Whiskey Creek Flood Mitigation Concept Projects

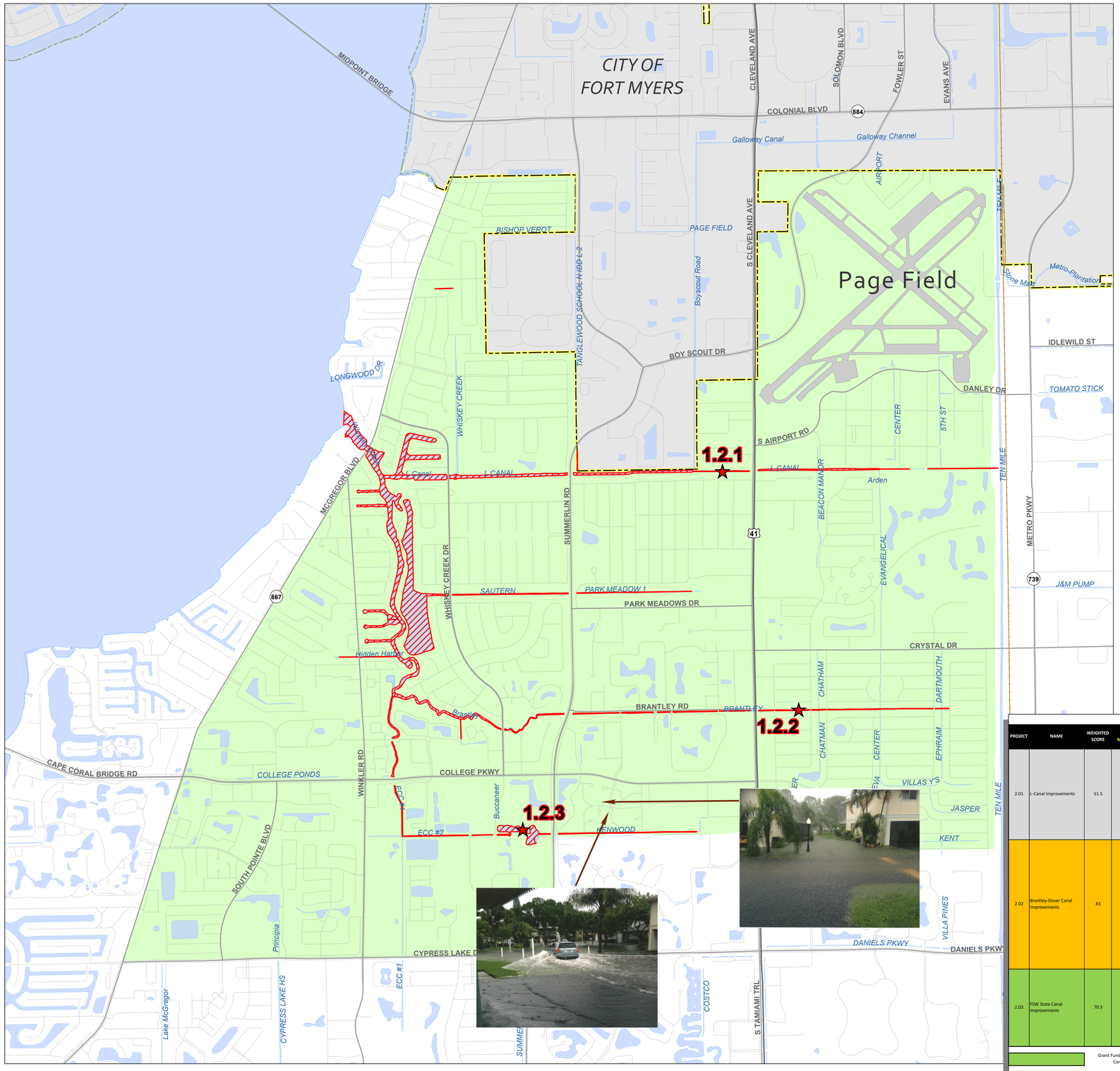
Flood mitigation benefits **within the** Whiskey Creek **study area are presented for two of the three projects conceptualized. For the L-canal project, the benefits are more associated with relief for Ten-Mile Canal rather than to abate local flooding, therefore its benefits are included in other sections.**

Flood mitigation benefits are achieved when water is conveyed and/or stored appropriately to reduce flooding levels and duration. The reduction in flood levels and duration reduces the overall impacts to commercial and private structures along with improving the Level of Service (LOS) for roadways that serve communities. Flooding impacts the health, safety, and welfare of the residents, along with significant economic impact to the community. Within the two project areas presented herein (Brantley -Dover and FSW Canal) the flooding issues are primarily local in nature and associated with limited conveyance.

The contribution or benefits of each project concept is discussed as follows based on modeling results for the 100-Yr, 3-Day storm events.

1.2.2 ***Brantley-Dover Canal Improvements*** - The Brantley-Dover project focused on providing flood reduction within the Villas (upstream of Tamiami Trail). For the 100 -year, 3-day simulations the most significant flood reductions were seen for the July simulations. For the repetitive flooding area adjacent to the Brantley-Dover canal, the improvements mitigated flood waters for approximately 626 parcels based on the 100-year, 3-day modeled storm. Localized modeling should be conducted to refine the concepts to gain an increased understanding on how these concept projects benefit the surrounding areas. These figures do not necessarily reflect actual structure flooding, but more of an overall benefit to the area.

1.2.3 ***FSW State College Canal Improvements (Iona Drainage District Canal H-7)*** - The FSW State College Canal focused on providing flood reduction within neighborhoods upstream of Summerlin Blvd. For the 100-year, 3-day simulations the most significant flood reductions were seen for the August simulations. For the repetitive flooding area adjacent to the FSW canal, the improvements mitigate flood waters for approximately 893 parcels based on the 100-year, 3-day modeled storm. Localized modeling should be conducted to refine the concepts to gain an increased understanding on how these concept projects benefit the surrounding areas.



1.2 Whiskey Creek

PROJECT	NAME	WEIGHTED SCORE	COST (Low / Medium / High)	COST BENEFIT (Medium / High)	EXISTING DRAINAGE LEVEL OF SERVICE (LOS) (Average / Good)	MULTIPLE BENEFITS (Yes)	LAND COST (None / Low / Medium)	PERMITTABILITY (None / Low / Medium)	COMMENTS
2.01	L-Canal Improvements	51.5							• Limitations within existing ROW & transferring water from Ten Mile Canal to the Caloosahatchee, which may affect WQ • Requires investigation of subsurface conditions that may hinder overall deepening & wideing of the canal • Requires coordination with and potential land acquisition from Hideaway Country Club for construction of offsite storage area
2.02	Brantley-Dover Canal Improvements	83							• Requires local modeling to more accurately simulate the local hydrology, refine culvert sising & evaluate the need for channel modifcation • Limitations within the existing ROW & with localized conveyance issues in The Villas • Requires the replacement of major road crossings to achieve conveyance • Requires sequencing planning to minimize impact to property owners within residential areas during construction • Need to consider BMPs & assess the impiact on WQ to the Caloosahatchee
2.03	FSW State Canal Improvements	70.5							• Limitations in weir modifications & maintaining aesthetics of college lakes • Requires the replacement of major crossings to achieve conveyance • Need to consider BMPs & assess the impiact on WQ to the Caloosahatchee • Requires coordination with & drainage easements from FSW

Grant Funded Projects under Contract for Design and/or Construction (Whole or Portions thereof)

Projects currently pursuing Grant Opportunities

Proposed Concept Project

Project Area

City Limits

Whiskey Creek Drainage Basin

N W E S

Lee County Southwest Florida