



FLOOD PROTECTION PLAN COSTS

Construct additional storage in the Cypress Creek overflow/upper Addicks watershed	\$ 0.20	B
Restore/offset Addicks storage capacity*	\$ 0.60	B
Restore/offset Barker storage capacity*	\$ 0.90	B
Construct Buffalo Bayou Bypass Tunnel**	\$ 4.20	B
Mitigate/restore wetlands	\$ 0.10	B
Total Cost	\$ 6.00	B
County and State Cost Share (50%)†	\$ 3.00	B
Federal Cost Share (50%)†	\$ 3.00	B

* Provide storage to offset previously available volume on private property. Lower flowline of reservoirs so that excavated areas drain by gravity to flood tunnel.
 ** Connect 23-mile flood tunnel from Addicks and Barker Reservoirs to Houston Ship Channel Turning Basin.
 † Assumes Congress authorizes 50-50 cost share.

BUFFALO BAYOU COMMUNITY PLAN

Since Houston was founded on its banks, Buffalo Bayou watershed has been critical to the Texas Gulf Coast. After catastrophic flooding in 1929 and 1935, the U.S. Army Corps of Engineers (the Corps) produced a flood mitigation plan for Buffalo Bayou in 1940, which included Barker and Addicks Reservoirs. The other elements of the Corps' 1940 plan were never built, leaving the Buffalo Bayou watershed prone to chronic flooding. To avoid flooding homes during a Harvey-size storm and complete its plan, the Corps must find a way to convey additional flood waters from the reservoirs to Galveston Bay. Adding flood water storage upstream and within the reservoirs helps keep the water out of homes and businesses.

The Corps' Interim Report for the Buffalo Bayou and Tributaries Resilience Study favors two solutions, Alternative 2, channelizing Buffalo Bayou, and Alternative 6, constructing a reservoir on the Katy Prairie. The community opposes these alternatives. Community opposition to channelization of Buffalo Bayou has only grown since Terry Hershey and George H. W. Bush opposed it more than 60 years ago. A massive reservoir on the Katy Prairie would destroy a critical ecosystem and face fierce community opposition. If the Corps seeks effective flooding solutions and achieving community support, the Buffalo Bayou Community Plan provides a road map that will achieve these dual purposes.

The Buffalo Bayou Community Plan is formulated with the following goals:

- Contain and convey the storm events similar in magnitude to Hurricane Harvey (2017).
- Contain flood waters within the boundaries of federally owned lands for Barker and Addicks Reservoirs.
- Add conveyance downstream of Barker and Addicks Reservoirs without channelizing Buffalo Bayou.
- Reduce flooding conditions in Buffalo Bayou watershed downstream of the reservoirs resulting from local rainfall.
- Minimize environmental impacts and enhance long term environmental benefits.
- Have broad and prolonged community support from a diverse group of stakeholders.

The Buffalo Bayou Community Plan is comprised of four components. The components of this plan are concepts that aim to accomplish the goals stated above but require additional study.

COMPONENT 1

Construct a ±40-foot diameter tunnel capable of conveying ±10,000 cubic-feet per second of flood water from Barker and Addicks Reservoirs to the Houston Ship Channel. Tunnel interceptors along IH 10 and Buffalo Bayou will significantly increase flood protection for Harvey-type events. A force main and expansion at the City of Houston's East Water Purification Plant can create a new water source and funding for the tunnel without adding any additional cost to the project.

COMPONENT 2

Provide ±86,000 acre-feet of compensating storage within Barker Reservoir to offset the loss of volume on private property. Using fill material to create topography can add ecological and recreational value and reduce transportation costs.

COMPONENT 3

Provide ±75,000 acre-feet of compensating storage within Addicks Reservoir to offset the loss of volume on private property. Similar benefits and opportunities are available in Addicks Reservoir.

COMPONENT 4

Provide land protection and restoration, shallow storage areas in the upper Cypress Creek watershed, and retention and creekside storage in upper Addicks watershed.