



K·FRIESE
+ ASSOCIATES
PUBLIC PROJECT ENGINEERING

**City of Castroville
Stormwater Master Plan – Public Meeting #1**

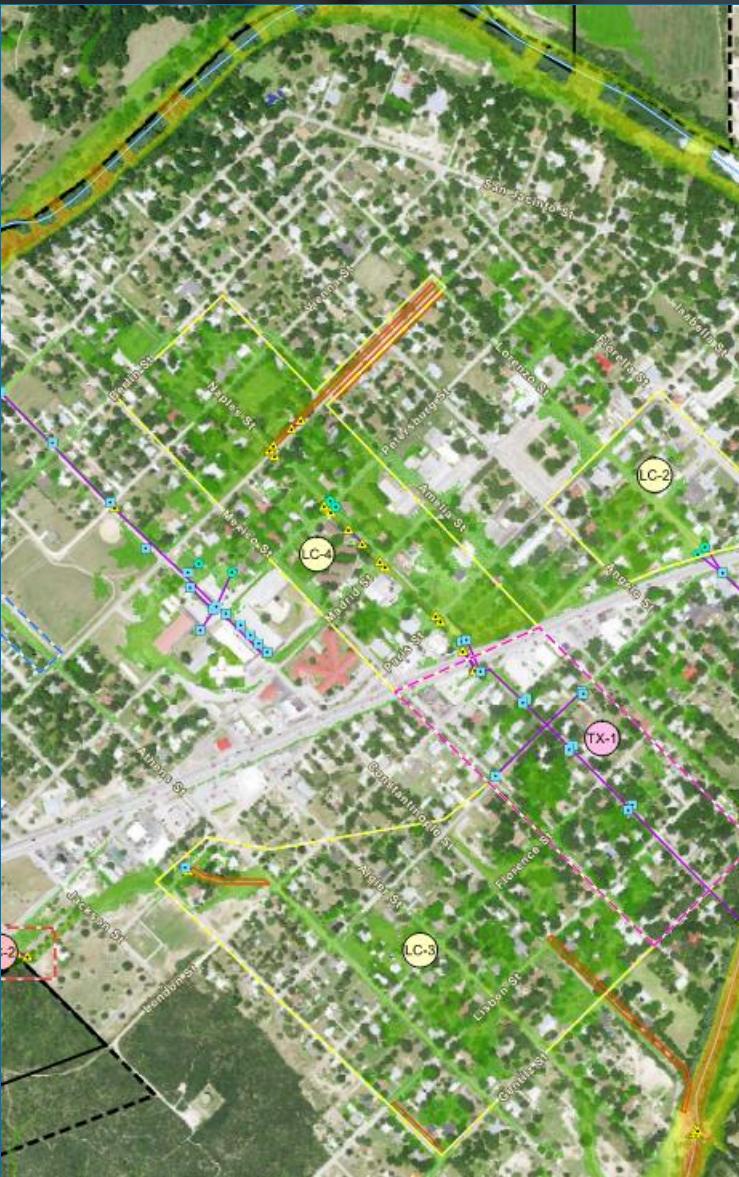
May 17, 2022

PROJECT GOALS

- ▶ *Flood risk planning and communication*
- ▶ *Promote transparency and buy-in*
- ▶ *Assist with project funding*
- ▶ *Project Implementation*
- ▶ *Invests in community needs*

MEETING OVERVIEW

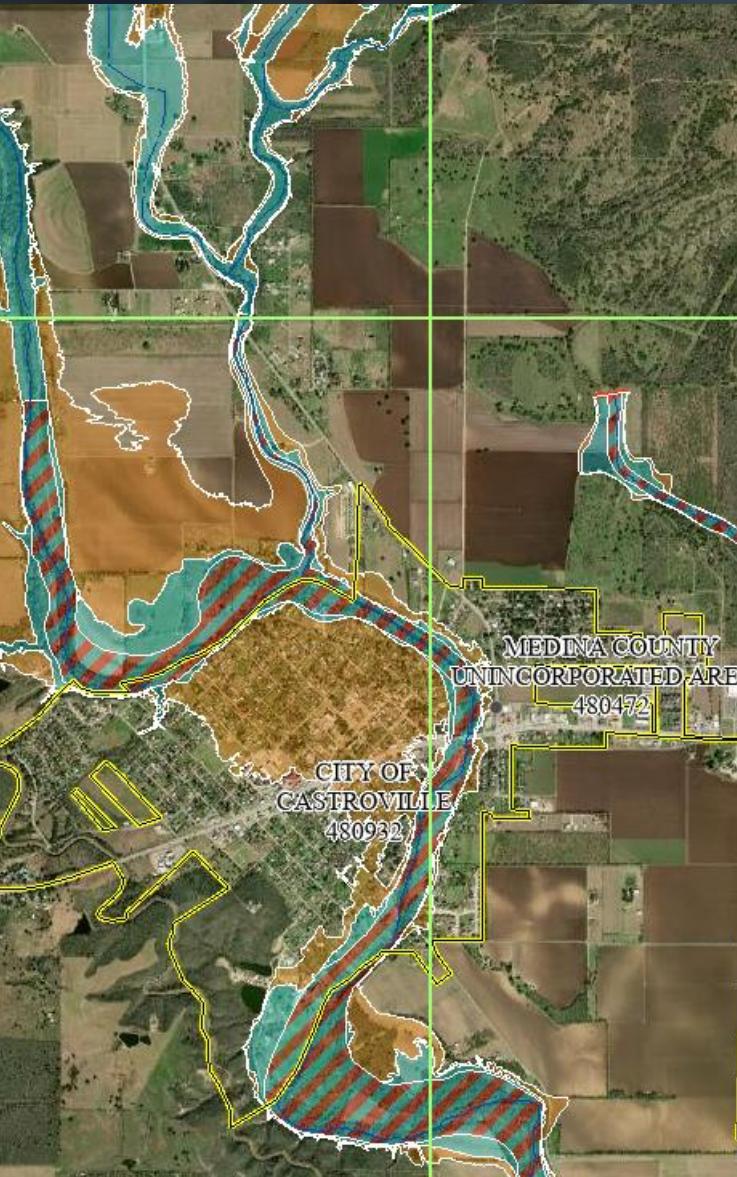
- ▶ *Overview of the Plan, Components, Next Steps*
- ▶ *Q&A*
- ▶ *Open House*
- ▶ *Comment Form*



HYDRAULIC RAPID ASSESSMENT

- ▶ *Analyze overland flow patterns*
- ▶ *Identify flooding hotspot areas*
- ▶ *Identify areas of future concern*

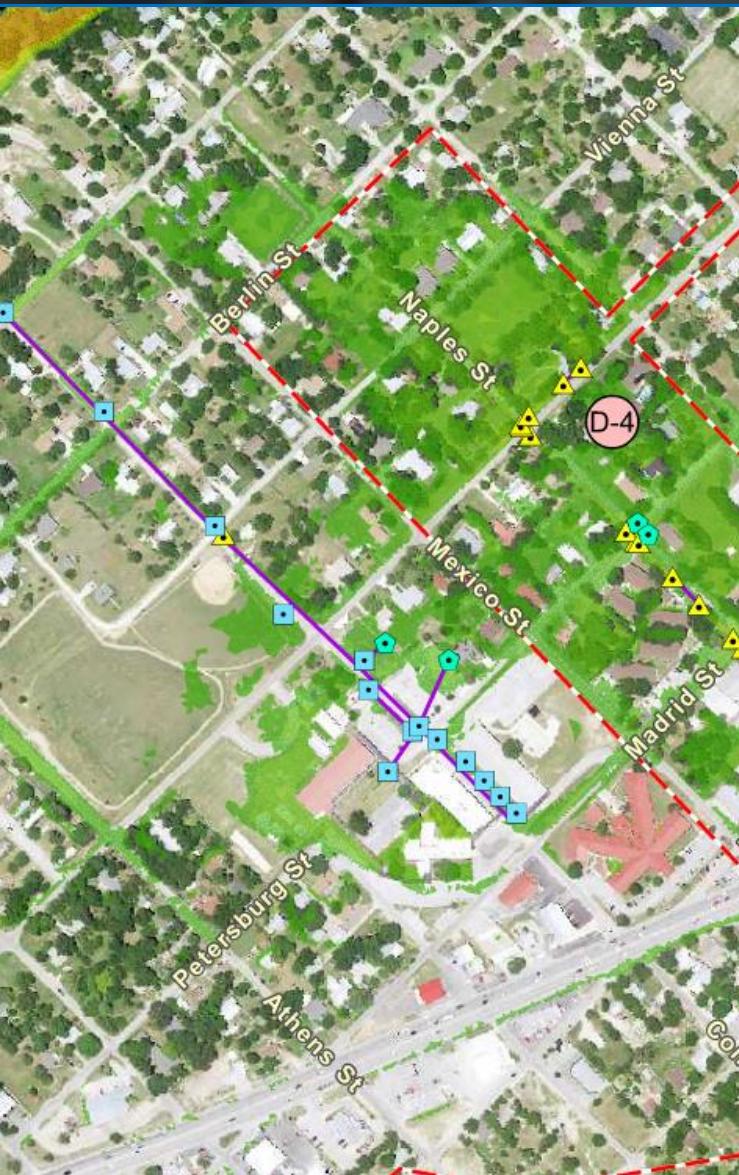
Develop realistic flood risk assessments for enhanced decision-making



PRELIMINARY FLOODPLAIN MODELING

- ▶ *Review FEMA Flood Risk Maps*
- ▶ *Update hydrology with most current data*
- ▶ *Anticipate changes to FEMA flood mapping*
- ▶ *Planning tool to inform policy decisions*

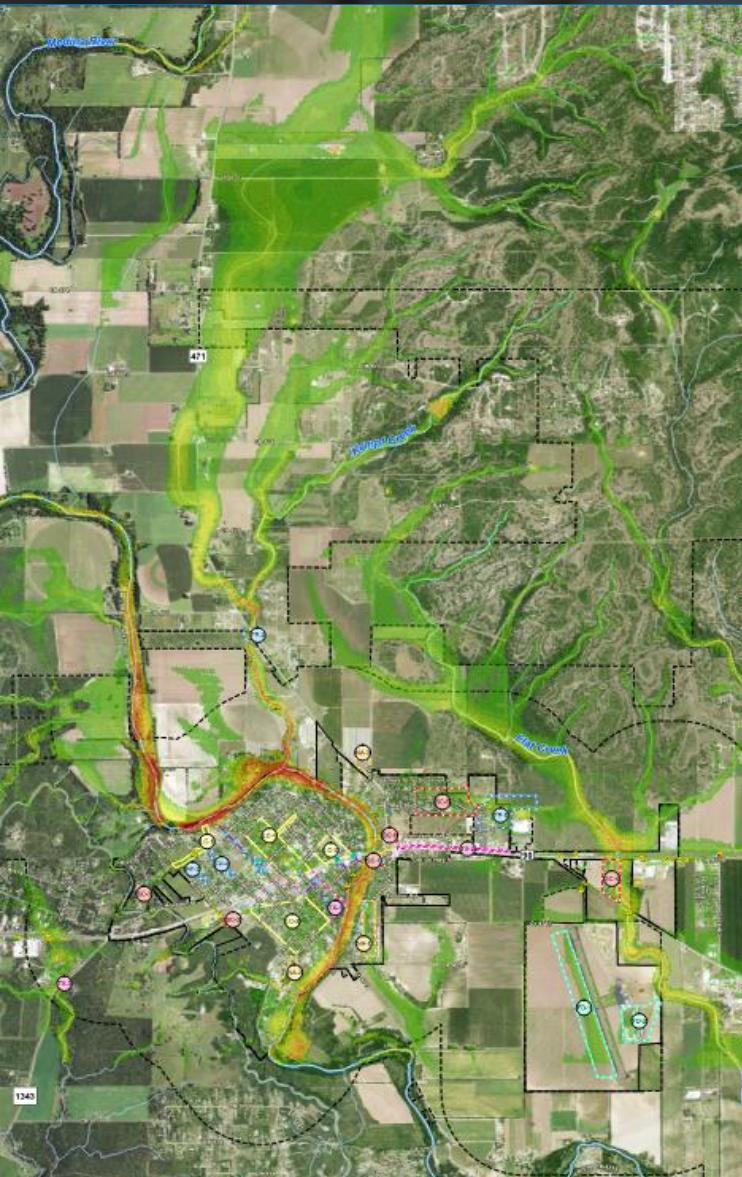
Develop realistic flood risk assessments for enhanced decision-making



CIP PROJECT EVALUATIONS

- ▶ *Receive community buy-in*
- ▶ *Evaluate 10 projects (5 limited/ 5 detailed)*
- ▶ *Develop summary worksheets and costs*
- ▶ *Score and rank projects for prioritization*

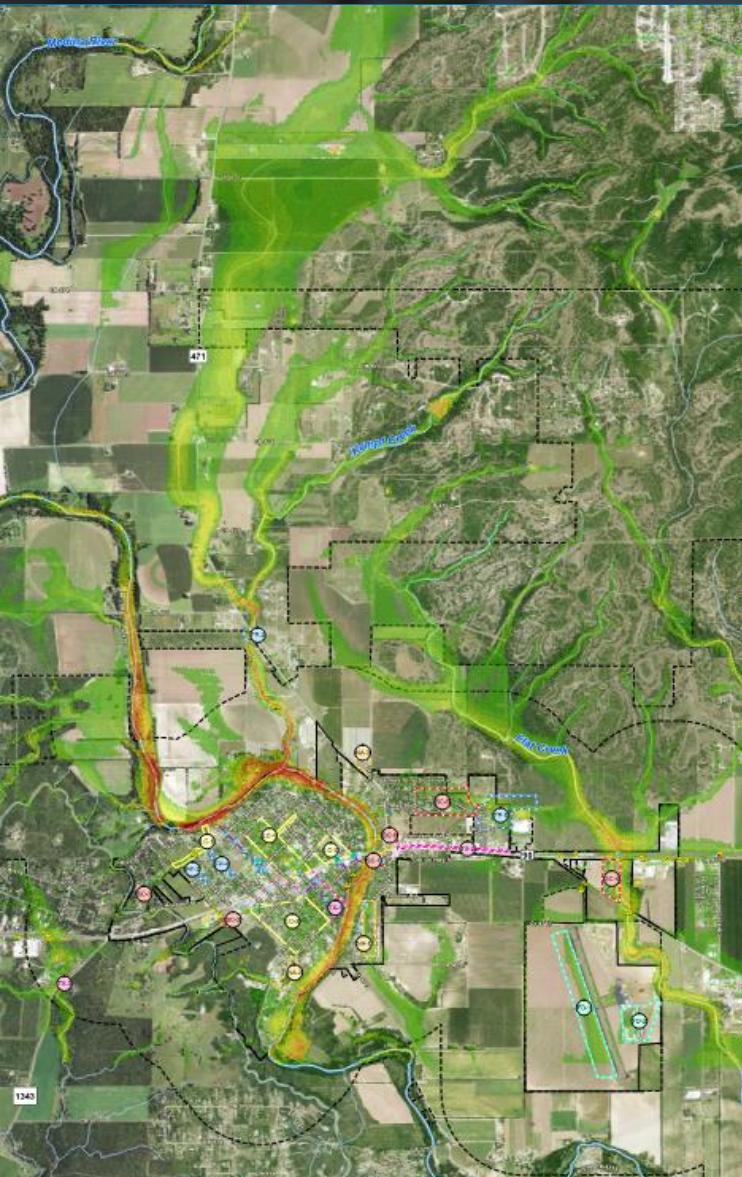
Prioritize projects for implementation



POLICY AND DRAINAGE CRITERIA

- ▶ *Review of adopted ordinances and criteria*
- ▶ *Identify gaps in policy*
- ▶ *Recommend updates for consideration and implementation*

Mitigate future flood risk with policy and criteria that reduce costly future fixes



IDENTIFY FUNDING OPTIONS

- ▶ *Identify potential funding sources*
- ▶ *Leverage priority list to pursue funding*
- ▶ *Plan for implementation*

Develop projects that facilitate funding and implementation

Progress Update

Where are we in the planning process?

- ▶ Data collection complete
 - *Obtained and reviewed available data, field reconnaissance, storm drain inventory*
- ▶ Hydraulic Rapid Assessment complete
 - *Performed localized flooding analysis*
- ▶ Preliminary Floodplain Modeling and Mapping
 - *Reviewed FEMA maps to determine potential future remapping impacts*
- ▶ City Meetings & Coordination
 - *City meeting, council presentation, public meeting workshop*
- ▶ Identified hotspot areas and list of potential projects
 - *Identified 22 potential projects, need to prioritize 10*
- ▶ Coordinating with TWDB Regional Flood Planning Group for project input

Progress Update

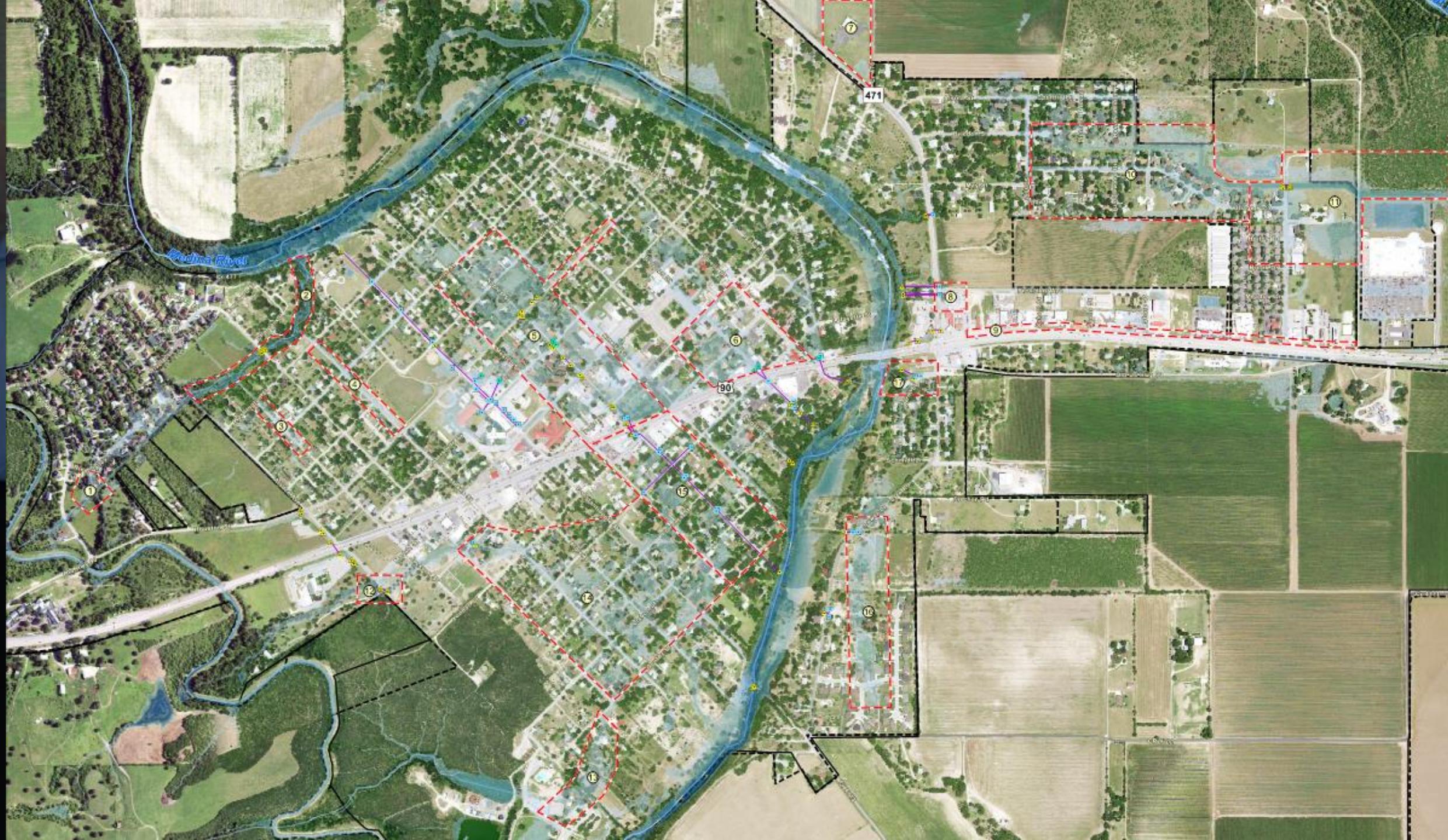
What's next?

- ▶ CIP Project Evaluation
 - *Community buy-in on selecting projects for evaluation*
 - *Begin engineering to determine solutions and costs*
- ▶ Scoring and Ranking Criteria
 - *Community buy-in on scoring criteria to be used to evaluate and rank projects*
- ▶ Review of Policy and Criteria
 - *Prepare draft review and recommendations for discussion*
- ▶ Prepare Draft Report

Schedule

What're the major milestones?

- ▶ **May – Select projects for evaluation**
 - *Public meeting for buy-in on issues and projects*
- ▶ **June – City coordination**
 - *Finalize list of projects to be evaluated*
 - *City staff meeting to discuss criteria, codes, report outline, solutions*
- ▶ **July – Present CIP project solutions and feedback**
 - *City staff meeting and coordination*
 - *Public meeting #2*
- ▶ **August – Draft Report**
 - *Review and comment*
- ▶ **October – Final Report**
 - *Finalize, council presentation and adoption*



Find Project Location on Exhibit:	Plan ID	Project Name	Problem Description	Structural Flooding (y/n)	Roadway Flooding (y/n)	Safety Concern (y/n)	Est. Priority Level (Low/Med/High)	Insert your Est. Priority Level (Low/Med/High)	Comments
Exh 1: Overview Map Exh 2: Detailed Map (North of HWY 90)	1	River Valley Road Flow Split	Limited conveyance at or upstream of the engineered channel appears to allow flow intended to be conveyed by the channel to spill on to River Valley Road.	No	Yes	No	Medium		
	2	Garcia Creek Channel Stabilization	Channel erosion resulting in steepened channel banks encroaching into residential properties. Loss of soils around the Geneva Street culvert at risk of undermining the roadway. Upstream development may accelerate erosion and impact capacity.	No	No	Yes	High		
	3	Jackson Street North Roadway flooding.	Large scale storm events have the potential to flood the roadway up to a 2 feet depth.	No	Yes	No	Low		
	4	Athens Street North Roadway flooding	Large scale storm events have the potential to flood the roadway up to a 2 feet depth.	No	Yes	No	Low		
	5	Naples Street North Flooding	Limited collection and conveyance infrastructure north of Highway 90 along Naples and Houston Streets cause extensive flooding.	Yes	Yes	Yes	High		
	6	Lorenzo Street North Flooding	Limited collection and conveyance infrastructure north of Highway 90 cause extensive flooding. Drainage issues may impact downtown revitalization efforts.	Yes	Yes	Yes	High		
	7	Fitwell Flooding	Likely poor localized site drainage.	No	No	No	Low		
	8	Provident Avenue Storm Drain Improvement	Runoff appears to leave the right of way causing flooding and structural flooding. Note the adjacent lot is to be developed.	Yes	Yes	No	Medium		
	9	TxDOT Ditches HWY 90	Ditches along HWY 90 parallel to Provident Ave extending east to Country Ln.	No	Yes	Yes	Medium		
	10	Village Path Subdivision Drainage Improvements	Minor drainage improvements to reduce yard and street flooding. Ditches have been partially filled in.	No	Yes	No	Low		
	11	Flat Creek Tributary conveyance upgrades	The flat creek tributary paralleling to the north of Hwy 90 appears to have significant conveyance deficiencies and can cause widespread flooding during extreme events. In progress.	Yes	Yes	Yes	High		
Exh 1: Overview Map Exh 2: Detailed Map (South of HWY 90)	12	Alsace Ave roadway erosion	Frequent overtopping appears to be causing roadway embankment erosion.	No	Yes	No	Low		
	13	Gentilz Street West Drainage	Runoff appears to leave the right of way and cause yard flooding.	No	Yes	No	Low		
	14	Athens Street South Drainage	Lack of collection and conveyance infrastructure causes frequent structural and roadway flooding.	Yes	Yes	No	High		
	15	Naples Street South Collection Upgrades	Storm sewer enhancement to reduce flood risk. City to determine if the conveyance system is owned by TxDOT.	Yes	No	No	Medium		
	16	Westheim Drive Neighborhood Drainage	The neighborhood appears to be in a non-draining basin. Susceptible to frequent nuisance flooding.	Yes	Yes	No	Medium		
	17	Lower LaCoste Road Drainage Improvements	Existing drainage infrastructure may not be operating as intended. Home adjacent to lateral culvert may be susceptible to storm drain overflow.	No	No	No	Low		
Exh 1: Overview Map (South of HWY 90)	18	Flat Creek Trailer Park Flooding	There are many at risk trailer homes in the flat creek floodplain.	Yes	Yes	Yes	High		
	19	Airport Runway Drainage	The runway embankment has the potential to impound significant volumes of runoff and appears to be poorly drained. This can cause flood risk as well as potentially reduce pavement lifespan. Remaining lot area east of the runway to be developed.	No	Yes	Yes	Medium		
	20	Airport Hangar Drainage	There appears to be significant nuisance flooding occurring at the airport hangar facilities. Runoff appears to have the potential to flood buildings during extreme events.	Yes	No	No	Medium		
Exh 1: Overview Map (North of HWY 90)	21	471 Transverse Drainage	Runoff appears to have the potential to overtop the roadway causing dangerous driving conditions	No	Yes	Yes	High		
Exh 1: Overview Map (South of HWY 90)	22	1343 Erosion	Erosion beginning at the upstream end of culvert system.	N/A	N/A	Yes	High		



Castroville Stormwater Master Plan

Project Schedule

(updated 4/5/22)

Milestones: **April** - Select CIP projects for evaluation, approval from City

July - Present CIP project solutions, revise based on input received

August - Draft Report submittal for comments

October - Final Report and Council Presentation

2022

Month