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Attached, I again emphasize importance of considering the bur oak for the Ashland
The [ldquo]response approach,[rdquo] highlighted below, seems most appropriate for the Ashland, and I[rsquo]ll suggest again herein that bringing bur oak to the Ashland will be an appropriate response. With the bur oak, the Ashland could gain both resistance and resilience so important to sustainable forest cover. Lance OlsenChapter 3. Affected Environment and Environmental Consequences to non-forests after wildfires due to regeneration failure (Stevens-Rumann et al. 2018). This trend is likely to continue in the future across all forest types as large wildfires remove local seed source and suitable climate space for tree regeneration becomes increasingly rare (Bell et al. 2014, Harvey et al. 2016b, Andrus et al. 2018). Indeed, the ponderosa pine systems of the pine savanna ecosystems have experienced high rates of cover type conversion due to recent fires. In Ashland, for example, in the 1990s approximately 219,214 acres were classified with forest cover, in 2012 approximately 116,708 acres were classified as forested. The net change is an almost 50 percent reduction of the forest cover from what occurred in the 1990s (U.S. Department of Agriculture 2014). While most of this area will likely regenerate naturally or with planting efforts, it is likely that a significant portion will remain unforested for at least the next few decades due to a lack of seed source. Desired conditions outlined in the plan are designed to make these forests more resilient to future wildfire and thereby mitigate the potential for large-scale loss of ecosystem services (Millar and Stephenson 2015). Approaches to address forest and ecosystem management in the face of an uncertain and variable future should be flexible, emphasize ecological processes; and have the capacity to change, and to adapt, to new information as it becomes available (Millar et al. 2007). Approaches commonly published in the literature include promoting resilience to change, creating resistance to change, and enabling forests to respond to change (Holling 1973, Millar et al. 2007, Janowiak et al. 2014, Halofsky et al. 2018a;b;in press). Resilience is defined as the degree to which forests and ecosystems can recover from one or more disturbances without a major shift in composition or function, and is the most commonly suggested adaptation option discussed in a climate-change context (Millar et al. 2007). Resilient forests accommodate gradual changes related to climate and are able to cope with disturbances. Resistance is the ability of the forest or ecosystem to withstand disturbances without significant loss of structure or function, in other words, to remain unchanged. From a management perspective, resistance includes both the degree to which communities are able to resist change, such as from warming climate; and the manipulation of the physical environment to counteract and resist physical or biological change, such as through burning or harvest treatments (Halofsky et al. 2018a). The response approach intentionally accommodates change rather than resists it, with a goal of enabling or facilitating forest ecosystems to respond adaptively as environmental changes accrue. Treatments would mimic, assist or enable ongoing natural adaptive processes, anticipating events outside the historical conditions, such as extended fire seasons or increased summer water deficits. Response tactics may include such practices as shifting desired species to new potentially more favorable sites through planting, managing early successional forests to [ldquo]reset[rdquo] normal successional trajectories to create desired future patterns and structures, and promoting connected landscapes (Millar et al. 2007). No single approach will fit all situations, and integration of various adaptive approaches and management practices is the best strategy (Spittlehouse and Stewart 2003, Millar et al. 2007). A tactic or action may be consistent with two or three of the adaptive approaches. For the development of the programmatic management direction in the revised forest plan, all approaches above are integrated to one degree or another, though promoting resilience is the primary approach. The resistance approach is integrated, for example with protection of highly valued habitats, species or other resources. Approaches that could be considered response options are promotion of landscape connectivity and treatments in young stands to develop desired future forest patterns and structures. Another key plan component that is

critical in the context of future climate change is the establishment of a monitoring plan to inform an adaptive management approach. This enables the intentional use of monitoring to evaluate effectiveness of our plan direction and resulting management Draft Environmental Impact Statement for the Draft Revised Forest Plan [ndash] Custer Gallatin National Forest