

**Predicting Summer Elk Habitat Potential in Section 17
Technical Memo
Version 2**

To Ben Alworth, Wheeler Ridge, LLC
From: Charity Duffy & Hans Shepard, SCJ Alliance
Date: Revised: October 29, 2019
Subject Predicting Summer Elk Habitat in Section 17

Summary

This technical memo has been updated to provide a revised orchard development map (Figure 1: Figure 2) and to include the findings from the Chelan County funded *Stemilt-Squilchuck Landscape Evaluation, Final Report, June 2019, Appendix A: Elk Habitat Quality Assessment*. Version 1 was submitted with previous SEPA application materials on October 2, 2018 (Appendix A).

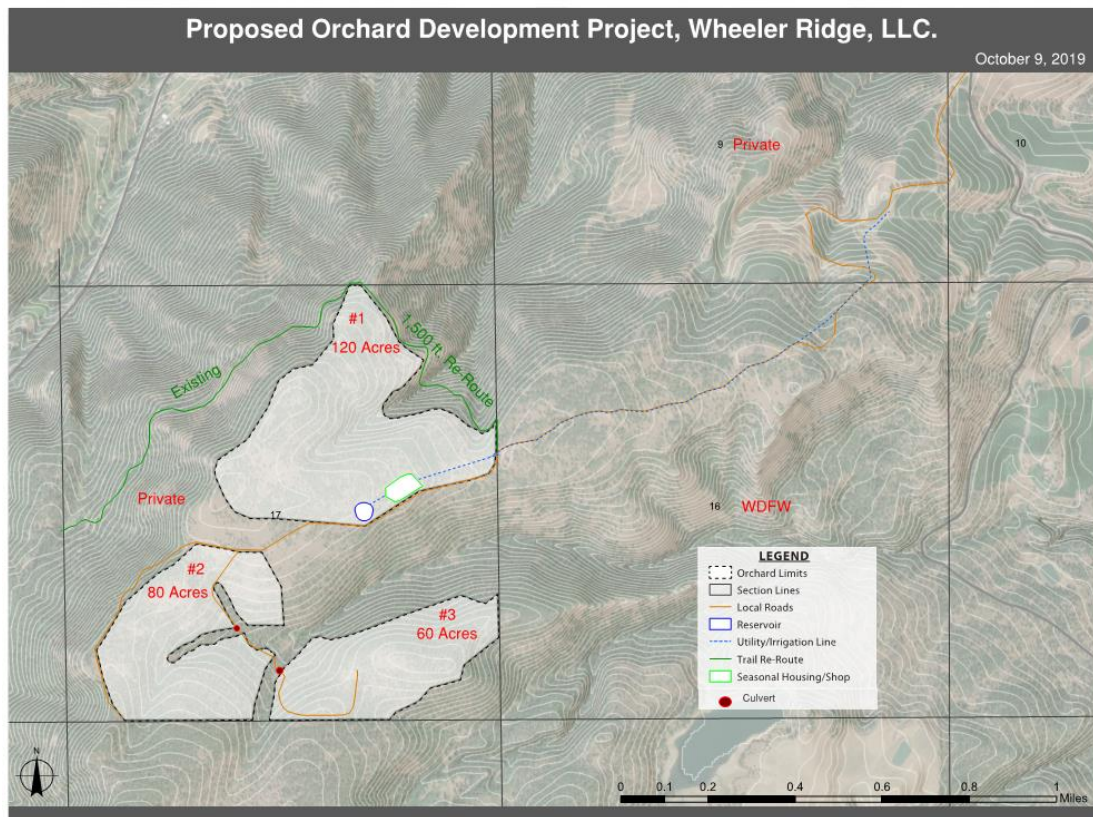


FIGURE 1. PROPOSED 260 ACRES OF ORCHARD DEVELOPMENT ON SECTION 17, WHEELER RIDGE, CHELAN COUNTY.

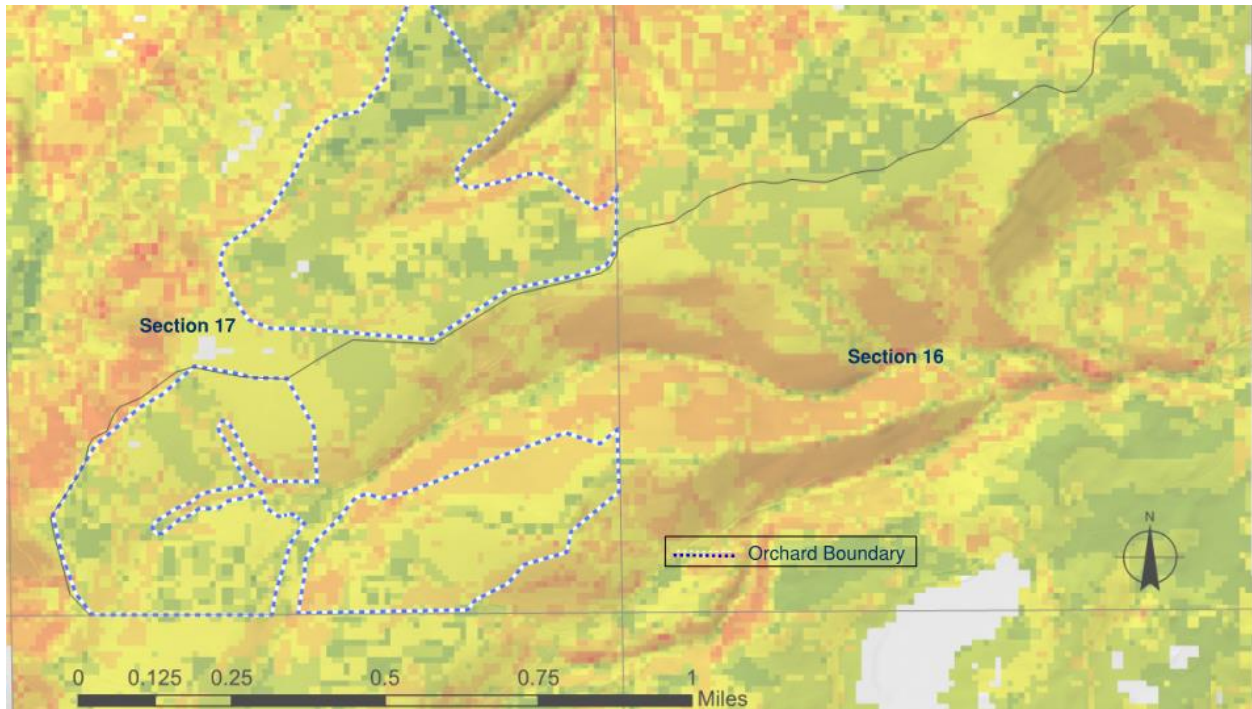


FIGURE 2. PREDICTED SUMMER ELK HABITAT POTENTIAL IN SECTION 17 IN AND OUT OF PROPOSED ORCHARD DEVELOPMENT (10/09/2019).

Stemilt-Squilchuck Landscape Evaluation

The Stemilt-Squilchuck Landscape Evaluation is attached as Appendix B. The purpose of this analysis was to assess elk habitat quality within the Stemilt-Squilchuck Basin. Four components (1) nutrition, (2) cover, (3) habitat security, and (4) terrain were used to evaluate habitat quality. Results from this analysis indicated habitat within the proposed project provides low quality habitat for elk (Figure 1).

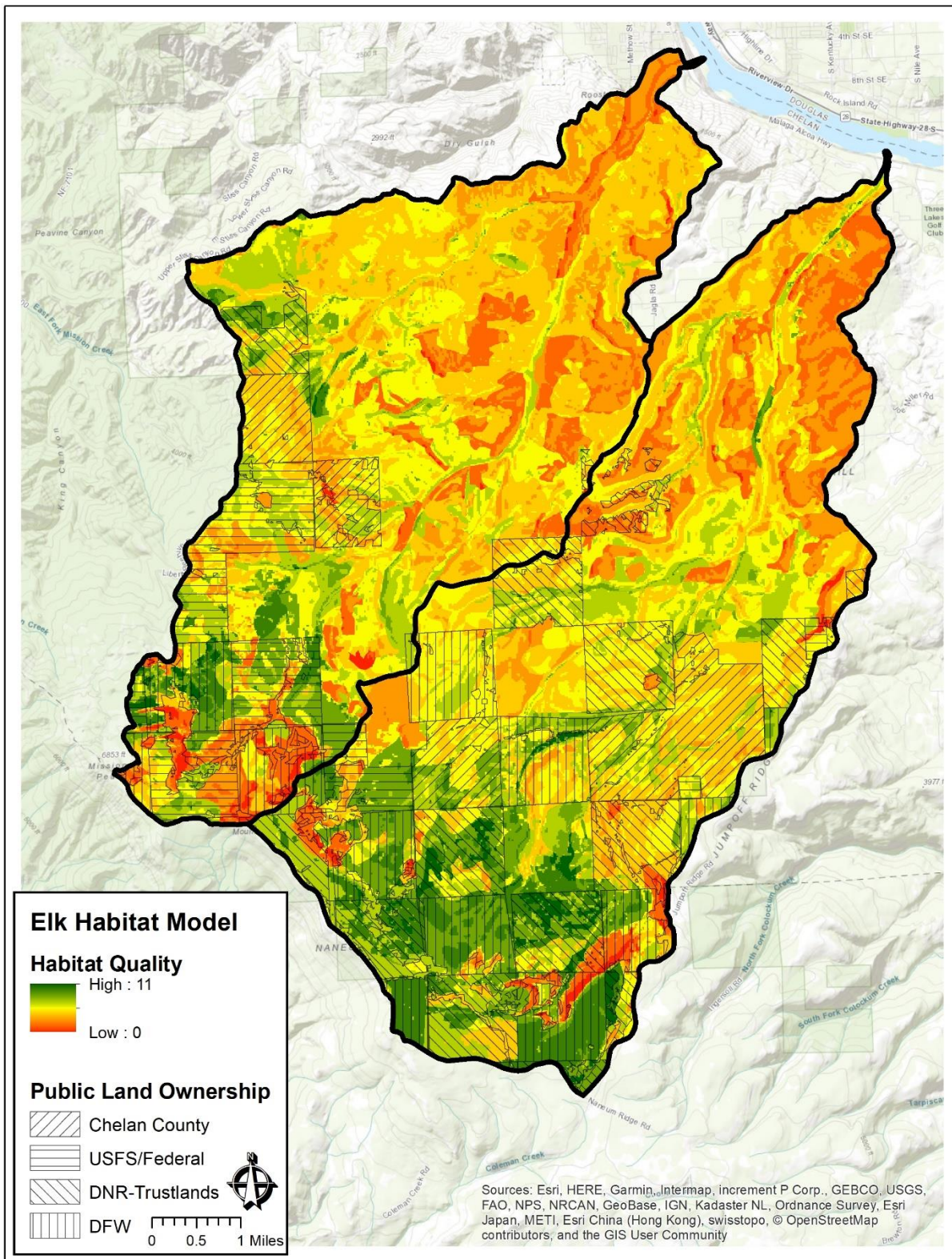


FIGURE 3. ELK HABITAT QUALITY INDEX SCORE FOR THE STEMILT-SQUILCHUCK LANDSCAPE EVALUATION AREA (WASHINGTON CONSERVATION SCIENCE, 2019).

Recommendations

Wheeler Ridge, LLC staff should consider using the results from Washington Conservation Science of the Final Stemilt-Squilchuck Evaluation Report to develop a conceptual mitigation plan because the results indicate only low habitat is present within Section 17, thus mitigation requirements may be easier to obtain. Results modeled by SCJ Alliance in 2018 indicate good, moderate, and low habitat quality exist within the proposed project, thus mitigation requirements may require additional habitat enhancement efforts.

We recommend Wheeler Ridge staff request which model WDFW and/or Chelan County they prefer because this information will influence how we revise the critical areas report and mitigation proposal. If the 2019 results are preferred by WDFW and Chelan County then the proposed 360-acre conservation easement should provide well over the total compensatory mitigation required to convert 260+ acres of land to orchard development.

LITERATURE CITED

Washington Conservation Science Institute. 2019. Stemilt-Squilchuck Landscape Evaluation, Final Report. Appendix A: Elk Habitat Quality Assessment.