

**1 Action: Revitalize the decadent poplar hedgerow along the corral with one of several options:**



**1A Option: Cut down all the existing trees (most of which are old and in decline), save grapes and plums and as much of the understory vegetation as possible and replant the tree component of the hedgerow with fastigiata (tall, narrow, vertically formed) species.**

Positive Impacts

Structurally weak, unsightly and potentially dangerous trees would be removed. Decadent poplars would be replaced by vigorous new plantings (see species list below). Tree spacing could be modified to improve plant growth health and make more efficient use of available water. Planting times (years) could be staggered to create a uniform, historically representative visual character yet allow for a longer lifespan for the hedgerow.

Negative Impacts

Option A would eliminate for at least 15 years what was noted in the PISP Avian Inventory as an extremely important habitat component for both migratory and resident breeding birds (Johnson, Holmes, and Stuart 2004). Likewise, it would eliminate for the same time period a critical element of the visual landscape associated with the historic period. Valuable visual screening of highway 389 would also be removed. Soil disturbance as well as noise and dust pollution would be associated with tree removal. Tree removal in several locations will be difficult and, if not well executed, could endanger the vineyard. The stumps of the removed trees would require a chemical treatment to prevent re-growth.

- 1B Option: Selectively thin the existing hedgerow by > 50%, remove every other tree plus any that are hazardous, save as much understory vegetation as possible, and replant new fastigate poplars in spaces made available by removal of existing trees. Over the next 20 years the remaining poplars would be removed and replaced with fastigate poplars as described above.**

Positive Impacts

The variety of age classes in the hedgerow would increase its value as wildlife habitat and as a visual screen. Fifty percent of the existing habitat for wildlife and screening of the highway would be retained in the initial phase. The spacing would reduce competition for water and provide ample space and access to sunlight to support new plant growth.

Negative Impacts

Negative Impacts associated with option B would be similar to those described for option A. The visual character of hedgerow would be irregular because of variable plant dates and species differences. This would not reflect the historic hedgerow's uniform character for some time.

- 1C Option: This option is similar to option B with exceptions. The stumps of cut trees are not treated, instead saving the dominant sucker and cutting off all others. The dominant sucker is then pruned to replace the removed decadent tree.**

Positive Impacts

Replacing the decadent poplars with dominant suckers would preserve both the historic landscape pattern and historic genetic material. This option may be more successful and less labor intensive since suckers are generally hardy, genetically the same as the parent plant, and new trees will not need to be established. Mike Kuhns, Utah State University Extension Forester, believes that this is a viable option that could be augmented with new plantings of white poplar (M. Kuhns, pers. comm). Chemical treatment will not be required to treat stumps, reducing the environmental impact of the proposed action.

Negative Impacts

The Negative Impacts would be similar to those described for option B. In addition, the water conservation benefits (wider spacing of new trees requires less water) and habitat benefits of planted poplars would be lost.

**Species Options: Pros/Cons**

Lombardy poplar *Populus nigra* 'Italica'

Positive:

- Historically accurate

Negative:

- Short Lifespan

other fastigate (narrow, upright form) cottonwood

Positive:

- Better habitat for wildlife
- Possesse historical visual similarities
- Moderate lifespan / disease resistant

Negative:

- Not historically accurate

Note: Several fastigate poplars exist which warrant consideration including:

*Populus alba* 'fastigiata'-- Bolleana poplar, *Populus canadensis* 'eugenei'-- Carolina poplar, *Populus simonii* 'fastigiata'--Chinese Poplar, *Populus nigra* 'Thevestina'. Hybrid cultivars include *Populus x* 'Walker', *Populus x* 'Hill', *Populus x canadensis* 'Prairie Sky, and *Populus x canescens* 'Tower'. Pros and cons of these and other species to be researched as part of phase 2 of this study.

- 2 Action: Selective removal of scattered *Ailanthus* trees throughout Visitor Zone.** *Ailanthus altissima*, tree of Heaven, was an early introduction to Utah by Mormon pioneers. Its ease of growth and relatively luxuriant foliage made it a favored tree to create instant green in a newly settled arid landscape. Benjamin Ferris in his work *Utah and the Mormons*, 1854, describes the streets flanking the temple block in Salt Lake City as “planted with locust and ailanthus trees, cooled by two running streams of water from the hillside” (Tucker, 1867). A letter in the Woolley Family Collection notes that *Ailanthus* trees were planted (along with cottonwood, elm, and willow) near the fort during the 1885-1891 period of Woolley occupancy of PISP (McKoy 2000, 41). Although *Ailanthus* has fallen out of favor for its propensity to sucker and overtake native plants, it should be viewed during the period of significance of PISP as a generally admired exotic. Recommendation is to control suckering growth to prevent overly wild forestation, but to allow selected specimens to grow, continually regenerating overstory trees for shade, visual, and historic character in the VZ and HD.

### Positive Impacts

Selective removal of *Ailanthus*, some of which appear to be diseased and dying, would control an aggressive species that out competes native species and consumes valuable water resources. Planting cleared spaces with native shrub steppe species will stabilize the disturbance site and expand the area dominated by shrub-steppe species in the V Zone. Maintaining a selected ongoing population of the tree will ensure historic integrity, provide shade, and create visual interest.