

5.E.3 FLOODPLAINS

EO 11988, *Floodplain Management*, directs Federal agencies to take action to reduce the risk of flood loss; minimize the impact of floods on human safety, health, and welfare; and restore and preserve the natural and beneficial values served by floodplains. U.S DOT Order 5650.2, *Floodplain Management and Protection*, contains DOT policies and procedure for implementing EO 11988. Agencies are required to make a finding that there is no practicable alternative before taking action that would encroach on the 100-year base flood elevation (7 CFR Part 650.25).⁶⁹

EO 11988 defines floodplains as “the lowland and relatively flat areas adjoining inland and coastal waters including flood-prone areas of offshore islands, including at a minimum, that area subject to a one percent or greater chance of flooding in any given year” (i.e., the area inundated by a 100-year flood).⁷⁰ The 100-year flood has been adopted by the Federal Emergency Management Agency (FEMA) as the base flood for floodplain management purposes. FEMA uses the 500-year flood (i.e., a 0.2 percent annual chance of occurrence) to indicate additional areas of flood risk. EO 11988 requires Federal agencies to determine whether a proposed action will occur in a floodplain and, if the encroachment is significant, determine if the proposed action is the only practicable alternative before proceeding. If the Federal agency finds that the only practicable alternative requires siting in a floodplain, EO 11988 and DOT Order 5650.2 require that the proposed action be designed or modified to reduce adverse floodplain impacts. FEMA maps are the primary reference for determining the extent of the base floodplain.

Exhibit 5.E.3-1, *FEMA Flood Zones*, depicts the FEMA maps for the Detailed Study Area. The Detailed Study Area, which includes FLL and its surrounding environs, contains three flood zone classifications. These include:

- Zone AE: This includes floodways and flood hazard areas inundated by 100-year floods, for which base flood elevations have been determined.
- Zone X: Areas determined to be outside both the 100-year and 500-year floodplains.
- Zone X500: Areas of 500-year flood; area of 100-year flood with average depths of less than one-foot or with drainage areas of less than one-square mile, and areas protected by levees from the 100-year flood.

Approximately 1,196 acres of 100-year flood zone (Zone AE) have been mapped within the Detailed Study Area. The on-airport floodplain is divided between an area that is determined to be outside the 100- and 500-year floodplains (Zone X), and an area determined to be inundated by 500-year flooding (Zone X500). These areas encompass 656 and 322 acres respectively, and cover a major portion of the FLL airfield and landside facilities.

⁶⁹ FAA Order 1050.1E, Change 1, *Environmental Impacts: Policies and Procedures, Section 9. Floodplains*. Dated March 20, 2006.

⁷⁰ 42 Federal Register 26951, Executive Order No. 11988, *Floodplain Management*, May 24, 1977.

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