

June 10, 2003

***Attachment #2 of two attachments to June 10 2003 Letter to County Councilman John Koster (which was endorsed and signed by 24 groups)***

**Response to Snohomish County Council Critical Area Review Program 2003 “Notebook”**

***Introduction***

Under separate cover, the organizations that participated in these responses and others have provided the Snohomish County Council with scientific documents and technical assistance documents that identify best available science and answer many of the questions posed in the “notebook.” We recommend that the county consult these resources to answer the questions in the notebook.

These comments respond to selected questions in the notebook and to the notebook generally. If you would like additional information or wish to contact us please contact Kristin Kelly of 1000 Friends of Washington’s Everett Office at telephone 425-783-0130 or e-mail: [kristin@1000friends.org](mailto:kristin@1000friends.org) or John M. Mauro of Pilchuck Audubon Society at telephone 425-252-0926 or e-mail: [johnmauro@pilchuckaudubon.org](mailto:johnmauro@pilchuckaudubon.org). Thank you for considering our comments. Please include these comments in the record of the Snohomish County Critical Areas Ordinance Review.

***Notebook Chapter II — Program Overview, pages 8 - 15***

**First Bullet on page 11**

- “Applicability is a significant policy issue. Does the scope and coverage of regulations to protect critical areas commence only at the permit level, or does it include existing and ongoing activities, or new activities which do not require a permit?”

This question has been answered in earlier Growth Board decisions on the existing Snohomish County Critical Areas Ordinance (CAO). In an Order Partially Granting Motions for Reconsideration and Clarification, the Central Puget Sound Growth Management Hearings Board [Central Board or board] held that:

The most fundamental reason that this subsection does not comply with the Act is that it is a part of a section, .040, that is entitled "Exemptions," a label and a concept fundamentally opposed to the Act's directive to protect critical areas. The County may not "exempt" preexisting improvements or uses from the operation of the CAO. Therefore, the Board reaffirms its holding that [Snohomish County Code] SCC 32.10.040(2) does not comply with the Act. However, the Board

agrees with the County's assessment that "vested" developments are not subject to the CAO. The vested law doctrine operates regardless of what a local government may say in a GMA enactment, and it is within the County's discretion to include such a declaration in the CAO.

The Board notes an important distinction between "preexisting" improvements and uses and "vested" improvements and uses. The County uses the former term in its Motion, while SCC 32.10.040(2) uses the term "legally established" to convey a status akin to vested rights. The fact that improvements or uses are preexisting may not be sufficient to insulate them from a requirement to comply with the CAO. Furthermore, any new improvements or uses, even on sites that are otherwise "legally established" or "vested", will be subject to the CAO. The County may wish to be clearer on this point in subsequent revisions to the CAO.<sup>1</sup>

In the Final Decision and Order in the same case, the Central Board held Snohomish County's exemption of development activities not otherwise exempted and other exemptions violated the Growth Management Act. The board writes:

The sections cited in these legal issues do not meet the requirements of RCW 36.70A.040(3), RCW 36.70A.060(2) and RCW 36.70A.170 because they do not designate and protect critical areas. As held above regarding Legal Issue No. 2, the Act requires that all critical areas be designated and that all designated critical areas be protected. Some of the sections, such as SCC 32.10.040, are exemptions on their face, while the operation of .110(1) constitutes, in effect, an exemption of any slopes less than 33 percent.

Exemption, exclusion, limitation of applicability, or other drafting mechanisms that achieve the same effect, do not constitute designation and protection of critical areas. Local governments do have discretion as to how and even the degree to which they protect, but the inescapable conclusion from a plain reading of the Act is that critical areas must be protected.<sup>2</sup>

This is broad language and prohibits all of the exemptions contemplated in the first bullet. The critical areas ordinance must apply to uses and activities requiring permits, existing uses and activities (except those that vest prior to the new critical areas provisions), and new uses and activities that do not require a permit.

## **Second Bullet on page 11**

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<sup>1</sup> *Pilchuck, et al. v. Snohomish County*, Central Puget Sound Growth Management Hearings Board (CPSGMHB) Consolidated Case No. 95-3-0047 Order Partially Granting Motions for Reconsideration and Clarification p. \*5, 1996 WL 650336, \*5 (January 25, 1996).

<sup>2</sup> *Pilchuck v. Snohomish County (Pilchuck II)*, CPSGMHB Case No.: 95-3-0047c Final Decision and Order p. \*21, 1995 WL 903206, \*21 (December 6, 1995).

- “Should the County adopt different regulations within the urban areas and rural areas? What guidelines should govern any distinctions that would ensure no net loss to the structures and values of the ecosystem?”

Snohomish County should require that uses and activities in the rural area retain 65 percent of the site in natural vegetation and tree cover and limit effective impervious surfaces to ten percent. Research by the University of Washington in the Puget Sound Lowlands (PSL) has shown that when total impervious surfaces exceed five to ten percent and forest cover declines below 65 percent salmon habitat in streams and rivers is adversely affected. As several University of Washington researchers write:

Results of the PSL stream study have shown that physical, chemical, and biological characteristics of streams change with increasing urbanization in a continuous rather than threshold fashion. Although the patterns of change differed among the attributes studied and were more strongly evident for some than for others, physical and biological measures generally changed most rapidly during the initial phase of the urbanization process as % [total impervious area] TIA above the 5-10% range. As urbanization progressed, the rate of degradation of habitat and biologic integrity usually became more constant. There was also direct evidence that altered watershed hydrologic regime was the leading cause for the overall changes observed in instream physical habitat conditions.

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**The findings of this research indicate that there is a set of necessary, though not by themselves sufficient, conditions required to maintain a high level of stream quality or ecological integrity (physical, chemical, and biological).** If maintenance of that level is the goal, then this set of enabling conditions constitutes standards that must be achieved if the goal is to be met. For the PSL streams, imperviousness must be limited (< 5-10 % TIA), unless mitigated by extensive riparian corridor protection and BMPs. Downstream changes to both the form and function of stream systems appear to be inevitable unless limits are placed on the extent of urban development.<sup>3</sup>

In light of this research and other best available science sources available on the *CAO on a Disk* it is apparent that impervious surfaces adversely affect streams, wetlands, and salmon habitat. While a ten percent effective impervious surface maximum is unrealistic

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<sup>3</sup> Christopher W. May, Richard R. Horner, James R. Karr, Brian W. Mar, Eugene B. Welch. *The Cumulative Effects of Urbanization on Small Streams in the Puget Sound Lowland Ecoregion* p. 17 (University of Washington, Seattle Washington) (emphasis in the original). A copy of this report is on the Compact Data Disc entitled *CAO on a Disk: Best Available Science and Model Critical Areas Ordinance*. This report was identified as best available science in Washington State Office of Community Development's *Citations of Best Available Science for Designating and Protecting Critical Areas* p. 17 (March 2002). See also Azous, Amanda L. and Horner, Richard R, editors. 2001. *Wetlands and urbanization, implications for the future*. Lewis Publishers, New York. Available at <http://www.ocd.wa.gov/info/lgd/growth/info/index.tpl>

for most parts of the urban growth areas it is very realistic for rural areas. A ten percent maximum for a five-acre lot allows a half acre of impervious surfaces. Even more impervious surfaces can be allowed if the runoff from these areas is infiltrated into forested areas, since this storm water would not directly drain into streams, rivers, wetlands, or lakes and is, therefore, no longer effective impervious surface.

The adverse effects of urbanization include “extensive changes in basin hydrologic regime, channel morphologic features, and physio-chemical water quality.”<sup>4</sup> These hydrologic changes include increases in peak runoff and reduced subsurface flows. These then result in higher winter flows, which can excessively erode our stream channels and instream habitat. It also results in lower summer and fall stream flows, which contribute to higher temperatures, low dissolved oxygen, and other adverse impacts on salmon habitat.

Professor Derek Booth described how modeling by King County showed that the 65 percent forest retention requirement “just met” the criteria for maintaining stream health in the till soils of the Puget Sound lowlands. Clearing more than 65 percent of a basin increased flows so that they became destructive to streams and salmon habitat.<sup>5</sup>

Given the effects on streams and salmon habitat from a reduction of forested cover below 65 percent and in light of the effects of greater than ten percent TIA, we consider the 65 percent clearing limits realistic. For example, they allow clearing 3.25-acres of a five-acre lot. The data on impervious surfaces and tree cover in Snohomish County basins contained in *Classification and Analysis of August 2001 Land Cover: Snohomish County, WA* included in the Snohomish County Studies Directory of the *CAO on a Disk* (June 2, 2003) show that it is important to protect Snohomish County’s rural river and stream basins.

#### **Fourth, Fifth, and Sixth Bullets on page 12**

Generally buffers or functionally-equivalent protections are required to protect critical areas such as wetlands, streams, and fish and wildlife habitats.<sup>6</sup> The model CAO and scientific documents included in the CAO on a Disk provide recommendations on the buffers that should be provided.

Some uses, structures, and activities (such as recreational docks, in-water structures, or in-water activities), when it is appropriate to allow them, must be located beyond buffers. The following scientific reports (included in the *CAO on a Disk Best Available Science*

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<sup>4</sup> *Ibid*, p. 1.

<sup>5</sup> Derek B. Booth, Ph.D., P.E. Sept 2000. *Forest Cover, Impervious-surface Area, and the Mitigation of Urbanization Impacts in King County, Washington* p. 13 (University of Washington, Seattle Washington). A copy of this report was enclosed with the best available science provided by the local and state public interest groups under separate cover.

<sup>6</sup> *Pilchuck v. Snohomish County (Pilchuck II)*, CPSGMHB Case No.: 95-3-0047c Final Decision and Order p. \*28, 1995 WL 903206, \*28 (December 6, 1995) (all wetlands require a buffer or its equivalent).

Directory, Fish & Aquatic Areas Subdirectory) identify the adverse effects of some of these uses and structures and methods of lessening their adverse impacts.

- *Over-Water Structures: Marine Issues.* File Name: finalmar.pdf
- *Over-Water Structures: Freshwater Issues.* File Name: finalfrs.pdf
- *Treated Wood Issues Associated with Overwater Structures in Marine and Freshwater Environments.* File Name: finaltw.pdf
- *Marine and Estuarine Shoreline Modification Issues.* File Name: finalsl.pdf
- *Dredging Activities: Marine Issues.* File Name: finaldrg.pdf
- *Freshwater Gravel Mining and Dredging Issues.* File Name: freshdrg.pdf

These documents have been identified as best available science.<sup>7</sup> We recommend that the study recommendations be incorporated into the Snohomish County critical areas ordinance update.

### **First Bullet on page 14**

The Model CAO included on the CAO on a Disk contains standards for avoidance. For example, development may only be allowed in category II and III wetlands if the use is water-dependent with no less damaging practicable alternatives; for nonwater-dependent activities the project purpose cannot be accomplished at a less damaging site and alternative site designs are not feasible. See page 41. The Model CAO is located in the Model CAO Directory.

### **Third and Fourth Bullets on page 14**

Restoration has an important role to play, especially in important but heavily impacted environments. However, caution is needed, especially if enhancement is used to mitigate new development. The studies of mitigation, to date mostly done on wetland mitigation, show that enhancement is not working. As the authors of *Washington State Wetland Mitigation Evaluation Study - Phase 2, Evaluating Success*, conclude:

The results of the Phase 2 study have revealed that enhancement, in general, is doing poorly.

- Only 22 percent of enhanced wetlands were achieving all measures, while 44 percent of enhanced wetlands were not achieving any measures.

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<sup>7</sup> Washington State Office of Community Development. Mar 2002. *Citations of Best Available Science for Designating and Protecting Critical Areas* pp. 30 -- 34.  
Available on the CAO on a CD and at <http://www.ocd.wa.gov/info/lgd/growth/info/index.tpl>.

- Only 11 percent of enhanced wetlands adequately compensated for the impact, while 78 percent of enhanced wetlands did not compensate.

Enhancement projects did a poor job compensating for the impacts to wetlands, primarily because enhancement activities provided a low contribution to wetland functions.

- Over 50 percent of the enhancement sites provided minimal or no contribution to overall wetland functions.
- 75 percent of enhancement sites provided minimal or no contribution to the general habitat function.

The results of this study are troubling, since the vast majority of enhancement activities focus on improving habitat by adding vegetative structure and species diversity. If the majority of enhancement areas are not even providing a moderate contribution to wildlife habitat, then enhancement projects are resulting in a net loss of wetland acreage and functions.<sup>8</sup>

### **First and Second Bullets on page 15**

The Snohomish County Critical Areas Ordinance should be structured so the violations can either be charged as civil violations or criminal violations. County administrative policy should guide staff as to when enforcement is to be achieved without sanctions and when violations are to be charged as a civil or criminal violation. In short, civil penalties work best against serious unknowing violations. Criminal penalties work best against very serious negligent violations or serious knowing violations. Criminal penalties are also useful to deal with repeat violators or violators that refuse to rectify adverse impacts. Civil fines should help fund enforcement efforts.

### ***Notebook Chapter III — Critical Area Principles Guiding Protection of Critical Areas, Including Best Available Science, page 16***

#### **A. Critical Area Principles Guided by Best Available Science on page 16**

Snohomish County generally has a good suite of policies to protect the environment and to guide the critical areas ordinance. These policies should be retained. We do recommend that the Natural Environment Chapter of the General Policy Plan Policy be amended to provide for policies in the following three areas:

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<sup>8</sup> Johnson, Patricia and Dana L. Mock, Andy McMillan, Lauren Driscoll, & Tom Hruby. Feb 2002. *Washington State Wetland Mitigation Evaluation Study - Phase 2, Evaluating Success* p. 84 (Washington State Department of Ecology, Shorelands & Environmental Assistance Program, Lacey, WA, Publication No. 02-06-009). This report is available in the Wetlands subdirectory of the Best Available Science Directory of the *CAO on a Disk*. This report has been identified as best available science by Washington State Office of Community Development's *Citations of Best Available Science for Designating and Protecting Critical Areas* pp. 8 - 9 (March 2002).

First, adopt a policy of no net loss of functions and values for fish and wildlife conservation areas, wetlands, and aquifer recharge areas that are used for potable water. This is consistent with the preferences of Snohomish County residents to protect water quality and the environment. No net loss of functions and values is also the standard required by the Growth Management Act.<sup>9</sup>

Second, adopt policies directing growth away from critical areas and excluding significant areas of critical areas from urban growth areas. Development in critical areas often results in a loss of functions and values. It also puts human lives and property at serious risk. This is why Growth Management Act requires that extensive areas of critical areas be excluded from the urban growth area.<sup>10</sup>

Third, adopt policies that protect the quality and quantity of groundwater. Snohomish County General Policy Plan Policy NE 3.C.1 provides that “[f]uture amendments to the comprehensive plan will specifically provide for protection of the quality and quantity of groundwater, pursuant to the requirements of the GMA (RCW 36.70A).” Now is an opportune time to adopt these policies.

## ***Notebook Chapter IV — Wetlands, pages 17 - 21***

### **General Considerations Number 3 on page 17 and 18**

The Washington State Department of Ecology is in the process of producing a white paper on best available science pertaining to wetlands and riparian areas. A product of nearly two years of research by multiple qualified and experienced Washington State wetland scientists, this white paper should be available this summer. We highly recommend that Snohomish County incorporate the findings of this white paper in the critical area review process. The WDOE has spent considerable time researching the most current literature and the best available science. (Accordingly, the County, as required by the GMA, should review and update its development regulations and include the best available science to protect the functions and values of critical areas. Note page 1 of the notebook.)

Additionally, specific comments regarding the wetlands section of the notebook will be submitted under separate cover by Audubon Washington’s WetNet program.

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<sup>9</sup> *Tulalip Tribes of Washington v. Snohomish County*, CPSGMHB Case No. 96-3-0029 Final Decision and Order p. \*11 (Jan. 8, 1997) amending a holding in *Pilchuck II*, pursuant to a Superior Court remand.

<sup>10</sup> *Bremerton, et al. v. Kitsap County*, CPSGMHB Consolidated Case No.: 95-3-0039 Final Decision and Order pp. \*33 – 34 (October 6, 1995) & *Abenroth v. Skagit County* Western Washington Growth Management Hearings Board (WWGMHB) Case No.: 97-2-0060 Final Decision and Order p. \*11 of 63, 1998 WL 1985337 (January 23, 1998).

## **Notebook Chapter V — Areas with Critical Recharging Effects on Aquifers Used for Potable Water, page 22**

### **Question 1 on page 22**

The existing regulations do not provide necessary protection for aquifers. The current regulations are limited to uses that require SEPA review.<sup>11</sup> This means that a chemical storage or sales facility of 4,000 square feet or less is not regulated by the existing regulations, no matter how serious a danger it poses to the aquifer.<sup>12</sup> The regulations could also use a general update.

The Model CAO and the Department of Ecology's *Guidance Document for Establishment of Critical Aquifer Recharge Area Ordinance* should be used as the basis for the updated regulations. The Washington State Office of Community Development's *Citations of Best Available Science for Designating and Protecting Critical Areas* identifies the Washington State Department of Ecology's *Guidance Document for Establishment of Critical Aquifer Recharge Area Ordinance* as a source of best available science.<sup>13</sup> A copy of this report is included on the *CAO on a Disk* in the Best Available Science Directory, Critical Aquifer Recharge Areas (CARAs) subdirectory.

One of the limitations of these models is that they do not include provisions to protect against salt water intrusion, a serious threat to aquifers along Puget Sound. Snohomish County's existing regulations do provide for testing wells in identified salt water intrusion areas.<sup>14</sup> We recommend that this requirement be retained and augmented.

## **Notebook Chapter VI — Fish and Wildlife Habitat Conservation Areas, pages 25 - 50**

As provided by WAC 365-190-080(5)(a), we recommend that you include endangered, threaten, and priority species among the protected species. Enclosed on the *CAO on a Disk* in the Best Available Science Directory, Wildlife & Habitat and Bird Management Recommendations subdirectories is a listing of those species along with many management recommendations for their protection. Many of these management recommendations have been identified as best available science.<sup>15</sup> Materials on the *CAO on a Disk* in the Fish & Aquatic Areas subdirectory also provide guidance on protecting salmon habitat and other fish and wildlife habitats and have been identified as best

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<sup>11</sup> SCC § 30.64.010.

<sup>12</sup> WAC 197-11-800(1)(a)(iii).

<sup>13</sup> Washington State Office of Community Development. Mar 2002. *Citations of Best Available Science for Designating and Protecting Critical Areas* p. 13.

<sup>14</sup> See SCC Table 30.64.020(3).

<sup>15</sup> Washington State Office of Community Development. Mar 2002. *Citations of Best Available Science for Designating and Protecting Critical Areas* pp. 31 -- 36.

available science.<sup>16</sup> The *CAO on a Disk* also contains many important scientific studies conducted in Snohomish County documenting both habitat conditions and measures that should be taken to protect habitats and restore them. These studies can be found in the Snohomish County Studies Directory. Enclosed on separate CDs are the full Salmon and Steelhead Habitat and Habitat Limiting Factors Reports for the Stillaguamish, Snohomish, and Cedar/Sammamish Watersheds. These reports also document habitat conditions and suggest management measures to protect and improve the habitats in Snohomish County.

Native plants and plant communities are also important to maintain the County's quality of life, fish and wildlife habitats, and important native plants for their own sake. We recommend the county protect rare native plants and plant communities. Rare plant and plant community lists for Snohomish County are available on the *CAO on a Disk* in the Best Available Science Directory, Plants subdirectory.

As a starting point for your work, we suggest the Model CAO included on the *CAO on a Disk*. However, the model is insufficient in protecting salt water habitats, lakes, and ongoing uses and activities. The other materials on the *CAO on a Disk* can help fill these gaps.

### **“Fish and wildlife habitat conservation—other considerations”**

RCW 36.70A.160 requires that each county and city that is required or chooses to plan under the Growth Management Act “shall identify open space corridors within and between urban growth areas. They shall include lands useful for recreation, wildlife habitat, trails, and connection of critical areas as defined in RCW 36.70A.030.” Since connectivity between habitats is important to maintaining the value of wildlife habitats, we recommend that this CAO update include the update and adoption of open space corridors to create a wildlife habitat network.<sup>17</sup> Included on the *CAO on a Disk* are several reports on biodiversity and wildlife habitat protection that can assist the county in this work. Please see the Biodiversity directory.

### ***Notebook Chapter VII — Frequently Flooded Areas, page 52***

The United States Federal Emergency Management Agency (FEMA) Region 10 has published a flood hazard prevention and fish habitat protection model ordinance to protect people and structures from flood damage and to protect fish habitat in flood plains. We strongly urge you to base your flood plain regulations on the FEMA model ordinance. This model ordinance can be found in Appendix B of [Floodplain Management: Higher Regulatory Standards](#) which is on the *CAO on a Disk* in the Floodplains & Fish Directory.

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<sup>16</sup> *Ibid*, pp. 30 – 36.

<sup>17</sup> Defenders of Wildlife. 2003. *Integrating Land Use Planning & Biodiversity* p. 25.

Question 1 on page 52 of the Notebook notes that flood plains can also include other important critical areas. As Chapters 1 and 2 of the [Floodplain Management: Higher Regulatory Standards](#) document, the same measures used to protect these other critical areas from degradation also protect human life. For example, on page 3 the report explains that setbacks both provide for safety and prevent flood damage while protecting fish and wildlife habitat.<sup>18</sup>

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<sup>18</sup> Federal Emergency Management Agency (FEMA) Region 10. Feb 2002. [Floodplain Management: Higher Regulatory Standards](#) p. 3.