

## Monthly Pile Driving Summary and Underwater Sound Monitoring Results

Pile Driving Period: December 17, 2013 - January 16, 2014  
TA\_FHWA\_03015\_RPT\_ENV



### Summary:

No sturgeon were observed to have been severely injured or killed as a result of underwater noise from pile driving during this reporting period. This conclusion was reached based on the fact that no piles were impact driven during this reporting period.

Recoverable injuries caused by exposure to sub-lethal levels of underwater noise could not have been sustained by any sturgeon during this reporting period for the same reason.

### Introduction:

As required under the NMFS Biological Opinion, dated April 2013, (NMFS BO) Reasonable & Prudent Measure #4 and Term & Condition #9, the following is a summary of the installation and underwater noise monitoring of permanent piles [REDACTED] for the time period beginning December 17, 2013 through January 16, 2014.

As required under this condition, an estimate of sturgeon take for production piles driven during the most recent 30-day monitoring period is included. The sturgeon take estimate has been calculated using the times required to drive each pile (impact hammer only) and an estimate of the diameter of the 206 dB peak SPL isopleth, which has been measured for a representative number of the piles installed during this or previous time periods (as necessary). This take estimate has been compared to that derived for the same listed in Table 9 of the NMFS BO to ensure that sturgeon take has not been exceeded.

### Pile Installation and Underwater Noise Monitoring:

During the 30-day period from December 17, 2013 through January 16, 2014, no production piles were driven. Therefore, incidental take was not exceeded during the most recent 30-day period, nor has cumulative sturgeon take been exceeded for all production piles driven to date.

Report Period: 12/17/2013 to 1/16/2014

Date	Year	Week		Net Impact Pile Driving Duration (hrs/pile)	Pile Driving Time from Table 9 of the NMFS BO (hrs/pile)	Average width of isopleth for 206-dB peak SPL (feet)	Maximum width of isopleth for 206-dB peak SPL (feet)	Number of gill nets to span the 206-dB peak SPL isopleth	Sturgeon encounter rate (fish/net/ hour)	Sturgeon take
No impact piles were driven during the reporting period.										
				0		Not measured	200	0	0.033	0
<b>Monthly sturgeon take (Calculated based on pile-driving data/Anticipated from Table 9 of the NMFS BO)</b>										<b>0/0</b>
<b>Cumulative sturgeon take to date (Calculated based on pile-driving data/Anticipated from Table 9 of the NMFS BO)</b>										<b>0.67/1.68</b>