



5.9.3 Floodplains

The proposed project crosses the 100-year floodplain of the Elm Fork of the Trinity River and its tributaries at five locations, as explained in Section 3.13. None of the proposed station locations lie within the 100-year floodplain. As preliminary and final design progresses, the amount of impact at these locations will be quantified. Current design proposes that all five floodplain crossings be bridged, limiting direct impacts to the floodplain to minor amounts of fill associated with retaining walls and structures associated with the proposed project.

The Federal Emergency Management Agency (FEMA) has regulations governing alterations or development within floodplains shown on Flood Insurance Rate Maps. Under FEMA regulations, no alterations of flood zones can result in an increase in the 100-year base flood elevation or cause an increase in the velocity of floodwaters. In addition, the cities of Dallas and Irving have their own floodplain ordinances, and DFW Airport is responsible for issuance of construction permits on airport property. An EIS and a complete stream rehabilitation program must be approved prior to any relocation or alteration of the natural channel. It would also be necessary to coordinate with the US Army Corps of Engineers (USACE) on the issue of fill in any floodplains, streams, or wetlands. While a Nationwide permit might suffice for the construction of an aerial structure above the floodplain, an Individual permit may be required if permanent or short-term construction impacts occur in associated streams or wetlands. This will be determined with the development of engineering details during final design.

The project spans or borders the following flood zones: Elm Fork of the Trinity River (City of Dallas and City of Irving), Cottonwood Branch (City of Irving), and South Fork of Hackberry Creek (City of Irving). **Table 5-13** identifies the designated floodplains that would be impacted. Each city has specific ordinances governing land alteration within a floodplain, as does the federal government. Consultation with the appropriate local, state, and federal representatives, including Dallas-Fort Worth International Airport, will be conducted prior to construction across the floodplain.

TABLE 5-13 DESIGNATED AND SUSPECTED FLOODPLAINS CROSSED OR BORDERED BY ALIGNMENT	
Name of Floodplain	City
Elm Fork of the Trinity River	Dallas and Irving
Cottonwood Branch	Irving
South Fork of Hackberry Creek	Irving (located on DFW Airport property)

Source: LGGROUP, 2005

Federal law requires municipalities that participate in the Federal Flood Insurance Program to adopt floodplain ordinances that prohibit development in the existing 100-year floodplain. In compliance with this program, Section 51A-5.101 of the **Dallas City Code**, Part II of the **Dallas Development Code** sets forth floodplain regulations. These regulations include the uses and structures permitted, and the conditions for the development within the floodplain. The deposition or storage of fill, the placement of a structure, or excavation within a floodplain area requires a fill permit. An overview of this permit process is outlined in the **Procedures for Filling in a Floodplain** under the **Floodplain Management Guidelines**.

Floodplain management guidelines reflect several City of Dallas concerns, including that:

- Storm water be moved naturally rather than relying on extensive and costly channel improvements;
- Fill and development which is not unreasonably damaging to the environment should be permitted where it would not create other flood problems and where public acquisition is not required for environmental protection or recreation purposes; and