



LOWER CHAIN OF WETLANDS

U.S. ARMY CORPS OF ENGINEERS

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BUILDING STRONG®

Purpose of the Lower Chain of Wetlands and how it works

This chain of wetlands, surrounded by native prairie, has a dual purpose: reduce flood risk for Dallas while creating quality wildlife habitat in the heart of the city. During most of the year the Lower Chain of Wetlands is a peaceful wildlife area of interconnected ponds fed year round by treated effluent from the Central Wastewater Treatment Plant. During flood events, the wetland chain lowers flood risk by providing an efficient path to convey water through the Dallas Floodway System as shown below of a 2012 flood in the Lower Chain of Wetlands:



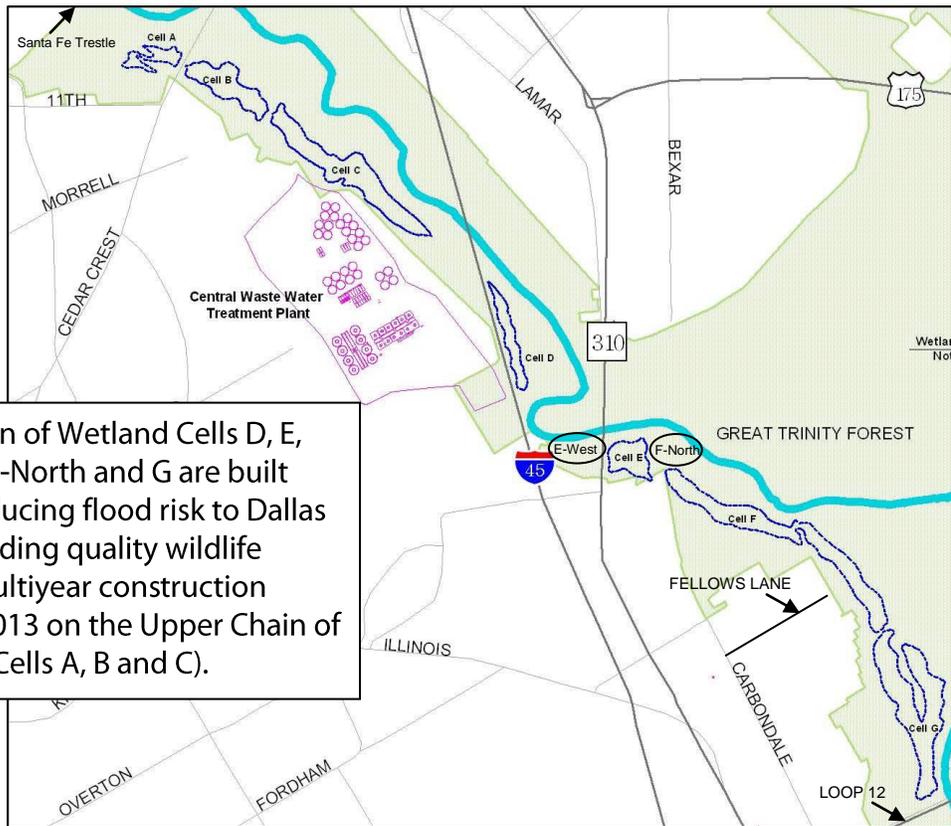
Jan. 27, 2012: A modest Trinity River overbanking event sent floodwaters over the road separating Wetland Cells F&G near Fellows Lane. The wetlands, running in a chain parallel to the river's main channel, provide a second pathway to efficiently convey floodwaters out of central Dallas through part of the Great Trinity Forest before rejoining the main channel near Great Trinity Forest Way (Loop 12) in southeast Dallas.



Jan. 28, 2012: By the following day the floodwaters receded enough to reveal the roadway.

Construction history

Lower Chain of Wetlands began with the excavation of Wetland Cell D (just east of the I-45 Trinity River Bridge next to the Central Wastewater Treatment Plant) in 2004; plantings of native species began immediately. Construction of Wetland Cells E, E-West, F-North, F&G were completed in 2008 through an area that included a landfill and golf course. The first phase construction (Wetland Cell A) of the Upper Chain of Wetlands (Cells A-C) began in 2013. It is anticipated to also take a number of years to complete. A map follows on the next page.



Lower Chain of Wetland Cells D, E, E-West, F, F-North and G are built and are reducing flood risk to Dallas while providing quality wildlife habitat. Multiyear construction began in 2013 on the Upper Chain of Wetlands (Cells A, B and C).

When complete, the 271 acres in the Upper and Lower Chain of Wetlands ecosystem will have 123 acres of emergent wetlands, 45 acres of open water and 102 acres of grasslands. It is part of the Dallas Floodway Extension Project, which relocated the channel under the I-45 bridge and includes proposed Lamar and Cadillac Park levees. The U.S. Army Corps of Engineers project, in partnership with the city of Dallas, features three components: flood risk reduction, ecosystem restoration and recreation. The project area begins at the Santa Fe Trestle and ends where the river reaches I-20.



Great blue heron

How it attracts wildlife

The Corps of Engineers selected a diverse selection of native Texas aquatic and grassland species to plant. Thirty-one species of aquatic plants were planted in the wetlands alone. These play a critical role in creating this new wildlife habitat. Plants were selected to create food and cover attractive to wildlife but which can also withstand drought, flooding and temperature extremes common here. Wetland managers adjust pond gates to seasonally alter water levels to attract wildlife, such as lowering the water to create additional beach attractive to migrating shore birds. The wetlands, fed

by treated effluent from the Central Wastewater Treatment Plant, polishes the water by removing 90 percent of phosphates and nitrates before returning it to the Trinity River.

Wetland managers monitor the wetlands for sedimentation, water quality and invasive or undesirable species.



Engelmann's daisy

Increasing diversity in a dynamic ecosystem

Corps researchers identified 14 species of mammals, 109 species of birds, 21 species of fish, 13 species of reptiles, six species of amphibians and 52 species of macro-invertebrates in its March 2013 report. (The quarterly Trinity Bird Count has documented 125 bird species. See list on this website.) Species diversity is improving over time and seems to coincide with progress in the establishment and diversity of the aquatic vegetation. The number of birds attracted to the wetlands at one time can be large. There were 6,500 birds, mostly ducks, observed at Wetland Cells F and G in late December 2012 following a flood.



Dallas Floodway Extension Project (wetlands) information

<http://www.swf.usace.army.mil/Missions/WaterSustainment/DallasFloodwayExtension.aspx>

U.S. Corps of Engineers Fort Worth District contact: Jim Frisinger, james.c.frisinger@usace.army.mil 817-901-9644



Trinity Bird Count

Volunteers gather quarterly to collect data on bird species and numbers at locations across the Trinity River basin. Developing this historic record is key to a better understanding of the environmental health of our community. Further information at www.TrinityBirdCount.com or contact Tania Hodayoun at thodayoun@audubon.org