

APPENDIX A: NON-IMPAIRMENT DETERMINATION FOR LOWER WILDROSE ROAD REHABILITATION PROJECT

The National Park Service (NPS) has determined that implementation of the selected alternative will not constitute impairment to the resources or values of Death Valley National Park. This conclusion is based on a thorough analysis of the environmental impacts described in the Lower Wildrose Road Rehabilitation Environmental Assessment, relevant scientific studies, and professional judgment of the decision-maker guided by the direction in NPS Management Policies (2006). The selected alternative will not result in major adverse impacts on a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation or proclamation of Death Valley National Park; (2) key to the natural or cultural integrity of the park; or (3) identified as a goal in the Park's General Management Plan or other relevant National Park Service planning documents.

Specific impact areas and the detailed analysis that led to the non-impairment determination are described below.

Vegetation

The selected alternative has the potential to result in site specific, direct, adverse impacts to 12.96 acres of plant communities that will result from construction activities along Lower Wildrose Road. This impact will be limited to the area immediately adjacent to Lower Wildrose Road; it will not extend regionally. In addition, the NPS will implement multiple mitigation measures to limit the scope of the impact and to encourage vegetation habitat restoration.

Vegetation salvage, seed collection and active revegetation will be implemented in accordance with Death Valley National Park's ongoing seed collection program, and coordinated by the Park Botanist. Monitoring for non-native species, and removing any invasive non-native plants post-construction, is another fundamental mitigation to encourage the long-term health of the Park's vegetation communities. The vegetation mitigation strategy enhances the project and better protects resources, but park values would not be impaired regardless because of the limited footprint of the project. The identified impact is adverse, but since it is confined to the Lower Wildrose Road corridor, and because the selected alternative is mitigated to ensure that impacts are short-term in duration, the selected alternative would not impair the vegetation resources of the Park for future generations.

Wildlife

Road repair under the selected alternative will have site specific, direct, short-term impacts to wildlife due to construction-related activities. Impacts will include short-term removal of habitat, as well as the disruption of normal life behaviors due to construction noise, vibration, and dust. Indirect impacts from noise and dust and equipment activity could also affect wildlife some distance from the project area. Removal of habitat will be temporary, and impacted areas will be revegetated as described under the vegetation impact topic non-impairment determination,

above. Noise, dust, and equipment activity will also be temporary in nature. Road repair activities will take place within a delineated area, and contractors performing work will be trained by a qualified biologist as part of mitigation for the project. Excavation sites will be monitored or covered to avoid trapping wildlife and routes of escape will be maintained. The wildlife mitigation strategy enhances the project and better protects resources, but park values would not be impaired regardless because of the limited footprint of the project. Although the identified impact is adverse, because it is short-term in duration, and because the selected alternative is mitigated to ensure that impacts to wildlife are maintained at a negligible to minor level, the selected alternative will not impair the wildlife resources of the Park for future generations.

Threatened and Endangered Species

The selected alternative includes a number of mitigations developed in consultation with the US Fish and Wildlife Service to minimize impacts from the project's associated construction activities to the federally listed least Bell's vireo and desert tortoise. General protective measures for both species include: pre-construction surveys by qualified biologists, the delineation of work boundaries to minimize vegetation clearing and ground disturbance, and the implementation of a plan to restore native vegetation in the area. In addition to these measures, the NPS will implement the following measures to avoid impacts to desert tortoise: a worker education program to inform workers about the desert tortoise and their responsibilities with regard to the species, a litter program to reduce the attractiveness of the project area to common ravens, requiring workers to check under their vehicles for desert tortoises prior to moving vehicles, and if necessary, allowing any desert tortoises in the project area to move on their own. To avoid adversely affecting the least Bell's vireo, the NPS would schedule construction activities to avoid the breeding and nesting season. With these mitigations incorporated in project design and environmental analysis, the US Fish and Wildlife Service concurred with the NPS determination that the selected alternative is not likely to adversely affect threatened and endangered species that are potentially present in the project area. Therefore, there will be no impairment to this critical resource.

Watershed Processes and Springs

The selected alternative will maintain the current alignment and require modifying the road in several locations to reinforce areas susceptible to erosion during moderate precipitation events. These modifications will include construction of drainage features (culverts, Arizona Crossings) and road reinforcements (including gabion baskets, buried k-rails, and concrete subbase). The work will also include repaving the entire length of the roadway between the junction with Emigrant Canyon Road and Charcoal Kilns Road. This alternative will help stabilize the roadway during moderate precipitation events. In addition, the installation and operation of French drains beneath the road will cause the discharge from the spring to be moved approximately 20 feet from its current location but essentially in the same drainage. Since the

diversion will help prevent deterioration of the road and minimize the need for continual road patching, surface water quality from the spring should improve due to lack of sediment-laden water running off of the deteriorated roadway and into Wildrose Wash. The selected alternative specifically addresses runoff issues, and includes measures to contain flow to the sides of the road, and when necessary, direct flow under or over the road. This should result in a road that will withstand moderate runoff events. Barring a large flood, the watershed will be allowed to stabilize to the new, slightly altered runoff regime, with a reduction in the need for maintenance perturbations. Long-term, this is a beneficial impact to watershed processes and springs, and thus will not result in impairment.

Cultural and Historic Resources

The selected alternative will widen the existing alignment of the historic road in one area through chipping away a rock face, and will add new drainage improvements. However, the road alignment will remain in the same location, and the construction of minor roadside drainage improvements and road reinforcements will help to preserve the roadway in its largely historic alignment. The roadway section through Wildrose Station will be preserved, which will be a beneficial impact to the historic character of Wildrose Station. Construction of low water crossings will help preserve the road and its historic undulating nature. Additionally, no new improvements, such as drainages, will be constructed in the Wildrose Station site. The selected alternative has undergone extensive cultural resource analysis, resulting in a No Adverse Effects to historic properties determination, which the State Historic Preservation Officer concurred with in a letter dated December 23, 2011. Therefore, the selected alternative will not impair cultural and historic park resources.