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## EXHIBIT D: BIOLOGICAL RESOURCES

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*List the fish, wildlife, plant life and associated forms of life in the vicinity of the proposed site or route and describe the effects, if any, the proposed facilities will have thereon.*

### **D.1 General Project Setting**

The Project will be constructed in an urban area within the City of Tucson. Approximate elevations within the study area range from 2,450 to 2,600 feet above mean sea level, sloping from southeast down to the northwest. Annual precipitation recorded in Tucson, Arizona is 11.7 inches (WRCC, 2005). Nearly half of the annual rainfall occurs during the summer monsoon season (July to September); the remainder is spread over the balance of the year, with approximately one quarter of the total occurring during the winter rainy season (December to February). High summer temperature in June and July are consistently just over 100 degrees Fahrenheit (°F), with winter highs approximately 68 °F (WRCC, 2005). Terrain is low profile valley floor. Soils in the study area are unconsolidated to strongly consolidated alluvial and aeolian deposits. Storm water runoff generally drains in a west-northwest direction and is directed into regional flood control structures.

### **D.2 Biological Resources**

A brief discussion of vegetation and wildlife resources potentially occurring within the study area and the potential impacts to them from the proposed Project are outlined below and described in more detail in the BE, Exhibit C-2.

#### Vegetation

Native vegetation in the study area is consistent with the Arizona Upland Division of the Sonoran Desertscrub biotic community (Brown, 1994). However, there is very little native vegetation within the existing roadways and alternatives corridors.

Most of the vegetation present in the study area is ruderal, or that commonly found in disturbed areas; however, patches of native vegetation remain in a few areas along the I-10 portion of the Alternative B corridor and at the southwestern corner of Palo Verde Road and Ajo Way along the Alternative C corridor. Several areas along the alternative corridors have been landscaped with a combination of native and non-native plants, such as along Irvington Road between Benson Highway and Palo Verde Road on the Alternative A corridor, the northern portion of Benson Highway approaching Park Avenue on the same corridor, and along Ajo Way and the Alternative C corridor between the I-10 connector and Country Club.

Native plants observed in the study area characteristic of the Arizona Upland biotic community described above include trees such as velvet mesquite (*Prosopis velutina*) and blue paloverde (*Parkinsonia lorida*). Other native species observed include whitethorn acacia (*Vachellia constricta*), creosote (*Larrea tridentata*), desert broom (*Baccharis sarothroides*), fourwing saltbush (*Atriplex canescens*), brittlebush (*Encelia farinosa*), limoncillo (*Pectis angustifolia*), desert marigold (*Baileya multiradiata*), globemallow

(*Sphaeralcea ambigua*), and saguaro (*Carnegiea gigantea*); the latter species was only observed in landscape plantings at Benson Highway and Park Avenue and on Irvington Road west of Benson Highway, both along the Alternative A corridor.

### Wildlife

There are no large snags, permanent surface water, cliffs, caves, adits, or other habitat features that would provide nesting, breeding, cover, or forage opportunities for wildlife. Most of the wildlife habitat within the study area has been developed for urban use.

Wildlife species observed in the study area at the time of the biological survey was limited to mourning dove (*Zenaida macroura*), killdeer (*Charadrius vociferous*), and great-tailed grackle (*Quiscalus mexicanus*). Species not observed, but expected to occur in urban areas such as the study area, include common raven (*Corvus corax*), pigeon (*Columba livia*), house sparrow (*Passer domesticus*), redtail hawk, (*Buteo jamaicensis*), desert cottontail (*Sylvilagus audubonii*), and coyote (*Canis latrans*).

### **D.3 Impacts**

Removal of vegetation associated with clearing and grading has the potential to impact nesting birds protected under the Migratory Bird Treaty Act (MBTA). Some vegetation trimming and possible removal in road rights-of-way may be required. In the event construction is scheduled during nesting/breeding seasons, TEP will conduct pre-construction bird surveys and avoid nesting birds until fledging is complete. Vegetation will be checked prior to construction to ensure no impacts to migratory birds.

Native plants in the study area are protected by Arizona Native Plant Law (ANPL) and are also subject to additional local regulations within the city limits of Tucson and unincorporated Pima County. All three alternative corridors are located along existing roadways and the proposed transmission line construction in any of the corridors would have similar likelihood of disturbing native plants. The City of Tucson and Pima County have standards (COT LUC 3.8.0 and Pima County Chapter 18.72) for native plant preservation within construction areas and guidance for mitigation of impacts.

### **D.4 Conclusion**

Impacts to general wildlife and vegetation along the alternative routes is anticipated to be minor, given the urban development within the study area and use of existing corridors.

### **D.5 References**

Tierra. (2018a). Biological Evaluation for the TEP Irvington—Kino Transmission Line Project in Tucson, Pima County, Arizona: Tierra Right of Way.

WRCC. (2005). *Arizona Climate Summaries: Tucson, Arizona*. Retrieved from Western Region Climate Center: <http://wrcc.dri.edu/summary/climsmaz.html>