
To: SMP Task Force

From: Patty Charnas, Sue Donahue

Subject: Draft Policy on Science and the SMP Update

Meeting Date: October 7, 2010

Action Requested : Review and come prepared to discuss and forward a policy on Science and the SMP Update to the Board of County Commissioners.

Policy Need: Per the state rules, local governments are to establish a procedure to distinguish sources, types and kinds of information that are submitted or collected during the SMP update process. The procedure has been drafted into a policy for Task Force review and discussion. The policy is intended to come from the Task Force and go before the Board of County Commissioners for adoption.

Background: The SMP update includes the Inventory and Characterization, planning and management goals, policies and shoreline environment designations that are informed by current, accurate and complete scientific and technical information, as well as by local knowledge, citizen comments and other public input.

The Task Force is aware of the issue relating to what constitutes current, accurate and complete scientific and technical information versus other types of information. These other types of information will inform the SMP update as public comment and local knowledge and not necessarily as “current, accurate and complete scientific and technical information.” Throughout the review of the Inventory and Characterization, information or comments have been received that may be considered to be in conflict with other scientific and technical data. While all public comment is encouraged and will become part of the SMP update record, determining what constitutes acceptable science is critically needed.

A “Science and the SMP Update ” policy will provide clarity and is seen as the best mechanism to reduce public confusion and maintain a defensible scientific and technical record as the SMP update moves forward. The Department of Ecology has strongly encouraged Kitsap County to adopt a local SMP policy on science at this point in time.

Attachments: Draft Task Force Resolution on Science and the SMP update.

Resolution _____-2010

**Creating Kitsap County “Science and Technical Information for the Shoreline Master Program Update”
Policy**

Whereas the Kitsap County Board of Commissioners recognizes that shorelines are one of Kitsap’s most abundant environmental resources whose proper management is important for continued use and enjoyment by present and future generations. The County possesses 250 miles of salt and freshwater shorelines of the state which are managed by the local Shoreline Management Master Program (SMP) in partnership with the Washington Department of Ecology (Ecology) as prescribed by state law (90.58 RCW) and rules (WAC 173-26).

Whereas the SMP is undergoing a comprehensive review and update due by December, 2012 as directed by state law. The SMP update will result in revised policies and standards that achieve *“no net loss of ecological functions necessary to support (maintain) shoreline resources and that plans for the restoration of the ecosystem-wide processes and individual ecological functions on a comprehensive basis over time.”*

Whereas Kitsap County is committed to conducting the SMP update with citizen participation, awareness, knowledge and engagement. The SMP update process will continually solicit and incorporate information, experience, anecdotal evidence and local knowledge provided by interested parties throughout the SMP amendment process.

Whereas, in order to benefit from experts in the fields of science relevant to the SMP update, Kitsap County will consider utilizing an independent scientific and technical advisory group to provide leadership and guidance on science issues.

Whereas, in order to demonstrate that statutory obligations under 90.58 RCW, including the no net loss standard, cumulative impacts assessment and restoration plan, have been met, consideration of a substantial amount of current, complete and accurate environmental, scientific and technical information related to shoreline ecosystems is necessary.

Whereas the SMP is best served by including scientific and technical information that is based on accepted scientific methods, research procedures and review protocols. In order to demonstrate that no net loss of shoreline ecosystem functions is based on the best scientific information, a policy and procedure to determine acceptable science is needed.

Whereas Kitsap County in accordance with WAC 173-26-201 (3)(c) will use the Final SMP Inventory ,Characterization and Cumulative Impact Assessment to prepare SMP policies and regulations.

Whereas the Kitsap County Board of Commissioners in partnership with Ecology wishes to establish a policy by which the most current, accurate and complete existing scientific information is utilized in the SMP update.

NOW THEREFORE, BE IT RESOLVED by the Kitsap County Board of County Commissioners that the “Use of Scientific and Technical Information for the Shoreline Master Program Update” Policy is hereby adopted.

Adopted this ____day of _____, 2010.

**BOARD OF COUNTY COMMISSIONERS
KITSAP COUNTY, WASHINGTON**

Josh Brown, Chair

Steve Bauer, Commissioner

Charlotte Garrido, Commissioner

DRAFT

KITSAP COUNTY

“Scientific and Technical Information Policy for the Shoreline Master Program Update”

Policy Number:

Effective Date:

Approved:

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This policy applies to the update to the local Shoreline Management Master Program or SMP and specifically to the process by which scientific and technical information is utilized, as directed by WAC 173-26 and RCW 90.58.100(1). The requirement to use scientific and technical information does not limit Kitsap County’s authority, desire and intent to solicit and incorporate information, experience, and anecdotal evidence provided by interested parties as part of the SMP amendment process.

1.0 Kitsap County shall incorporate the provisions of WAC 173-26-201(2)(a) on the use of scientific and technical information within the SMP Update.

1.1 Kitsap County will identify and assemble the most current, accurate and complete scientific and technical information available that is applicable to relevant shoreline ecosystem functions. This assembly will become part of the SMP Inventory and Characterization.

1.1.1 At a minimum, Kitsap County shall make use of and, where applicable, incorporate all existing appropriate, relevant and available scientific information, aerial photography, inventory data, technical assistance materials, manuals and services from reliable sources of science and include available information from relevant state agencies, universities, affected Indian tribes, port districts and qualified scientific experts.

1.1.3 Any scientific research initiated by Kitsap County or by any other person with the expectation that it will be used as a basis for master program provisions, shall use accepted scientific methods, research procedures and review protocols.

1.1.4 In the absence of more current or specific information, Kitsap County shall consult the technical assistance materials produced by the Department of Ecology.

1.2 Kitsap County shall base SMP provisions on an analysis incorporating the most current, accurate and complete scientific or technical information available.

2.0 The requirement to use scientific and technical information is considered a part of the SMP update public participation process which solicits and incorporates information, experience, anecdotal evidence and local knowledge from all interested parties through out the SMP update process.

3.0 Kitsap County and the SMP Update Task Force will work directly with subject matter technical experts at Ecology and with other relevant state agencies, universities, affected Indian tribes, port districts and qualified scientific experts to discuss and when necessary determine whether information for consideration in the SMP update is the most current, accurate and complete scientific and technical information that is appropriate, relevant and applicable to the SMP update.

3.1 Whether a person is a qualified scientific expert with expertise appropriate to the relevant shoreline ecosystems is determined by the person's professional credentials and/or certification, any advanced degrees earned in the pertinent scientific discipline from a recognized university, the number of years of experience in the pertinent scientific discipline, recognized leadership in the discipline of interest, formal training in the specific area of expertise, and field and/or laboratory experience with evidence of the ability to produce peer-reviewed publications or other professional literature. No one factor is determinative in deciding whether a person is a qualified scientific expert. Where pertinent scientific information implicates multiple scientific disciplines, a

team of qualified scientific experts representing the various disciplines will be consulted to ensure the identification and inclusion of the best available science

3.2 Such information that is submitted for consideration as science in the SMP update shall be within the context, scope, magnitude, significance of the SMP update

3.3 Where information collected by or provided to Kitsap County in support of the SMP update is in conflict with or is inconsistent to established data, Kitsap County shall work with above referenced technical experts to base SMP provisions on a reasoned, objective evaluation of the relative merits of the conflicting data.

4.0 Kitsap County SMP update shall use only current, complete and accurate scientific and technical information which meets the following standards:

4.1 Peer review. The information has been critically reviewed by other persons who are qualified scientific experts in that scientific discipline. The criticism of the peer reviewers has been addressed by the proponents of the information. Publication in a refereed scientific journal usually indicates that the information has been appropriately peer-reviewed.

4.2 Methods. The methods that were used to obtain the information are clearly stated and able to be replicated. The methods are standardized in the pertinent scientific discipline or, if not, the methods have been appropriately peer-reviewed to assure their reliability and validity.

4.3 Logical conclusions and reasonable inferences. The conclusions presented are based on reasonable assumptions supported by other studies and consistent with the general theory underlying the assumptions. The conclusions are logically and reasonably derived from the assumptions and supported by the data presented. Any gaps in information and inconsistencies with other pertinent scientific information are adequately explained.

4.4 Quantitative analysis. The data have been analyzed using appropriate statistical or quantitative methods.

4.5. Context. The information is placed in proper context. The assumptions, analytical techniques, data, and conclusions are appropriately framed with respect to the prevailing body of pertinent scientific knowledge.

4.6. References. The assumptions, analytical techniques, and conclusions are well referenced with citations to relevant, credible literature and other existing pertinent information.

5.0 Common sources of scientific information. Some sources of information routinely exhibit all or some of the characteristics listed in (a) of this subsection. Information derived from one of the following sources may be considered current, accurate and complete scientific and technical information if the source possesses the characteristics in Table 1. The information found in Table 1 provides a general indication of the characteristics of a valid scientific process typically associated with common sources of scientific information.

<p>Table 1 SOURCES OF SCIENTIFIC INFORMATION</p>	Peer review	Methods	Logical conclusions & reasonable inferences	Quantitative analysis	Context	References
<p>A. Research. Research data collected and analyzed</p>						

<p align="center">Table 1 SOURCES OF SCIENTIFIC INFORMATION</p>	Peer review	Methods	Logical conclusions & reasonable inferences	Quantitative analysis	Context	References
as part of a controlled experiment (or other appropriate methodology) to test a specific hypothesis.	X	X	X	X	X	X
<p>B. Monitoring. Monitoring data collected periodically over time to determine a resource trend or evaluate a management program.</p>		X	X	Y	X	X
<p>C. Inventory. Inventory data collected from an entire population or population segment (e.g., individuals in a plant or animal species) or an entire ecosystem or ecosystem segment (e.g., the species in a particular wetland).</p>		X	X	Y	X	X
<p>D. Survey. Survey data collected from a statistical sample from a population or ecosystem.</p>		X	X	Y	X	X
<p>E. Modeling. Mathematical or symbolic simulation or representation of a natural system. Models generally are used to understand and explain occurrences that cannot be directly observed.</p>	X	X	X	X	X	X
<p>F. Assessment. Inspection and evaluation of site-specific information by a qualified scientific expert. An assessment may or may not involve collection of new data.</p>		X	X		X	X
<p>G. Synthesis. A comprehensive review and explanation of pertinent literature and other relevant existing knowledge by a qualified scientific expert.</p>	X	X	X		X	X
<p>H. Expert Opinion. Statement of a qualified</p>						

Table 1 SOURCES OF SCIENTIFIC INFORMATION	Peer review	Methods	Logical conclusions & reasonable inferences	Quantitative analysis	Context	References
scientific expert based on his or her best professional judgment and experience in the pertinent scientific discipline. The opinion may or may not be based on site-specific information.			X		X	X

X = characteristic must be present for information derived to be considered scientifically valid and reliable

Y = presence of characteristic strengthens scientific validity and reliability of information derived, but is not essential to ensure scientific validity and reliability

5.1.2. Common sources of nonscientific information. Many sources of information usually do not produce scientific information because they do not exhibit the necessary characteristics for scientific validity and reliability. Information from these sources may provide valuable information to supplement scientific information, but it is not an adequate substitute for scientific information. Nonscientific information should not be used as a substitute for valid and available scientific information. Common sources of nonscientific information include the following:

- (i) Anecdotal information. One or more observations which are not part of an organized scientific effort (for example, "I saw a grizzly bear in that area while I was hiking").
- (ii) Nonexpert opinion. Opinion of a person who is not a qualified scientific expert in a pertinent scientific discipline (for example, "I do not believe there are grizzly bears in that area").
- (iii) Hearsay. Information repeated from communication with others (for example, "At a lecture last week, Dr. Smith said there were no grizzly bears in that area").