Attachment Wildlife-1

Additional Project-specific information is being provided in light of the recent up listing of the ferruginous hawk (*Buteo regalis*) by the Washington Fish and Wildlife Commission on August 27, 2021. This information supplements responses to Wildlife-1, Wildlife-2, Wildlife-4, Wildlife-5, and Wildlife-21.

Ferruginous hawk use and nesting at the Project was characterized as low during pre-construction surveys conducted 2017−2020. Four ferruginous hawk observations in four groups were recorded over 1,232 hours of avian use surveys conducted 2017−2020 at 94 point counts stations distributed throughout the Horse Heaven Hills. The average flight height when first observed was approximately 48 meters above ground level (range of 5−120 m agl). Of the four hawk observations, three were during spring, one during fall, and all were within the western Survey Area during 2018. Observations occurred at three point counts nearest to an active nest that was located approximately two miles away. Observations of ferruginous hawks exclusively at point counts nearest to an active nest suggests increased use was associated with an occupied nesting territory. Although the majority of historic ferruginous hawk nests in the Survey Area were located on the ground along the incised drainages within the northeast-facing rampart on northern perimeter of the Project Area, all nests were available for breeding birds but inactive during the three years of aerial surveys conducted 2017−2019 within and two miles surrounding the Project. Accordingly, ferruginous hawk nesting was considered low during 2017 (1 inactive nest and 1 active nest out of 20 nests surveyed), 2018 (1 active nest out of 32 nests surveyed) and 2019 (1 active nest out of 44 nests surveyed). Low use and nesting activity during the course of the studies suggest that the likelihood for collisions with Turbines is comparatively low.

Ferruginous hawk are wide-ranging species that face a number of different threats to their survival. Individuals that over winter in California and nest in the Pacific Northwest can summer as far east as North Dakota, with many in southern Saskatchewan, Canada. Along the way, habitat loss from conversion to croplands and urbanization removes vital prey sources that are already prone to fluctuate annually (Hayes and Watson 2020). The use of pesticides and other chemicals to control prey populations throughout their range, particularly in the Central Valley of California, results in year-round pressure on migratory individuals. Other anthropogenic sources of mortality include wind energy, solar energy, oil and gas development, and power transmission which are all associated with infrastructure and human activity; however, the level of severity of these sources in context with the threats mentioned previously is poorly understood.

In the Pacific Region, five hawk fatalities have been attributed with Turbine collisions over a 10 year period (2003-2012; Hayes and Watson 2020) which is comparatively lower than other raptor species reported during post-construction monitoring (AWWI 2019, WEST 2019). To date, no ferruginous hawk fatalities have been reported at Nine Canyon Wind Project, located adjacent to the Horse Heaven Clean Energy Center (HHCEC) site, since the beginning of operations in 2003 (Energy Northwest 2020). Ng et al. (2020) report a similar low fatality estimate from studies conducted at the Altamont Pass Wind Resource Area in California and other studies the investigated mortality from transmission and distribution lines. The issue of climate change has been cited as an additional threat to ferruginous hawk survival (Hayes and Watson 2020, Ng 2020). While predicting how climate change will affect ferruginous hawk is uncertain, the reduction in fossil fuel use and purpose of the HHCEC is one measure that can be taken to assist in the effects of climate change.

Of the five ferruginous hawk fatalities recorded in the Pacific Region, four have been documented at three different wind facilities in Washington. Exposure to Turbine collision risk present primarily during the breeding season and migration, when the species occurs in the region. Use of the Project Area by ferruginous hawk will likely continue following construction. Exposure to Turbine collision risk likely increases at Turbines in proximity to occupied territories, particularly if the nest is active during the nesting period (Kolar 2013). Due to past nesting activity in the Horse Heaven Hills and the overall relatively low territory occupancy in the region, impacts to ferruginous hawk can result in abandonment of the nest territories located closer to Project facilities, particularly because of the tendency of the species to avoid human development and activity (Richardson 1996).

Project operations can further reduce territory occupancy and nest success of ferruginous hawk within the Horse Heaven Hills. To avoid and minimize potential impacts to ferruginous hawk, HHCEC will implement spatial and seasonal restrictions on ground disturbing activities, per WDFW recommendations. Compensatory habitat mitigation as directed by WDFW (2009) will be implemented to offset permanent and temporary impacts. Additional measures will be taken to minimize impacts to habitat and wildlife through Best Management Practices described in Appendix L to the Application for Site Certificate. These measures are the subject of ongoing discussions with WDFW and may be revised based on requests and input from this agency.

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