

TABLE 1-1
 Responses to Public Comments on the Palouse Wind Draft Environmental Impact Statement (DEIS) (November 2010) and the Addendum to the DEIS (DEIS Addendum) (March 2011), SEPA Lead Agency: Whitman County, Washington
 Palouse Wind LLC, Whitman County, Washington

Comment Number	Issues Raised	EIS Category	Commenter	Date Comment Received	Comments	Response to Comment	Documents and Pages in which Comment is Addressed
1 LAR-1	Supports Project	General	Robert Larsen Potlatch, ID 83855	Nov. 22, 2010	Support postcard: No written comments	Comment noted.	No change to the text required.
2 MOT-1	Supports Project	General	Motley-Motley Pullman, WA 99163	Nov. 22, 2010	Support postcard: "Great Project"	Comment noted.	No change to the text required.
3 EVA-1	Supports Project	General	Bill Evans Lacrosse, WA	Nov. 24, 2010	Support postcard: "Hi Alan, I just want to say hang in there"	Comment noted.	No change to the text required.
4 HAY-1	Supports Project	General	Gary Hayden Pullman, WA 99163	Nov. 24, 2010	Support postcard: "Palouse Wind Farm is a tremendous plus for Whitman Co."	Comment noted.	No change to the text required.
5 BEC-1	Supports Project	General	Carol and Bruce Becker Spokane, WA 99224	Nov. 24, 2010	Support postcard: "We're big supporters of Palouse Wind and alternative sources of energy. Please make this happen!"	Comment noted.	No change to the text required.
6 WHI-1	Low Frequency Noise	Noise	Roger Whitten Oakesdale, WA 99158	Nov. 29, 2010	<p>"The EIS should acknowledge the fact that industrial wind turbines produce great quantities of high-level, low frequency noise pollution.</p> <p>The introduction of high levels of low frequency noise pollution into an environment containing the homes of families is an environmental impact and should be included in an environmental impact statement."</p>	<p>The potential for the generation of low-frequency noise by wind turbines is discussed on DEIS pages 3-188, 3-189, 3-192, and 3-197.</p> <p>The potential swishing noise associated with the rotation of turbine blades is often mistaken for low-frequency noise. The frequency content of the swish is typically within the 500 to 1,000 Hertz (Hz) range. The scientific, peer-reviewed journals do not support the hypothesis that there are harmful levels of low-frequency noise from wind turbines (Hessler, et al., 2008; Hessler, 2009; Leventhall, 2006). For wind turbines, the measurement of low-frequency noise is complicated by the presence of wind and the resulting wind-induced noise. Recent wind tunnel testing concludes that "any casual measurement of sound using a standard windscreen in a windy field will yield ostensibly high levels of low-frequency or infrasound noise whether the wind turbine is present or not" (Hessler, et al. 2008; Hessler, 2009). These studies note that the wind-induced self-noise resulted in approximately 74 C-weighted acoustic decibels (dBC) at both 1,000 feet as well as 3 miles from an operating wind project. Therefore, one is only measuring the self-generated wind noise across the microphone, rather than actual emissions from the wind turbine. When the measurements were corrected for wind-induced self-noise, a level of 48 dBC at 1,000 feet was estimated. This is below the 65 dBC level that was discussed on DEIS page 3-188, which some jurisdictions use as the potential indicator for further investigation. In addition, it is noted on DEIS page 3-192 that the Chief Medical Officer of Ontario found that "low-frequency sound and infrasound from current generation upwind model turbines are well below the sound pressure levels at which known health effects occur." As continued on DEIS page 3-197, a 2006 French National Academy of Medicine report notes that infrasound from wind turbines "have no impact on human health" and "This fear of infrasounds produced by wind turbines is, therefore, unfounded." However, there are individuals who remain concerned about the issue, as set forth in the comment, and who experience annoyance with sound emissions.</p>	<p>DEIS Section 3.15.4.2, paragraph 8 (page 3-192) will be revised to include the following sentence:</p> <p><i>It is recognized that some individuals experience an annoyance to or disturbed reaction from sound emissions of wind turbines. Annoyance is noted to be the primary affect related to low-frequency noise (Broner, 2007).</i></p>

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7 WHI-2	Low Frequency Noise	Noise	Roger Whitten Oakesdale, WA 99158	Nov. 29, 2010	"Ignoring the fact that the proposed Palouse Wind industrial wind turbine development will, if constructed, dump high levels of low frequency noise pollution onto nearby families is an act of malfeasance."	Please refer to the response to Comment 6 (WHI-1). The DEIS addressed concerns over low-frequency noise levels raised during the scoping period.	Please refer to the revisions based on the response to Comment 6 (WHI-1).
8 WHI-3	Low Frequency Noise	Noise	Roger Whitten Oakesdale, WA 99158	Nov. 29, 2010	"Due to its long wavelength, low frequency noise pollution travels far, easily penetrates walls, and can be amplified by the structure of a home."	Comment noted. Please refer to the response to Comment 6 (WHI-1).	No change to the text required.
9 WHI-4	Health Impacts	Noise	Roger Whitten Oakesdale, WA 99158	Nov. 29, 2010	"Low frequency noise affects the inner ear, which, in turn, affects a number of brain functions. One of these brain functions, which is triggered by the low frequency noise pollution of industrial wind turbines, prevents a person from sleeping. Lack of sleep leads to ill health"	The DEIS discussed the postulation cited in the comment, including potential for sleep disturbance. See DEIS pages 3-189, 3-190, 3-192, and 3-197. However, as noted on pages 3-192 and 3-197, independent reviews of scientific evidence available have not identified a link between low-frequency noise from wind turbines and direct and adverse health effects.	No change to the text required.
10 WHI-5	Health Impacts	Health and Safety	Roger Whitten Oakesdale, WA 99158	Nov. 29, 2010	"Industrial wind turbines will produce an unhealthful environment for families that live near them."	The DEIS discusses the varying reactions to sounds from wind turbines. See DEIS pages 3-192 and 3-197.	No change to the text required.
11 WHI-6	Health and Safety	Health and Safety	Roger Whitten Oakesdale, WA 99158	Nov. 29, 2010	"The State Environmental Policy Act (SEPA, RCW 43.21C.020) requires Whitman County 'to use all practicable means to ... assure for all people safe, healthful... surroundings.' 'To use all practicable means to...assure for all people safe, healthful surroundings' is a duty imposed by law. Can Whitman County assure for all people safe, healthful surroundings when it allows industrial wind turbines near homes?"	The Proposed Action will be designed and operated in accordance with applicable state and local requirements for wind-generation facilities. See also response to Comment 10 (WHI-5).	No change to the text required.
12 WHI-7	Low Frequency Noise	Noise	Roger Whitten Oakesdale, WA 99158	Nov. 29, 2010	"NASA's report <i>Wind Turbine Acoustics</i> by Harvey H. Hubbard and Kevin P. Shepherd is proof that homes near industrial wind turbines will receive high levels of low frequency noise pollution. See Exhibit A of my September 3, 2010 <i>Comment on scope of EIS: Palouse Wind Project, Whitman County CUP 10-16.</i> "	The referenced report was issued in 1990, and does not address the current generation of modern upwind turbines. The document primarily discusses older generation downwind turbines. The report does not address the improvements that have been made in the past 20 years, which include improved manufacturing processes, optimized aeroacoustic aerofoil design, as well as acoustically engineered nacelle from modern three-bladed upwind turbines on tubular towers. The potential for low-frequency noise is discussed on DEIS pages 3-188, 3-189, and 3-192. Please refer to the response to Comment 6 (WHI-1).	DEIS Section 3.15.4.2, paragraph 7 (page 3-192) will be revised as follows: <i>Concerns over low-frequency noise levels were raised during the DEIS scoping process. There has been some confusion regarding the presence of significant levels of low-frequency noise. Older generation downwind turbines (turbines where the blades pass downwind of the tower) were found to emit low-frequency pulses when the blades passed through the turbulent wake of the tower. Newer generation turbines designed in the last 20 years have moved to a modern three-bladed upwind configuration that includes aeroacoustically optimized blades and acoustically mitigated nacelles. These design modifications have eliminated the low-frequency pulses experienced with the downwind turbines.</i>
13 WHI-8	Low Frequency Noise	Noise	Roger Whitten Oakesdale, WA 99158	Nov. 29, 2010	"Exhibit J of the above mentioned <i>Comment on scope of EIS</i> is <i>Audiology Today's</i> cover story for July/August 2010 entitled <i>Wind Turbine Noise: What Audiologists Should Know</i> . This peer reviewed report states that homes near industrial wind turbines receive 'unweighted sound levels ranging from 60 to 70 dB Leq' (p. 24)."	DEIS page 3-197 discusses the referenced article. The studies cited by this Comment have been reviewed by the Chief Medical Officer of Ontario (2010) as well as the international multidisciplinary expert sound panel (Colby et al., 2009) (refer to DEIS pages 3-192 and 3-197). "Page 24" referred to in the comment discusses the hypothesis of Vibroacoustic Disease (VAD), which as noted on DEIS page 3-192, has been offered by a group of Portuguese researchers. As noted on page 3-192, these hypotheses have not been accepted by the international medical community. Please refer to the response to Comment 6 (WHI-1).	No change to the text required.