

Legislation Text

File #: 20-739, **Version:** 1

Presenter/Contact

Greg Malatek, Public Works Director
(830) 221-4025 - GMalatek@nbtexas.org

SUBJECT:

Approval of a resolution authorizing the submission of an application for funding of the development of a Drainage Area Master Plan utilizing a Texas Water Development Board, Flood Infrastructure Fund grant for Program Year 2020; and authorization for the City Manager to act on behalf of the City in all matters related to this grant, if awarded.

BACKGROUND / RATIONALE:

The New Braunfels City Council strategic priorities include using a variety of funding sources for operational and capital needs. As such, Staff is requesting approval for the submission of a grant application on behalf of the City's Public Works department to the Texas Water Development Board, Flood Infrastructure Fund for Program Year 2020 for the development of a Drainage Area Master Plan (DAMP) for the City.

The intent of the new Drainage Area Master Plan is to support a multiphase drainage program for the city, incorporating floodplain management, flood protections and mitigation, along with stormwater and watershed management. This will include looking into drainage needs locally and regionally, building partnerships with the community and governing entities to support the plan's approach. The program will include consideration for regional flood protection, localized flooding concerns, floodplain ordinance improvements exceeding FEMA and National Flood Insurance Program (NFIP) minimum standards, aligning current regulations with new precipitation data, updating floodplain standards and floodplain mapping for the City, and improving floodplain awareness through education outreach efforts. The new DAMP will function as a framework that supports an evolving multiphase drainage program for the City which will be sustained by updating maps, maintaining work that has been completed, and developing and completing new projects. Phase 1, a preliminary portion of the program, has been completed after obtaining funds through the annual budget process; future funding to support the drainage program will be obtained via the annual City budget process, and alternate funding sources such as grant opportunities.

PHASE 1:

The City funded \$70,590 for Phase 1 of the program with the 2019-2020 adopted budget which developed a workplan for implementing the program, developing a GIS database for drainage, provided a prioritized list of mapped and unmapped streams and creeks within City jurisdiction, prioritizing floodplain remapping needs, and implementing code revisions and drainage regulation updates to improve floodplain regulation and further exceed NFIP minimums. This phase has been substantially completed as of October 2020, with the exception of regulation and code revision adoption which are anticipated to occur by December 2020. During this phase, the City has coordinated with all regional jurisdictions that will may be affected as the program develops including

Comal County, Guadalupe County, City of Seguin, and the Guadalupe-Blanco River Authority (GBRA), all of which expressed support of the program plan and provided any necessary data for the development to date.

PHASE 2:

With Phase 2 of the Drainage Area Master Plan, the City intends to include updates to floodplain mapping for all streams within the City limits and ETJ using ultimate development conditions and latest rainfall data available (Atlas 14). The schedule for phased floodplain mapping will be prioritized by a life/safety concern, development to be impacted along with consideration for the year current floodplain was created. The City plans to complete this task by watershed contributing to the prioritized streams with coordination of impacted jurisdictions and the Guadalupe-Blanco River Authority (GBRA). A preliminary stream analysis for all streams located within the City's ETJ was conducted to establish their status in regard to FEMA floodplain mapping. It was determined there are roughly 245 miles of FEMA delineated stream centerlines located in the cities ETJ with 125 miles being considered as unstudied streams, 45 miles mapped as Zone A floodplains and 75 miles mapped as Zone AE floodplains with published BFEs. Due to the increase in development in the City of New Braunfels ETJ and update to the statewide rainfall data, the City would prefer all streams be re-mapped to new and current data. It is anticipated that the remapping efforts will cost \$15,000 per mile for a detailed study, for a total cost of \$3.675 million to have all 245 stream miles mapped for detailed study. The City is currently proposing to include detailed studies of critical streams and enhanced (Zone A) remapping efforts at an estimated cost of \$600,600.

It is expected Phase 2 floodplain remapping will provide a more accurate representation of current flood risks. The City has experienced significant growth and development with a 56.4% growth increase based on census.org population change from 2010 to 2019. In addition to increased growth and land use changes, the state has updated statewide precipitation data with adoption of National Oceanic and Atmospheric Administration (NOAA) Atlas 14 point-precipitation frequency estimates. Phase 1 of the Drainage Area Master Plan included proposed updates to local standards to align with this information that is expected to be adopted by the City this year. Any proposed remapping with Phase 2 would incorporate this new data as well. By providing the community with more accurate and current floodplain mapping, we can provide better knowledge of flood risk to the community and our citizens. Phase 1 of the plan also included a recommendation to incorporate an education campaign, currently in development with City staff, focused on educating the general public on floodplain management, flood risk and how floodplain management helps the community. While direct cost benefits cannot be fully determined without knowledge of the anticipated floodplain area changes, these efforts will allow for increased flood risk awareness, ideally, leading to lessened life and property losses along with encouragement of flood insurance for all citizens.

PHASE 3:

Phase 3 of the Drainage Area Master Plan will provide a prioritized list of planned local and regional flood control projects. The program will consider local drainage concerns, existing and potential future development, existing and future land use plans, and will prioritize the projects based on benefit cost ratios. It is possible that this project identification may extend outside of the City's jurisdictional boundaries and require coordination with other agencies; therefore project-specific MOUs will be established in accordance with the scope of work for each affected agency as needed. Current estimates have an anticipated cost of \$365,000 for this phase of the program.

The grant application is for a total amount of \$1,106,781. Phase 1 for the cost of \$70,590 has been

completed utilizing funds provided in the 2019-2020 adopted budget. For Phases 2 and 3, the granting agency will reimburse eligible costs for up to \$777,143, with a City match amount not to exceed \$259,048 that will be funded from the City's 2013 Bond Program, Proposition 2 for Drainage and Flood Control Improvements. If awarded, the execution of the grant agreements will occur in Winter 2020 to Spring 2021.

Staff is requesting City Council approval of a resolution, as required by the granting agency during the application process, that will authorize our City Manager to act as the authorized official on behalf of the City in all matters related to this grant. The designated authorized official is given the power to apply for, accept, reject, alter or terminate the grant on behalf of the applicant agency.

ADDRESSES A NEED/ISSUE IN A CITY PLAN OR COUNCIL PRIORITY:

Yes	Strategic Priorities	Use a variety of funding sources for operational and capital needs.
------------	-----------------------------	---

FISCAL IMPACT:

The City has completed Phase 1 for the cost of \$70,590 utilizing has been completed and paid for utilizing funds provided in the FY 2020 adopted budget. The matching requirement for Phases 2 and 3 of the above-referenced grant application will not exceed \$259,048. If awarded, the FY 2022 Proposed Budget would need to allocate funding to support the match. A potential funding source includes available proceeds from the City's 2013 Bond Program, Proposition 2 funds for Drainage and Flood Control Improvements.

COMMITTEE RECOMMENDATION:

N/A

STAFF RECOMMENDATION:

Staff recommends approval of a resolution; submission of an application for funding of the development of a Drainage Area Master Plan utilizing a Texas Water Development Board, Flood Infrastructure Fund grant for Program Year 2020; and authorization for the City Manager to act on behalf of the City in all matters related to this grant, if awarded.