



SPRING CREEK STUDY FREQUENTLY ASKED QUESTIONS

MAY 2023

What is the Spring Creek Study, and how did we get here?

The Spring Creek Flood Control Dams Feasibility Study or “Spring Creek Study” is a continuation of the San Jacinto Regional Watershed Master Drainage Plan (SJMDP). The SJMDP was a comprehensive study of the entire Upper San Jacinto River Basin with the goal of identifying flood risks in the basin and strategies to help mitigate those risks and improve flood resilience.

The SJMDP recommended sixteen (16) projects for future implementation, including dams which would provide dry-bottom detention on Birch Creek and Walnut Creek. The recommended projects were only analyzed at a conceptual level in the SJMDP, and additional feasibility analysis of each proposed project is required prior to consideration of design or construction activities. The Spring Creek Study is further evaluating the feasibility and cost-effectiveness of the dams on Birch Creek and Walnut Creek by performing conceptual design and benefit-cost analyses.

More information on the scope of the Spring Creek Study can be found on the study’s website (www.SpringCreekStudy.com). A fact sheet describing the SJMDP can be found on the “Documentation” page of the website.

Who is managing the Spring Creek Study?

The San Jacinto River Authority (SJRA) has taken the lead in acquiring funding for and managing the Spring Creek Study. SJRA has teamed with multiple partners who are providing the required funding for the study.

Why is SJRA managing the Spring Creek Study?

To take a more active role in regional flood management, SJRA created its Flood Management Division in 2018 to oversee the development of flood management strategies; build partnerships with federal, state, and local government entities; and identify funding sources and opportunities for flood mitigation in the region. SJRA can perform flood mitigation projects anywhere within its jurisdictional boundaries, which include the entire watershed of the San Jacinto River and its tributaries, excluding Harris County.

SJRA receives no funding from the State of Texas, nor does it have authority to collect taxes. Therefore, SJRA’s Flood Management Division facilitates regional flood projects by participating in regional planning efforts to identify projects, seeking grants and funding partners to fund identified projects, and providing project/grant management and other in-house services to facilitate projects and assist in meeting local-match funding requirements.

How is the Spring Creek Study funded?

The cost of the Spring Creek Study is estimated at up to \$1 million. The Texas Water Development Board committed to funding 50% of the costs (up to \$500,000), with the remaining 50% funded by local partners including the Harris County Flood Control District, City of Humble, and five Municipal Utility Districts (MUDs) in The Woodlands area. SJRA is providing in-kind services on the study to reduce the match amount required of the local funding partners.

How would the proposed dams be operated? When would water be released?

The proposed dams would not include gates or other features that must be operated during a storm event to release water. Instead, water would pass through the proposed dams via culverts, reducing the flow of water downstream and temporarily impounding water upstream of the dams. A spillway at the top of the proposed dams would allow water to safely discharge from the facilities during extreme storm events. The proposed dams would be dry-bottom, meaning the area upstream of the dams would hold very little or no water during non-storm conditions.

How long would it take water to drain from behind the proposed dams after a storm event?

Runoff impounded upstream of the dams could take up to a week to completely drain after an extreme rainfall event.

What would the areas upstream of the dams look like after construction? What other uses might there be for the inundation areas?

Because the proposed dams would be “dry-bottom,” the majority of the areas within the inundation limits would remain unchanged from

current conditions during dry weather. Recreational facilities, such as sports fields, walking trails, etc. could potentially be incorporated into future phases of the project for availability to the public during non-storm conditions.

What areas would benefit from the proposed dams?

The majority of flood reduction benefits would be experienced along Spring Creek, primarily upstream of Interstate-45, with potential smaller benefits further downstream. There are also flood reduction benefits anticipated along Birch Creek and Walnut Creek downstream of the dams. Other potential benefits include recreational uses of the facilities by local residents during non-storm conditions and provision of stormwater detention storage to developments in the area of the proposed dams.

How were the locations of the proposed dams selected? Can these dams be built downstream closer to where flood reduction is needed?

The proposed dam locations were identified as part of the San Jacinto Regional Watershed Master Drainage Plan (SJMDP). The SJMDP identified areas along Spring Creek in need of flood mitigation and determined that dam locations on Birch Creek and Walnut Creek presented upstream opportunities for detention of storm flows in relatively undeveloped areas.

As development increases in the region, locations for flood detention and other similar projects are becoming more difficult to find. The dam locations and inundation limits are preliminary and subject to change during the Spring Creek Study.

How much property would be required to build the dams?

A map showing the most recent proposed dam locations and inundation limits can be viewed on the "Documentation" page of the Spring Creek Study website (www.SpringCreekStudy.com). This map includes estimated inundation limits for both a 100-year storm event and Probable Maximum Flood (PMF) event, as well as the individual property parcels that fall within these limits. These estimated limits are subject to change as the study progresses. One of the goals of the study team is to optimize the size, volume, and location of each proposed dam, and, where feasible, to reduce the total number of parcels that would be impacted by each.

If your property is within the estimated inundation limits of one of the dams and you have questions about how the project might impact you, the study team encourages you to attend one of the Spring Creek Study public meetings (see the "Community Engagement" page of the study website), or to contact the study team via the website.

What is the Probable Maximum Flood event or "PMF"?

The Probable Maximum Flood (PMF) is a hypothetical flood event that can be expected from the most severe combination of critical meteorologic and hydrologic conditions that are reasonably possible in a drainage area. These conditions are considered when sizing dams.

Who would own the property that would be inundated by the dams? Who would maintain the property and the dams?

The Spring Creek Study is an initial step in the overall development of the dams, with the purpose of determining whether the dams are feasible and cost-effective. If one or both dams are determined to be feasible and cost-effective based on the results of the Spring Creek Study, a project sponsor will have to be identified to obtain funding and lead future project phases including design, permitting, land acquisition, and construction. It is anticipated that this project sponsor would ultimately own or hold easements on all the property covered by the dam inundation limits and would be responsible for maintaining the property and the dams.

How would the proposed dams affect FEMA maps or floodplains?

The proposed dams would increase floodplain extents within the inundation limits. Floodplain extents downstream of the dams would decrease to varying degrees, providing flood reduction benefits per the goals of the project. If desired by local communities, the floodplain maps may be revised after the dams have been constructed.

How will planned roads or other planned developments affect the feasibility of the dams?

The study team is including planned infrastructure and developments in its analysis of the feasibility and cost-effectiveness of the proposed dams, including exploration of potential mutually beneficial solutions.

What is the schedule for the Spring Creek Study? When would the proposed dams be constructed?

The Spring Creek Study is scheduled to be completed by Spring of 2024. The overall project is only in the feasibility stage, with no design or construction project(s) currently identified. Construction of one or both dams, if determined by this study to be feasible, would likely not occur for several years due to the need to identify a project sponsor and funding, and to perform design, environmental permitting, and land acquisition.

Where can I learn more about the Spring Creek Study?

To learn more about the Spring Creek Study, visit the project website at www.SpringCreekStudy.com.

Timeline

