

*The Federal
Highway
Administration*

*US Fish
and
Wildlife
Service*

*WA
Department
of
Transportation*

MEMORANDUM

February 28, 2012

To: Applicable Agency Staff

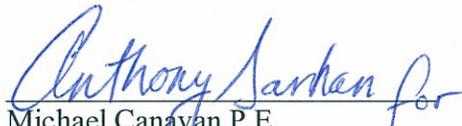
Re: Agreement for Criteria for Injury to the Marbled Murrelet from Noise

The Federal Highway Administration (FHWA), U.S. Fish and Wildlife Service (USFWS), and the Washington State Department of Transportation (WSDOT) have agreed to use the attached criteria for the onset of injury to marbled murrelets from underwater sound pressure levels associated with impact pile driving.

These new criteria are intended to be used in evaluating the effects of impact pile driving on foraging marbled murrelets in the marine environment. USFWS created an excel spreadsheet calculator that will assist the biologists in determining when and at what distances, sound pressure levels generated by impact pile driving projects will exceed the thresholds. The calculator will be posted on the WSDOT website.

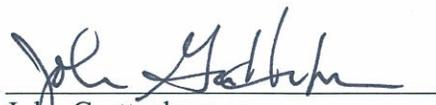
All WSDOT and local agency projects with a Biological Assessment (BA) submitted 60 days from the date of this agreement are required to use the thresholds identified in the attached table for the analysis of the effects of impact pile driving in marine environments on marbled murrelets.

USFWS provided training on the new thresholds to the WSDOT biologists on January 10, 2012, and will be providing training to the consultant biologists on March 15, 2012.

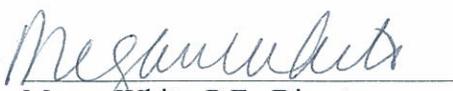

Michael Canavan P.E.
Assistant Division Administrator



U. S. Department of Transportation
Federal Highway Administration


John Grettenberger
CTA Division Manager




Megan White, P.E., Director
Environmental Services Office



**Washington State
Department of Transportation**

Attachment

Marbled Murrelet Effects Thresholds

Criteria for Injury to Marbled Murrelets from Underwater Sound Resulting from Impact Pile Driving of Steel Piles/ For repetitive impulsive underwater sounds:

Auditory Injury threshold - 202 dB SEL
Non-auditory injury threshold – 208 dB SEL
Non-injurious hearing threshold shift zone out to 183 dB SEL*
Potential Behavioral effects zone out to 150 dBrms*

*USFWS considers these to be effects analysis guidelines, not threshold criteria for foraging murrelets. Other factors (e.g., duration) are important to consider when determining whether exposure in these zones will result in adverse effects.

There is currently no threshold for vibratory installation of piles.

In air disturbance guidance:

In air disturbance guidance-92dbA. **

**USFWS considers this to be an effects analysis guideline, not a criteria.

SEL – Sound exposure level – reported as the cumulative amount of exposure for a single pile driving event.

Rms = root mean squared for pile driving this is the square root of the mean square of a single pile driving impulse pressure event.