

### Guidelines for the identification of suitable habitat for WYBCU in Utah

The purpose of this guidance is to assist agencies and project proponents in identifying areas that meet minimum criteria as potentially suitable breeding and nesting habitat for yellow-billed cuckoo in Utah. Areas that meet the minimum criteria should be (1) avoided by 0.5 mile<sup>1</sup>, or (2) surveyed, and/or (3) carried forward for evaluation of potential effects.

Step 1: Identify and delineate all riparian habitats within 0.5 mile of the proposed action, below the elevation of 8,500 feet.

Step 2: Identify suitable cuckoo breeding and nesting habitat, including associated foraging areas.

Riparian patches used by breeding and nesting cuckoos vary in size and shape, ranging from a relatively contiguous stand of mixed native/exotic<sup>2</sup> vegetation to an irregularly shaped mosaic of dense vegetation with open areas. The following parameters characterize suitable breeding and nesting cuckoo habitat:

- Vegetation<sup>3</sup> that is predominantly multi-layered, with riparian canopy trees and at least one layer of understory shrubby vegetation;
- Patches of multi-layered vegetation (as described above) that are at least 12 acres (5 ha) or greater in extent and separated from other patches of suitable habitat by at least 300 meters;
- Somewhere within a patch, the multi-layered riparian vegetation (as described above) should be at least 100 meters wide by 100 meters long. This is to avoid patches that may be long enough to meet the minimum area (12 acres) but are so narrow that they are unsuitable-- 750 m x 75 m (length x width) for example; and,
- Open areas, or gaps of multi-layered vegetation within a patch are less than 300 meters.

Breeding and nesting cuckoos will forage in riparian patches that have an overstory canopy *only* and are within 300 meters (m) of the edge of suitable breeding and nesting habitat. Identify suitable foraging habitat of nesting cuckoo to include single layer overstory canopy that is within 300 meters of suitable breeding and nesting habitat.

### References

Halterman, M., M.J. Johnson, J.A. Holmes and S.A. Laymon. 2015. A Natural History Summary and Survey Protocol for the Western Distinct Population Segment of the Yellow-billed Cuckoo: U.S. Fish and Wildlife Techniques and Methods, 45 p.

Laymon, S. 2015. Personal Communication. Senior Wildlife Biologist, Sacramento Fish & Wildlife Service Office.

U.S. Fish and Wildlife Service. 2014. Final rule determining threatened status for the western yellow-billed cuckoo. Federal Register 79: 59992-60038.

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<sup>1</sup> A 0.5-mile buffer is likely the largest buffer necessary to preclude impacts to the species from noise, light and human disturbance. Regardless, this buffer could be adjusted according to the type of activity and noise that is generated (for example, oil well drilling as opposed to construction vehicle traffic).

<sup>2</sup> Western yellow-billed cuckoo have been documented nesting in tamarisk, consequently, the presence of tamarisk should not eliminate a vegetation patch from a suitability determination. However the odds of cuckoo occurrence decrease rapidly as the amount of tamarisk cover increases.

<sup>3</sup> Riparian overstory and understory vegetation that supports suitable cuckoo habitat may include: cottonwood (*Populus spp*), willow (*Salix spp*), alder (*Alnus spp*), walnut (*Juglans spp*), boxelder (*Acer spp*), sycamore (*Plantanus spp*), ash (*Fraxinus spp*), mesquite (*Prosopis spp*), tamarisk (*Tamarix spp*), and Russian olive (*Elaeagnus angustifolia*). Suitable understory vegetation does not include grasses or forbs although herbaceous vegetation is often present alongside shrubby understory.