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

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

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

FINDINGS OF FACT

1.

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

[1] Listed in Condition S5.

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

2.

In the Phase I Permit, Ecology chose to regulate stormwater discharges from new development and redevelopment primarily through the imposition of a new flow control standard. Permit Condition S5.C.5.b.i. *Phase I Decision* at FOF 38. The flow control standard is set out in Ecology's 2005 Stormwater Management Manual (2005 Manual), and required for development projects over certain size thresholds. *Ex. J-16 (Phase I Permit)* at Condition S5.C.5.b.i.[2] Under this updated flow control requirement, Phase I permittees must require new development and redevelopment projects to control the rate at which stormwater is released from the site to match historical pre-developed (typically forested) conditions, rather than existing site

[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.

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

3.

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

[3] The standard flow control requirement is to "match development discharge durations to pre-developed durations 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.

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

4.

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

5.

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

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

6.

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

[4]The parties filed cross motions for summary judgment on several of the legal issues in this appeal, all of which the Board denied. In denying summary judgment, the Board determined that it needed a better record in order to reach a 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.

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

7.

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

8.

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

9.

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

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

10.

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

[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*.

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

11.

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

12.

Use of Vesting, and Relevant Effective dates: Under the Agreed Order, the County incurs a potential mitigation obligation for any new or redevelopment project that meets threshold requirements for flow control facilities under the Phase I Permit and that "vested" under state vesting laws [6] on or after April 13, 2009. *Ex. J-1* at Attachment A. Stated another way, the Agreed Order does not require mitigation for all projects as of August 16, 2008, the Phase I Permit's deadline for adoption of ordinances, but rather provides the County an additional eight

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

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

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

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

13.

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

14.

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

15.

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

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

16.

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

17.

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

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

18.

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

19.

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

[9]This 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.

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

20.

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

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

21.

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

[10] The standard flow control requirement is to "match development discharge durations to pre-developed durations 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 applies to projects of a specified size or generating a specified amount of stormwater discharge. *Id.* at Appendix 1, p. 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*.

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

22.

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

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

23.

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

24.

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

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

25.

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

26.

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.

28.

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

29.

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

30.

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

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

31.

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

32.

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

33.

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

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

34.

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

35.

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

36.

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

37.

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

38.

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

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

39.

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

[12]Although 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*.

40.

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

41.

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

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

42.

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

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

43.

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

44.

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

45.

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

[13] Citing 40 C.F.R. § 122.26(b)(2).

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

46.

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

47.

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

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

48.

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

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

49.

The County has only one budget for the combined structural stormwater/retrofit program and the flow control mitigation program, the Stormwater Capital Improvement Budget.[14] *Ex. A-43(Clark County's Supplemental Responses to Interrogatories)*. Although County witnesses initially stated that they received "supplemental appropriations" from the Board of County Commissioners for the Phase I permit requirements related to implementing the structural stormwater control program and the Agreed Order mitigation obligation, testimony clarified that there were not additional funds dedicated to the Agreed Order's flow mitigation program. Stormwater managers within the County received an increase in budget authority, or permission

[14] Clark County's Stormwater Management Program is funded primarily through its local Clean Water Fee, which raises about $4.5 million per year. Of that amount, approximately $1.5 million is budgeted for capital programs, including the structural stormwater retrofit program required by the Phase I Permit, while the remainder of the 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.*

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

50.

The County's current Clean Water Fund balance is approximately $7-8 million. That fund balance is available for the total of all stormwater management in the County, not just capital programs. The balance has accumulated over the past decade as a result of spending less on the County's overall Clean Water Programs than the County has collected in fees. Historically, the County has spent on average approximately $800,000 per year on structural retrofit programs. *Gray Testimony*, *Wierenga Testimony*. The County has projected that it will cost approximately $360,000 during the remainder of this permit term to pay for the mitigation obligations incurred under the Agreed Order. *Gray Testimony*, *Swanson Testimony*. For this reason, the County projects that ongoing funding for the mitigation obligations taken on by the County under the Agreed Order is adequate. *Gray Testimony*. However, the Board finds that this projection is based on several assumptions: (1) that projects vested before August 2009 are not subject to the mitigation requirement, (2) that the County does not look beyond the terms of this permit, even though its mitigation obligation extends well into the future, and (3) that the projected rate of recessionary development which has resulted in a significant downturn in development in Clark County, continues. For example, Clark County issued approximately 550 single-family building permits in 2009, down from approximately 4,000 in 2007. *Snell Testimony*.

51.

The County will undertake more flow control mitigation projects relative to structural stormwater control projects under the Agreed Order, conceding that some existing "retrofit" projects will be shifted from the structural stormwater control program to the mitigation obligation. *Wierenga Testimony*. Three projects that had been on the structural stormwater control/retrofit program for some time were shifted to the mitigation obligation, including the 152nd Street/20th Avenue retrofit, the Teal Point retrofit, and the New Valley retrofit. *Wierenga Testimony, Gray Testimony*. It appears Clark County has identified only one structural stormwater control project for 2012.[15] *Ex. A-74*, p. 2.

52.

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

[15] Capital budgets fluctuate more than operating budgets. *Gray Testimony.*

53.

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

54.

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

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

55.

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

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

CONCLUSIONS OF LAW

1.

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

2.

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

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

3.

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

4.

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

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

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

5.

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

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

6.

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

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

[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.

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

7.

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

8.

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

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

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

9.

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

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

10.

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

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

11.

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

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

12.

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

13.

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

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

14.

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

15.

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

16.

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

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

17.

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

18.

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

[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 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.

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

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

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

19.

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

20.

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

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

21.

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

22.

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

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

23.

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

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

24.

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

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

25.

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

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

26.

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

27.

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

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

28.

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

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

29.

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

ORDER

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

SO ORDERED this 5th day of January, 2011.

POLLUTION CONTROL HEARINGS BOARD
see concurrence and dissent
ANDREA MCNAMARA DOYLE, Presiding
WILLIAM H. LYNCH, Member
KATHLEEN D. MIX, Member