

# San Anselmo Flood Protection Project Recommendation for Environmental (CEQA) Review



**ROSS VALLEY WATERSHED FLOOD RISK REDUCTION PROGRAM**  
**PRESENTATION TO FLOOD CONTROL ZONE 9 ADVISORY BOARD**  
**DECEMBER 20, 2016**



Ross Valley Flood Protection & Watershed Program  
**RossValleyWatershed.org**  
Contact us: 415-473-7226; [lizlewis@marincounty.org](mailto:lizlewis@marincounty.org)  
December 20, 2016

# Tonight's Meeting

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- Review Evaluation Criteria
  - incorporated grant migration and CEQA requirements
- Apply criteria to assess which projects best meet grant requirements
  - 17.4M budget/construction by 2020/comparable flood benefit
- Which projects should we carry forward into Project level CEQA analysis and subject to further 2-D hydraulic modeling?
- Project options not recommended for Project CEQA will be included in Program CEQA



# Criteria

<b>Economic</b>	Current cost est. escalated to 2020 at 3%/year (M) $\leq 17.4M$	<b>grant requirement</b>
<b>Environmental</b>	Provides Habitat benefits	<b>grant requirement</b>
	Self-Mitigating (yes/no) <i>(Can the project be permitted because it incorporates environmental enhancements)</i>	
<b>Timeliness</b>	No of private parcels rights required to construct	
	Able to own or control by 2018?(likely/unlikely)	<b>grant requirement</b>
<b>Social</b>	Recreational benefit (yes/no)	<b>grant requirement</b>
	Documented Community Support (yes/no)	
<b>Technical</b>	Basin Flood Storage (acre-feet)	
	Flood reduction benefits at 25 yr level of protection- (est. # of parcels benefitted)	
	Downstream flow impacts mitigated (yes/no)	



# Options Considered



Option 1  
Morningside/  
lower  
sleepy  
hollow  
creek +  
Nursery  
site



Option 2  
Building  
Bridge  
#1, #2 +  
Nursery  
site



Option 2A  
Building  
Bridge #2  
+Nursery  
Site



Option 3  
Lefty  
Gomez  
Field  
+lower  
sleepy  
hollow  
creek  
restoration



Option 4  
No  
Detention  
Basin  
(Full  
restoration)



Option 4A  
No  
Detention  
Basin  
(Light  
Restoration)



Option 4B  
No  
Detention  
Basin  
(removal of  
BB2 only)



# Option 1 - Morningside / Lower Sleepy Hollow Creek + Nursery Site Basin

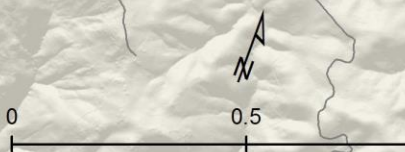
# Option 1: Morningside + Nursery Basin

**Potential Flood Risk Reduction Measures**

-  Detention Basin
-  Bridge Replacement / Removal / Modification
-  Creek Enhancements / Flood Barriers

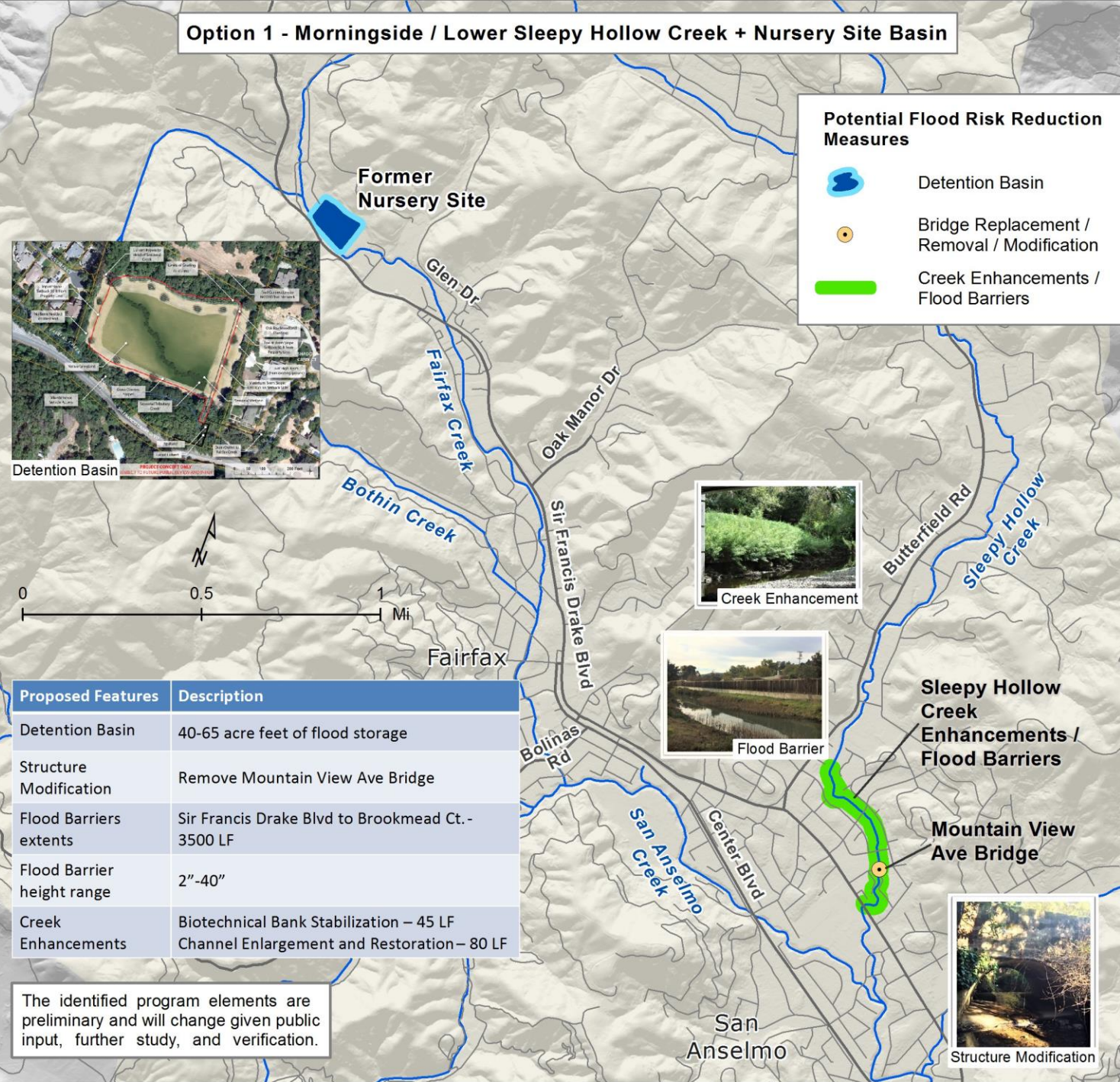
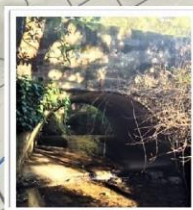


Detention Basin



Proposed Features	Description
Detention Basin	40-65 acre feet of flood storage
Structure Modification	Remove Mountain View Ave Bridge
Flood Barriers extents	Sir Francis Drake Blvd to Brookmead Ct. - 3500 LF
Flood Barrier height range	2" -40"
Creek Enhancements	Biotechnical Bank Stabilization – 45 LF Channel Enlargement and Restoration – 80 LF

The identified program elements are preliminary and will change given public input, further study, and verification.



# Option 1: Morningside + Nursery Site

## Opportunities

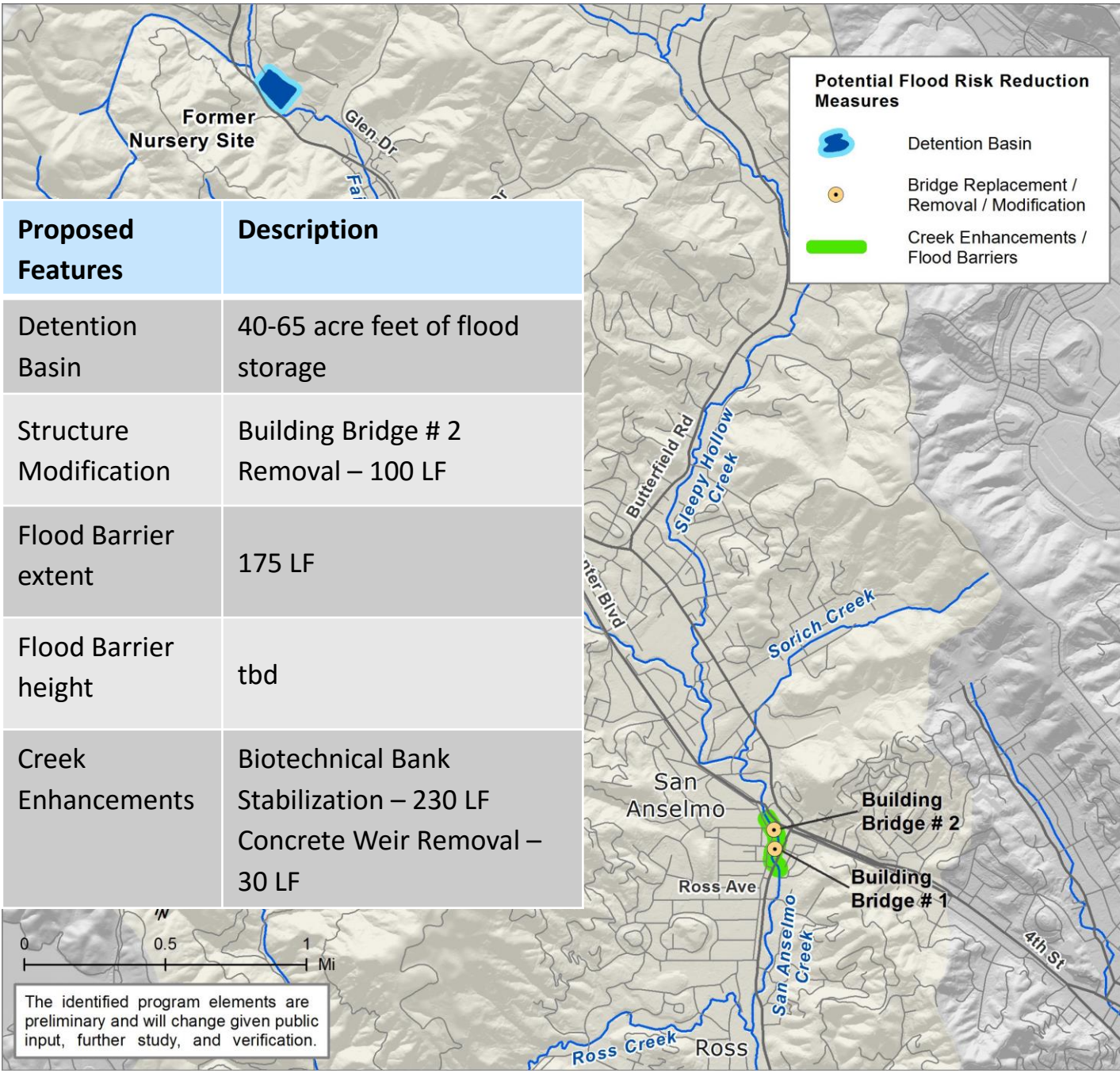
- Addresses flooding on a major tributary
- Project provides 25 year level of flood protection
- Documented community support amongst sample size of 20-30 landowners

## Constraints

- Work along sleepy hollow creek requires permission from up to 58 landowners to construct
- Real estate process could take 2 years
- Cost estimate exceeds grant target of 17.4M
- Limited access



# Option 2: Bldg Bridge #1 & #2 And Nursery Site



Proposed Features	Description
Detention Basin	40-65 acre feet of flood storage
Structure Modification	Building Bridge # 2 Removal – 100 LF
Flood Barrier extent	175 LF
Flood Barrier height	tbd
Creek Enhancements	Biotechnical Bank Stabilization – 230 LF Concrete Weir Removal – 30 LF

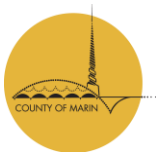
# Option 2: Bldg. Bridge #1 and #2 and Nursery Site

## Opportunities

- Removes Bldg. Bridge 2 and modifies Bldg. Bridge 1
- Town has support from Bldg. Bridge 2 landowner
- This project could be constructed as part of a later phase

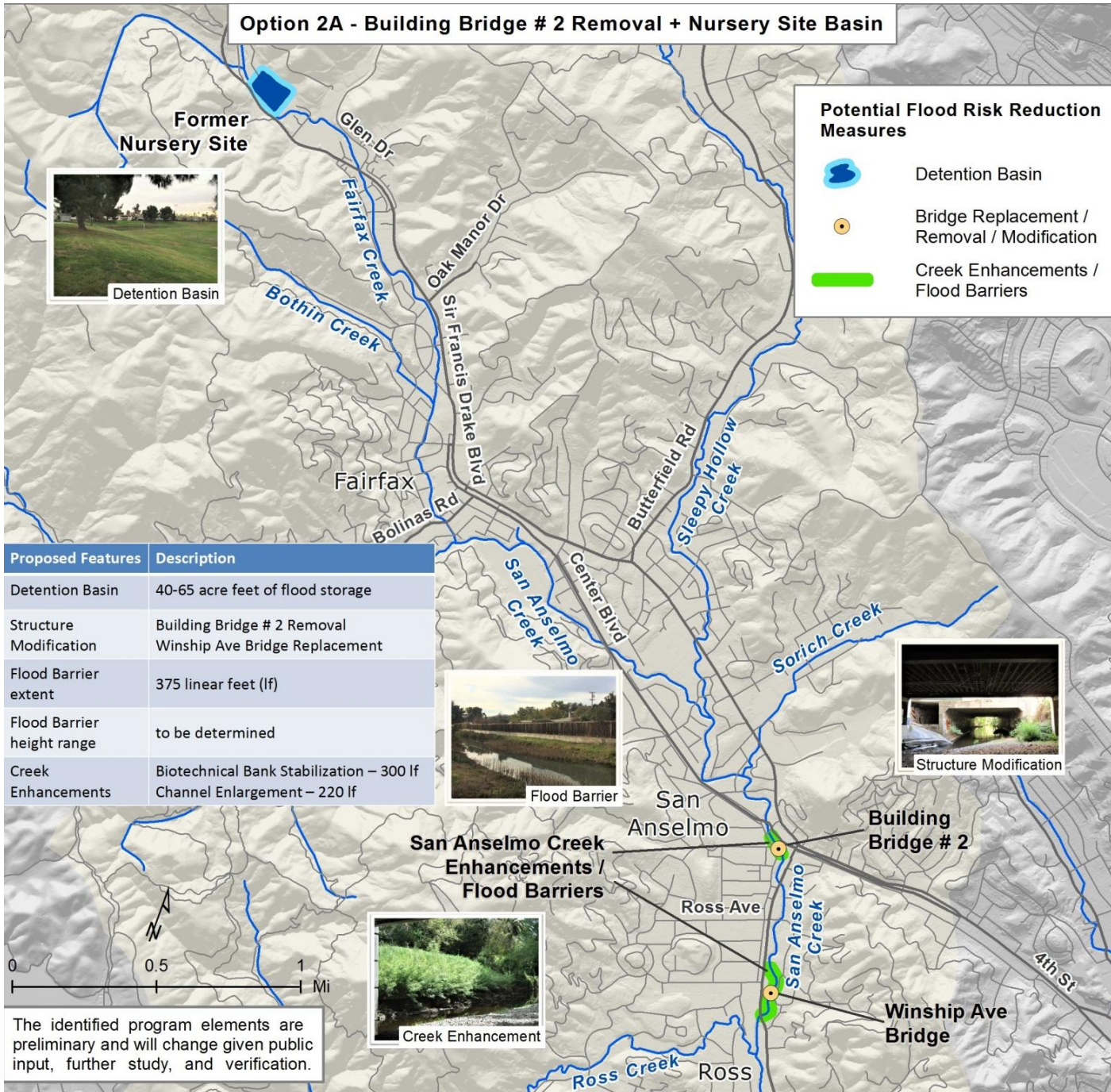
## Constraints

- Nursery basin alone not sufficient to mitigate downstream impacts
- Cost significantly exceeds 17.4M





# Option 2A - Building Bridge # 2 Removal + Nursery Site Basin



# NEW Option 2A: Bldg. Bridge #2 and Nursery site

The identified program elements are preliminary and will change given public input, further study, and verification.

# Option 2A: Bldg Bridge #2, San Anselmo Creek Improvements and Nursery

## Opportunities

- Project mitigates downstream flow from removal of Bldg. Bridge 2
- Bldg. Bridge 2 removal (*project on the FEMA Hazard mitigation grant program list*)
- 18M is close to 17.4M grant budget
- Balance between upstream detention and creek improvements

## Constraints

- Requires permission from 13 landowners to construct



# Option 3: Lefty Gomez Field and Sleepy Hollow Creek restoration

## Opportunities

- 90 acre feet of storage is significant to the overall Program
- Fields and facilities would be enhanced

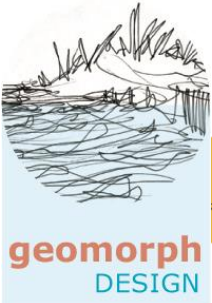
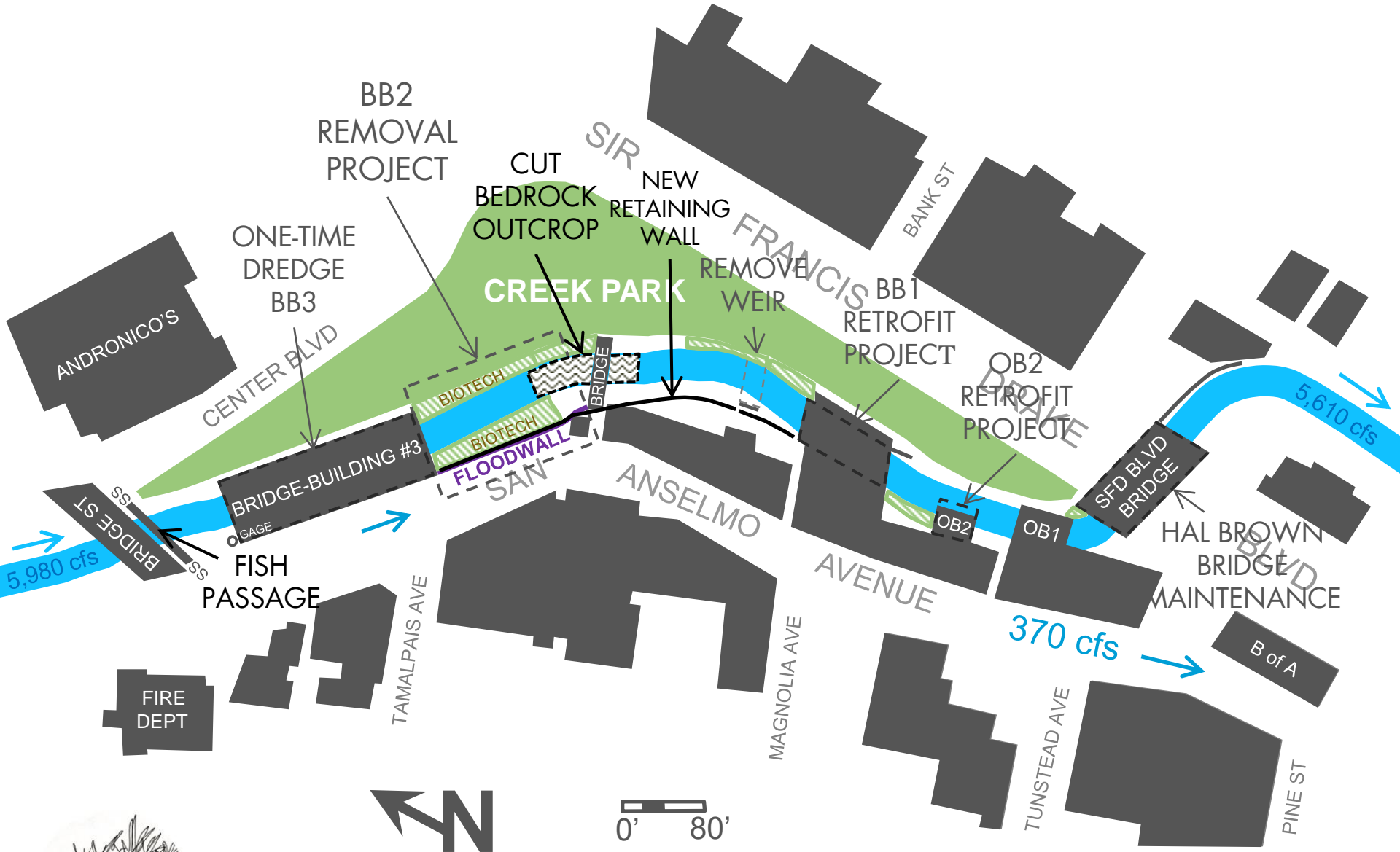
## Constraints

- Cost greatly exceeds 17.4M
- Community support is not consistent



# **Option 4: No Detention Basin**

(or full Version as proposed per Matt Smeltzer's  
conceptual design)



**FULL SAN ANSELMO CREEK RESTORATION PROJECT TAKES ABOUT 90% OF OVERBANK FLOW OFF STREET**

# Option 4: No Detention Basin (full Version per Matt smeltzer)

## Opportunities

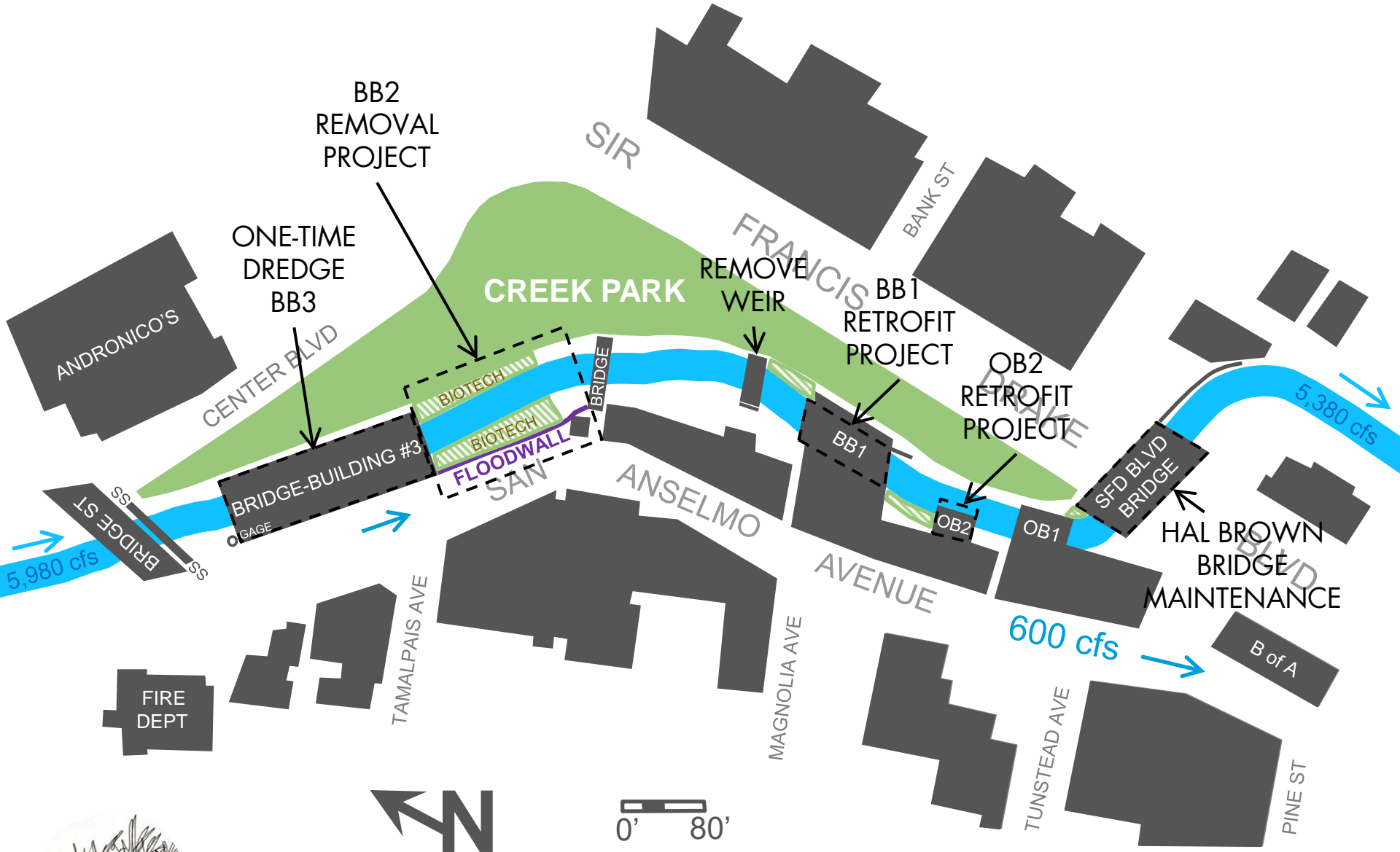
- Provides protection from 75 year flood event
- Replaces Bldg bridge 2
- Modifies many downtown buildings to improve creek capacity
- Restores creek habitat
- Potential for recreational benefit

## Constraints

- 26.3M cost estimate exceeds 17.4M budget
- Requires 46 parcels to construct
- May require elevation of 6 homes

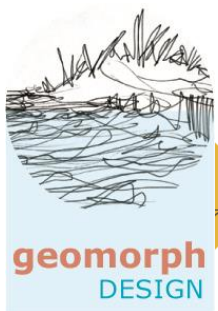


# **Option 4A: No Detention Basin** (or Light Version per Matt Smeltzer)



## Option 4A or LIGHT VERSION

TAKES ABOUT 70% OF OVERBANK FLOW OFF STREET





# Option 4A: No Detention Basin (“Light” Version per Matt Smeltzer)

## Opportunities

- Provides protection from 50-year flood event
- Replaces bldg. bridge 2
- Modifies many downtown buildings to improve creek capacity
- Restores creek habitat
- Potential for recreational benefit
- Project within grant budget

## Constraints

- Requires 31 parcels to construct
- May require elevation of 4 homes



# Option 4B: Removal of Bldg Bridge 2+ Creek Improvements (per Matt Smeltzer)

## Opportunities

- Provides protection from 35-year flood event
- Replaces Bldg. bridge 2
- Restores creek habitat
- Potential for recreational benefit
- Project within grant budget

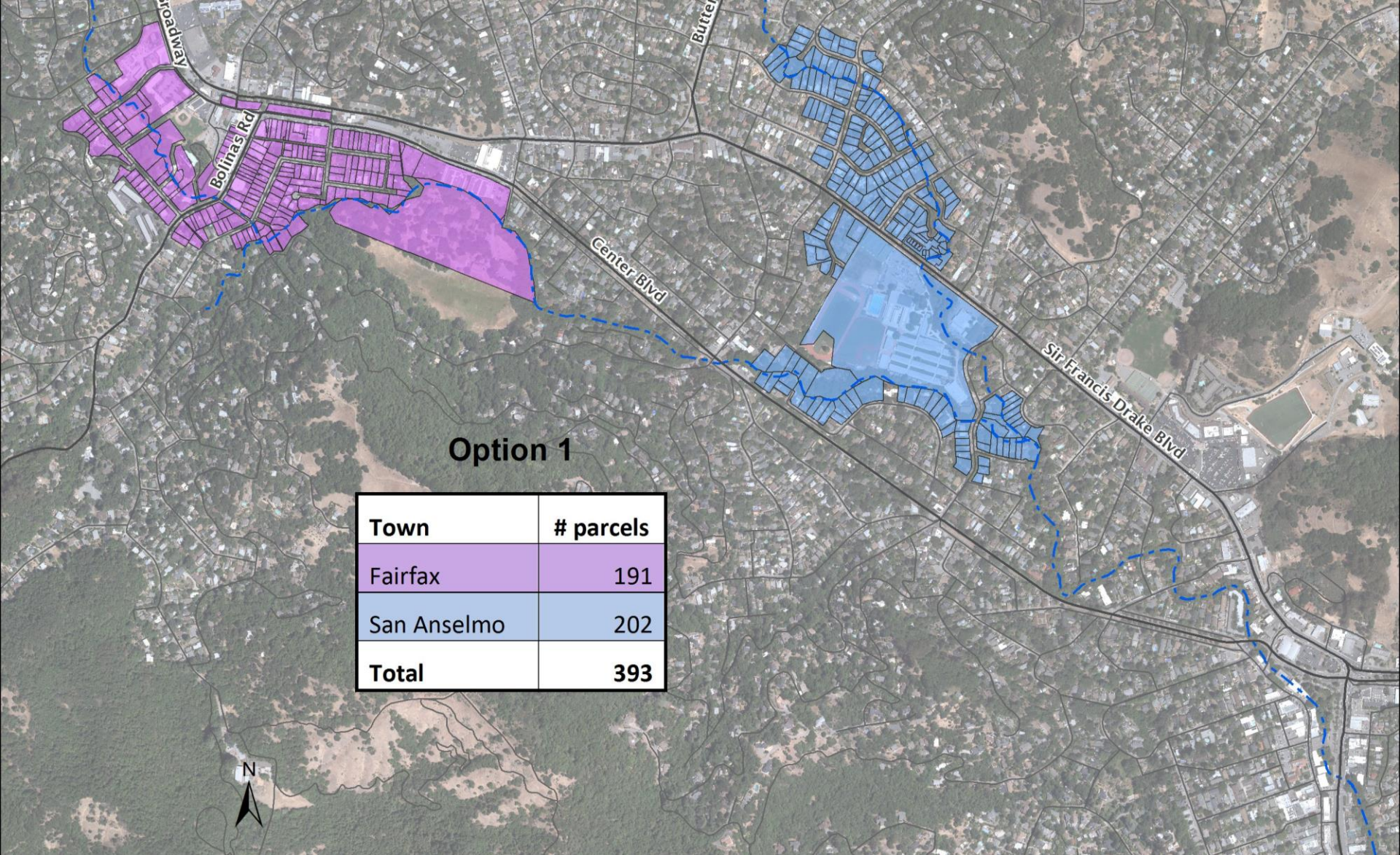
## Constraints

- May require elevation of 2 homes



# Candidates for CEQA?

Criteria	Option 1- Morningside + Nursery Basin	Option 2A-San Anselmo Creek (downtown) +Nursery Basin	Option 4a-No basin downtown San Anselmo Ck (downtown)
<b>Economic</b>			
Current cost escalated to 2020 ( <u>≤</u> \$17.4M)	\$20.8M	\$18.0M	\$17.8M
<b>Environmental</b>			
Habitat Benefits	750 linear feet	520 lf	520 lf
<b>Timeliness</b>			
No. of parcels required to construct	54-58	13	31
<b>Technical</b>			
Downstream flow impacts mitigated?	Y	Y	Y
Flood reduction benefits at 25 yr level of protection (# of parcels)	393	381	282



**Option 1**

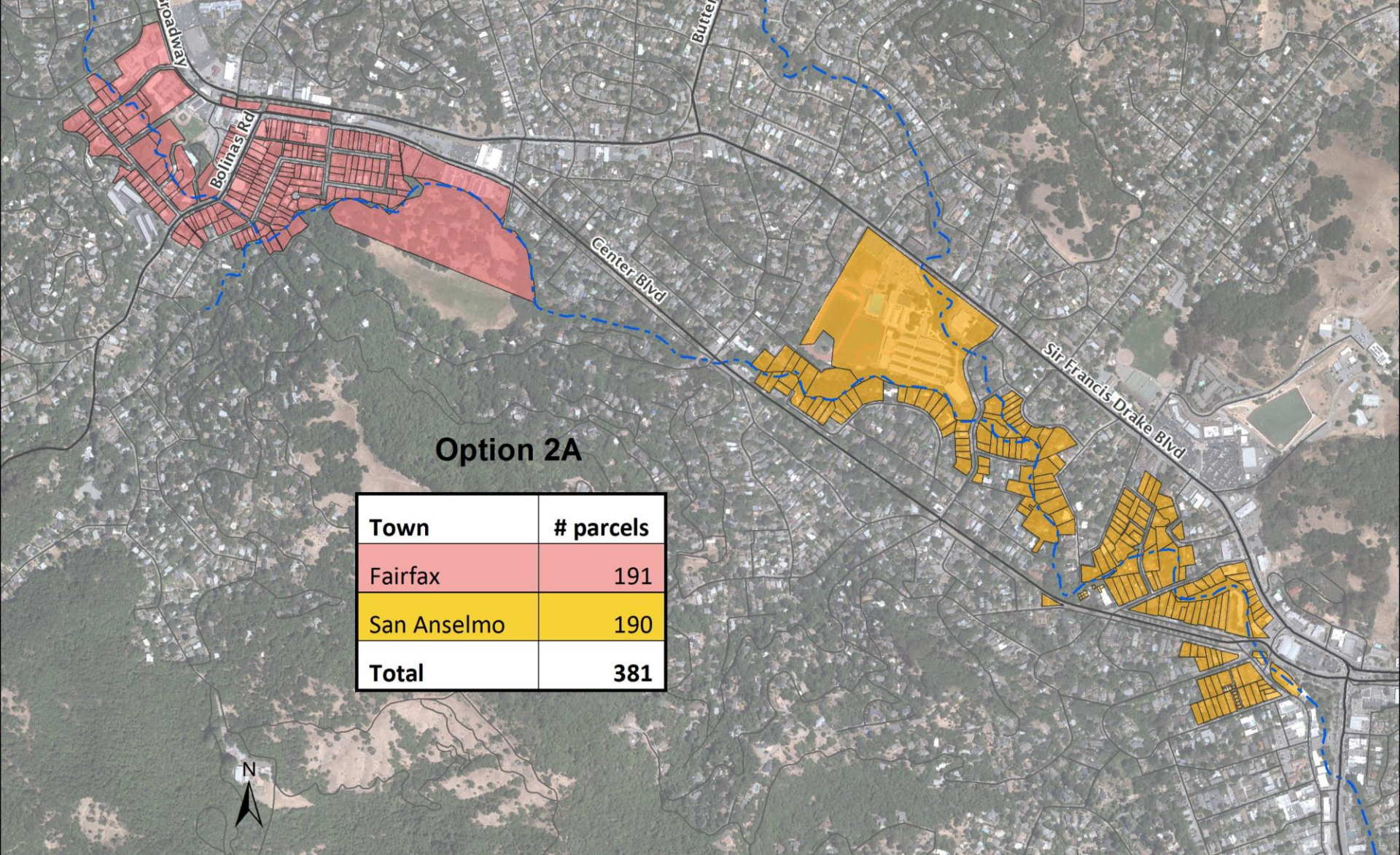
Town	# parcels
Fairfax	191
San Anselmo	202
<b>Total</b>	<b>393</b>

**Option 1: Morningside plus Nursery Basin**

393 PARCELS

*FLOOD REDUCTION BENEFITS-25-YR STORM EVENT*





**Option 2A**

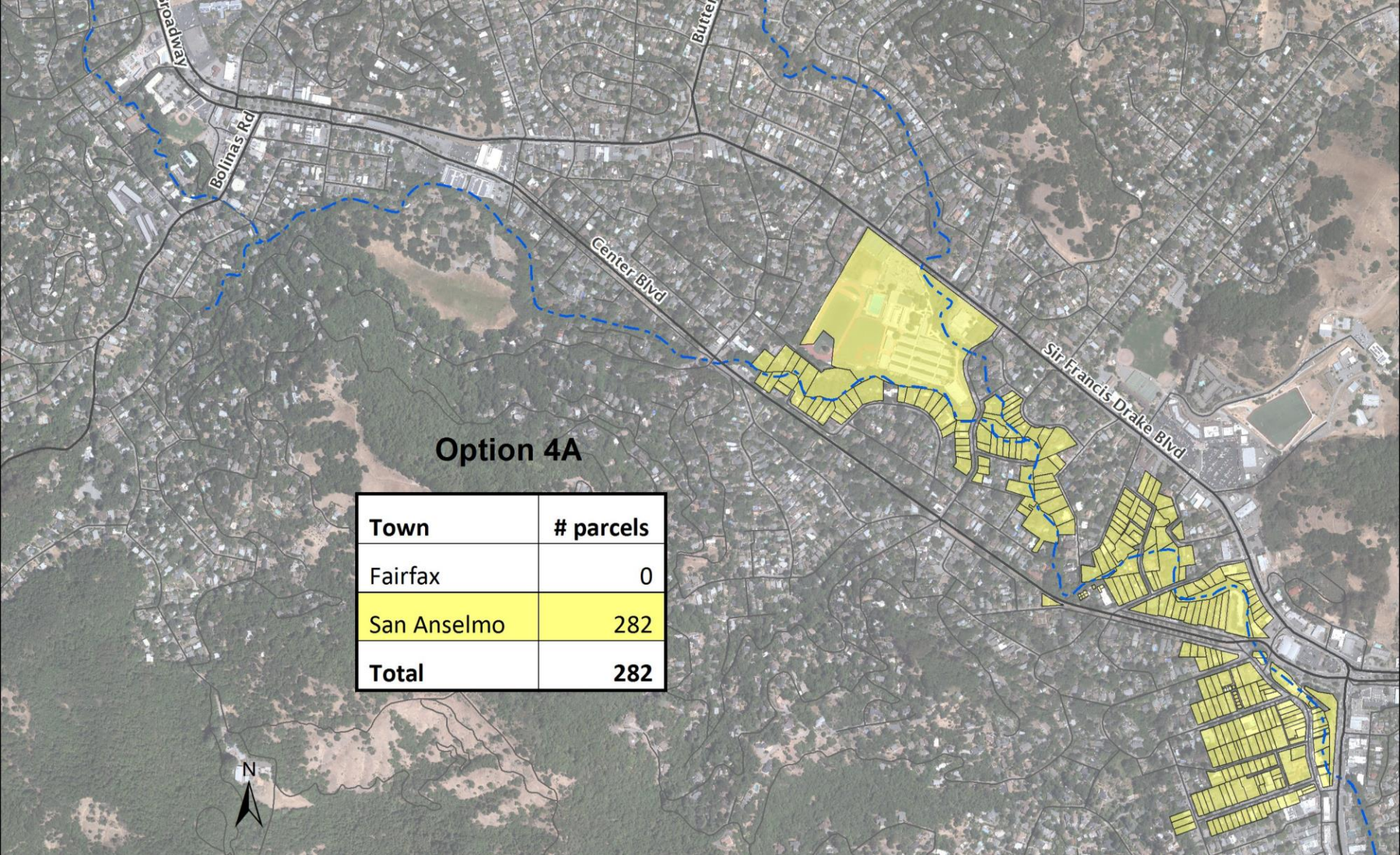
Town	# parcels
Fairfax	191
San Anselmo	190
<b>Total</b>	<b>381</b>

**Option 2A: Nursery + San Anselmo Creek Improvements**

381 PARCELS

*FLOOD REDUCTION BENEFITS 25 YR STORM EVENT*





**Option 4A**

Town	# parcels
Fairfax	0
San Anselmo	282
<b>Total</b>	<b>282</b>

Option 4A Downtown San Anselmo Creek restoration  
 No Basin-LIGHT version

*282 PARCELS-FLOOD REDUCTION BENEFITS 25 YR STORM EVENT*



# Candidates for CEQA?

Criteria	Option 1- Morningside + Nursery Basin	Option 2A-San Anselmo Creek (downtown) +Nursery Basin	Option 4a-No basin downtown San Anselmo Ck (downtown)
<b>Economic</b>			
Current cost escalated to 2020 ( <u>≤</u> \$17.4M)	\$20.8M	\$18.0M	\$17.8M
<b>Environmental</b>			
Habitat Benefits	750 linear feet	520 lf	520 lf
<b>Timeliness</b>			
No. of parcels required to construct	54-58	13	31
<b>Technical</b>			
Downstream flow impacts mitigated?	Y	Y	Y
Flood reduction benefits at 25 yr level of protection (# of parcels)	393	381	282

# Upcoming Meetings

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Date	Meeting
12/20/16	Flood Control Zone 9 Advisory Board Meeting (7 p.m. San Anselmo Town Hall)
1/10/17	San Anselmo Town Council Meeting
1/18	Program EIR scoping meeting-Ross School Library
1/26	San Anselmo Bridges public meeting
Mar	Flood Control Zone 9 Advisory Board Meeting
Apr	San Anselmo Flood Project EIR scoping session







THANK YOU

ROSS VALLEY FLOOD PROTECTION & WATERSHED PROGRAM



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# 2016 Grant Migration Project Alternatives

Potential Alternative identified in 2016 memo to DWR	Sleepy Hollow Creek Watershed Alternative	Fairfax Creek Watershed Alternative 1 – Including Former Sunnyside Nursery	Fairfax Creek Watershed Alternative 2 – Including Lefty Gomez Field	No Detention Basin Alternative
Detention Basin Location(s)	Brookside Elementary	Former Sunnyside Nursery Site	Lefty Gomez Field School Site	NA
Creek Improvements	Sleepy Hollow Creek improvements	San Anselmo Creek improvements	Sleepy Hollow Creek improvements	San Anselmo Creek improvements
Bridge Replacements / Removals	Morningside Drive Bridge Replacement	Modify Building Bridge 1 and Building Bridge 2	No Bridge improvements	Sir Francis Drake Boulevard Bridge (downstream)

