



May 25, 2011

Maggie Glowacki
City of Seattle
Department of Planning and Development
700 5th Avenue, Suite 2000
P.O. Box 34019
Seattle, WA 98124-4019

RE: PROPOSED SHORELINE MASTER PROGRAM

Dear Ms. Glowacki,

The Western Wood Preservers Institute (WWPI) is providing comment on the City of Seattle's proposed *Shoreline Master Program* (SMP) to express our concerns with Sections 23.60.152(J, K &O) (General Development), and 23.60.187 (C-3) (Standards for Piers and Floats and Overwater Structures), as we believe the exclusion of using preserved wood in or over water is unwarranted environmentally; will economically impact the industry; and adds unnecessary costs for the City of Seattle, and community users.

GENERAL CONCERNS

The Western Wood Preservers Institute (WWPI) represents the wood preserving industry in western North America, which includes nine facilities operating in Washington that employ over 250 workers. These companies are predominantly small businesses, and the financial impact of the proposed preserved wood exclusion could be severe on many of these companies. Because a majority of the renewable raw material used to produce preserved wood products is harvested and manufactured locally, such activity also creates economic activity important to the local economies and the state of Washington.

The SMP, as proposed, favors durable, non-toxic components for in-water and over-water structures. Though there is no definition of what constitutes an acceptable durable, non-toxic component we assume this is referring for the most part to alternative steel, plastic or concrete products. We also assume in order to justify preference for these alternative products there has been a thorough evaluation of the environmental consequences (and wisdom) of encouraging increased production of these products in place of renewable wood products, including potential effects on climate change. If so, we hope they have undergone the same level of rigorous scientific scrutiny that has been done for the use of preserved wood in aquatic and/or marine settings. Should this be the case, the WWPI would very much be

interested in seeing the City's environmental evaluation for what they consider to be a more durable, non-toxic component than preserved wood.

SCIENCE AND ASSESSMENT TOOLS

Assuring preserved wood products are produced and used in a safe and environmentally appropriate manner has been a major focus of the Institute, especially in the area of aquatic and marine environments. WWPI has gone to great lengths to work with local, state and federal agencies over several decades to assure the environmental objectives are met for the use of preservative wood. For example, the development of an August 1995 Memorandum of Agreement between the Washington Department of Fish and Wildlife and the Department of Ecology, which provided guidance for the use of preserved wood in state waters. This guidance clearly allows for consideration of environmental, structural and economic factors. In situations where there is concern for higher environmental risk, it places the onus on the proponent to evaluate the factors to determine if preserved wood material is appropriate.

The memorandum is consistent with the preserved wood guidelines released by NOAA Fisheries Southwest Region on October 12, 2009, in which WWPI also actively participated. The guidelines were the result of an extensive review by NOAA of all the available and applicable science related to several preservative systems, including several excluded in the proposed SMP. The guidelines were developed to assist biologists for the National Marine Services (NMFS or NOAA Fisheries) to understand the issues relating to aquatic uses of preserved wood, and to help make consistent effect determinations for projects proposing to use such products. They reviewed the science, potential environmental risks, available risk assessment tools, and provided recommended guidelines for use in Alaska, Washington, Oregon and California. The guidelines are entitled *The Use of Treated Wood Products in Aquatic Environments: Guidelines to West Coast NOAA Fisheries staff for Endangered Species Act and Essential Fish Habitat Consultations in the Alaska, Northwest and Southwest Regions.*

The NOAA scientific review concluded:

“Overall, the use of treated wood products in aquatic environments with the examined formulations (ACZA, CCA and creosote) could be acceptable in many proposed projects. However, the products cannot be considered categorically safe, and therefore, require assessment. Many projects, that still propose to use treated wood, may pass a screening level examination and require relatively little assessment for the treated wood related impacts. These determinations require a level of local knowledge that is applied on a case-by-case basis, or through regional or watershed based programmatic examinations.”

They went on to further state:

“If a project passes this screening level assessment, then a more detailed site-specific risk assessment will not be required.”

The NOAA Fisheries preserved wood guidelines can be accessed through the following link or a hard copy can be provided.

http://wwpinstitute.org/mainpages/documents/NOAAFINALTWGUIDELINES_10.09.pdf

The proposed SMP ignores the conclusions and recommendations of the NOAA Fisheries guidelines, which clearly indicate that in many circumstances the use of preserved wood products is acceptable, provided the environmental impacts are assessed on a case-by-case basis. For almost two decades WWPI has taken a proactive approach to better understand the environmental performance of preserved wood, conducting research, developing analytical models and establishing specification and environmental guidance for selecting, installing and managing preserved wood in aquatic and sensitive environments. The products developed from this effort have been recognized in the NOAA Fisheries guidelines and characterized as useful tools in determining potential risk and minimizing the impact when preserved wood products are proposed on projects in aquatic environments.

The NOAA Fisheries guidelines specifically embrace use of the WWPI ***Best Management Practices for the Use of Preserved Wood in Aquatic and Other Sensitive Environments (BMPs)*** and accept use of the industry peer reviewed ***General Risk Assessment Model*** as a predictor of environmental impact associated with the use of preserved wood products in aquatic environments. In 1996, the Portland District of the U.S. Army Corps of Engineers had the Pacific Northwest National Laboratory conduct an independent review of the industry model and also concluded its acceptability. Another comparable leaching model identified in the guidelines is the ***Poston Box Model***, which was developed by NOAA-National Marine Fisheries Service (1998) that has been used for more than a decade. Both of these models were identified as useful for conducting risk assessments, when site-specific information was available. This is due to some very conservative assumptions built in to the models. Hard copies for some of these documents can be provided or viewed from the following links:

- ❖ <http://www.wwpinstitute.org/mainpages/thebmpswoodinaquat.shtml>
- ❖ <http://wwpinstitute.org/mainpages/documents/GeneralRiskAssessmentModelAquaticGuide4.10.xls>
- ❖ http://www.wwpinstitute.org/mainpages/documents/Chapter92182009_000.pdf

Further, with the encouragement of NOAA Fisheries SW Region, WWPI has drafted a screening level assessment process and worksheets that are intended to be a supplement to the NOAA guidelines to better facilitate consistent and objective decisions when assessing the potential effects of using preserved wood in aquatic environments. By using the screening level assessment process and completing the screening worksheets developed for the assessment, both biologists and project proponents can easily document and determine whether a proposed project will meet the screening criteria and should be approved or whether a more intensive site specific risk assessment should be required. A hard copy can be provided or viewed from the following link:

- ❖ http://www.wwpinstitute.org/mainpages/documents/FinalWorkingDraft_ScreeningLevelAssessment04.01.11.doc

All preservative systems in use today are fully regulated by the US Environmental Protection Agency (EPA) for their intended use and have recently undergone a very rigorous re-registration process. The EPA considers wood preservative systems as antimicrobial pesticides and requires: ***“These pesticides must be supported with complete scientific analysis and show that they can be used without causing unreasonable adverse effects to human health or the environment.”*** The requirements are very extensive, and include toxicological data, environmental fate data, wildlife and aquatic organism data, and information on potential adverse effects.

Though a general bias against the use of preserved wood material exists among some public agencies and biologists, largely in part to a *Precautionary Approach* viewpoint, there is no federal or state law or regulation prohibiting prescribing the option to use any of the listed preservative systems now proposed to be excluded in the SMP. The WWPI also does not know of any documented cases or empirical studies that link the use of preserved wood directly to the loss of fisheries or other aquatic organisms when the risks are properly evaluated and the wood is preserved to industry standards and the recommended BMPs. Much of the environmental issues raised about preservative wood products in aquatic environments are legacy issues that should not be compared to the preserved wood products being produced to today’s standards and the industry BMPs.

SUMMARY AND RECOMMENDATIONS

WWPI believes there is no compelling environmental or scientific basis for prohibiting the use of preserved wood structures in or over water. This position is further supported by available cradle-to-grave life-cycle assessments for renewable wood products that show, when compared with steel, plastic or concrete, wood overall is far superior environmentally. In addition, a wealth of science exists that supports the use of preserved wood in aquatic environments when the risks are managed. We suggest you go to the following link for number of applicable studies:

<http://www.wwpinstitute.org/mainpages/thesciencewoodinaquat.shtml>.

If the proposed SMP adopts the exclusion of preserved wood all that will be achieved is replacing preserved wood with other construction materials that have both known and unknown environmental effects, as well as eliminating the vibrant invertebrate and vertebrate communities that thrive, for example as shown on the following photos, on creosote preserved wood structures found throughout the Puget Sound and the Pacific Northwest.



Plastic piling may include many different chemical additives that can leach from piles. Additionally, abraded plastic particles will persist in the marine environment for many years and the extent of how they may negatively impact fish, marine mammals, and birds is still unknown. Little is also known about the environmental risks of using concrete in aquatic settings as little research has been conducted to determine the eco-toxicity and the long-term effects of concrete piling. Steel piling coated with zinc or protected using zinc anodes have been documented by the Coast Guard in Alaska to lose as much as 45 pounds of zinc per year to marine environments. Sedimented zinc is nearly as toxic as copper (zinc sediment quality standard is 410 mg Zn/kg dry sediment and copper is 390 mg/kg). Also, Brooks (2001, 2004c) examined sediment chemistry at 14 Southern California marinas where delayed release White Sea bass were being raised by Hubbs SeaWorld. The results indicated that zinc and copper concentrations exceeded Washington State sediment quality criteria in the marinas. The source of the copper was judged to be antifouling paint on boats and the zinc was assumed to be coming from the steel piling and sacrificial anodes on watercraft. To put the environmental risk in perspective it should be noted that one 400 foot freighter coated with anti-fouling paint that might be found in the Port of Seattle loses as much copper each day as 27,000 CCA preserved piling.

It is very important for public policy to be based on a demonstrated need to prevent significant environmental harm. Though the *Precautionary Approach* is often used to justify denial of human activities this approach was endorsed by many nations, and formally defined in Declaration 15 of the 1992 Rio Conference, which states:

"Nations shall use the precautionary approach to protect the environment. Where there are threats of serious or irreversible damage, scientific uncertainty shall not be used to postpone cost-effective measures to prevent environmental degradation."

The approach does not state that if there is a possibility of environmental harm, then a proponent must demonstrate that no harm will result from a proposed project. Consistent with traditional values and *Precautionary Approach*, the first step in imposing restrictions, requires a demonstration of *serious irreversible damage*. Responsible public policy must demand rigorous (but not unequivocal) evidence of harm before imposing restrictions or penalties on citizens (denying a permit or favoring one material over another). The WWPI does not

believe the proposed SMP exclusion of preserved wood is defensible as it fails to meet this critical threshold. In addition, the proposed SMP is inconsistent with adjoining jurisdictions, such as King County and the U.S. Army Corps of Engineers, who have policies that allow for certain uses of preserved wood products in and over water construction and maintenance projects.

For the above stated reasons we are extremely disappointed in the City's proposed SMP and strongly disagree with the exclusion of preserved wood and request that it be removed or modified to permit the option to use preserved wood.

WWPI recommends the following specific changes to the proposed SMP:

Section 23.60.152 (General Development)

Page 63 - Subsection J: The option to use U.S. Environmental Protection Agency (EPA) registered preservatives systems approved for use in preserving wood shall be permitted if applied in accordance with standards approved by the American Wood Protection Association (AWPA) for use in aquatic, marine and/or wetland applications for in-water and over-water structures.

The following additional conditions shall also apply:

- A site specific screening level assessment and/or risk assessment shall be conducted utilizing acceptable assessment tools identified in the NOAA Fisheries treated wood guidelines (2009), and/or other accepted supplemental screening level assessment tools to determine the environmental effects of appropriately selected preserved wood products on a case-by-case (project-by-project) basis.
- Mitigating measures, such as use of approved coatings or wrappings shall be permitted for use with preserved wood to further minimize potential environmental impacts.
- All preserved material shall comply with the WWPI Best Management Practices (2006 or latest version) to ensure:
 - The appropriate chemical preservative is selected;
 - The product material is produced and utilized in accordance with BMPs;
 - All preserved material is certified by an independent third party inspection agency;
 - The installation and maintenance recommendations outlined in the WWPI BMPs shall be followed or as otherwise specified.
- Preserved wood product specifications shall require to the extent practical prefabrication in order to minimize field fabrication to help reduce waste that may inadvertently enter the water during construction and/or maintenance work.

Page 64 – Subsection O: Pilings preserved with creosote shall be repaired to extend the life of the piling or shall be replaced in compliance with subsection 23.60.152.J.

Section 23.60.187 (Standard for Pier and Floats and Overwater Structures)

Page 110 – Item 13: The option to use preserved wood for decking and piling is permitted provided such use complies with subsection 23.60.152.J.

Page 111 – Item 3: The option to use preserved wood for decking and piling is permitted provided such use complies with subsection 23.60.152.J.

In summary, there has been a long history of using preserved wood in and over the waters under the jurisdiction of the City of Seattle, as well as other adjoining jurisdictions, with no credible scientific evidence of serious irreversible damage directly linked to the use of preservative wood products. The WWPI would be the first to support the no-use of preserved wood if the science supported such, but to the contrary the science, again, is very clear: **Preserved wood products are safe to use in many circumstances when projects are assessed on a case-by-case basis; the appropriate preservative system is selected; and the wood is preserved to industry standards and the WWPI BMP's.**

Thank you for the opportunity to comment and express our concerns. Should you have need for additional materials please don't hesitate to give me a call. In addition, I would be more than happy to meet to further explain our concerns and offer options for the continued use of preservative wood. I would also ask that the referenced materials provided in our comments be fully evaluated and included as references in the SMP.

Please keep us posted on the process including opportunity for further review and input.

Sincerely,

Ted J. LaDoux

Ted J. LaDoux
Executive Director
Western Wood Preservers Institute

REFERENCES

Brooks, K.M. 2001. Environmental assessment and monitoring program associated with aquaculture production facilities operated by Hubbs SeaWorld Research Institute at the Grace oil drilling platform in the Santa Barbara Channel, California. Technical report prepared for Hubbs SeaWorld Research Institute, 2595 Ingraham Street, San Diego.

Brooks, K.M. 2004c. Environmental response to ACZA treated wood structures in Pacific Northwest marine environments. Technical report prepared for J.H. Baxter and Company, 1700 South El Camino Real, San Mateo, CA 94402. 30 pp.

Brooks, K.M. 2010: Letter to City of Gig Harbor, WA commenting on the *Preliminary Planning Commission Draft* of the Gig Harbor Shoreline Master Program.