#### **Waters and Wetlands:**

The proposed project will cross Coal Creek and two tributaries. Any new stream crossings will incorporate water quality protection best management practices to prevent erosion and keep sediment out of the creeks. New and modified crossings would be subject to U.S. Army Corps of Engineers permitting under Section 404 of the Clean Water Act with a Nationwide General Permit. No significant, permanent adverse impacts to waterbodies are expected.

# Threatened and Endangered Species:

Habitat reviews were conducted for federally listed threatened and endangered species, as well as for protected bird species. Five protected species, including bird, fish and insect species are potentially located within the study area or general vicinity, but there was no designated critical habitat. A full biological assessment will be completed on the preferred alternative once selected. The biological report will be submitted to the U.S. Fish & Wildlife Service (USFWS) for review following Section 7 requirements under the Endangered Species Act.

#### **Cultural Resources:**

Cultural resources impacts were preliminarily reviewed by ODOT's CulturalResources Program. No potentially significant historic or pre-historic sites or properties were found within the general vicinity of the proposed project during the desktop assessment. Based off of previous surveys and the setting, it was predicted that the likelihood of encountering quality archaeological sites is minimal. A full cultural resources field study will be completed on the preferred alternative once selected. The cultural resources report will be submitted to the state historic preservation office (SHPO) and tribes for review following Section 7 requirements under the National Historic Preservation Act (NHPA).

### **Hazardous Materials:**

Hazardous waste related impacts were determined by evaluating the regulatory database report, assessing the Oklahoma Corporation Commission's (OCC) oil and gas records, reviewing the Oklahoma Water Resources Board's

(OWRB) well databases, and by performing a preliminary desktop review of the study area. Some areas were identified that could pose an environmental risk within the proposed project footprint adjacent to the study area (e.g., gas stations, repair shops, etc.). ODOT is currently assessing the potential impacts, but these sites are not considered to be a high risk. No significant adverse impacts are anticipated.

# Floodplains:

There are no designated floodplains within the existing SH-4 or Fox Lane ROW. None of the proposed alternatives are expected to have an adverse impact on any floodplain.

## Noise:

Using the FHWA traffic noise model, the existing and future exterior noise levels were determined for fifteen (15) residential homes and compared for the proposed four alternatives. For residential dwellings, noise impacts occur when exterior noise levels are at 66 decibels or greater or when anticipated future noise levels increase over existing levels of 15 decibels or greater. Based on the analysis, no impacts occur with the future levels ranging from 55.6 to 64.7 decibels and increase over existing levels ranging from 2.6 to 9.6 decibels. Only a screening analysis was conducted, and a field model validation was not performed. An updated analysis will be completed for the preferred alternative. However, it is anticipated that no impacts will result; therefore, noise mitigation in the form of a free-standing noise wall is not required for this project.