their adopted ordinance to Ecology as an
17 equivalent alternative program under the provision of the Phase I Permit that allows a variance
18 from the default flow control standard. Instead, in adopting the January 2009 Ordinance, Clark
19 County rejected the regulatory approach Ecology had implemented with the Phase I Permit, and

20 ³ The standard flow control requirement is to “match development discharge durations to pre-developed durations
21 for the range of pre-developed discharge rates from 50% of the 2-year peak flow up to the full 50-year peak flow.”
Id. at Appendix 1, p. 24.

1 determined it would impose a less stringent standard for stormwater control at new development
2 and redevelopment sites.

3 4.

4 On March 17, 2009, Ecology issued a Notice of Violation to Clark County alleging that
5 the county violated the terms of the permit by “[a]dopting a flow control policy that Ecology
6 determined does not provide equal or similar protection of receiving waters and equal or similar
7 levels of pollutant control, as compared to Appendix 1 [the 2005 Stormwater Management
8 Manual]. (CCC § 40.385.020.C.2.a.)” *Ex. J-2* at 1. In addition to being late, Ecology also
9 determined that Clark County’s ordinances and manual adopted an exemption for infill and
10 redevelopment projects from the 0.1 cubic feet per second flow increase threshold, also set out at
11 Appendix 1 of the Phase I Permit. *Id.* In the Notice of Violation, Ecology stated that the purpose
12 of the flow control requirement is to “reduce harmful impacts on fish, other aquatic life and
13 streams caused by runoff from development.” *Id.* Ecology concluded that Clark County’s lesser
14 standards and thresholds for control of runoff from new development and redevelopment would
15 not provide an equivalent amount of protection to receiving waters and pollutant control, as
16 required by the Phase I Permit. The Notice of Violation gave the County thirty (30) days to
17 inform Ecology what steps it had or would take to control pollution and comply with the Order.
18 *Id.* at 2.

19 5.

20 On January 6, 2010, Clark County and Ecology entered into Agreed Order No. 7273, the
21 purpose of which was to “establish the actions necessary to bring the County into compliance

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1 with Special Condition S5” of the Phase I Permit. *Ex. J-1* at 1. The Order requires Clark County
2 to implement a flow control program for new development and redevelopment that Ecology
3 concluded will result in an equivalent level of protection as the flow control requirement for new
4 development and redevelopment in the Phase I Permit. Ecology stated that the Agreed Order
5 “will provide an equivalent level of flow control” to that required under the Phase I Permit.
6 Ecology also noted that “[t]his approach is consistent with the Permit wherein Permittees are
7 allowed the option of proposing alternative methods of achieving flow control standards.” *Ex. J-*
8 *I* at 3. Rosemere timely filed this appeal challenging the Agreed Order.⁴

9 6.

10 *Concept of Agreed Order:* Under the Agreed Order, Ecology approved Clark County’s
11 alternative flow control program on the condition that Clark County mitigate runoff from new
12 development and redevelopment to the historic, pre-development condition through a capital
13 flow control mitigation program undertaken at alternative sites selected by the County, and at
14 County expense. *Ex. J-1* at 3-4. In other words, the Agreed Order allows Clark County to apply
15 the lesser flow control standard to new and redevelopment projects in its jurisdiction, utilizing
16 *existing* rather than pre-development conditions as the basis for application of the flow control
17 standard, provided that Clark County “mitigates,” or makes up the difference, at another site in

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19 ⁴The parties filed cross motions for summary judgment on several of the legal issues in this appeal, all of which the
20 Board denied. In denying summary judgment, the Board determined that it needed a better record in order to reach a
21 decision about whether the Agreed Order provides equal or similar protection of receiving waters as the Phase I
Permit. The Board concluded that Rosemere, as the appealing party, would continue to bear the burden of proof in
challenging the Agreed Order but that Ecology also bore the burden of establishing the baseline against which it
determined the equivalency of Clark County’s alternative. *Order Denying Summary Judgment*, at 16-18.

1 the County. The Agreed Order allows the County to mitigate by building several types of flow
2 control facilities as capital improvement projects. These include stormwater retention,
3 infiltration and detention facilities, existing facility retrofits or reconstruction, including LID
4 retrofits, and conversion of land cover to historical forest. *Ex. J-1* at Attachment A, pp. 4-7.

5 7.

6 *Authority for Agreed Order:* The Agreed Order entered into between Ecology and Clark
7 County relies on that term of the Phase I Permit that allows there to be adjustment or variance of
8 the flow control requirements, by use of “more stringent requirements,” and/or requirements that
9 may be “tailored to local circumstances through the use of basin plans or other similar water
10 quality and quantity planning efforts.” *Id.* at Condition S.5.C.5.b.i. The permit requires that any
11 such local alternative standards “shall provide equal or similar protection of receiving waters and
12 equal or similar levels of pollutant control” relative to the default standard. *Id.* Because this is
13 the standard the Board must apply to evaluate the Agreed Order under appeal in this case, we
14 first make findings related to whether the prerequisites under the Phase I Permit for allowing an
15 adjustment or variance to the flow control standard have been met, then make findings related to
16 the scope of the Agreed Order, followed by findings related to the requirements of the Phase I
17 Permit, and the manner in which the County will implement the Agreed Order. These form the
18 basis of our analysis and conclusions as to why the mitigation program of the Agreed Order fails
19 to provide equal or similar protection to receiving waters and equal or similar levels of pollutant
20 control to that required by the Phase I Permit.

1 8.

2 *Metrics for calculating the mitigation obligation:* The Agreed Order establishes an
3 accounting system for the mitigation requirement based upon the existing project land use cover
4 acreage for each of three categories of land use cover: effective impervious area, pasture, and
5 lawn/landscape. Conversion of forest land does not trigger a mitigation obligation because the
6 County Code requires development projects to fully mitigate for the project's cleared forest. The
7 County will review all new development or redevelopment projects subject to the Agreed Order
8 to determine the extent to which they fall short of mitigating to historical land cover conditions.
9 The Agreed Order does not require the County to track or account for either the soil type or the
10 slope of the new or redevelopment project site triggering the mitigation obligation, and it does
11 not require the mitigation sites to have the same soil type or slope as the site of the new or
12 development project. *Ex. J-1* at Attachment A.

13 9.

14 *Tracking and Accounting mitigation obligation:* The County will track the projects and,
15 once construction or land disturbing activity starts, will incur a mitigation obligation. The
16 mitigation obligation associated with each new or redevelopment project is measured as the
17 difference between the flow control provided by the project to existing land cover and the
18 amount of flow control required to meet minimum requirement #7 of the Phase I Permit's
19 Appendix 1. *Id.* The County must construct flow control projects that achieve the additional
20 amount of flow control necessary to match historic conditions. The Agreed Order sets out the
21 acceptable procedures for performing the necessary calculations related to the stormwater

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1 retention and detention facilities, which involve using the Western Washington Hydrology
2 Model (WWHM) or the Clark County version of the WWHM. *Ex. J-1* at Attachment A, p. 5.
3 Additional details regarding Clark County’s tracking and accounting system for the mitigation
4 requirement are specified in Attachment A of the Agreed Order. County’s Development and
5 Redevelopment Flow Control Mitigation Program (“Mitigation Program”). *Ex. J-1* at 4 &
6 Attachment A.

7 10.

8 *Location of Mitigation Projects:* Mitigation projects to address the County’s mitigation
9 obligation must be built within the same Water Resource Inventory Area (WRIA), of which there
10 are two in Clark County.⁵ The Agreed Order states that “[T]o the *extent feasible*, the locations of
11 Mitigation Projects *should* support identified needs and recommendation in existing resource
12 management plans, and *should* also align with the County’s policies on environmental
13 mitigation. Projects *should* be prioritized by watershed and then WRIA, in consideration of the
14 distribution of the County’s Mitigation Obligation.” (emphasis added.) *Ex. J-1* at Attachment A,
15 p. 8. Clark County will use its current Stormwater Needs Assessment Program (SNAP) and
16 Stormwater Capital Improvement Program (SCIP) to scope, prioritize, and plan flow control
17 mitigation projects. *Id.* The Agreed Order gives the County considerable leeway in how it
18 ultimately selects mitigation projects, stating as follows with respect to development and
19 prioritization of mitigation projects: “Within the group of projects deemed most suitable to

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21 ⁵ WRIA 27, which drains the northern portion of the County to the Lewis River and its tributaries, and WRIA 28,
which drains the southern portion of the County to the Columbia River and its tributaries. *Beyerlein Testimony.*

1 watershed conditions, highest priority may be given to projects having the best cost/benefit ratios
2 in terms of cost per unit of land cover, mitigated.” *Id.* Ecology does not have a role in the review
3 or approval of the prioritization process or the mitigation projects selected under the Agreed
4 Order.

5 11.

6 *Timing of mitigation:* The County must meet its flow control mitigation obligation
7 within two calendar years from the calendar year the development project being mitigated starts
8 construction or land disturbing activity. *Ex. J-1* at Attachment A, p. 9. For example, a
9 development project requiring mitigation that began construction anytime during calendar year
10 2009 must be mitigated by the end of calendar year 2011. *Id.* Since various types of subdivision
11 and other construction approvals are valid for periods of two to seven years, and possibly longer
12 with extensions, this will result in mitigation obligations extending well beyond the term of the
13 current permit and into the future several years. *See e.g.*, RCW 58.17.170 and CCC 14.06.105.5.

14 12.

15 *Use of Vesting, and Relevant Effective dates:* Under the Agreed Order, the County incurs
16 a potential mitigation obligation for any new or redevelopment project that meets threshold
17 requirements for flow control facilities under the Phase I Permit and that “vested” under state
18 vesting laws⁶ on or after April 13, 2009. *Ex. J-1* at Attachment A. Stated another way, the
19 Agreed Order does not require mitigation for all projects as of August 16, 2008, the Phase I
20 Permit’s deadline for adoption of ordinances, but rather provides the County an additional eight

21 ⁶ RCW 58.17.033 (subdivision code) and RCW 19.27.095 (building permits).

1 month delay before applying the flow control standard to new applications for development or
2 redevelopment. The Agreed Order also allows the County to receive mitigation credits for any
3 qualifying flow control mitigation projects completed after April 13, 2009, irrespective of when
4 they were designed, approved, or started construction. *Ex. J-1* at Attachment A. In practice, this
5 has allowed the County to receive a large amount of mitigation credit for a project that was well
6 underway before the Agreed Order was executed or before the County incurred any mitigation
7 obligations.⁷ Numerous commercial and multifamily building permit applications, as well as
8 numerous subdivision permit applications, vested for land use purposes between August 16,
9 2008, and April 13, 2009.⁸ *Exs. A-58, A-59*. One of these subdivisions is approved for 103
10 single-family lots. *Snell Testimony, Ex. A-67*. EPA expressed concern that the delayed effective
11 date under the Agreed Order provides less cumulative flow control over its term than the Phase I
12 Permit. *Shrieve Testimony, Ex. A-22*. NMFS likewise expressed concerns over the lag time
13 between August 2008 and April 2009, and stated that there is “no scientific justification” for this
14 delay. *Shrieve Testimony, Ex. A-23*. Costs can be significant, however, if a project needs to be
15 re-designed. *Killian Testimony*.

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⁷ The County has reported mitigation credit for 11 acres of Effective Impervious Area, 15 acres of Lawn/Landscape,
19 and 2 acres of Pasture in connection with its completion in 2009 and 2010 of the 152nd St. project (aka “Encore
20 North Phase I”), a project that has been on the County’s capital projects list for several years. *Ex. J-20*.

21
⁸ A subdivision will discharge into a municipal separate storm sewer system (MS4) approximately 80 to 90 percent
of the time. *Gray Testimony*.

1 13.

2 *Monitoring/Maintenance of mitigation projects:* The Agreed Order does not include any
3 requirements for the County to monitor or maintain the mitigation projects it constructs under the
4 Mitigation Program. Clark County's Stormwater Facility Maintenance Manual, and its
5 Stormwater Manual, set forth the requirements for monitoring, inspecting, and maintaining
6 stormwater mitigation facilities. *Exs. R-29 & R-30.*

7 14.

8 *Funding of Mitigation Program:* The Agreed Order requires the County to maintain
9 funding sources adequate to comply with the Agreed Order. *Ex. J-1* at p. 4. Parties to the
10 Agreed Order anticipated that the County's Clean Water Fund would be used to plan and
11 construct mitigation projects, although the Agreed Order provides that the County may use any
12 allowable funds to pay for mitigation projects. *Ex. J-1* at Attachment A, p. 11.

13 15.

14 *Reports to Ecology:* Clark County will report to Ecology annually on the status of its
15 Flow Control Mitigation Program, as an attachment to the annual report required by the General
16 Permit. The Agreed Order sets out the elements of the annual report, and also requires the
17 County to include a narrative describing the funding status of the mitigation program, identifying
18 any anticipated shortfalls. Beyond this reporting requirement, Ecology has no role in selection of
19 mitigation projects, and no responsibility for review or approval in project selection or
20 prioritization. There is no requirement in the narrative reporting for the County to compare
21 results achieved through the mitigation program against any criteria related to stream or basin

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1 health or recovery, or to identify whether significant areas of salmon habitat are being mitigated
2 to compensate for similar significant areas of salmon habitat where historic pre-development
3 conditions are not being mitigated at the site of the new development or redevelopment. *Ex. J-1*,
4 at Attachment A, p. 10.

5 16.

6 On September 1, 2010, Ecology modified the Phase I Permit to incorporate the
7 substantive provisions of the Agreed Order into the permit. *Ex. J-23*. Rosemere timely filed an
8 appeal of the Permit Modification.

9 17.

10 In coming to agreement with Clark County, Ecology evaluated the Agreed Order to
11 determine if it was equivalent to Phase I Permit requirements under the terms of Condition
12 S5.C.5.b. *O'Brien Testimony*. Ecology now contends that the Agreed Order does not change the
13 default flow control standard, but rather provides a different administrative way to meet it,
14 simply allowing it to be applied at a different site. *O'Brien Testimony*. The County and Ecology
15 also attempt to recast the Agreed Order as something other than a “mitigation” program, by
16 stating the County is meeting its obligation to match the Phase I Permit flow control standard,
17 just at an alternative location. *Gray Testimony*. If Ecology (and the County) is correct in this
18 latter interpretation, then Clark County was not required to conduct basin planning or a similar
19 water quality and quantity planning effort prior to Ecology’s approval of the alternative flow
20 control program under Condition S5.C.5.b. The Board will first consider the purpose of basin

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1 planning and the purpose of the flow control standard, in developing its conclusions of law on
2 this issue.

3 18.

4 Appendix 1 to the Phase I Permit and the Stormwater Management Manual for Western
5 Washington provide further specificity on how basin plans, referenced in Condition S5.C. of the
6 Phase I Permit as an alternative planning effort, are to be developed. Appendix 1 states that an
7 alternative requirement for Western Washington may be established through application of
8 *watershed-scale* hydrological modeling and supporting field observations. *Ex. J-17 at Appendix*
9 *1 (Minimum Technical Requirements for New Development and Redevelopment), pp. 25 & 28.*⁹
10 Appendix 1 also requires that before a basin plan can modify the minimum requirements of the
11 Phase I Permit: it must be formally adopted by all jurisdictions with responsibilities under the
12 plan, all ordinances and regulations called for by the plan must be in effect, and the basin plan
13 must be reviewed and approved by Ecology. *Id.* at p. 29.

14 19.

15 It is un rebutted that Clark County did not prepare a basin plan using watershed-scale
16 hydrological modeling and supporting field observations, it did not adopt a basin plan, and
17 Ecology did not review and approve a basin plan for Clark County as an underlying basis for the
18 alternative program set out in the Agreed Order. Instead, Clark County will use its Stormwater
19 Needs Assessment Program (SNAP) and Stormwater Capital Improvement Program (SCIP) to

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21 ⁹This is the same requirement as set forth as a minimum requirement for flow control in the Stormwater
Management Manual for Western Washington. *Ex. J-19 at Vol. 1, §2.5.7, p. 2-33.*

1 scope, prioritize, and plan flow control mitigation projects. *Ex. J-1* at Attachment A, p. 8.
2 These planning documents relied upon by Clark County to justify its alternative flow regime, fall
3 far short of what is contained in a basin plan. A basin plan includes several key components,
4 including a discussion of zoning, projected build-out, an evaluation of every stream channel
5 (each which has been walked), a hydrologic model, and water quality data that includes new
6 sampling. Essential information such as hydrologic modeling is missing in many of the SNAP
7 manuals. *Booth Testimony*. Rod Swanson, the NPDES Coordinator for Clark County,
8 acknowledged the SNAP manuals are not basin plans. *Swanson Testimony*. Similarly, SCIP is a
9 process whereby the County uses objective criteria to evaluate and prioritize the many possible
10 stormwater capital improvement projects, allowing public input on the allocation of resources.
11 *Ex. J-3*. It is not a basin plan in any sense of the word.

12 20.

13 The Phase I Permit requires that municipalities' Stormwater Management Programs
14 (SWMP) must prevent and control the impacts of runoff from new and redevelopment activities.
15 *Ex. J-16* at Condition S.5.C.5.a-b.ii. In order to do so, the Phase I Permit required
16 implementation of a new, more stringent default flow control standard, with the attendant
17 thresholds and definitions contained in Ecology's 2005 Stormwater Management Manual. This
18 new standard was developed over a long period of time, and replaced the previous "peak" flow
19 standard. *Ex. J-16* at Condition S.5.C.5. Under the Phase I Permit, municipal permittees are
20 required to control stormwater flows from certain new and redevelopment projects to levels that
21 match historical pre-developed (typically forested) conditions, under certain peak flow

15

1 conditions.¹⁰ In other words, it requires facilities be engineered so that discharges are not
2 predicted to exceed the predevelopment flow duration for a range of storm events. *O'Brien*
3 *Testimony, Booth Testimony*. The Independent Science Panel, which reviewed Ecology's
4 Stormwater Management Manual for Western Washington, determined the flow control standard
5 and the requirement to match flows estimated for an historic land cover condition, was
6 appropriate to use in all watersheds, regardless of a watershed's current level of development.¹¹
7 *Ex. R-77* at p. 11.

8 21.

9 A primary goal of the new flow control standard of the Phase I permit is to make progress
10 in reducing high flows of stormwater from all new development, redevelopment, and
11 construction sites that contribute to accelerated erosion of stream channels. *O'Brien Testimony,*
12 *Booth Testimony*. Ecology identified the purpose of the flow control requirement (Condition
13 S.5.C.5.b.ii) as being "to reduce negative impacts on water quality, fish, other aquatic life, and
14 streams caused by increased runoff from new development and redevelopment and to reduce
15 impacts from existing development." *Ex. J-1*. Stated another way, the Phase I permit's flow
16 control standard is intended to ensure flows from new and redevelopment do not make existing
17 conditions worse and, where existing conditions/flows are different from historic flows, require

18 ¹⁰ The standard flow control requirement is to "match development discharge durations to pre-developed durations
19 for the range of pre-developed discharge rates from 50% of the 2-year peak flow up to the full 50-year peak flow." It
20 applies to projects of a specified size or generating a specified amount of stormwater discharge. *Id.* at Appendix 1, p.
21 24.

¹¹ The Independent Science Panel was created by the Legislature in 1998 to provide scientific oversight and review
of the State's salmon recovery efforts. *Ex. R-77, p. 1.*

1 that post-development flows restore flows to more natural conditions. While the flow control
2 standard was not expected to restore aquatic habitat, or eliminate all erosion from a development
3 site, it represented a substantial advancement in the effort to reduce adverse impacts to stream
4 hydrology and water quality associated with stormwater runoff, and associated high flows, from
5 ongoing urbanization, offering significant protections for streams from erosion and other adverse
6 consequences. *Booth Testimony, O'Brien Testimony*. In discussing the objective of the flow
7 control requirement and flow control BMPs, the Stormwater Management Manual for Western
8 Washington states that “[m]aintaining the naturally occurring erosion rates within streams is
9 vital, though by itself insufficient, to protect fish habitat and production.” *Ex. J-19* at Vol. 1,
10 §2.5.7, pp. 2-34.

11 22.

12 In the Phase I Decision, this Board discussed the need for the NPDES Phase I Permit to
13 comply with the Clean Water Act requirement to reduce pollution to the maximum extent
14 practicable (the “MEP” standard). The Board also concluded that state law had a similar
15 requirement, wherein all waste discharge permits must incorporate permit conditions that require
16 all known, available and reasonable methods of treatment to control discharges and protect water
17 quality (the “AKART” standard) *Phase I Decision* at COL 12. The Board also found as follows
18 with respect to the conditions of the Phase I Permit: “Ecology views these SWMP requirements,
19 in the aggregate, to represent MEP standard; that is, permittees who implement all of the
20 program requirements in combination with one another are considered by Ecology to be reducing
21 pollutants to the maximum extent practicable....” *Phase I Decision* at FOF 8. Ultimately, the

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1 Board concluded that the permit's reliance on a flow control standard as the primary method to
2 control stormwater runoff from MS4s failed to reduce pollutants to the federal MEP standard,
3 and did not represent application of all known, available and reasonable methods of treatment
4 under state law because it placed insufficient reliance on the application of low impact
5 development (LID) techniques in combination with the flow control standard. These findings
6 and conclusion are discussed further below. *Phase I Decision.*

7 23.

8 Ecology determined that in order to satisfy MEP and AKART, permittees must adopt
9 their updated flow control requirements no later than 18 months after the effective date of the
10 permit (August 16, 2008), and begin applying those requirements within a reasonable period of
11 time after adoption (30-90 days). The Phase I Permit's Appendix 1 does not specify a precise
12 date by which the post-construction stormwater control facilities need to be operational relative
13 to the start of construction or land-disturbing activity at development sites. As a practical matter,
14 they are typically constructed as part of the site-development process, when the developer
15 installs the infrastructure for the new or redevelopment. In a subdivision, for example, this
16 means they are constructed when the roads and utilities are installed, prior to the construction of
17 the individual residences within the subdivision. *O'Brien Testimony.*

18 24.

19 The Phase I Permit does not require either municipal permittees or developers to monitor
20 the effectiveness of the stormwater control facilities constructed in compliance with the permit's
21 default flow control standard in Condition S.5.C.b.ii. The permit requires that municipal

1 permittees' stormwater management programs must use qualified personnel to perform post-
2 construction inspections of all development sites that meet the thresholds of the default flow
3 control standard, provide for the development of maintenance plans for permanent stormwater
4 facilities, and assign responsibility for such maintenance. *Ex. J-16* at Condition S.5.C.b.vi.

5 25.

6 The Board finds that the Agreed Order rests on no science as to the comparability of its
7 mitigation metric in relation to the Phase I Permit's flow control approach, and has no
8 requirement on a going forward basis that calls for a comparison of the benefits gained at a
9 mitigation site, compared to the detrimental effects at a new development site where a lesser
10 control standard is utilized. As discussed earlier, the Agreed Order allows the County
11 considerable leeway in how it ultimately selects and sites flow control mitigation projects. The
12 only restriction is that mitigation projects to address the County's flow control mitigation
13 obligation must be built within the same WRIA. While the mitigation obligation is measured
14 and tracked by acres for each of three land-cover types, it does not require the County to track or
15 account for either the soil type or the slope of the new or redevelopment project site triggering
16 the mitigation obligation, and it does not require the mitigation sites to have the same soil type or
17 slope as the site of the new or development project. As discussed below, the acreage metric set
18 forth in the Agreed Order, and the siting of flow control mitigation projects without any
19 requirement for Clark County to address equivalent impacts to the environment and beneficial
20 uses, lack a scientific basis and is inconsistent with directives to protect beneficial uses.

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The majority of the Board finds that the acreage metric is fundamentally flawed. Ecology believes this acreage metric is useful because it is straight-forward and is less likely for a permittee to be able to “play games with.” *O’Brien Testimony*. While the acreage metric may be simpler and easier to implement, the majority finds it is critically flawed because it is based entirely upon a mathematical perspective and there are *no* data, studies, or scientific support to support its underlying assumption that harm caused to one stream can be mitigated through a project in a different subwatershed. Under this acreage metric, it is highly unlikely there will be any relationship between the harm and the benefit. *Winters Testimony*.

27.

The acreage metric also completely ignores the purpose of the flow control requirement in the first instance, which is to “reduce harmful impacts on fish, other aquatic life and streams caused by runoff from development.” *Ex. J-2* at p. 1. Multiple witnesses stressed how the acreage metric fails to consider and mitigate for actual impacts on the environment, for example eroded stream banks and scoured substrates. *Booth Pre-Filed Testimony* at ¶33. Salmon and steelhead populations are influenced by the importance of the habitat affected, and the areas to be used for mitigation do not need to account for any of these attributes. *Rhodes Pre-Filed Testimony* at ¶36.

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2 The weight of expert testimony recognizes that streams, once degraded, can continue to
3 degrade. “[T]he high flow durations from even a partially developed site will be highly
4 disruptive to streams.” *Booth Pre-Filed Testimony* at ¶24. “[D]amage to receiving waters from
5 stormwater flow from developed areas is cumulative. Damage to a stream builds on itself each
6 time it rains as the water flows faster, cuts stream banks and scours stream beds further, and the
7 hydrograph becomes more extreme. In other words, a flow duration standard based on meeting
8 only existing conditions (like Clark County’s) [at new development sites] does not freeze the
9 environmental conditions in place, but allows for ongoing cumulative degradation of the stream.
10 Moreover, the status quo in Western Washington, including Clark County, is currently degraded
11 ... with many streams unable to support beneficial uses and even basic ecological function due in
12 large part to stormwater runoff from developed areas.” *Booth Pre-Filed Testimony* at ¶26. Doug
13 Beyerlein, Clark County’s expert witness on hydrology, did not disagree with Dr. Booth’s
14 research and agreed that Clark County streams are not stabilized. *Beyerlein Testimony*.
15 Ecology’s expert, Ed O’Brien, also acknowledged that streams are still degrading, that there is
16 nothing unique about Clark County that precludes use of Ecology’s default flow control
17 standard, and that no part of Clark County qualifies as a highly urbanized area for purposes of
18 applying a lesser standard. *O’Brien Testimony*. The Board finds that the streams in Clark
19 County are subject to further degradation.
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1 29.

2 Ecology recognizes that the flow control standard is a water-quality based standard and
3 not just a technical standard. The flow control standard, therefore, goes beyond the state's
4 requirement to implement AKART. Ecology also states that the flow control standard tries to
5 address past harms to streams, but was not intended to address all biological factors. *O'Brien*
6 *Testimony*. Simply because all biological factors are not meant to be addressed by the flow
7 control standard, however, does not mean all biological factors on the ground can be ignored,
8 especially given the purpose of the flow control standard to protect beneficial uses in the stream.
9 Ecology has, in connection with this case, recognized the importance of preserving beneficial
10 uses when evaluating flow control regimes. The Department stated that "[to] relieve any
11 developed area of a retrofit obligation for flow control, the County has to prove that a stretch of
12 stream channel has not been altered by flows from existing development; *or that the altered*
13 *stream channel is still compatible with preserving the necessary beneficial uses.*" *Ex. A-50*
14 (emphasis added.)

15 30.

16 The experts all agree that factors such as soil type, slope, and other conditions are highly
17 variable from site to site, and those variables have consequences for how alteration to the site
18 impacts the stream. "[V]ariables such as stream size, soils in stream beds and banks, slope and
19 characteristics of stream banks, grade, vegetation in-stream and near-stream as well as previous
20 damage can all result in different reactions by a stream to stormwater and attempts to address it.
21 An amount or type of development that causes minimal damage in one stream may dramatically

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1 alter the morphology of another. *Booth Pre-Filed Testimony* at ¶18. “Development on a highly
2 infiltrative soil will likely result in particularly large increases in runoff. . . . Mitigation on a
3 less-infiltrative soil somewhere else can never recover the loss of recharge or commensurately
4 reduce the increase in stream discharge.” *Booth Pre-Filed Testimony* at ¶34.

5 31.

6 In the Lower Columbia basin, several salmon and steelhead populations are listed as
7 threatened or endangered under the federal Endangered Species Act. *Rhodes Pre-Filed*
8 *Testimony* at ¶8. Clark County is one of the fastest growing counties within the state. *Ex. A-49*
9 at p. 1. The evidence indicates that potential impacts to fish and other aquatic organisms from
10 stormwater can be significant, and is essentially unrebutted. In 1999, the state of Washington
11 identified stormwater runoff as a major factor in the degradation of salmon streams in developed
12 areas in the” Statewide Strategy to Recover Salmon: Extinction is Not an Option” (Statewide
13 Strategy). The Statewide Strategy recommended that Ecology update the 1992 Stormwater
14 Management Manual to provide guidance for applying the most recent stormwater management
15 science and technology to new development and redevelopment to comply with water quality
16 standards and contribute to the protection of beneficial uses of the receiving waters. *Ex. R-77* at
17 p. 1. The testimony of the experts echoes the relationship between stormwater and negative
18 impacts to fish. “[C]ombined effects significantly reduce the survival and production of salmon
19 and steelhead and can cause long-term degradation of what was once good spawning and rearing
20 habitat to a degree that renders it unusable or unproductive.” *Rhodes Pre-Filed Testimony* at ¶16.

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1 32.

2 The majority of the Board finds that the terms of the Agreed Order are insufficient to
3 protect beneficial uses. Under the terms of the Agreed Order, Clark County can allow an
4 important spawning reach to be impacted by application of the old flow control standard, and
5 then, a few years later, mitigate the same number of acres in a watershed area that may not be
6 occupied by fish or that does not have as important spawning or rearing habitat. *Rhodes Pre-*
7 *filed Testimony* at ¶32. The evidence before the Board supports this conclusion by stating as
8 follows: “The Clark County standard is plainly insufficient to protect beneficial uses like salmon
9 and other aquatic life, and healthy aquatic conditions generally.” *Booth Pre-Filed Testimony* at
10 ¶25. Clark County contends that its approach of targeting streams and watersheds for
11 improvements where the greatest problems exist is the best approach for successful mitigation
12 rather than mitigating all development at the development site. *Gray Testimony*. While the
13 Board does not disagree with this statement, the majority finds that the Agreed Order does not
14 require such targeting.

15 33.

16 Ecology acknowledges that the location of where flow enters a stream can impact the
17 system. If the flow enters a higher portion of a stream, then generally there is a greater impact
18 on the stream channel because there is an impact throughout the system. *O’Brien Testimony*.
19 As noted by one of the Petitioners’ experts, “There is nothing in the Agreed Order approach that
20 would prevent the harm from occurring in the most ecologically valuable subwatersheds (for
21 example, headwaters, riparian buffers, salmon habitat, etc.) in exchange for mitigation that is in

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1 the least ecologically important areas (degraded, highly developed, far downstream, etc.), but
2 that happens to meet the acreage requirement in the same WRIA.” *Booth Pre-Filed Testimony* at
3 ¶36. Viewed in a different context, if development occurred near a stream that ultimately
4 discharged to an area of shellfish production that was in danger of being closed because of
5 stormwater contaminants, allowing the mitigation of the historical damage to occur in an entirely
6 different stream that discharged near an industrial area would easily be recognized as not being
7 equivalent in its impact on beneficial uses.

8 34.

9 The United States Environmental Protection Agency (EPA) expressed multiple concerns
10 over Clark County’s proposed flow control program in a letter to Ecology. EPA emphasized that
11 stormwater impacts to salmon bearing streams constitutes a significant limiting factor to the
12 recovery of ESA listed salmon in Western Washington. EPA stated its belief that mitigating
13 urban and urbanizing stormwater impacts will require a three prong approach: 1) state of the art
14 methods to minimize the impacts from new development, 2) enhanced gradual improvement of
15 baseline conditions as redevelopment occurs, and 3) enhanced investment in retrofit projects to
16 reduce stormwater impact from developed land. *Ex. A-22*. The Agreed Order does not
17 necessarily allow for gradual improvement of baseline conditions in areas that are significant to
18 salmon. Furthermore, by subsidizing mitigation, Clark County’s is not making the enhanced
19 investment in retrofit projects called for by EPA (discussed further in this opinion).

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2 The National Marine Fisheries Service (NMFS) also sent a letter to Ecology expressing
3 concerns over Clark County's proposed flow control program. NMFS emphasized the science
4 that went into the development of the default flow control standard: "In Ecology's 2002 review
5 material provided to the Independent Science Panel, Ecology stated that the use of the pre-
6 developed, forested conditions standard was '... the most appropriate assumption necessary to
7 help achieve the federal and state water pollution statutory and regulatory requirements to
8 maintain beneficial uses.'" NMFS also noted that in the Notice of Violation Ecology issued to
9 Clark County, Ecology stated that "*a flow control target is not defensible unless analyses of
10 basin flows and stream geomorphology indicate it will produce a flow regime compatible with
11 sustaining and restoring beneficial uses.*" *Ex. A-23* at p. 2. NMFS also commented that while
12 the Clark County program appeared to be aiming to provide equivalent effects to receiving water
13 bodies, effects on specific river systems may not be equivalent, and expressed concern about the
14 lack of guidelines in the mitigation program to address effects to listed salmon and steelhead as
15 important factors to be considered in selecting mitigation sites. *Ex. J-18*. NMFS also described
16 the adverse effects certain pollutants in stormwater discharge have upon salmon, and that
17 reducing the volume of stormwater can help salmon avoid these detrimental effects. NMFS
18 further concluded that "The expectation that mitigation based solely on acreage and land use type
19 will be effective to adequately reduce flow control effects is not supported by best available
20 science." *Ex. A-23* at p. 3.

1 36.

2 The Fact Sheet for the Phase I Permit discusses the wide range of impacts stormwater can
3 have upon fish, invertebrates, and water quality. The Fact Sheet also recognizes that impacts
4 from stormwater are highly site-specific and vary geographically due to differences in local land
5 use conditions, hydrologic conditions, and the type of receiving water. *Ex. J-15* at p. 8. In
6 addition, the Fact Sheet recognizes the link between permit requirements and the protection of
7 beneficial uses by citing to RCW 90.48.010. This statute declares as the public policy of the
8 state to maintain the highest possible standards to insure, among other ends, the propagation and
9 protection of wild life, birds, game, fish, and other aquatic life. *Ex. J-15* at p. 16.

10 37.

11 Ecology's uncertainty regarding whether Clark County will undertake mitigation in areas
12 that are ecologically valuable to salmon and other aquatic life, or which is otherwise important to
13 water quality, is evident in Ecology's response to interrogatories. When asked whether the
14 habitat/stream classification or status of water quality had any bearing in the mitigation
15 provisions of the Agreed Order, Ecology responded: "The Agreed Order does not require
16 habitat/stream classification or status of water quality, but Ecology *expects* the County will
17 *consider* these factors in prioritizing mitigation projects." (emphasis added.) *Ex. A-4* at p. 16
18 (Interrogatory No. 21).

19 38.

20 In contrast to the lack of evaluation required in the Agreed Order for mitigation to be
21 based on environmental impact, the Department of Ecology devotes five pages in its guidance on

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1 wetland mitigation to the types of analyses that must be conducted to justify mitigation in that
2 context. *Booth Pre-Filed Testimony* at ¶36. (citing Wetland Mitigation in Washington State –
3 Part I: Agency Policies and Guidance (Version 1), 2006, pp. 55-59).

4 39.

5 In December 2008, Ecology issued “Making Mitigation Work”¹² as a shared vision by the
6 Mitigation That Works Forum (Forum) for successful mitigation and to identify practical actions
7 that could be taken to make all aspects of environmental mitigation work better and to improve
8 outcomes. *Ex. A-25* at p. 2. The Forum found that many mitigation projects continue to be
9 poorly sited, poorly designed and implemented, and poorly maintained, without sufficient
10 attention being devoted to monitoring and adaptive management. Therefore, ecological values
11 and functions continue to be lost, watershed conditions increasingly degrade, especially in
12 developing areas. *Id.* at p. 3. One of the Forum’s recommendations was the use of a compliance
13 monitoring and inspection checklist for mitigation projects. The Forum recommends that when
14 compliance monitoring shows that a mitigation project is not working, prompt efforts should be
15 undertaken to correct the problems so that the mitigation project can provide environmental
16 functions and values. *Id.* at p. 24. As discussed earlier, the Agreed Order fails to include any
17 monitoring for its flow control mitigation projects. Monitoring of Clark County’s mitigation
18 projects under the Agreed Order has been described as “vital” by a hydrologist. *Rhodes*
19 *Testimony*.

20 _____
21 ¹²Although Respondent Clark County tried to establish that this document was limited to wetland mitigation, a
review of the document clearly shows this is not the case. See for example, Section 2.4, where mitigation for
wetland, stream, shoreline and nearshore impacts is discussed. *Ex. A-25, p. 13-14.*

1 40.

2 In addition to establishing the new flow control standard, the same section of the Phase I
3 Permit applicable to new development, redevelopment, and construction sites also requires that
4 the permittees' stormwater management program "must require non-structural preventive actions
5 and source reduction approaches including Low Impact Development techniques (LID) to
6 minimize the creation of impervious surfaces, and measures to minimize the disturbance of soils
7 and vegetation where feasible." *Ex. J-16* at Condition S5.C.5.b.iii. The Phase I Permit's
8 modified conditions related to LID were the result of this Board's decision in the Phase I case.
9 In that decision the Board made lengthy and specific findings that LID was a well-established
10 concept, and the basic BMPs that constituted LID well-defined. The Board found that utilization
11 of LID techniques "may be useful (or even in some cases necessary) to meet the flow control
12 standard on a particular site." *Phase I Decision* at FOF 38. The Board's extensive, and
13 unchallenged, findings of fact related to LID stated, among other findings that "[r]equiring
14 municipalities to impose parcel and subdivision-level LID best management practices represents
15 a cost effective, practical advancement in stormwater management." *Id.* at FOF 60. The Board
16 concluded that LID methods are known and available method to address stormwater runoff at the
17 site, parcel, and subdivision level, and ordered the Phase I permit modified to required LID,
18 where feasible, in the SWMP of each municipal permittee. *Phase I Decision* at FOF 66.

19 41.

20 Ecology's Notice of Violation to Clark County originally identified a second problem
21 with the County's compliance with the Phase I Permit's condition S5.C.5 requirements, in

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1 addition to the “existing” versus “pre-development” conditions problem. Specifically, Ecology
2 cited the County for adopting an exemption for certain development projects from one of the
3 thresholds that triggers the duty to control high flow durations. *Ex. J-2*. The new stormwater
4 ordinances adopted by the County in response to the Phase I Permit on January 13, 2009,
5 included an exemption for infill and redevelopment projects from the one tenth (0.1) cubic feet
6 per second (cfs) flow increase threshold identified in Minimum Requirement No. 7 of Appendix
7 1. As part of the Agreed Order, the County agreed to change its codes and manual during the
8 County’s fall 2009 Biannual Code Review to remove the exemption of infill and redevelopment
9 projects from the 0.1 cfs flow increase threshold contained in Minimum Requirement 7, which
10 would become effective no later than December 8, 2009. *Ex. J-1* at 4. However, during the
11 window between the adoption of the non-compliant code and the subsequent removal of the
12 exemption, many commercial projects and subdivisions vested under Clark County’s land use
13 regulations. *Exs. A-58, A-59*.

14 42.

15 In addition to establishing a flow control standard at new development sites and requiring
16 implementation of LID where feasible, the Phase I Permit also required local governments to
17 include a structural stormwater control program in their stormwater management program to
18 prevent or reduce impacts to waters caused by discharges from the MS4. *Ex. J-16* at Condition
19 S5.C.6. Sometimes referred to as the “structural retrofit” program, this permit term required
20 Phase I municipalities to consider impacts of stormwater discharges from existing development,
21 and areas of new development. The program was to address impacts “not adequately controlled

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1 by the other required actions of the SWMP,” and required proposed projects and an
2 implementation schedule. The permit offered a number of examples of programs that could meet
3 this requirement, such as regional flow control facilities, water quality treatment facilities,
4 retrofits of existing facilities, and property acquisitions, among others. *Id.*

5 43.

6 As part of the minimum performance measures for the structural stormwater control
7 program, each permittee must include the goals that are intended to be achieved; the planning
8 process used to develop the program, including, among other factors, the type of characterization
9 information considered and the amount budgeted for implementation; and a description of the
10 prioritization process, procedures, and criteria used to select the structural stormwater control
11 projects. For planned individual projects, and programs of small projects, the following detailed
12 information must be provided: the estimated pollutant load reduction that will result from each
13 project designed to provide stormwater treatment; the expected outcome of each project designed
14 to provide flow control; any other expected environmental benefits; and if planned, the
15 monitoring or evaluation of the project and the monitoring or evaluation results. *Ex. J-16* at
16 Condition S5.C.6. Recognizing that mitigation projects under the Agreed Order are not
17 structural control projects responsive to this Phase I Permit requirement, but to depict the
18 contrast, Clark County is not required to even state what the expected outcomes will be for its
19 flow mitigation projects under the Agreed Order.

1 44.

2 The Fact Sheet for the Phase I Permit states that the permit language pertaining to
3 structural stormwater controls is drawn directly from EPA rules.¹³ Although Ecology recognizes
4 that it is not feasible to provide structural controls to mitigate for the impacts of all existing
5 development, “[p]ermittees will set priorities and address the highest-ranked problems subject
6 to the limitations of available resources.” (emphasis added.) *Ex. J-15* at p. 35.

7 45.

8 In recommending the Agreed Order, Ecology expected that Clark County would commit
9 extra funding to the mitigation program of the Agreed Order, above and beyond that already
10 dedicated to the structural stormwater control “retrofit” program as required by the Phase I
11 permit. Ecology further understood from Clark County that the County would maintain at least
12 the same level of effort for its existing structural retrofit program. Ecology expected that
13 implementation of the Agreed Order would necessitate new projects, not simply a shifting or
14 “counting” of projects that had already been planned by the County under existing capital plans.
15 In short, Ecology expected that with the implementation of the mitigation program, Clark County
16 would have an increased level of effort, above and beyond that already in place under the
17 structural stormwater control program. *Moore Testimony, O’Brien Testimony*. Nevertheless, the
18 Agreed Order contains no term that requires the County to provide additional funding above that
19 historically spent and dedicated to the structural stormwater control program, nor does it limit the
20 County’s ability to reduce its level of effort on structural stormwater control. *Moore Testimony*.

21 ¹³ Citing 40 C.F.R. § 122.26(b)(2).

1 The County is merely required to “maintain funding sources adequate to comply” with the
2 requirements of the Agreed Order. Ecology concedes that redirection of funds from the already
3 required structural program to the mitigation obligation of the Administrative Order could result
4 in an overall reduced level of effort in addressing urban stormwater management, as required by
5 the Phase I Permit. *O’Brien Testimony, Exs. A-48 & A-55.*

6 46.

7 Both EPA and the National Marine Fisheries Service commented on this aspect of the
8 proposed modification to the Phase I permit to incorporate Clark County’s Agreed Order terms,
9 in addition to their comments related to science-based concerns. NMFS stated its main concern
10 with the structural stormwater control program to be a “possible reduction in projects, potentially
11 providing less mitigation to listed salmon designated as primary populations in the LCR (Lower
12 Columbia River) Recovery Plan.” *Ex. J-18* at 2. Among other concerns, NMFS commented that
13 “[I]f Clark County moves projects from the structural control program to the flow control
14 mitigation program such that structural control projects are substantially reduced, it could result
15 in a net reduction in mitigation overall.” Thus, NMFS concludes that there is a need for careful
16 implementation of both programs. *Ex. J-18.*

17 47.

18 EPA expressed similar concerns to those of NMFS in its comments on the amended
19 Permit, but chose not to file a formal objection to the Phase I permit modification. EPA was
20 concerned that without additional conditions, Clark County’s flow control mitigation program
21 would result in less overall stormwater flow control. EPA noted that Clark County had a well-

1 established stormwater capital improvement program to meet the Phase I structural stormwater
2 control/retrofit program requirement of the permit, and went on to express concern that Clark
3 County would reduce the level of investment directed to that program in order fund mitigation
4 projects. Noting that the Phase I permit did not mandate a minimum investment level or amount
5 of retrofits for the structural stormwater control program, EPA stated that “the lack of such
6 specificity should not be used to significantly reduce long standing investment toward the
7 structural stormwater control requirement in order to establish a mitigation program” to meet
8 other permit requirements applicable to new development. *Ex. A-22* at pp. 1-2. Ecology
9 responded to EPA comments by stating that the comments went to issues that were not the
10 subject of the permit modification (i.e. the structural stormwater requirements), and that Ecology
11 was only looking to determine if Clark County was providing an equivalent program of flow
12 control for new development and redevelopment. *Ex. J-21, Moore Testimony*. Thus, Ecology
13 viewed the alternative flow control program in isolation from other permit requirements.

14 48.

15 The parties provided much evidence in an attempt to explain the County’s planned
16 funding of mitigation projects and structural stormwater improvement projects. The County’s
17 Stormwater Capital Improvement Program (SCIP) and Stormwater Needs Assessment Programs
18 (SNAP) set out the County’s budget and expenditure planning on stormwater projects. However,
19 it is challenging, if not impossible, to make direct comparisons between the County’s budget and
20 expenditures on stormwater retrofit projects, and Agreed Order mitigation obligations, due to the
21 variety of ways in which the information is tracked and reported, and because the County’s

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1 efforts are in a continuing state of flux. Differing amounts of money, and different prioritization
2 of projects appears throughout the County’s capital budget planning documents. This makes
3 comparisons difficult both in terms of the County’s historic budgets and expenditures toward
4 either or both types of infrastructure over time and its relative budgets and expenditures between
5 the two different of kinds of projects. *Gray Testimony, Swanson Testimony, Exs. A-43, A-74, A-*
6 *75,*

7 49.

8 The County has only one budget for the combined structural stormwater/retrofit program
9 and the flow control mitigation program, the Stormwater Capital Improvement Budget.¹⁴ *Ex. A-*
10 *43(Clark County’s Supplemental Responses to Interrogatories).* Although County witnesses
11 initially stated that they received “supplemental appropriations” from the Board of County
12 Commissioners for the Phase I permit requirements related to implementing the structural
13 stormwater control program and the Agreed Order mitigation obligation, testimony clarified that
14 there were not additional funds dedicated to the Agreed Order’s flow mitigation program.

15 Stormwater managers within the County received an increase in budget authority, or permission
16
17

18 ¹⁴ Clark County’s Stormwater Management Program is funded primarily through its local Clean Water Fee, which
19 raises about \$4.5 million per year. Of that amount, approximately \$1.5 million is budgeted for capital programs,
20 including the structural stormwater retrofit program required by the Phase I Permit, while the remainder of the
21 budget supports other stormwater-related activities. The fee is paid by residential, commercial, industrial, and
governmental property owners in the County according to a tiered rate structure. Clark County’s fee is
approximately \$30 per parcel, and the fees have not changed since 2000, although the County is proposing a cost of
service study to evaluate the need for a fee increase. Other sources of funding are also used to support the County’s
Stormwater Management Program, but to a lesser degree. *Gray Testimony, Swanson Testimony, Ex. A-82.*

1 to spend more money from the fund balance in the Clean Water fund. New monies were not
2 made available to fund an increased level of effort for mitigation projects. *Wierenga Testimony.*

3 50.

4 The County's current Clean Water Fund balance is approximately \$7-8 million. That
5 fund balance is available for the total of all stormwater management in the County, not just
6 capital programs. The balance has accumulated over the past decade as a result of spending less
7 on the County's overall Clean Water Programs than the County has collected in fees.

8 Historically, the County has spent on average approximately \$800,000 per year on structural
9 retrofit programs. *Gray Testimony, Wierenga Testimony.* The County has projected that it will
10 cost approximately \$360,000 during the remainder of this permit term to pay for the mitigation
11 obligations incurred under the Agreed Order. *Gray Testimony, Swanson Testimony.* For this
12 reason, the County projects that ongoing funding for the mitigation obligations taken on by the
13 County under the Agreed Order is adequate. *Gray Testimony.* However, the Board finds that
14 this projection is based on several assumptions: (1) that projects vested before August 2009 are
15 not subject to the mitigation requirement, (2) that the County does not look beyond the terms of
16 this permit, even though its mitigation obligation extends well into the future, and (3) that the
17 projected rate of recessionary development which has resulted in a significant downturn in
18 development in Clark County, continues. For example, Clark County issued approximately 550
19 single-family building permits in 2009, down from approximately 4,000 in 2007. *Snell*
20 *Testimony.*

1 51.

2 The County will undertake more flow control mitigation projects relative to structural
3 stormwater control projects under the Agreed Order, conceding that some existing “retrofit”
4 projects will be shifted from the structural stormwater control program to the mitigation
5 obligation. *Wierenga Testimony*. Three projects that had been on the structural stormwater
6 control/retrofit program for some time were shifted to the mitigation obligation, including the
7 152nd Street/20th Avenue retrofit, the Teal Point retrofit, and the New Valley retrofit. *Wierenga*
8 *Testimony, Gray Testimony*. It appears Clark County has identified only one structural
9 stormwater control project for 2012.¹⁵ *Ex. A-74, p. 2*.

10 52.

11 In meetings between Ecology and the County leading up to the Agreed Order, the parties
12 discussed the question of whether the County could sustain the both the structural stormwater
13 retrofit program and the mitigation obligation within existing funding. Ecology maintained that
14 in order to meet the concept of “equivalency,” Clark County should continue its current program.
15 The County’s position was that the current structural control program was “designed to spend
16 down the capital reserve” and “was not sustainable under current funding and does not account
17 for the flow control debt.” At that point the County indicated that some part of a deficit,
18 apparently referring to the flow control mitigation obligation, could be made up from projects in
19 the structural control program *Ex. A-33*.

20
21 ¹⁵ Capital budgets fluctuate more than operating budgets. *Gray Testimony*.

1 53.

2 The Board finds that the Agreed Order allows a reduced level of effort in meeting the
3 stormwater management goals of the Phase I Permit. The lack of any requirement to maintain a
4 level of effort in the structural retrofit efforts, the ability to shift retrofit projects to the mitigation
5 obligation, and the total discretion afforded the County in the implementation of the Agreed
6 Order allow such an outcome.

7 54.

8 *Implementation of LID under Agreed Order:* It is unclear whether the Agreed Order is a
9 substitute or alternative to all the requirements contained in Condition S5.C.5. of the Phase I
10 permit, or only the flow control requirement contained in S5.C.5.b.i. Whether the LID
11 requirements of that permit condition related to new development and redevelopment, are
12 affected by the terms of the Agreed Order is unclear. County witnesses suggest LID
13 requirements of the permit are met by possible implementation of LID at the mitigation sites.
14 *Wierenga Testimony.* The Agreed Order mentions use of LID in relation to retrofit projects that
15 will be undertaken as mitigation under the Order, describing how LID facilities may be used, and
16 that LID best management practices may be used to achieve the flow control requirement of the
17 permit, or to reduce the size of downstream flow control facilities. *Ex. J-1* at Attachment A, pp. 5
18 & 7. The Agreed Order does not clarify the extent to which LID will be required at new
19 development or redevelopment sites. The record before the Board is simply unclear how, where,
20 and to what extent LID will be implemented, prioritized, or required by the County in relation to
21 the Agreed Order and how the Agreed Order changes the requirements of the Phase I Permit as it

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1 applies to new development sites. In the Response to Comments on the Phase I Permit
2 Modification for Clark County, Ecology addressed concerns that Clark County was no longer
3 under a requirement to include LID practices. Ecology responded to comments by stating that
4 the Board found the flow control standard to be adequate so long as low impact development was
5 required where feasible. Ecology had concluded, however, that the County's alternative flow
6 control method was equivalent, and the Board's ruling did not prohibit the use of equivalent flow
7 control approaches. It becomes clear in Ecology's response to comments, that Ecology does not
8 find it necessary for Clark County to use LID techniques under the terms of the Agreed Order.
9 *Ex. J-21* at p. 8.

10 55.

11 Despite having concerns about whether the Agreed Order might result in less overall
12 improvement in pollution control than if the default standard were met at development sites, and
13 whether there would be a continued level of effort in the structural retrofit program, Ecology
14 ultimately determined that the Agreed Order offered a local alternative that provides equivalent
15 protection to receiving waters, as required by the Phase I Permit. *Schriever Testimony, O'Brien*
16 *Testimony, Moore Testimony, Exs. A-48, A-55.* Ecology approved the Agreed Order, allowing
17 Clark County to exclude projects that had "vested" prior to April 13, 2009, from the mitigation
18 obligation, and did not require the County to establish a new funding mechanism to raise new
19 sources of revenue for mitigation projects or to maintain its previous level of effort for the
20 structural retrofit program. *Moore Testimony.*

1 Any conclusion of law deemed to be a finding of fact is hereby adopted as such.

2 **CONCLUSIONS OF LAW**

3 1.

4 The Board has jurisdiction over the parties and the subject matter of this case pursuant to
5 RCW 43.21B.300. The Board reviews the matter *de novo*, giving deference to Ecology's
6 expertise in administering water quality laws and on technical judgments involving complex
7 scientific issues. WAC 371-08-485(1), *Port of Seattle v. Pollution Control Hearings Board*, 151
8 Wn.2d 568, 593, 90 P.3d 659 (2004).

9 2.

10 As we have said in other decisions, the Clean Water Act requires Ecology to impose
11 increasingly stringent requirements on the Phase I and Phase II jurisdictions under the NPDES
12 general permit process. *Puget Soundkeeper Alliance v. Ecology*, PCHB Nos. 07-022, 07-023
13 (2009) (Phase II Decision) at FOF 29; *Cox v. Ecology*, PCHB No. 08-077 (Order Granting
14 Summary Judgment, February 26, 2009). In the municipal stormwater context, stormwater
15 discharges from municipal systems must reduce pollution to the maximum extent practicable (the
16 MEP standard). *Phase I Decision* at COL 12-13. In prior decisions, this Board has recognized
17 the uniqueness of this standard, and that it reflects both the difficulty of addressing stormwater
18 on a system wide basis and the focus of regulation on prevention and control of municipal
19 stormwater discharges. *Phase I Decision* at COL 13, citing *Save Lake Sammamish v. Ecology*,
20 PCHB Nos. 95-78 & 121 (Order Granting Summary Judgment, December 12, 1995). The Board
21 has noted that the MEP approach, by its nature, requires extensive planning and prioritization to

1 achieve the underlying goal of meeting water quality standards. *Id.* Similarly, the Board has
2 held that the AKART standard of state law is, as defined by rule, “the most current methodology
3 that can be reasonably required for preventing, controlling, or abating the pollutants associated
4 with a discharge,” and involves both technological and economic feasibility. WAC 173-201A-
5 020. *Phase I Decision* at COL 14.

6 3.

7 The Phase I Permit represents a suite of requirements for municipalities that are
8 practicable, feasible, available, and reasonable to prevent and control pollution from stormwater
9 runoff in municipal stormwater systems. Ecology defines these requirements, including the flow
10 control standard, as those necessary to meet the federal MEP standard, and the state AKART
11 standard. *See Phase I Decision* at p. 10; *Puget Soundkeeper Alliance v. Ecology*, PCHB Nos.
12 07-022 & -023 (*Order on Summary Judgment, Phase II Municipal Stormwater General Permit,*
13 *September 29, 2008*) at p. 12. In order to provide equal or similar protection of receiving waters
14 and pollutant control, as set out in the Phase I Permit Condition S5.C.5., the Clark County
15 Agreed Order must meet the federal MEP standard and apply AKART. The question before us
16 is whether Clark County’s alternative flow control mitigation program meets those legal
17 standards by providing an equal or similar level of protection to receiving waters and equal or
18 similar levels of pollution control, as required by the Phase I Permit.

19 4.

20 The Board concludes that the Agreed Order, as currently stated, does not provide equal or
21 similar protection of receiving waters or equal or similar levels of pollutant control. Because it

1 does not do so, it also fails to meet the requirement for a municipality to ensure that the MS4
2 reduces pollutants to the federal MEP standard, and does not represent AKART under state law.
3 A majority of the Board concludes it fails to do so for the following reasons. First, Ecology
4 authorized an alternative to the flow control standard without following the requirements of the
5 Phase I Permit. Section S5.C.5.b.i. requires a rigorous basin planning process, or similar
6 planning effort, that combines the use of computer models and field work to support the models
7 *before* Ecology can approve an alternative flow control standard or other program tailored to
8 local circumstances. It is unrebutted that the required basin planning process or similar planning
9 effort is absent in this case. Second, not only is the acreage metric used in the Agreed Order
10 without a scientific basis, but the Agreed Order also fails to recognize potential impacts to
11 beneficial uses, which is the stated purpose of the flow control standard. Third, by relying on the
12 doctrine of vesting, and using a later date than specified in the Phase I Permit, the Agreed Order
13 arbitrarily excludes a large number of projects from the mitigation requirement, and does not
14 result in reduction of pollutants to the MEP standard, nor require application of AKART to many
15 projects, in derogation of the terms of the permit. Fourth, as structured in the Agreed Order, the
16 County can and has engaged in an impermissible reduction in the level of effort required under
17 the structural retrofit program, by splitting and shifting available funds to the new mitigation
18 requirements of the Order. Even if we could conclude that there was not reduction in the level of
19 effort resulting from implementation of the Agreed Order, we conclude it suffers from another
20 flaw, in that it gives Clark County sole discretion over how and where to apply the mitigation
21 effort, and is consequently, impermissible self-regulation. Finally, by not clearly requiring LID

1 at either areas of new development, redevelopment, or construction sites, nor specifying that LID
2 will be required or the manner in which it will be implemented at mitigation sites, the Order falls
3 short of the requirements set out in this Board’s Phase I decision and necessary to meet the MEP
4 standard and apply AKART.

5 5.

6 Clark County, and to a lesser extent, Ecology would have the Board review the flow
7 control obligations of the Agreed Order in the narrowest possible mathematical fashion in
8 relation to the Phase I Permit, looking only to the technological aspects of flow control, and
9 comparing flow control as set out in the Agreed Order to flow control set out in the Phase I
10 Permit. These parties would have the Board exclude the relationship of the Agreed Order
11 requirements to other aspects of the Phase I Permit, and from the very purpose of the flow
12 control standard. The Board cannot read the alternative program of the Agreed Order in such
13 isolation for several reasons. First, while the Phase I Permit clearly allows for alternative local
14 programs if certain standards are met, the terms of the Agreed Order disconnect the flow control
15 standard from the purposes which are implicit in its application to new development and
16 redevelopment—to protect streams from degradation in an effort to protect beneficial uses.
17 Second, the Agreed Order directly implicates the County’s obligations under other terms or the
18 Phase I Permit, particularly the structural stormwater retrofit program, and the County’s
19 obligations to implement Low Impact Development at new development sites. Additionally, the
20 Board notes that the ramifications of the Clark County program go well beyond the borders of
21 Clark County, and establish precedent for other municipal permittees. *See Ex. A-55.* Ecology

1 has amended the Phase I Permit to add the Clark County Agreed Order as “functionally
2 equivalent” to Appendix I of the Permit, thereby determining not only that Clark County’s
3 program is equivalent to the Phase I Permit, but also making the program available to other
4 NPDES permittees as an equivalent level of pollution prevention for runoff from new
5 development or redevelopment in other settings.¹⁶ *See Appendix 10 to Phase I Permit.* Thus, the
6 Board will examine the Agreed Order in relation to other permit terms implicated by the Clark
7 County program, and understanding that the terms of the Phase I Permit, as amended with the
8 Clark County program, also become the baseline for the next iteration or round of municipal
9 permits.

10 6.

11 The Phase I Permit allows municipalities to develop different performance measures and
12 programs to control stormwater runoff from new development, redevelopment and construction
13 sites. If they do so, the alternative program must meet the standard set forth in that section of the
14 permit, as follows:

15 More stringent requirements may be used, and/or certain requirements
16 may be tailored to local circumstances *through the use of basin plans or*
17 *other similar water quality and quantity planning efforts.* Such local
18 requirements and thresholds shall provide *equal or similar protection of*
19 *receiving waters and equal or similar levels of pollutant control as*
20 *compared to Appendix 1. (the SWMM) (emphasis added).*

21 ¹⁶ We note that Condition S3.A.3. (p. 13) of the recently reissued Industrial Stormwater General Permit (effective through January 2015) allows permittees covered by that permit to select best management practices (BMPs) consistent with documents listed in Appendix 10 of the Phase I Municipal Stormwater Permit, and those documents are incorporated into the Industrial Permit.

1 *Ex. J-16* at Condition S5.C.5.b.i. Thus, an alternative program, such as is embodied in the
2 Agreed Order between Ecology and Clark County, is authorized by the Phase I Permit, provided
3 that it meets the criteria set out for such a variance from the Permit's flow control standard. The
4 Board must first determine whether Clark County was an alternative program, such that is was
5 required to complete a basin planning process, or similar planning effort, prior to Ecology's
6 approval of its alternative flow control program, and if so, whether the County engaged in such
7 an effort as part of the alternative program approved in the Agreed Order.

8 7.

9 In analyzing whether the Agreed Order is properly authorized as an adjustment or
10 variance to the flow control standard under Condition S.5.C.5.b.i. the Phase I Permit, it is
11 important to understand the flow control standard in the context of how Ecology developed the
12 Stormwater Management Program (SWMP) of the Phase I Permit for permittees. Ecology
13 decided not to follow EPA's permitting strategy where each permittee proposes a SWMP for the
14 permit term, but instead, prescribed the SWMP requirements in the Phase I Permit. Ecology
15 determined that the development, implementation, and enforcement of SWMPs pursuant to the
16 permit terms constituted what was necessary to reduce pollutant discharges to the maximum
17 extent practicable (MEP), meet AKART, and protect water quality. *Ex. J-17* at Condition S5.B.,
18 *Ex. J-15* at p. 28.

1 8.

2 Ecology determined that the Phase I Permit was an effective way to be consistent with
3 federal rule requirements to minimize the impacts of stormwater discharges from areas of new
4 development and redevelopment by “using techniques that:

- 5 1) minimize the generation of stormwater runoff (low impact development);
6 2) reduce exposure of pollutants to precipitation and stormwater runoff (source control
7 BMPS’s);
8 3) remove pollutants in stormwater runoff (treatment BMP’s); and
9 4) control either the volumetric flow rate of stormwater discharged (for discharges to
10 streams), or control the volume of water discharged (if discharging to a wetland).”

11 *Ex. J-15* at p. 32. Thus, implementation of the flow control standard at new development and
12 redevelopment sites was integral to the suite of requirements that constituted MEP under the
13 Phase I Permit.

14 9.

15 The Fact Sheet for the Phase I Permit also states that the Eastern and Western Stormwater
16 Manuals are the latest technical guidance from Ecology for controlling the quantity and quality
17 of stormwater runoff from new development and redevelopment, and that these manuals create a
18 generic presumptive approach to meeting federal and state water quality requirements. *Ex. J-15*
19 at p. 33. Although a permittee may adopt alternative minimum requirements if they have been
20 approved by Ecology as equivalent, the “*permittee is obligated to demonstrate to Ecology’s*
21 *satisfaction that their alternative approaches will protect water quality, meet the “maximum*

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1 extent practicable” requirement of federal statutes, and meet the all known, available and
2 reasonable methods of prevention, control, and treatment requirements of the state’s Water
3 Pollution Control Act.” (emphasis added.) *Ex. J-15* at pp. 33-34, *Ex. J-17* at Condition
4 S.5.C.5.b.ii.

5 10.

6 Although the Ecology and County witnesses may have attempted to characterize Clark
7 County’s alternative flow control standard as the same as the default standard, only administered
8 differently, we conclude that the language in the Agreed Order, the fact that Ecology reviewed it
9 for needed equivalency from the outset, as well as the rest of the record, demonstrate that it is a
10 different, and alternative standard, requiring a showing of equivalency, and consideration of
11 impacts on beneficial uses. Because the Phase I Permit requires a permittee to demonstrate that
12 using an alternative standard to the generic presumptive approach established in the Phase I
13 Permit will meet federal and state water quality requirements, the permittee may only meet this
14 requirement through a rigorous process. Condition S.5.C.5.b.i. requires the use of basin plans or
15 other similar water quality and quantity planning efforts in order to use an alternative standard.
16 The Board concludes that the plain language of the Phase I Permit condition that requires use of
17 the flow control standard at new development or redevelopment sites, and the reasons behind
18 that term, require any alternative program to be based on basin planning or a similar rigorous,
19 science-based planning effort. Based on our Findings of Fact, above, we conclude that Clark
20 County’s budget planning and capital planning documents (SNAP and SCIP), do not meet the

1 Phase I Permit's required basin planning or other similar planning effort. The Agreed Order
2 does not rest on such a planning effort, and therefore violates the terms of the Phase I Permit.

3 11.

4 The second question before the Board becomes whether the County's implementation of
5 the flow control standard at alternative sites, not connected to new development or
6 redevelopment in the County, is equivalent to the requirements of the Phase I Permit in any
7 event. Again, the Board concludes that the failure of the Agreed Order to consider the
8 underlying purposes of the flow control standard, and the failure to consider the connection
9 between the updated flow control standard and beneficial uses, results in the invalidity of the
10 Order. The history of the development of the flow control standard and a review of other
11 documents leaves no doubt that the flow control standard was developed and reviewed through
12 rigorous science, and that it may only be altered through a rigorous scientific process that focuses
13 on the potential impact to beneficial uses. The Stormwater Management Manual for Western
14 Washington states the primary objectives for basin/watershed planning are "to reduce pollutant
15 loads and hydrologic impacts to surface and ground waters *to protect beneficial uses.*" (emphasis
16 added.) Vol. 1, §2.5.9, pp. 2-38. This section further states that "[b]asin planning provides a
17 mechanism by which the minimum requirements and implementing BMPs can be evaluated and
18 refined *based on an analysis of an entire watershed.* (emphasis added.) *Id.* The Independent
19 Science Panel discussed the flow control standard in its review of the Stormwater Manual, and
20 noted that the Stormwater Manual recognizes the need to control flows from many small sites
21 because the cumulative effect of uncontrolled flows from many small sites can be as damaging

1 as those from a single large site. The Independent Science Panel then concluded that
2 “[w]atershed-scale assessment and planning allows planners to identify where this may not be
3 the case, by considering the size and location of proposed developments throughout a watershed
4 and fully evaluating potential impacts.” (emphasis added.) *Ex. R-77* at p. 7.

5 12.

6 Thus, implicit in the flow control standard is the concept that it will be applied at the site
7 of new development or redevelopment where high flows of stormwater can be controlled,
8 avoiding accelerated stream channel erosion, and resulting harm to beneficial uses. *Booth*
9 *Testimony, O’Brien Testimony*. However, with approval of the Agreed Order, Ecology allowed
10 the new flow duration standard to be applied at any site the County chooses, without
11 consideration of the impact on such beneficial uses, and with the likelihood that the intended
12 outcome will be different than if the new flow control standard were applied at a sites called for
13 in the Phase I Permit.

14 13.

15 Ecology stated in the Agreed Order that it “will provide an equivalent level of flow
16 control” to that required under the Phase I Permit, and that “[t]his approach is consistent with the
17 Permit wherein Permittees are allowed the option of proposing alternative methods of achieving
18 flow control standards.” *Ex. J-1* at 3. However, in the Notice of Violation issued by Ecology to
19 Clark County, Ecology clearly states that the purpose of the flow control requirement is to
20 “reduce harmful impacts on fish, other aquatic life and streams caused by runoff from
21 development.” *Ex. J-2* at 1. A majority of the Board concludes that Ecology’s approval of the

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1 Agreed Order not only ignores the clear terms of Condition S5.C.5.b. which allows such an
2 alternative only when tailored to local circumstances through the use of basin planning, or a
3 similar planning effort, but also fails to consider the underlying purposes of the flow control
4 standard in the first instance—to protect beneficial uses through the rigor of the flow control
5 requirement, or through use of an equally rigorous alternative.

6 14.

7 Clark County would have the Board conclude that they are, in fact, implementing the
8 same flow control standard in a fashion equivalent to the Phase I Permit, simply at another
9 location selected through the County’s capital budget planning efforts. They argue that their
10 strategic choice of a location to implement flow control is superior to the Phase I method of
11 requiring it at all new development, which is a more random placement of flow control. Thus
12 the County concludes their alternative program represents AKART and MEP. The problem with
13 this is that there are neither criteria applied at the front end, nor evaluation and monitoring results
14 that can be reviewed at the back end, that require, or will demonstrate that the flow control
15 implemented by the county will achieve the same level of protection of beneficial uses that flow
16 control at new development or redevelopment sites will achieve. A flow control project
17 implemented by the County at a retrofit project low in a watershed will not have the same effect
18 as flow control placed in a sensitive, salmon-bearing stream higher in the watershed where there
19 has been relatively little development.

1
2 The Board concludes that the alternative approach of the Agreed Order will not provide
3 similar or equal protection to receiving waters. Significant amounts of un rebutted expert
4 testimony are in the record that the ecological impacts of Clark County's alternative flow control
5 mitigation program are not only ignored, but that the potential impacts can be substantial. Clark
6 County's fisheries expert opined that targeted mitigation actions in areas that can provide the
7 most environmental benefit is the best method for undertaking mitigation. Unfortunately, there
8 is no requirement in the Agreed Order that Clark County do so. The Agreed Order does not
9 require Clark County to detail the expected outcome of its proposed flow control mitigation
10 projects or to monitor to see if these results are being achieved. An expert referred to monitoring
11 of these projects as "vital." Under the acreage metric, Clark County is not even required to
12 identify and track significant areas of salmon habitat for potential mitigation. The Phase I Permit
13 clearly required basin planning as a basis for and alternative program such as Clark County's,
14 because as stated by the Independent Science Panel, a watershed scale assessment and planning
15 allows planners to identify and fully evaluate potential impacts. While Ecology may be
16 concerned that developing a proper tracking metric may prove difficult, Condition S.5.C.5.b.ii.
17 makes it the obligation of the permittee to demonstrate to Ecology's satisfaction that their
18 alternative approaches will protect water quality, meet the maximum extent practicable
19 requirement of federal statutes, and meet the all known, available and reasonable methods of
20 prevention, control, and treatment requirements of the state's Water Pollution Control Act.
21 Ecology did not require Clark County to do so before approving the Agreed Order in this case.

1
2 The Board understands that it must give deference to the technical expertise of Ecology.
3 *Port of Seattle v. Pollution Control Hearings Board*, 151 Wn.2d 568, 90 P.3d 659 (2004).
4 However, the Board concludes that Ecology is not entitled to deference in its characterization
5 and agreement to Clark County's alternative flow control model as equivalent under the Phase I
6 Permit because Ecology failed to follow the clear and unambiguous terms of the permit, and
7 because Ecology's approval of the alternative program is unsupported by, and contrary to its own
8 technical or science-based discussions and assessments of the flow control standard. *See*
9 *Postema v. Pollution Control Hearings Board*, 142 Wn.2d 68, 77, 11 P.3d 726 (2000) (stating
10 the principle that an agency's interpretation is accorded great weight only if there is ambiguity).
11 Unambiguous terms of the Phase I Permit were violated when Clark County did not undergo the
12 prerequisite basin planning or similar planning necessary to develop an alternative flow control
13 requirement. Then, by simply allowing the flow control standard to be implemented at
14 alternative sites, Clark County's acreage-based mitigation divorces the flow control standard
15 from its impact upon beneficial uses, in contravention to Ecology's stated purpose for the flow
16 control standard in the first instance. We recognize that the mitigation projects selected by Clark
17 County could potentially adequately mitigate for historic flow control impacts and provide equal
18 or better environmental protection for beneficial uses than the default standard in some instances.
19 There is, however, neither a requirement in the Agreed Order, nor a guarantee this will occur,
20 and Ecology does not have the information that this will occur. The flow control standard and
21 other permit terms were developed after many years of scientific effort. The majority of the

1 Board's focus on the absence of information regarding habitat values at the points of
2 development and mitigation, and the absence of information regarding what the mitigation
3 projects are expected to achieve, is not holding Clark County's program to a higher standard.
4 Instead, it is to determine whether the alternative approach under the Agreed Order is equivalent
5 to the Phase I Permit. In *Friends of Grays Harbor v. City of Westport*, after first recognizing the
6 Board provides deference to Ecology's technical expertise, the Environmental and Land Use
7 Hearings Board refused to find that Ecology had reasonable assurance that water quality
8 standards would be met under the proposed project because it lacked critical information
9 regarding groundwater levels. Without this information, the Board concluded Ecology had
10 insufficient data to make a reasoned decision. *Friends of Grays Harbor v. City of Westport*,
11 ELUHB No. 03-001 (*De Novo*) (*Findings of Fact, Conclusions of Law and Order*)(2005) at pp.
12 34-35, 40. The Board concludes that the alternative flow control standard in the Agreed Order
13 does not provide an equal or other similar protection of receiving waters and equal or similar
14 levels of pollutant control as compared to the default standard. The alternative flow control
15 standard and the mitigation program also significantly impact Clark County's efforts under the
16 structural control program. Ecology is not entitled to any deference regarding this aspect of the
17 Agreed Order because Ecology's own witnesses did not foresee a reduced level of effort in the
18 structural control program. The Board also concludes that the alternative flow control standard
19 in the Agreed Order does not constitute MEP, since it constitutes a lesser standard than what
20 other permittees are expected to achieve.

21

1 17.

2 As stated in the Board’s Order Denying Summary Judgment in this case, the Board never
3 addressed the vesting issue in the Phase I case, and the Phase I Permit itself is silent as to vested
4 rights. PCHB No. 10-013 (Order Denying Summary Judgment, August 26, 2010) p. 10.
5 Ecology relied on the concept of “vesting” as a cut-off point for application of the new flow
6 control standard on a going-forward basis.¹⁷ The Board rejected Clark County’s argument that
7 the vested rights doctrine precluded the application of the new flow control standard to projects
8 that vested for land use purposes prior to April 13, 2009. The Board stated that: For purposes of
9 review of whether the Agreed Order is equivalent to the Phase I Permit, the Board must
10 determine what constitutes MEP and AKART under the Phase I Permit. The Board reserved for
11 hearing how and why Ecology selected the August 17, 2008 effective date for the new flow
12 control standard, and the feasibility of using the new flow control standard at the sites exempted
13 from providing mitigation under the Agreed Order. *Id.* at pp. 10, 16. We therefore analyze the
14 Agreed Order in relation to that baseline of August 17, 2008.

15 18.

16 As we have found, Ecology established August 16, 2008, 18 months after the effective
17 date of the permit, as the date by which permittees must adopt their updated flow control
18 requirements. By that date, or within a reasonable period of time thereafter (30-90 days),
19 Ecology expected municipalities to begin applying the flow control standard at new

20 ¹⁷ *Ex. J-15, p. 27; Ex. A-39, p. 143.* The Board also relies on the testimony of Bill Moore, who has stated that
21 Ecology relied on vesting as a “cut-off” point, and informed regulated municipalities that vesting would be the
trigger for obligations going forward under this part of the permit.

1 development, redevelopment, and construction sites. The Agreed Order allows Clark County to
2 wait to apply the flow control standard, including the mitigation at alternative sites, until a date
3 approximately eight months later than that defined in the Phase I Permit (April 13, 2009).
4 Similarly, the Agreed Order also allows Clark County to wait to begin applying the “0.1 cfs
5 increase” threshold until several months after it was supposed to have implemented the new
6 threshold, after it revised its ordinances to remove the unlawful exemption. A substantial
7 number of proposed development projects were exempted from the mitigation requirement under
8 the Agreed Order. There is no scientific basis to justify the delayed effective date for Clark
9 County for either the flow control standard or the 0.1 cfs increase threshold, nor was there any
10 evidence introduced to establish that either of these requirements could not be met at particular
11 sites. On this basis, we conclude that the Agreed Order, on its face, fails to reduce the discharge
12 of pollutants to the maximum extent practicable as represented by the Phase I Permit’s default
13 flow control standard because it fails to begin applying the more stringent flow control
14 requirements until much later than demanded by the Phase I Permit. To satisfy the equivalency
15 requirement, Clark County’s mitigation obligation must begin no later than 30-90 days after the
16 County was required to adopt its updated flow control requirements (*i.e.*, November 16, 2008).¹⁸
17 The County’s several month gap during which time it unlawfully exempted infill and
18 redevelopment projects that increase flow beyond the 0.1 cfs threshold from applying the
19

20 ¹⁸ We do not find it relevant to consider that other municipalities may have had delays or negotiated other deadlines
21 with Ecology for implementing flow control ordinances. To measure equivalency, we must look to the plain terms
of the Phase I permit.

1 updated flow control requirements (or its mitigation obligations) is an additional basis for
2 concluding that the Agreed Order is not equivalent to the Phase I Permit.

3 19.

4 Rosemere maintains that in addition to the project applications filed between August 16,
5 2008, and April 13, 2009 that were improperly excluded from meeting the mitigation
6 requirement under the Agreed Order, other uncompleted projects should be reviewed on a case
7 by case basis to determine whether any of these projects should meet the new flow control
8 standard. The Board declines to extend the application of the new flow control standard beyond
9 what Ecology established in the Phase I Permit. Although Ecology improperly used vesting as
10 part of the basis for establishing what was required for permittees under the Phase I Permit, the
11 Phase I Permit also represented Ecology's best judgment regarding what was reasonable for a
12 group of permittees with differing problems and resources to accomplish. Ecology considered
13 the expected implementation date of the Phase I Permit to be MEP and AKART, and the Board
14 defers to Ecology's expertise on what permittees could reasonably accomplish within their
15 resources. The Board concludes that using the expected implementation date of the Phase I
16 Permit for the baseline to apply to projects is MEP and AKART.

17 20.

18 The lack of any term in the Agreed Order to require a sustained level of effort in the
19 structural retrofit program as the County implements the Agreed Order, leads the Board to
20 conclude that the Agreed Order fails to require an ongoing effort by the County to meet the MEP
21 standard set out in the Phase I Permit. In discussing Condition S5.B. of the Phase I Permit, the

1 Fact Sheet provides that state and federal law requires a SWMP reduce the discharge of
2 pollutants to the MEP and meet state AKART requirements. It also states: “Where appropriate,
3 Permittees should continue implementation of existing stormwater management program
4 components *that go beyond what is required in this permit* where they are necessary to reduce
5 the discharge of pollutants to the MEP.” *Ex. J-15* at p. 29. The Fact Sheet, therefore, recognizes
6 that although a permit term may not specify a particular level of effort, Permittees should
7 continue their activity under that permit term in a meaningful and sustained manner where
8 necessary to meet MEP requirements. Clark County’s ability to shift funds to the mitigation
9 program, without maintaining continuing effort in the structural retrofit program, is a serious
10 flaw in the County’s required Stormwater Management Program, and results in an impermissible
11 reduction in the level of effort to control runoff in urban and urbanizing areas of Clark County,
12 as required by the Phase I Permit. This reduction in the level of effort results in a failure to meet
13 the MEP standard, and thus the Agreed Order is invalid in this respect. *See* WAC 371-08-540(2)
14 (Board will review terms of a General Permit to determine if it is “invalid in any respect.”) To
15 the extent the County defends the entire mitigation program as financially feasible based on the
16 current level of recessionary development, it is difficult, if not impossible, to see how the
17 mitigation program is sustainable as a going forward standard for the Phase I Permit program,
18 other than at the complete expense of the existing level of effort for structural stormwater
19 retrofits required under the Permit’s other terms. EPA and the NMFS correctly assessed this
20 deficiency in their comments on the amendments to the Phase I Permit.

21

1 21.

2 Clark County argues that the Board need only look to the remainder of the current permit
3 term to determine whether there is adequate funding, sufficient to implement a program that is
4 equivalent to the Phase I Permit. We disagree, for several reasons. First, the mitigation
5 obligations of the Agreed Order do not end in February 2012, with the expiration date of this
6 iteration of the Phase I Permit. Rather, the mitigation obligations incurred by Clark County
7 during this term of the municipal permit, will stretch well into the next permit cycle. We have
8 also found that the assumptions Clark County relies on to argue it has more than adequate
9 funding for the Agreed Order are not well-founded, and based on either changeable conditions,
10 or terms the Board has invalidated in this Order (reliance on a later effective date). Moreover,
11 having been incorporated into the Phase I Permit as a functionally equivalent program for runoff
12 control at new or redevelopment and construction site, the terms of the Agreed Order will
13 become the baseline for the next round or iteration of general permit renewals, not just for Clark
14 County, but for other municipal permittees. For these reasons, the Board concludes that the
15 Agreed Order allows for an impermissible, overall reduction in the level of effort in those
16 requirements that Ecology has said constitute MEP under the Phase I Permit.

17 22.

18 On several occasions this Board has concluded that a particular term or approach of a
19 General Permit amounted to impermissible self-regulation, essentially leaving the choice of the
20 pollution control program entirely to the discretion of the regulated entity, with no regulatory
21 oversight to ensure the permittee in fact reduces pollutants as required by law, and acts

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1 reasonably and in good faith. *Phase I Decision* at COL 29, *PSA v. Ecology*, PCHB Nos. 02-162
2 through 164, (*Industrial Stormwater General Permit, Order Granting Partial Summary*
3 *Judgment, June 6, 2003*) at XVI. In reaching these decisions the Board has relied on at least one
4 relevant decision in the municipal stormwater context. In review of the Phase II municipal
5 stormwater rules, the Ninth Circuit Court of Appeals concluded that while it is laudable to
6 involve regulated parties in the development of individualized stormwater pollution control
7 programs, regulators are still required to ensure that, in every instance, the program is subject to
8 meaningful review to ensure that the program reduces the discharge of pollutants to the
9 maximum extent practicable. *Environmental Defense Center, Inc. v. U.S. E.P.A.*, 344 F.3d 832,
10 856 (9th Cir. 2003) In another context, the rules governing concentrated animal feeding
11 operations (CAFOs), also to be implemented through a general permit, the Second Circuit Court
12 of Appeals held that the failure of the rule to require regulatory oversight to ensure that each
13 large CAFO, in fact, developed a nutrient management plan, was arbitrary and capricious.
14 *Waterkeeper Alliance v. E.P.A.*, 399 F.3d 486 (2d. Circuit 2005).

15 23.

16 In its Phase I decision, this Board criticized the structural stormwater control program
17 requirements of the Permit as impermissible self-regulation, stating that the “program is left
18 entirely to the discretion of the municipalities, not only with respect to which projects they
19 initially select, but also in the timing and manner in which they implement the selected projects.”
20 *Phase I, COL 29*. The Board concluded that the permit failed “to require a minimum level of
21 effort for the permittees in the selection and prioritization of structural stormwater projects, and

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1 provides no review and approval role for Ecology.” *Id.* While neither the Permit, nor this
2 Board, demanded a particular level of funding for the program, in order to ensure that MEP and
3 AKART standards were met, the Board required a minimum level of effort in the selection and
4 prioritization of the planned projects, a schedule for implementation, a role for Ecology in
5 determining if the pollution reduction goals of the Phase I Permit were met by the efforts of a
6 particular Phase I permittee and documented progress in meeting the goals of the program.
7 These steps were necessary to ensure that the federal MEP standard was met by each
8 municipality. *Phase I Decision.* Furthermore, in implementing structural stormwater controls,
9 the Fact Sheet for the Phase I Permit directs Permittees to “set priorities and address the highest-
10 ranked problems subject to the limitations of available resources.” (emphasis added.) *Ex. J-15* at
11 p. 35.

12 24.

13 The mitigation program of the Agreed Order suffers from the same problems the Board
14 recognized in the Phase I decision related to the structural stormwater control condition of the
15 that permit. The Clark County programs leaves it to Clark County to decide which mitigation
16 projects will suffice to meet the demands of the Agreed Order, and complete discretion in
17 deciding whether to move projects from the required structural retrofit program into the
18 mitigation program. In implementing the structural control program, Permittees set priorities and
19 address the highest-ranked problems subject to the limitations of available resources. There is no
20 similar requirement for mitigation projects under the Agreed Order. The Agreed Order allows
21 Clark County to provide highest priority to projects that provide the best cost/benefit ratio in

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1 terms of cost per unit of land cover mitigated, within the entire group of projects deemed most
2 suitable for mitigation. If Clark County develops a list of 50 proposed projects, nothing prevents
3 Clark County from funding projects listed 45 through 50 in terms of suitability for mitigation
4 because those projects are less expensive. Ecology plays no role in ensuring that mitigation
5 projects actually achieve the goal of the Phase I flow control standard, and no role in ensuring
6 that mitigation sites are selected in a reasoned manner, free of political or bad faith influences.
7 There is no oversight to ensure that the County sustains an overall level of effort as between the
8 structural retrofit program and the mitigation program.

9 25.

10 We disagree with the County and Ecology to the extent they argue that the flow control
11 standard, as required by the Phase I permit, also requires no level of oversight by Ecology, and
12 has not been found to suffer from the self-regulatory problems discussed above. By its terms, the
13 Agreed Order sets out a “mitigation” or alternative program, untested and with significant
14 questions as to whether or not the selected mitigation sites will actually offset the environmental
15 harm allowed at the site of new development. In the context of another type of mitigation,
16 wetland mitigation, Ecology has concluded that there is a need to closely monitor mitigation
17 sites, as many fail to achieve the intended goals because of lack of understanding of ecosystem
18 processes and watershed processes. *Ex. A-25*. Given these considerations, and the lack of
19 criteria to guide how mitigation projects will be selected, there is no effective review to
20 determine if the goals of the Phase I Permit are met, and progress in protection of streams against

21 61

1 the detrimental effects of increased urbanization accomplished. The Agreed Order fails as an
2 impermissible self-regulatory program.

3 26.

4 Furthermore, the Agreed Order raises concerns whether historic impacts will ever be
5 addressed in a meaningful way in Clark County. The Agreed Order negatively impacts two of
6 the three prongs EPA stated as necessary to mitigate for historic urban and urbanizing
7 stormwater impacts: enhanced gradual improvement of baseline conditions as redevelopment
8 occurs, and enhanced investment in retrofit projects to reduce stormwater impact from developed
9 land. *Ex. A-22*. In considering whether MEP has been met, the Board considers the
10 programmatic nature of the Phase I Permit and how the SWMP provisions are intended to
11 operate as an aggregate level of effort. The Agreed Order's failure to address historic impacts in
12 a meaningful and sustained manner for multiple components that are key to the programmatic
13 Phase I Permit requires the Board to remand the Agreed Order. The Board recognizes that
14 municipalities should have some flexibility in meeting the terms of the permit, and that more
15 flexibility should be provided in an urbanized setting because there are more constraints.
16 Alternative mechanisms, however, must be based in science and have some assurances that
17 beneficial uses will have at least the same level of protection as provided by the permit terms.

18 27.

19 In the Phase I decision, this Board held that the permit's reliance on a flow control
20 standard as the primary method to control stormwater runoff from MS4s fails to reduce
21 pollutants to the federal MEP standard, and without greater reliance on LID, does not represent

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1 AKART under state law. The Board concluded that indisputable evidence lead to the conclusion
2 that application of LID techniques, at the parcel and subdivision level, is a currently known and
3 existing methodology that is reasonable both technologically and economically to control
4 discharges entering into MS4s covered by the Phase I Permit. The Board held that the Phase I
5 permit “must require greater application of LID techniques, where feasible, in combination with
6 the flow control standard, to meet the AKART standard.” *Phase I Decision*, at COL 16.
7 Underlying the Board’s legal conclusion were factual findings, referenced above, to the effect
8 that LID was a well-defined concept, and that the basic BMPs that constitute LID well-defined.
9 The Board noted that utilization of LID techniques may be useful, or even in some cases
10 necessary, to meet the flow control standard on a particular site. *Phase I Decision* at FOFs 38,
11 42.

12 28.

13 As we have found, the LID requirements of the Phase I Permit are found in the section of
14 the permit applicable to “Controlling Runoff from New Development, Redevelopment and
15 Construction Sites,” Section S5.C.5.—the same section that contains the flow control standard.
16 That section of the Phase I Permit is the section that takes municipal permittees to a new
17 standard for prevention and control of stormwater runoff from new development, redevelopment,
18 or construction sites. Meeting the advanced flow control standard *and* implementing LID at the
19 time of new development, redevelopment, or at construction sites are both necessary to meet the
20 MEP and AKART standards. *See Phase I Decision*. The Agreed Order fails to meet the MEP
21 and AKART standards, or establish an equivalent program for new development, redevelopment,

1 or construction sites because it fails to adequately address compliance with the LID provisions of
2 Phase I Permit. First, the Agreed Order it is silent on the County's obligation to require
3 implementation LID at the site of the new development, even if the Permit's flow control
4 standard is not met at those sites, but at alternative mitigation sites. Second, while the Agreed
5 Order speaks to LID in relation to the flow control mitigation projects that the County will
6 undertake, it does so only in the most permissive terms. Thus, it fails to impose a requirement
7 comparable or equivalent to the Phase I Permit when it comes to LID. We also note that to the
8 extent the Agreed Order allows new development to meet a more relaxed flow control standard,
9 it fails to place an incentive on development to use LID, and therefore fails to require AKART
10 and MEP.

11 29.

12 Any finding of fact deemed to be a conclusion of law is hereby adopted as such.

13 **ORDER**

14 The Agreed Order is reversed and remanded to Ecology for further actions consistent
15 with this opinion.

16 SO ORDERED this 5th day of January, 2011.

17 **POLLUTION CONTROL HEARINGS BOARD**

see concurrence and dissent

18 ANDREA MCNAMARA DOYLE, Presiding

19 WILLIAM H. LYNCH, Member

KATHLEEN D. MIX, Member