

### **3. AFFECTED ENVIRONMENT, ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

This chapter of the EIS describes baseline conditions for the respective elements of the environment, documents the expected environmental impacts of the proposed action and the alternatives, and identifies mitigation measures pertinent to those impacts. The intent is to focus specifically on the environmental conditions that would likely be subject to significant change from development of the project. Consistent with guidance provided by SEPA rules, insignificant impacts and elements of the environment that would not be affected significantly are discussed briefly or not at all. Based on the results of scoping for this EIS, this chapter is organized into 16 sections addressing the following elements of the environment:

- **3.1 Earth**
- **3.2 Air Quality**
- **3.3 Water Resources**
- **3.4 Plants and Animals**
- **3.5 Energy and Natural Resources**
- **3.6 Cultural Resources**
- **3.7 Land and Shoreline Use**
- **3.8 Health and Safety**
- **3.9 Noise**
- **3.10 Aesthetics/Light and Glare**
- **3.11 Recreation**
- **3.12 Ground Transportation**
- **3.13 Air Transportation**
- **3.14 Public Services and Utilities**
- **3.15 Population, Housing and Employment**
- **3.16 Fiscal Conditions**

As a general rule, all sections include a similar subheading structure. The affected environment is typically addressed first in each section, in a level of detail sufficient to allow an overall understanding of baseline conditions. For most elements the geographic focus of this discussion is the project area for the proposed Desert Claim project, although information on conditions elsewhere in the vicinity is provided when that context is pertinent to the impact analysis. In addition, information on baseline conditions relevant to the Wild Horse and Springwood Ranch sites defined for Alternatives 1 and 2, respectively, is included. Subsequent material presents the expected environmental consequences of the proposed action, given the baseline conditions for each element and the modified project characteristics described in detail in **Section 2.2**. Impacts are then provided for the two action alternatives and the no-action alternative. Because Alternatives 1 and 2 involve similar actions at different project sites, impacts for these alternatives are generally presented in comparison to those for the proposed action. Consequences under the no-action alternative consist of the existing conditions in the Desert Claim project area projected into the future, as they might likely evolve under current planning and zoning provisions.

Information on existing conditions and expected impacts for the proposed action and the Desert Claim project area is based on the Desert Claim application, studies prepared in support of the application and studies conducted specifically for the Desert Claim EIS. *enXco/Desert Claim Wind Power LLC* does not have access to and control over the sites defined for Alternatives 1 and 2 and Kittitas County did not perform site-specific studies for those alternatives to support the EIS. Instead, Kittitas County relied on

existing, readily available information applicable to the Wild Horse (Alternative 1) and Springwood Ranch (Alternative 2) sites. Information on existing conditions and potential impacts for the Wild Horse site is based on preliminary studies prepared by Zilkha Renewable Energy, documentation that Zilkha submitted to the Washington Energy Facility Site Evaluation Council (EFSEC) in conjunction with the potential site study request for the Wild Horse Wind Power Project, the potential site study released by EFSEC in October 2003 (Jones and Stokes 2003) and the Wild Horse project application submitted to EFSEC in March 2004 (Wind Ridge Power Partners, LLC 2004). Comparable information for the Springwood Ranch site is based primarily on documentation in the Draft EIS for the MountainStar Master Planned Resort (Kittitas County, 1999), supplemented with additional, readily available existing data.

Material on the impacts of the alternatives is followed by subheadings for cumulative impacts, mitigation measures and significant adverse unavoidable impacts. Assessment of potential cumulative impacts requires that the expected effects of the proposed project be considered within the context of other past, present and reasonably foreseeable actions affecting the resources. Because this assessment involved consideration of cumulative impacts of the Desert Claim project individually and combined with those of two other proposed wind power projects, cumulative impacts for all elements of the environment are discussed separately in **Chapter 4**. The mitigation discussions distinguish between measures to avoid or reduce expected impacts that are proposed, i.e., that are incorporated into the plans for the proposed action, and other, possible measures that have not been adopted as part of the project. Significant adverse unavoidable impacts are impacts that cannot or would not be mitigated and would remain significant.

All sections of Chapter 3 have been updated as necessary in the Final EIS to reflect the modified project layout presented in **Section 2.2**. Relative to the project plans described in the Draft EIS, proposed locations for wind turbines, power collection lines, project access roads and other facilities have been shifted somewhat in response to issues identified in the Draft EIS impact analysis and/or public comments from review of the Draft EIS. In particular, the modified proposal incorporates a larger performance-based setback of wind turbines (487 feet) from the project area boundary, adjacent property lines and public road rights-of-way relative to the 250-foot setback from these features discussed in the Draft EIS. The applicant also applied this larger setback to existing utility corridors and the KRD canal. As in the Draft EIS, the proposal maintains a 1,000-foot setback from all residences, the locations of which were field verified by the County for the Final EIS. The performance-based setback from property lines and roads is in response to a Kittitas County request that the applicant establish a uniform safety zone, based on the hazard analysis documented in the Draft EIS, around all proposed wind turbines. As a result of including the larger safety zone, as well as modifications related to minimizing other environmental impacts, the proposed locations for all 120 turbines shifted somewhat compared to the Draft EIS project description. Desert Claim Wind Power LLC also modified the proposed layout for other components of the project (i.e., access roads, power collection cables, etc.) to match the modified turbine layout.

For several elements of the environment, the Draft EIS referenced the potential to avoid or reduce impacts through micro-site analysis of locations for turbines and other project facilities. To a degree, the modified project configuration presented in the Final EIS represents a comprehensive micro-site analysis for the entire project and project area in an attempt to reduce overall project impacts. The project configuration described in the Final EIS is not a final, precise plan for the location of all project facilities, however. If the project is approved, the applicant would still need to proceed with detailed design of project facilities and staking of those facility locations in the field. Prior to actual construction, it would still be possible to shift the precise locations of individual turbines, using another layer of micro-siting, by up to 50 or perhaps even 100 feet if this were desirable to avoid disturbance of a feature such as a wetland or a cultural resource site. There are practical limitations on the number of turbine locations that could be shifted in this manner, but a degree of micro-siting to avoid impacts would still be possible.