



UPPER CHAIN OF WETLANDS

U.S. ARMY CORPS OF ENGINEERS

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BUILDING STRONG®

Purpose of Upper Chain of Wetlands

These wetlands, now in the construction phase, are designed to lower flood risk for Dallas while creating a new wildlife-friendly ecosystem. The Upper Chain of Wetlands will operate in conjunction with the planned Lamar Levee located on the opposite side of the Trinity River. That levee will plug a 3-mile gap in the Dallas levee system by connecting the Rochester Park Levee with the end of the East Levee below downtown (at the Santa Fe Trestle Trail/DART Bridge). That new levee will protect business and residential neighborhoods near South Lamar Street. The new wetlands will provide additional flood conveyance capacity to be lost when the Lamar Levee is built.

Phased construction and location

Phase 1 of multi-year construction was completed in 2013. It cleared the Wetland Cell A site adjacent to the Cedar Crest/Martin Luther King Jr. Bridge in Dallas. It was been seeded with native prairie species. The closest street intersection is Cedar Crest Boulevard and 11th Street. Phase 2 construction began in December 2014. It is to include excavating and aquatics planting in Cell A; and clearing, excavating and planting Cells B and C. Project completion and turnover to the city of Dallas is anticipated in 2018.

What it will look like when complete

These wetlands will provide a quality wildlife habitat in the heart of the city just two and a half miles from Dallas City Hall. They will look like the Lower Chain of Wetlands just downstream. Now mature, the Lower Chain was built by the U.S. Army Corps of Engineers in 2004-2008. The Corps of Engineers then planted dozens of different native wetland and grassland species in the Lower Chain to provide food and cover that attracts wildlife. Corps researchers say it now supports 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. Some 129 bird species have been identified at the Lower Chain by Audubon's Trinity Bird Count as of 2014.

How it will work

The Upper Chain of Wetlands will comprise 57 acres of water/wetlands and 33 acres of grasslands. It will be supplied year-round with reclaimed water from the nearby Central Wastewater Treatment Plant. During most of the year, water will flow into Cell C, then by gravity flow will drain into Cell B, then Cell A before exiting into Cedar Creek, a tributary of the Trinity River. During most of the year, the direction of flow will actually run counter to that of the nearby main channel of the Trinity River. However, during overbanking events, the Upper Chain flow will reverse course, with flood waters passing from Cells A to B to C, then through the Lower Chain of Wetlands, before rejoining the main channel. A map at the end of this fact sheet shows the hydraulics.

Dimensions

The Upper and Lower Chains of Wetlands combined will be 3.7 miles long with an average width of 600 feet. They will include about 271 acres of improved habitat of 45 acres open water, 123 acres emergent wetlands and 102 acres of grasslands. Working together they will provide a continuous pathway for floodwaters to travel from just below Moore Park all the way to Great Trinity Forest Way (Loop 12) where they rejoin the main channel.



The Upper Chain of Wetlands will have the same look and function as the Lower Chain of Wetlands shown above during flood stage.



Indian blanket
seeded at Cell A

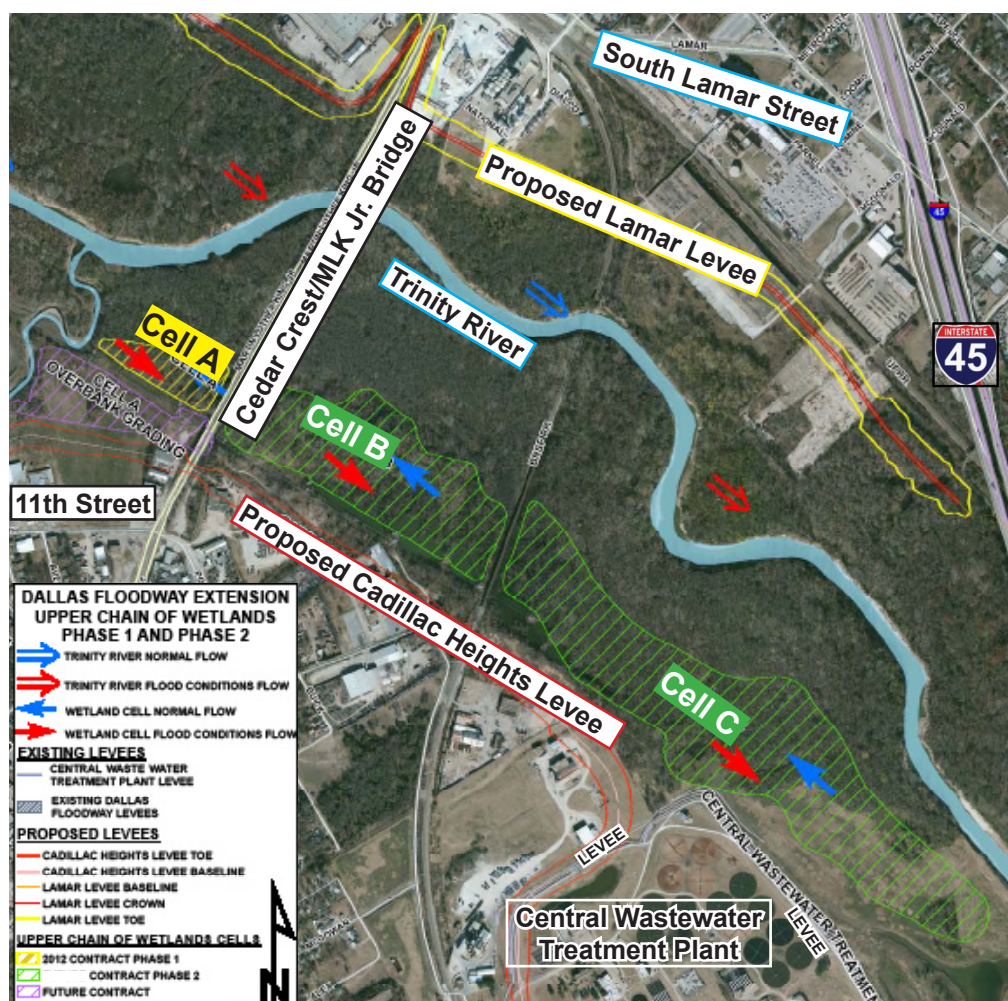
List of native grassland species seeded at Wetland Cell A

Planted in spring 2013: Canada wild rye, big bluestem, little bluestem, Eastern gamagrass, switchgrass, indiangrass, Illinois bundleflower, purple prairie clover, Maximillion sunflower, partridge pea, indian blanket, clasping coneflower, sideoats grama, black-eyed Susan, Texas cupgrass, pitcher sage, plains coreopsis, obedient plant, cut-leaf daisy and plains bristlegrass.

Phase 2 plant propagation plans

The newly excavated Phase 2 sites will be planted with wetland and grassland species, native to North Texas, already proven at the Lower Chain of Wetlands. These can survive wet or dry conditions and the extreme temperatures of this environment while providing food and cover attractive to wildlife. Plant selection will mirror the 31 aquatic species that Corps of Engineers ecologists planted in the Lower Chain, including submersed, emergent and floating-leaved varieties. This particularly diverse plant selection creates higher value habitat than existed here before and is a far richer ecosystem than the willow-cattail wetland typical in North Texas.

Upper Chain of Wetlands Phases 1 and 2



Mitigation

Loss of about 200 acres of woody plants in construction at the Upper and Lower Chains of Wetlands is being mitigated through the planting of quality habitat trees, bushes and vines on about 1,179 acres nearby. This fulfills requirements under the National Environmental Policy Act and is part of the Corps of Engineers' environmental stewardship mission.

The big picture

The Dallas Floodway Extension Project was authorized by Congress to build wetlands, new levees, enhance existing levees and provide recreational opportunities (31 miles of trails) along the Trinity River from the Santa Fe Trestle Trail/DART Bridge to I-20. This area suffered property damage during 1989 and 1990 floods. This Corps of Engineers project, in partnership with the city of Dallas, is designed to reduce risk to structures southeast of downtown.

It also reduces flood risk to a second Corps project area – the Dallas Floodway Project – just upstream. The Lower Chain of Wetlands lowers the flood elevation in the Dallas Floodway by two feet, lowering flood risk to life and property for Dallas citizens. The Upper Chain will reduce it another two feet. The city and the federal government share the cost.



**US Army Corps
of Engineers®**

Dallas Floodway Extension Project (wetlands) information

www.swf.usace.army.mil/Missions/WaterSustainment/DallasFloodwayExtension.aspx

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