1. **Species:** Western Yellow-billed Cuckoo (*Coccyzus americanus occidentalis*)

2. **Status:** Table 1 summarizes the current status of this species or subspecies by various ranking entity and defines the meaning of the status.

**Table 1.** Current status of *Coccyzus americanus occidentalis*

| Entity | Status | Status Definition |
|---|---|---|
| NatureServe | G5 T2 | Imperiled—At high risk of extinction or elimination due to very restricted range, very few populations, steep declines, or other factors. |
| CNHP | S1(Breeding) | *Species is Critically Imperiled*<br>At very high risk of extinction or elimination due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors. |
| Colorado State List Status | Tier 1 | Species of Greatest Conservation Concern |
| USDA Forest Service | ESA Section 7 | ESA Section 7 consultation requirement for activities that may affect the species. |
| USDI FWS[b] | FT | Federally listed as Threatened |
| USDI FWS Critical Habitat | None | No occurrence of proposed critical habitat within the planning area. |

[a] Colorado Natural Heritage Program.
[b] US Department of Interior Fish and Wildlife Service.

The 2012 U.S. Forest Service Planning Rule defines Species of Conservation Concern (SCC) as "a species, other than federally recognized threatened, endangered, proposed, or candidate species, that is known to occur in the plan area and for which the regional forester has determined that the best available scientific information indicates substantial concern about the species' capability to persist over the long-term in the plan area" (36 CFR 219.9). This overview was developed to summarize information relating to this species' consideration to be listed as a SCC on the Rio Grande National Forest, and to aid in the development of plan components and monitoring objectives.

## 3. Taxonomy

Although *Coccyzus americanus occidentalis* Ridgway, 1887 had been recognized as a valid subspecies, Banks (1988, 1990) concluded, based on morphological evidence, that C. americanus "should be treated as a monotypic species." Later work (Pruett et al., 2001) based on molecular evidence supports "the separation of the Yellow-billed Cuckoo into two subspecies." Re-evaluation of the status of *occidentalis* may be warranted (ITIS 2015). Regardless of their taxonomic position, the U.S. Fish and Wildlife Service considers the cuckoos that occur west of the Rocky Mountain crest as well as the San Luis Valley a Distinct Population Segment (USDI Fish and Wildlife Service 2014).

## 4. Distribution, abundance, and population trend on the planning unit [12.53.2,3,4]:

In the United States the range of the western yellow-billed cuckoo includes the area west of the Continental Divide, south through Montana, Wyoming, Colorado, and along the watershed divide between the upper and middle Rio Grande and Pecos Rivers in New Mexico and Texas, south to

Big Bend in southwestern Texas, and extending to the States of the west coast (USDI Fish and Wildlife Service 2014).

In Colorado, yellow-billed cuckoos were historically noted as rare summer visitors, primarily on the eastern plains, but also in Middle Park and on the western slope at Grand Junction (Sclater 1912). Bailey and Niedrach (1965) considered yellow-billed cuckoos an uncommon summer resident, mainly on the eastern plains and into the Front Range, with a few breeding records from Grand County and one bird collected in Montezuma County. Thus, the few historical records suggest that the species apparently has always been rare in western Colorado, an opinion shared by Andrews and Righter (1992). Recent breeding bird atlas work in Colorado (Carter 1998) revealed only a single likely nesting record west of the continental divide over the five years of fieldwork (summarized from Wiggins 2005).

The RGNF planning area is located almost completely east of the Continental Divide, but includes the San Luis Valley where yellow-billed cuckoo occurrence has been documented (Rawinski 2004). There are no yellow-billed cuckoo occurrences documented for the planning area (Table 2, NRIS database).

**Table 2. Known Occurrence Frequency within the Planning Area**

| | |
|---|---|
| **Known Occurrences** | 0 |
| **Year Last Observed** | Not Documented |

## 5. Overview of ecological conditions for recovery, conservation, and viability [12.53 7, 9?, 10, 11, 12]:

Yellow-billed cuckoos prefer to nest in open woodlands with an understory of dense vegetation, especially near water. Cuckoo nests are typically placed in dense patches of broad-leaved deciduous trees, usually with a relatively thick understory (Hughes 1999 cited in Wiggins 2005). Western cuckoos (including those in the western Great Plains) prefer to nest in willow (*Salix* spp.), cottonwood (*Populus* spp.), and mesquite (*Prosopis* spp.), but they will also utilize orchards (Laymon 1980, Walters 1983, summarized in Wiggins 2005).

The USFWS (USDI Fish and Wildlife 2014b) consider the following habitat elements as features that provide for this species' life-history processes and are essential to the conservation of the species:

*Riparian woodlands.* Riparian woodlands with mixed willow-cottonwood vegetation, mesquite-thorn-forest vegetation, or a combination of these that contain habitat for nesting and foraging in contiguous or nearly contiguous patches that are greater than 325 ft (100 m) in width and 200 ac (81 ha) or more in extent. These habitat patches contain one or more nesting groves, which are generally willow-dominated, have above average canopy closure (greater than 70 percent), and have a cooler, more humid environment than the surrounding riparian and upland habitats.

*Adequate prey base.* Presence of a prey base consisting of large insect fauna (for example, cicadas, caterpillars, katydids, grasshoppers, large beetles, dragonflies) and tree frogs for adults and young in breeding areas during the nesting season and in post-breeding dispersal areas.

*Dynamic riverine processes.* River systems that are dynamic and provide hydrologic processes that encourage sediment movement and deposits that allow seedling germination and promote plant growth, maintenance, health, and vigor (e.g. lower gradient streams and broad floodplains, elevated subsurface groundwater table, and perennial rivers and streams). This allows habitat to regenerate at regular intervals, leading to riparian vegetation with variously aged patches from young to old.

## 6. Threats and Risk Factors

Yellow-billed cuckoo abundance has declined in most areas within USFS Region 2, especially in western Colorado and Wyoming. The threats to yellow-billed cuckoos likely vary according to region, with habitat loss and fragmentation being particularly important in the western (arid) portions of Region 2 (Wiggins 2005). There have been a number of studies in the western United States that have assessed habitat availability for yellow-billed cuckoos, and without exception, they have shown drastic declines in riparian habitat extent and/or quality. Alteration of hydrology, due to dam construction or irrigation schemes, may both positively and negatively affect yellow-billed cuckoos. Other risk factors include livestock grazing and pesticides (Wiggins 2005).

## 7. Key literature:

ITIS (Integrated Taxonomic Information System). 2015. Accessed online 06/01/2015 at: http://www.itis.gov/

Rawinski, J.J. 2004. Birds of the Rio Grande National Forest and San Luis Valley area. Unpublished report. 35 pp.

USDI Fish and Wildlife Service. 2014a. Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the Western Distinct Population Segment of the Yellow-billed Cuckoo (Coccyzus americanus); Final Rule. Federal Register 79 (192): 59992-60038.

USDI Fish and Wildlife Service. 2014b. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Western Distinct Population Segment of the Yellow-Billed Cuckoo. Federal Register 79 (158): 48548-48562.

Wiggins, D. 2005. Yellow-billed cuckoo (*Coccyzus americanus*): a technical conservation assessment. USDA Forest Service, Rocky Mountain Region. Available: http://www.fs.fed.us/r2/projects/scp/assessments/yellowbilledcuckoo.pdf [June 1, 2015].

## 8. Map of Known Occurrences and Suitable Habitat

There are no known occurrences or modeled suitable habitat within the planning area.