Whitebark Pine Listing Status

On December 2, 2020, the U.S. Fish and Wildlife Service (Service) published a proposed rule (85 FR 77408) to list the whitebark pine (Pinus albicaulis) as a threatened species under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) (Act). Included in the proposed rule is a special rule pursuant to section 4(d) of the Act that identifies actions necessary to conserve and recover the whitebark pine, as well as a limited number of prohibited acts (85 FR 77408). While the 4(d) rule does not relieve federal agencies of their obligations under section 7 of the Act, it includes exceptions that allow for optimal, flexible, and adaptive forest activities that can advance whitebark pine conservation. Designation of critical habitat (CH) was deemed imprudent for the whitebark pine, hence CH was not proposed.

The whitebark pine is a high-elevation tree species found across western North America. The Species Status Assessment Report for the Whitebark Pine (SSA; USFWS 2018) determined that the primary stressor affecting the conservation status of the whitebark pine is the white pine blister rust, a fungal disease caused by the nonnative pathogen Cronartium ribicola. Whitebark pine is also impacted by the native mountain pine beetle (Dendroctonus ponderosae), altered fire regimes, and the effects of climate change (USFWS 2018).

Conference Procedures

Conferencing is a process of early interagency cooperation involving informal or formal discussions between a federal agency and the Service in accordance with section 7(a)(4) of the Act regarding the likely impact of an action on proposed species or proposed CH, and recommendations to minimize or avoid the adverse effects (50 CFR 402.02). Conference procedures are: (1) required for proposed federal actions likely to jeopardize proposed species, or destroy or adversely modify proposed critical habitat; (2) designed to assist federal agencies identify and resolve potential conflicts between an action and species conservation early in the project-planning process; and (3) designed to develop recommendations to minimize or avoid adverse effects to proposed species or proposed critical habitat (50 CFR 402.02 and 402.10).

Because the Service is not proposing CH for whitebark pine, action agencies are only required to follow the conference procedures on projects that would jeopardize the continued existence of the whitebark pine; that is, those projects or actions that “…reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing reproduction, numbers, or distribution of that species” (50 CFR 402.02). For actions that will not lead to jeopardy, the federal action agency may elect to voluntarily conference if they will retain discretion on the proposed action after the final listing rule goes into effect, and can then request adoption of the conference document (e.g., conference concurrence or conference opinion) to satisfy consultation.
If requested by the federal agency and deemed appropriate by the Service, a conference may be conducted on a project that may affect, and is likely to adversely affect a proposed species in accordance with the procedures for formal consultation at 50 CFR 402.14. A conference opinion issued at the conclusion of the conference may be adopted as a biological opinion if the species is listed or CH is designated, but only if no significant new information is developed (including information developed during the rulemaking process on the proposed listing or CH designation) and no significant changes to the federal action are made that would alter the content of the opinion.

If the federal agency requests an informal conference for a project that may affect, but is not likely to adversely affect a proposed species, it will conclude with a conference concurrence containing Service recommendations for reducing or avoiding adverse impacts to the proposed species or CH; see section 6.2(A) of the Endangered Species Consultation Handbook (Service and National Marine Fisheries Service, 1998). In the case of the whitebark pine, a list of possible conservation recommendations is provided below. Similar to conference opinions, informal conference proceedings can be adopted as an informal consultation with a Service concurrence determination, as appropriate, if the species is listed and/or CH is designated under a final rule-making, provided initiation of formal consultation is not triggered pursuant to the criteria found in 50 CFR 402.16.

**Conferencing for Whitebark Pine**

While many activities authorized, funded, or carried out by federal action agencies may affect individual trees or a small number of trees in a stand, we anticipate that most federal actions are unlikely to pose a threat to the species including, for example: recreation, grazing, road construction, utility lines, renewable energy development, campground management, special use permits, pest control, prescribed burns, and restoration activities. In addition, the majority of federal actions are unlikely to overlap the restricted, high-elevation distribution of the whitebark pine nor impact the species at a rangewide scale. Consequently, most federal actions are unlikely to affect or diminish the reproduction, numbers, or distribution of the whitebark pine. In these cases, a conference is not required, although the Service recommends that the action agency document its effect determination and rationale and retain this information as part of its administrative record. However, for instances in which an action agency is developing a biological assessment to address project-related impacts that may affect species currently listed under the Act, an effect determination and request for concurrence regarding potential effects to proposed species must also be included in accordance with 50 CFR 402.12(k). For proposed actions that may affect a large number of trees or a substantial portion of a whitebark pine stand, the Service requests that action agencies coordinate early in the project-planning phase with local Service field offices.

Finally, rather than develop individual project-specific biological opinions in accordance with section 7 of the Act, the Service intends to develop a programmatic consultation approach for the whitebark pine should it be listed under a final rule. This programmatic consultation will be an option for action agencies to satisfy their obligations under section 7 of the Act for any proposed federal actions that fall within the range of activities and impacts analyzed therein. Additionally,
agencies may be able to streamline any necessary consultation using a decision key currently under development in the Service’s Information Planning and Consultation (IPaC) system.

Possible Conservation Recommendations

The following recommendations are actions that federal, state, and local agencies or private entities can implement to benefit the whitebark pine. Federal agencies may choose to incorporate one or more of these recommendations into project plans as conservation measures associated with the conferencing process.

1. Implement mapping efforts to protect those trees confirmed to have genetic resistance to whitepine blister rust (‘elite’ trees), and identify, screen (examine for rust resistance), and protect healthy trees that have potential for genetic resistance to blister rust (‘plus’ trees). A single, relatively healthy tree may have genes imparting natural resistance to blister rust and thus be important for natural regeneration or restoration efforts. Whitebark pine trees that have phenotypes that appear resistant to blister rust may have resistant genotypes and provide viable seed sources for natural regeneration. Optimally, these trees should be screened for genetic resistance and, if found to be resistant, their seeds may contribute to site reforestation. Consequently, the Service recommends that action agencies avoid removing or damaging whitebark pine trees that are considered ‘plus’ or ‘elite’ trees and other healthy whitebark pine trees that have withstood infection from blister rust, mountain pine beetle infestations, or other events for decades. This includes protecting these trees from the damaging impacts of wildfires.

2. Avoid timber cutting or ground disturbance in stands with healthy populations of whitebark pine, especially in stands with vigorous natural recruitment and conditions favorable to tree growth as opposed to stands with stagnant (degenerate) natural recruitment and closed canopies. Stands with a sufficient density and abundance of reproductive whitebark pine individuals will facilitate masting (i.e., irregular, periodic, synchronous production of large seed crops) and will attract Clark’s nutcrackers (Nucifraga columbiana), therefore requiring no restoration treatments. Where whitebark pine trees are crowded by competition, restoration treatments may be appropriate.

3. Remove severely-damaged blister rust-infected and dead whitebark pine prior to implementing whitebark pine restoration treatments. Most silviculture restoration projects in whitebark pine habitat have minimal impacts to whitebark pine, because only rarely will healthy cone-bearing trees be removed. The Service recommends removing only those trees that are dead or dying from various causes.

4. Implement restoration actions that reduce whitebark pine competitors and create suitable habitat for nutcracker caching. These actions include, for example, silvicultural thinnings, prescribed fire after the first hard frost in late summer or early fall, augmentation of fuelbeds one year before the burn, and allowing wildland fires to burn under acceptable conditions in whitebark pine forests (Keane and Parsons 2010).
5. Implement restoration efforts focused on trees exhibiting genetic resistance to whitepine blister rust including: collection of cones containing seed from ‘plus’ and ‘elite’ trees; grow ‘plus’ and ‘elite’ seedlings; and use ‘plus’ and ‘elite’ seeds and seedlings for reintroduction into suitable habitat for restoration purposes. Prioritize large, burned areas that are free of competition for reintroductions.

6. Implement practices that maximize genetic diversity when developing seeds and seedlings to be used for reintroduction into suitable habitat and orchard establishment.

7. Protect populations occupying margins of the species’ range or unique ecological settings from timber harvest and other disturbances.

8. Work with the Service and other species experts to develop and implement a conservation inventory and monitoring strategy for whitebark pine stands and local populations of the Clark’s nutcracker.

References
