in the 2006 CLI, the Winsor family established a garden ringed by currant bushes west of the orchard in 1872, perhaps developing the ponds south of the fort at this time as the source of irrigation water (Shapins Associates 2006, 14). A back up pressurized irrigation system would be advisable and most likely use no more system water than current garden.

Positive Impacts

Relocating the demonstration garden down slope of the ponds would reflect the historic location, creating stronger interpretive opportunity. This option might allow for irrigation from the ponds and the associated benefits of reducing the use of culinary water.

Negative Impacts

The relocation would require the deconstruction and reconstruction of the garden, causing site disturbances as described elsewhere.

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11 Action: Reestablish native plant community characteristics through selective thinning of shrubs and grass/forb reintroduction. If successful, this option may be applied throughout the monument.

Positive Impacts

A successful planting of native grasses and forbs would recreate the pre-settlement vegetation palate and would give park visitors that experience. It would also create new interpretive opportunities. Moreover, the success of native grasses and forbs would facilitate the restoration of the biological soil crust and expand habitat for wildlife and overall floral and faunal species diversity on the monument.

Negative Impacts

Selective thinning of shrubs and planting of grasses and forbs in cleared areas would produce minor disturbances to the soil surface associated with the removal of shrubs. The soil would be more substantially disturbed when cleared areas were prepared for seeding grasses and forbs. Minor site disturbance and mechanical weed removal or application of herbicides associated with weed control could persist for three to five years or until new plantings become established. Dr. James MacMahon, Trustee Professor of Biology at Utah State University, cautions that the restoration of native landscapes in this environment is very difficult (J. MacMahon 2007, pers. comm). Much depends on weather and longer climatic cycles, invasive species and herbivory. A failed planting leaves a site that is ideal for invasion by non-native species.

12 **Action: Enhance Black Locust planting in picnic area, add drip irrigation, and replace bark mulch with crushed local rock mulch.** Existing trees are in poor health, are scraggly in appearance, and offer little shade for picnicking. Soil is very porous and drought-prone, making watering difficult under current conditions.

Positive Impacts

Proposed action will make the existing picnic area more functional and aesthetically pleasing, assuming picnic area is to remain in its existing location. Drip system will maximize efficient application of water in a droughty site setting. Crushed local rock would be more compatible aesthetically with the historic period than shredded bark.

Negative Impacts

Enhancement of vegetation in this area, while representative of the relatively dense growth in the 1930's campground and subsequent picnic area on this site, is not historically accurate to the period of significance of the nearby Historic District, creating a false sense of oasis in originally barren area.