



**California State University, Sacramento**  
**Center for Collaborative Policy**

San Francisquito Creek  
Flood Protection, Ecosystem Restoration and Recreation Project,  
Upstream of Highway 101

Summary of Two Public Workshops

Public Workshop #1

October 4, 2017 6:00-9:00 pm

*Laurel School Upper Campus, 275 Elliott Drive, Menlo Park, CA*

Public Workshop #2

October 25, 2017 6:00-9:00 pm

*Palo Alto Art Center Auditorium, 1313 Newell Road, Palo Alto, CA*

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## **Public Workshop #1**

**October 4, 2017 6:00-9:00 pm**

***Laurel School Upper Campus, 275 Elliott Drive, Menlo Park, CA***

### Meeting Objectives

1. Inform the public on progress toward evaluating alternatives to resolve the flooding problem and provide other benefits along San Francisquito Creek (project objectives, constraints, alternative approaches under consideration, and the pros and cons of those alternatives based on currently available information).
2. Provide opportunity for the public /stakeholders to participate in an exercise that assess alternatives, ask questions, and provide meaningful feedback and ideas.

### Pre-meeting Open House

San Francisquito Creek Joint Powers Authority (SFCJPA) held an informal open house where participants had the opportunity to review informational posters and maps on the project and ask questions. Snacks and refreshments were provided.

### Opening Remarks

Marci DuPraw, senior facilitator with the Center for Collaborative Policy (CCP), opened the meeting and welcomed Kirsten Keith, Mayor of Menlo Park, to provide opening remarks.

Mayor Keith welcomed everyone and shared a personal story about being pregnant during the 1998 flood. She highlighted how glad she is to be moving forward with construction downstream of Highway 101. Mayor Keith emphasized that this effort is all about saving lives and property, and that the recent flooding events in Texas, Florida, and Puerto Rico remind everyone how important this work is. She highlighted several elements of the upstream project, and acknowledged concern about floodwalls in Menlo Park. She explained that the Environmental Impact Report (EIR) still needs to consider floodwalls, even if they are objectionable to many in the community, to ensure that the EIR is comprehensive enough to be legally defensible. In closing, Mayor Keith recognized that the community does want flood protection, and encouraged everyone to work together to figure out the best way to accomplish that.

Len Materman, SFCJPA Executive Director, thanked participants for coming and reviewed the purpose of the meeting. In January and February, following the publication of a Notice of Preparation (NOP) for an EIR, the SFCJPA hosted a series of scoping meetings to elicit public comments about the Project objectives and the updated range of alternative approaches to analyze. The goal of today's workshop is to get feedback on the range of feasible alternatives under analysis – i.e., strengths, weaknesses, any critical information gaps, and any ideas for new alternatives to consider.

Ms. DuPraw explained her role as a facilitator, highlighting that she is impartial with respect to the content of tonight's discussion and that her job is to enable constructive participation by all. She reviewed the agenda and ground rules for discussion, provided a brief overview of the tabletop exercise, and went over the meeting materials. She noted that CCP would be providing a summary of the event, and community members will be able to access it on the SFCJPA.org website. One participant asked for clarification on what will happen with the feedback that workshop participants provide. Mr. Materman explained that he would address that in his presentation.

## Project Progress Report

Mr. Materman gave an update on the Upstream of Highway 101 Project (Please see Appendix A for full presentation), reviewed the objectives of the workshop, the schedule for upcoming meetings and tours, and the following Project objectives, which remain unchanged from the scoping plan:

- Provide maximum feasible protection, and minimize impacts
- Enhance habitat
- Create recreational opportunities and connections
- Minimize operations and maintenance
- Avoid precluding projects that could increase flood protection later

Mr. Materman noted that the purpose of the EIR is to evaluate the environmental impacts of project alternatives, and recommend a preferred project that is meaningful, and achievable in the near term. He defined “meaningful” and achievable for the purposes of this project as:

- *Meaningful* means it does not rely on future work to largely protect against a repeat of the largest flow ever recorded (1998), and it does not preclude future work to add protection later.
- *Achievable* means it can secure community support, and necessary regulatory permits, land rights and funding in the near future.

Mr. Materman explained the approach being used to evaluate alternatives, reviewing the California Environmental Quality Act (CEQA) alternatives screening process. He provided an overview of the need for this project, and showed a map of the San Francisquito Creek floodplains and nearby flood protection-related projects.

Project planning started twenty years ago and public/stakeholder input has occurred on and off since that time. The segment of San Francisquito Creek from Highway 101 to San Francisco Bay is currently being constructed, and is a necessary first step to address flood protection for residents. That project will protect more than a thousand homes and businesses in Palo Alto and East Palo Alto by providing 100-year creek flood protection, during a 10-year tide, with several feet of sea level rise in an area influenced by tides now. Mr. Materman showed several photos of the past year’s heavy rains and the high water levels at the East Palo Alto and Palo Alto levees and in San Francisquito (SF) Creek. He encouraged participants to go to look at the progress of construction downstream of Highway 101. He mentioned that Caltrans is working on a complementary project at Highway 101, rebuilding the Highway 101, East Bayshore Road and West Bayshore Road bridges. Another SFCJPA project called SAFER Bay will protect areas of Menlo Park, East Palo Alto and Palo Alto against Bay water up to nine feet above today’s daily high tide.

The project Upstream of Highway 101 would, at a minimum, protect the area from creek flooding from flows similar to the flood of record that occurred in 1998 (considered a “70-year-flood”, which has a 1.4 percent chance of being equaled or exceeded in any given year). Mr. Materman outlined some of the reasons for choosing to embark on the most protective feasible protect, which is at least to the 1998 flow level (versus protecting for a 100-year flood event<sup>1</sup>). He showed a map demonstrating the modeled floodplain upon completion of the projects from the Bay-Highway 101 and upstream.

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<sup>1</sup> The Federal Emergency Management Agency defines flood hazard areas identified on the Flood Insurance Rate Maps as Special Flood Hazard Area (SFHA). SFHA are defined as the area that will be inundated by the flood event

This workshop focuses on alternatives being considered to address flood risk from SF Creek upstream of Highway 101. The first step was to compile a suite of project alternatives based on technical studies and public input; public input following the NOP led the SFCJPA to expand this list from five alternatives to current number, sixteen. The next step is to screen the sixteen project alternatives for advancement for full analysis in the Draft EIR. At the end of these workshops, SFCJPA will work to complete its analysis of the alternatives.

Mr. Materman reviewed the list of five alternatives discussed during the four scoping meetings held in January and February 2017. Mr. Materman noted that participants in those meetings encouraged the SFCJPA to give more consideration on how to optimize the alternatives. He explained that the project team has now done this for Alternatives 2 and 5, and is still studying the other original five alternatives to further identify ways to optimize them. The team also added 11 alternatives proposed by the public during the scoping period. All alternatives include widening all creek bottleneck adjacent to Highway 101 to conform the channel to Caltrans' work.

The sixteen alternatives are as follows:

1. No action/no project
2. Replace Pope-Chaucer Bridge, and raise capacity downstream by replacing railing at Woodland & University and widening creek bottlenecks
3. Construct one or more upstream detention basins
4. Construct an underground bypass culvert
5. Replace Pope-Chaucer Bridge, and raise capacity downstream by replacing railing at Woodland & University and constructing floodwalls
6. Construct a culvert through Pope-Chaucer Bridge
7. Construct a channel around Pope-Chaucer Bridge
8. Replace Pope-Chaucer with a bridge for bikes and peds only
9. Remove and do not replace Pope-Chaucer Bridge
10. Increase the removal of debris and non-native vegetation
11. Deepen the channel
12. Construct multiple small-scale water detention facilities
13. Increase incentives for Low Impact Development (LID)
14. Utilize overland floodways
15. Construct a new pump station
16. Construct a new Ladera Dam

Mr. Materman reviewed several projects and proposed alternatives in more detail:

- Caltrans is in the third and final year of construction on the rebuild of the Highway 101 and East and West Bayshore Roads bridges. When complete in a couple of months, a culvert under the

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having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood. Source: <https://www.fema.gov/flood-zones>

bridges on the Palo Alto side will remain closed until the creek bank is widened on that side as part of the SFCJPA's upstream project.

- After Bay-Highway 101 construction is complete, the lowest capacity location downstream of Middlefield Road will be Pope-Chaucer Bridge. Just replacing Pope-Chaucer would send more water downstream than can be accommodated in certain areas, which would cause flooding. He reviewed the alternatives related to Pope-Chaucer Bridge and showed photos of the bridge today and what potential alternatives to replacing the bridge might look like (e.g., **Alternatives 6 & 7**, creating a large culvert hole or bypass to accommodate 1,700 cubic feet per second (cfs) would have impacts to the creek and adjacent roadways.
- He reviewed **Alternative 5** in comparison with **Alternative 2**. If the Pope-Chaucer Bridge is replaced, about 85% of the length of the creek to Highway 101 could carry the necessary flow, and 15% of the creek must be modified to do so. He noted that the wooden railing upstream of University Avenue Bridge was always intended to be temporary.
  - Question: What would the wooden railing be replaced with?
    - Response: The wooden railing would be replaced with a concrete structure of the same height. The replacement structure would match the height on the other side of the creek.
- **Alternative 3** involves the construction of one or more upstream detention sites. The team is working on the details in this alternative to achieve the same level of protection to other alternatives, so the team can compare "apples to apples."
- **Alternative 4** involves underground bypass channel options. One option being considered is along Woodland Avenue. This bypass channel would take water out of the main creek channel and deposit it near Highway 101 Bridge (where there will be increased capacity).
- **Alternatives 10, 11, and 12** represent flood control approaches that have restrictions. SFCJPA partners remove debris and allowed problematic vegetation regularly. Last year, a particularly large volume was removed, up to regulatory limits.

Mr. Materman said that all alternatives will be measured against the project objectives first. Following that screening, remaining alternatives will be measured against key considerations to identify the preferred project. He reviewed the list of key considerations, highlighting special status species/habitat, utilities, traffic and transportation, and land use and land rights.

### Comments & Questions

- We have an objective to reduce flood damage, but we do not have an objective to reduce flood insurance. Can we consider what it would take to get to 7,640 cubic feet per second (cfs) and then address FEMA-related issues?
  - Response: SFCJPA's ultimate objective, which we are evaluating, is to provide 100-year flood protection and FEMA freeboard to relieve people from flood insurance requirements.
- With regard to constructing another culvert or channel through or around Pope-Chaucer Bridge, what would be the diameter of the culvert/hole, and the percentage increase in capacity?
  - Response: We believe the culvert will need to be at least ten feet in diameter. The current bridge capacity is 5800 cfs and any project needs to add 1700 cfs above the current capacity.
- I have property in Palo Alto and Menlo Park and a particular interest in the floodwalls. The proposed creek widening areas are very close to my properties. Please explain where the two-foot high floodwall would be placed.

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- Response: It would be placed on both sides of the creek between Newell Road and about Oak Court, after which heading upstream there would be a break and then continue briefly.
- Follow up comment: I am concerned about a historical Japanese garden we would like to restore along Woodland. If you are planning to put a two-foot wall there, we would like to know.
- Response: SFCJPA would be happy to talk about property-specific questions with interested individuals after the workshop.
- I live four houses down from Pope-Chaucer Bridge, and I see a lot of references to replacing it, but not a lot of detail or specifications. Would the new bridge be raised?
  - Response: The design objective of the new bridge would be so that it no longer impedes creek flow by removing the structure beneath it. It would not be noticeably higher, and there would be some rock slope protection to prevent erosion.
- I am impressed by how long we have been working on this project. Has the estimated flow associated with a 100-year flood event changed over the course of the project?
  - Response: Yes. At Pope Chaucer Bridge, it was 9,300 cfs and now it is 8,150 cfs. This new information is based on flood attenuation benefits associated with Searsville Dam. We now understand how the reservoir and marshes help provide flood protection benefits. We recently got the information from Stanford University, which the Santa Clara Valley Water District (SCVWD) – a SFCJPA partner – reviewed, and the Army Corps of Engineers verified.
  - Follow up comment: Can that number go lower?
  - Response: Detaining water upstream lowers the estimated flow for a 100-year flood event.
- What are the criteria for the cost consideration?
  - Response: The SFCJPA has a number of potential funding sources, which at the moment, are insufficient to build a project. Since we are still in the phase of exploring alternatives, we are not focused so much on costs at this point, though there are big differences between the alternatives. We are not at the point to cost out the alternatives yet.
- In your presentation, there was a photo of a tree right next to the existing creek flood wall. Where is that tree? In the past, there was discussion of stream widening downstream of the Newell Bridge. Is that necessary?
  - Response: I am not sure exactly where that tree is, and channel widening downstream of Newell is important upstream of West Bayshore Road. For Newell Bridge project questions, I'll refer you to the City of Palo Alto's representative who is here.
- Which homes in Palo Alto have trees in backyards that will be affected?
  - Response: In terms of where properties might be affected by creek widening, pink areas on the map in the presentation generally indicate proposed widening on either side. We know we want to remove the concrete structure on the East Palo Alto side near Manhattan Ave.
- Do you have a sense for the timeline of the Newell Bridge project as it relates to this?
  - Response: The City of Palo Alto is doing that project, and their EIR is intended to come out early next year, the same as with this project. There are City staff here whom you can talk to about the specifics of that project.
- For the animations and maps showing water traveling down the creek, what is that based on modeling? Has it been ground-truthed?
  - Response: In a sense, this modeled information has been verified by our experience of water exiting the channel during the 1998 flood and flooding in 2012.
- With regard to costs, is it fair to assume that we would form a special flood district and we would have to pay into the flood district instead of flood insurance?

- Response: SFCJPA is spending a lot of time looking at the potential funding strategy. For the downstream projects, it cost over \$65 million dollars and did not require the establishment of a flood district. There was money raised through the SCVWD measure, the SFCJPA secured substantial funding from State directly and indirectly, and PG&E has contributed a lot. As we move upstream, we are looking at new and other options for funding the projects. Creating a flood assessment district is one option on the table, but at this moment we are not pursuing any one option.

## Table-Top Exercise

Ms. DuPraw reviewed the instructions for the tabletop exercise and discussion. Participants divided into small groups and were encouraged to form groups with diverse perspectives, expertise, and knowledge of different kinds of project constraints to discuss the following questions:

- What are the strengths and weaknesses of the different alternatives from your point of view?
- Can you think of a new / better alternative or a hybrid of existing options?
- Are there any critical information gaps?

Ms. DuPraw encouraged participants to work together as a group, and comment on the alternatives of most interest. She noted that participants did not need to comment on every alternative, and that individuals were welcome to submit the feedback form (as well as the small group as a whole).

## Small Group Reports and Plenary Discussion

A representative from each group gave a brief report-back on the key points discussed. Their comments are summarized below. See Appendix A for all transcribed feedback forms (including forms submitted on behalf of these small groups as well as some individual participants).

### Group 1

- Alternative 3 could reduce erosion by reducing velocities. The group mentioned one specific property upstream of Pope-Chaucer Bridge. More information is needed on what kind of changes in erosion rates there might be as a result of different alternatives.
- Alternative 7 — the bypass around the bridge -- helps protect park habitat. The group discussed concerns about sediment associated with ongoing maintenance, though noted that maybe that could be addressed in the design of the bypass. The group raised a question about whether the bridge could be made bigger — hence requiring a smaller bypass around it.
- The group recommended looking at the potentially substantial traffic impacts associated with Alternative 8.

### Group 2

- The group came up with a hybrid approach to combine Alternatives 2 and 3. They asserted that, no matter what else happens, upstream detention basins should be constructed. They said that, even if this requires eminent domain, it would be best for the public welfare.
- They noted that strengths of Alternative 3 include reducing flooding downstream, providing a reservoir for drinking water and irrigation, and increasing water storage. Weaknesses include political issues and gaining permission from property owners.
- Alternative 2 is replacing Pope-Chaucer Bridge, which is the biggest barrier to stream flow. Replacement would be expedient. Weaknesses of Alternative 2 include the increase in traffic during construction. Also, the group was not sure how widening of the creek would impact conditions downstream.

### Group 3

- Alternative 2 is cost effective and expeditious.
- With regard to Alternative 3, the group said there is a need to exercise leverage on Stanford to work on Searsville Dam. It is time to clean out the sediment.
- Alternatives 6 and 7 need to be worked out in more detail.

### Group 4

- Alternative 1 (no action) has strengths — i.e., wait to see what happens with Searsville Dam — and weaknesses — i.e., this would delay flood protection. Some of the information gaps relate to sediment, velocity and erosion impacts, but it should be considered.
- The group struggled to evaluate Alternatives 6-16, since they had to guess about the details. They said that it would be nice to have all the alternatives laid out in more detail.
- Alternative 2 achieves flood control, which is a strength, but involves removal of habitat, use of floodwalls, and sets the stage for a 100-year project -- which we do not want because we do not want to remove habitat. We do not yet know the actual locations and heights of various project elements so it is a little challenging to give more specific advice.
- Alternative 3 contributes to flood protection without environmental impacts downstream. However, it requires landowners' permission.
- Alternative 4 is good because it minimizes riparian impact, except on Willow Road. The other routes are residential. It could be used as a roadway. However, it would hurt trees and be inconvenient in the short term.
- Evaluating Alternative 5 is design-dependent. We do not want to hurt tree roots.
- Alternative 8 (replacing Pope-Chaucer with a bridge for bikes and pedestrians only) has strengths in that it is neighborhood-friendly and pedestrian-friendly. The surrounding neighborhoods would love to have less traffic. Since it would presumably lower greenhouse gas emissions, there might be options to get this funded.
- With regard to Alternative 12, the group made a suggestion to include the potential upstream detention sites and the Ladera Dam site in the tour on alternatives.

### Group 5

- Removal of debris is a good approach, but will not achieve flood protection.
- Deepening the channel is a problem, and will cause fill in other areas. High maintenance costs.
- The group "nixed" Alternatives 1, 4, 7, and 14 (no project; construct an underground bypass culvert; construct a channel or culvert around Pope-Chaucer; and utilize overland spillways, respectively).
- Alternative 13 (increase incentives for Low Impact Development) is good, but not sufficient.
- The group felt that Alternative 2 was the best option. Alternative 5 (floodwalls) might require less private property but it seems like creek widening has less of an environmental impact, and even though it might harm a few properties, that is a better tradeoff than floodwalls.
- The group thought Alternative 3 (construct one or more upstream basins) was a very interesting option. A pipe in the base of the dam could allow limited water to go through, would be friendly to salmon, and would be complementary to other actions, but sediment is still an issue.

### Group 6

- Alternative 3 is beneficial because it reduces the flow of water coming downstream ("out of the spigot"), but requires landowners' permission, and incurs costs to build and maintain the sites.

The group said that the question of whether this Alternative alone would be enough is a “big unknown.”

- The groups suggested another alternative: to reduce the amount of water coming downstream by collecting rainwater individually up high in the hills. This would not be sufficient, but it is a worthwhile goal for everyone to collect more water and it would be good for the cities to encourage rainwater collection cisterns in new buildings.
- Alternatives 2 and 5 are feasible, and one could calculate the benefit achieved by increasing the capacity of the flow. One weakness is that enlarging the creek might impinge on private property. A big question is how to accomplish this. The group recommended improving the aesthetics of the creek (not like Matadero creek) — e.g., have some design elements like terraced walls to make the result beautiful. Maybe this alternative could incorporate the idea of a culvert underneath property in certain places, and/or terraces.
- Alternatives 6 and 7 are appealing in that they are smaller in scope. However, soil disturbance will require calculations about the strength of the bridge, which might need to be fortified. There are still questions about whether the diameter is sufficient for flow capacity without clogging up with trees and branches. Ultimately, the group rejected these options.

### Plenary Comments

Facilitator Marci DuPraw thanked the small groups for their insightful feedback. She invited group participants to share reflections on cross-cutting themes that they may have heard in listening to the small group reports. Several individuals shared their observations, as follows:

- There is a lot of support for upstream detention. It would provide even greater protection for East Palo Alto (500- year protection). What is currently built assumes all the existing water stays in the channel (which it does not necessarily do).
- With climate change and the flows seen in Houston, Florida, and Puerto Rico, we have seen much more frequent flows that have almost topped Pope-Chaucer Bridge. It seems more logical to increase the capacity of the downstream reach of the creek, so that no matter how long a high flow happens, that flow can go through the creek safely. The detention basins have a finite capacity. I am not against detention basins. There is a nice report about detention basins upstream. In that report, Stanford came out in support of removing sediment and putting a hole in the bottom to limit the amount of downstream flow and allow salmon to come upstream. However, from a systems point of view, we cannot avoid the downstream reach out to the Bay, because it would need to be able to contain the biggest flood we can model. With climate change, it is not clear what a 100-year flood is going to be like anymore; it may be more extreme than earlier thought. I think it is logical to put together as much capacity as we can to protect residential areas.
- Everybody agrees that upstream detention alone is not sufficient, but is good to reduce flow in the creek. We know there are political issues. I attend the SFCJPA Board meetings, and Stanford is not usually represented there. I think SFCJPA needs to help bring Stanford to the table. The Searsville Dam has a lot of issues, and those conversations are not happening at the SFCJPA meetings. The greater good requires addressing the dam.
  - Comment (SFCJPA): Stanford staff were invited but this date did not work for their schedules.
- Some years ago, I was part of a steelhead task force for the San Francisco Watershed Council. In that process, it was important to understand the Pope-Chaucer Bridge as a depositional area. There were suggestions to use scour chains in the winter to see under the bridge. Though we do not know the numbers, we have to be mindful about mitigating the impacts of removing or

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replacing the bridge, and compare that with ongoing maintenance costs related to sediment in that area. It might be beneficial to employ scour chains during this wet season to better understand what is going on.

### Closing & Next Steps

Participants asked SFCJPA about the outreach methods for the workshop. Seven thousand mailers went out, in addition to emails, notices in newspapers, articles, and posting on Nextdoor. Participants indicated they had received notice of the meeting in a variety of ways, but that the date cited in a newspaper article was incorrect and some mailers did not reach certain parts of the community. Len Materman reminded participants of the upcoming site tour on Saturday, October 14, 9:00 am, meeting at the Woodland Avenue side of University Circle; RSVP are required by October 6 to [jpa@sfcjpa.org](mailto:jpa@sfcjpa.org). He also reminded participants about Public Workshop #2 (October 25, 6:00 pm, Palo Alto Arts Center, 1313 Newell Rd.), at which participants can make 10-minute presentations if they have new information to share about feasible alternatives. (They would need to send presentations to [jpa@sfcjpa.org](mailto:jpa@sfcjpa.org) by October 19.) He thanked participants for their comments and thoughts, and adjourned the workshop.

## Appendix A: Strengths, Weaknesses, & Critical Information Gaps Related to Alternative Approaches to Reducing Flood Risk from San Francisquito Creek

NOTES: These notes were transcribed from hand written comments developed during the meeting on the “feedback form,” which was made available to participants to provide input on the alternatives. A few things to keep in mind:

1. We have organized the feedback by alternative. Within each section on a particular alternative, the feedback is organized by group.
2. Please be aware that more than one individual turned in a form from some of the groups so be careful about forming an immediate impression about the volume of people who focused on each alternative.
3. Toward the end, we have a section for forms that dealt with multiple alternatives as a package.
4. The very last page focuses on feedback about information gaps.

### ALTERNATIVE 1

**Group #:** 4

**Alternative #:** 1

**Name of Alternative:** No action/no project

Strengths	Weaknesses
Wait to see what happens to Searsville	Delays flood protection
Minimizes creek impacts	
<b>Any critically important information gaps?</b> <ul style="list-style-type: none"> <li>○ Searsville impact and timing</li> <li>○ What will happen to the sediment?</li> <li>○ How will velocity and erosion impacts be accounted for?</li> </ul>	

### ALTERNATIVE 2

**Group #:** 2

**Alternative #:** 2

**Name of Alternative:** Replace Pope-Chaucer Bridge, and raise capacity downstream by replacing railing at Woodland & University and widening creek bottlenecks

Strengths	Weaknesses
Will widen channel adequately	Seem less destructive to than floodwalls
Bridge replacement no visible impact on roadway	What is the impact to creek bed about widening bottleneck
<b>Any critically important information gaps?</b> <ul style="list-style-type: none"> <li>○ Does this make #6 + #7 a moot point?</li> </ul>	

**Group #: 2**

**Alternative #: 2**

**Name of Alternative:** Replace Pope-Chaucer Bridge, and raise capacity downstream by replacing railing at Woodland & University and widening creek bottlenecks

Strengths	Weaknesses
Fastest way to increase flow	Traffic impact during construction
Reduces sediment buildup	Don't know impact on property when widening
	Move flow downstream moves the problem to other neighborhoods
<b>Any critically important information gaps?</b>	
<ul style="list-style-type: none"> <li>○ Impact on people's property, and the roadway</li> </ul>	

**Group #: 3**

**Alternative #: 2**

**Name of Alternative:** Replace bridge and widen bottlenecks

Strengths	Weaknesses
Would likely be similar cost as #'s 6 and 7 but result in new bridge with large single opening	Design of bridge unknown; temporary traffic impacts
Eliminates old concrete structures eliminates/replaces wooden walls	
<b>Any critically important information gaps?</b>	
<ul style="list-style-type: none"> <li>○ This alternative could be combined with #3 as well as #11.</li> </ul>	

**Group #: 4**

**Alternative #: 2**

**Name of Alternative:** Replace Pope-Chaucer Bridge, and raise capacity downstream by replacing railing at Woodland & University and widening creek bottlenecks

Strengths	Weaknesses
Achieves flood control	Floodwalls Widening/ = removal trees habitat impacts
	Would set the stage for a 100 year project, which the community does not support
	"Replacing the railing" is a euphemism for adding flood walls
<b>Any critically important information gaps?</b>	
<ul style="list-style-type: none"> <li>○ Community already decided the "70 year" protection is enough and does not want 100-year protection in exchange for removing habitat.</li> </ul>	

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**Group #: 5**

**Alternative #: 2**

**Name of Alternative:** Replace Pipe Chaucer Bridge and replace Woodland and University wall and widening creek

Strengths	Weaknesses
Fewer trees removed than floodwalls	
More aesthetically pleasing than floodwalls	

**Group #: 7**

**Alternative #: 2**

**Name of Alternative:** Replace Pope-Chaucer Bridge

Strengths	Weaknesses
Replace Pope-Chaucer Bridge with a better design with a much larger bore—a design that makes so much more sense.	Maintenance/ debris storms
<b>Any critically important information gaps?</b> <ul style="list-style-type: none"> <li>○ Concern about my property at 1450 Woodland &amp; Historic Japanese Garden and my backyard at 27 Crescent Drive Palo Alto. If I restore these gardens I don't want you to decide to widen and intrude on my property.</li> </ul>	

**Group #: 7**

**Alternative #: 2**

**Name of Alternative:** Replace Pope-Chaucer Bridge, railing at Woodland and University and widen bottleneck

Strengths	Weaknesses
Likely to gather consensus	
Probably low cost	
Aesthetically acceptable	

**ALTERNATIVE 3**

**Group #: 2**

**Alternative #: 3**

**Name of Alternative:** Upstream detention basins

Strengths	Weaknesses
This sounds like a good addition to anything.	

**Group #: 2**

**Alternative #: 3**

**Name of Alternative:** Construct one or more upstream detention basins

<b>Strengths</b>	<b>Weaknesses</b>
Reduces volume downstream	Political issues with Stanford and other landowners
Creates reservoirs for drinking water and irrigation	
<b>Any critically important information gaps?</b> <ul style="list-style-type: none"> <li>○ What is the opinion of Stanford?</li> </ul>	

**Group #: 3**

**Alternative #: 3**

**Name of Alternative:** Upstream basin

<b>Strengths</b>	<b>Weaknesses</b>
Makes it unnecessary to modify stream embankments	Takes longer time to convince Stanford to undertake civic engineering work on their precious property west of 280. State of CA won't intervene on behalf of joint power to force S.U. into doing the earth-moving required.
Unnecessary to build a new Chaucer bridge	
Searsville Dam is an existing manmade structure that can be restored to its original purpose of protecting downstream properties from floods	
<b>Any critically important information gaps?</b> <ul style="list-style-type: none"> <li>○ Why doesn't Stanford just dig out the silt that now fills up behind Searsville Dam? This is the BEST detention basin. There "should be" some leverage to be applied to make S.U. act now, after talking about it for so many, many years.</li> </ul>	

**Group #: 4**

**Alternative #: 3**

**Name of Alternative:** Construct one or more upstream detention basins

<b>Strengths</b>	<b>Weaknesses</b>
Potentially contributes to flood protection	Environmental reviews of detention sites is needed (Need to be covered in this CEQA)
	Requires negotiation with landowners

**Group #: 5**

**Alternative #: 3**

**Name of Alternative:** Add on Searsville and a flood detention facility

Strengths	Weaknesses
Complementary alternative for 100 year flood scenario	What happens with sediment
Moving project to rural area—less impacts to homeowner	Impacts in Jasper Ridge
In line with creek	Still requiring Pope-Chaucer Bridge
Environmentally friendly for salmon	

**Group #: 6**

**Alternative #: 3**

**Name of Alternative:** Construct one or more upstream detention basins

Strengths	Weaknesses
Least impactful for Palo Alto/ MP fewer impacts at multiple sites	Stanford
Searsville Empty	Maintenance/ considerable alteration to damn
	Continued erosion
<b>Any critically important information gaps?</b>	
<ul style="list-style-type: none"> <li>○ How fast would Searsville fill up to be useful?</li> </ul>	

#### ALTERNATIVE 4

**Group #: 4**

**Alternative #: 4**

**Name of Alternative:** Construct an underground bypass culvert

Strengths	Weaknesses
Minimal riparian impacts	Inconvenient during construction
Except not on Willow Rd	Possible impacts to tree roots/cause tree death
Willow Rd bypass use as a roadway when not needed for flooding	maintenance
	Utility relocations

**ALTERNATIVE 5**

**Group #: 2**

**Alternative #: 5**

**Name of Alternative:** Replace Pope-Chaucer Bridge, and raise capacity downstream by replacing railing at Woodland and University and constructing floodwalls

<b>Strengths</b>	<b>Weaknesses</b>
Will not impact properties where widening	Will impact properties that need floodwalls

**Group #: 4**

**Alternative #: 5**

**Name of Alternative:** Replace Pope-Chaucer Bridge, and raise capacity downstream by replacing railing at Woodland and University and constructing floodwalls

<b>Strengths</b>	<b>Weaknesses</b>
< 2 – ft. high floodwalls might be better than creek widening	Floodwalls are not wanted

**ALTERNATIVE 8**

**Group #: 4**

**Alternative #: 8**

**Name of Alternative:** Replace Pope-Chaucer with a bridge for bikes and peds only

<b>Strengths</b>	<b>Weaknesses</b>
Pedestrian-friendly Neighborhood-friendly	Traffic burden would be routed elsewhere, that would disrupt other neighborhoods
Promotes greenhouse gas emission reductions; more likely to get grant funding	

**ALTERNATIVE 9**

**Group #: 4**

**Alternative #: 9**

**Name of Alternative:** Remove and Do Not Replace Pope – Chaucer Bridge

<b>Strengths</b>	<b>Weaknesses</b>
Compatible with neighborhood	Vehicles would need to use other routes
Environmentally sound	
Cheap	
Promotes alternative transit options	
Allows for independent assessment of need for bridge	
<b>Any critically important information gaps?</b>	
<ul style="list-style-type: none"> <li>○ Traffic study</li> <li>○ Cost</li> </ul>	

**ALTERNATIVE 11**

**Group #:** 4

**Alternative #:** 11

**Name of Alternative:** Deepen the channel

<b>Strengths</b>	<b>Weaknesses</b>
Can achieve flood protection	May require maintenances
	Could destabilize creek bank
<b>Any critically important information gaps?</b>	
<input type="radio"/> Not known how deep the channel would need to be?	

**ALTERNATIVE 12**

**Group #:** 4

**Alternative #:** 12

**Name of Alternative:** multiple upstream detention basins

<b>Any critically important information gaps?</b>
<input type="radio"/> We have no data for this.

**ALTERNATIVE 13**

**Group #:** 6

**Alternative #:** 13

**Name of Alternative:** Increase incentives for Low Impact Development (LID)

<b>Strengths</b>	<b>Weaknesses</b>
Water capture, useful, reduce additional	Lower watershed; need to be in conjunction with others

**COMBINATIONS OF ALTERNATIVES**

**ALTERNATIVES 2 & 5**

**Group #:** 6

**Alternative #:** 2/5

**Name of Alternative:** Replace Pope-Chaucer Bridge, and raise capacity downstream by replacing railing at Woodland & University and widening creek bottlenecks; Replace Pope-Chaucer Bridge, and raise capacity downstream by replacing railing at Woodland & University and widening creek bottlenecks

<b>Strengths</b>	<b>Weaknesses</b>
Widening—increase capacity (include aesthetics)	May have to remove road Private property
<b>Any critically important information gaps?</b>	
<input type="radio"/> Where would flood walls be compared to widening?	

**Group #:** 6

**Alternative #:** New [connected to discussion of 2 & 5)

Strengths	Weaknesses
Culvert under widening parts rather than remove.	Maintenance issue accelerated flow

**ALTERNATIVES 6 & 7**

**Group #:** 3

**Alternative #:** 6 and 7

**Name of Alternative:** Culvert and channel—we see these as similar

Strengths	Weaknesses
Probably wouldn't have to replace bridge	Tree removed, but this would also likely be the case even after a replacement bridge, so might not be as impactful?
Short term construction issues instead of long term potential impacts, depending on bridge design	
<b>Any critically important information gaps?</b> <ul style="list-style-type: none"> <li>○ Negatives are that many aspects are essentially unknown to us. Weakness is design—envison issues downstream near where water re-enters.</li> <li>○ Is the design “foolproof” –not subject to blockage, creating log jams, etc.</li> </ul>	

**Group #:** 6

**Alternative #:** 6, 7

**Name of Alternative:** Construct a culvert through Pope-Chaucer Bridge; Construct a channel around Pope-Chaucer Bridge

Strengths	Weaknesses
Leave most of bridge in place	Maintenance/ debris storms
<b>Any critically important information gaps?</b> <ul style="list-style-type: none"> <li>○ Benefits us by replacing bridge.</li> </ul>	

**ALTERNATIVES 10, 11, & 13**

**Group #:** 5

**Alternative #:** 10, 11 and 13

**Name of Alternative:**

Strengths	Weaknesses
The following projects seemed helpful but not sufficient	
Remove debris and nonnative vegetation	
Increase incentives on low impact development	
<b>Any critically important information gaps?</b> <ul style="list-style-type: none"> <li>○ Where would flood walls be compared to widening?</li> </ul>	

**ALTERNATIVES 4 & 14**

**Group #:** 5

**Alternative #:** 4 and 14

**Name of Alternative:** Construct an underground bypass culvert; utilize overland floodways

Strengths	Weaknesses
	Does railing have any flood control benefits?
Less land needs to be taken for floodwalls	Widening better for ecosystem services in creek
Loss of trees	Loss of trees in both, but floodwalls lose aesthetics
<b>Any critically important information gaps?</b>	
<ul style="list-style-type: none"> <li>○ Construct an underground bypass culvert—Woodland is feasible but can't be gradually fed</li> <li>○ Utilize overland floodways—No one wants this for barriers—Infeasible</li> </ul>	

**CRITICAL INFORMATION GAPS**

**Group #:** 5

**Alternative #:** Multiple

**Name of Alternative:**

<b>Any critically important information gaps?</b>
<ul style="list-style-type: none"> <li>● Eliminate the following alternatives               <ul style="list-style-type: none"> <li>○ Alternative 1- do nothing; not viable</li> <li>○ Alternative 4-Underground bypass construction—too expensive</li> <li>○ Alternative 6 and 7- Culvert and channel around Pope-Chaucer Bridge—Just replace it has more benefits</li> <li>○ Alternative 8- replace with bike paths—too intrusive on traffic</li> <li>○ Alternative 9-remove Pope-Chaucer Bridge—too intrusive on traffic</li> <li>○ Alternative 14- Utilize overland floodways—not desirable</li> </ul> </li> </ul>

**Group #:** ALL

**Alternative #:** ALL

**Name of Alternative:** ALL

**Any critically important information gaps?**

- How will erosion be affected

## Appendix B: List of Attendees

Based on sign-in sheets; sign-in was optional.

Name	Affiliation
Christina Egerstrom	Peninsula Press
Bob Reklis	
Nancy Wong	
Ryan Sharpe	CSU Sacramento
Xavier Fernandez	San Francisco Water Board
Trish Mulvey	Palo Alto resident
Dave Warner	
Brad Eggleston	City of Palo Alto
Ann Stillman	SMCO/SMCFCD
Harlan Pinto	
Mark English	Paceline
Jack Feldman	Feldman's Books
Dennis Parker	Gardens, EPA
Luella M. Parker	Gardens, EPA
Kristi Wiley	
Jim Wiley	
Mary Beth Rich	
Greg Richardson	
Robert Lipshitz	
Hanna Stelmakhovych	
Susan Glendening	San Francisco Water Board
Jerry Hearn	
Azaela Mitch	Menlo Park
Christine Doniger	Menlo Park resident
Pay Coffey	Woodland Park Communities
Lindsay Buckley	Sac State PPA
Bruce McCaul	Resident
Ben Ball	
Tom Rindfleisch	Self
Virginia Saldich	Self/resident
Michael Griffin	Self
Kamal Fallaha	EPA
Bryce Wilson	Lotus Water
Carl Hesse	Self/resident
Lily Feldman	Self/resident
Julie Jomo	
Judith Vacchino	
Len Materman	SFCJPA
Tess Byler	SFCJPA
Kevin Murray	SFCJPA
Saied Hosseini	SCVWD

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<b>Russell Chen</b>	SCVWD
<b>Michael Martin</b>	SCVWD
<b>Jessica Collins</b>	SCVWD
<b>Jose Villarreal</b>	SCVWD
<b>Kristen Yasukawa</b>	SCVWD
<b>Emily Pharr</b>	City of East Palo Alto
<b>Rajeev Hada</b>	City of Palo Alto
<b>Michel Jeremias</b>	City of Palo Alto

## **Public Workshop #2**

**October 25, 2017 6:00 -9:00 pm**

***Palo Alto Art Center Auditorium, 1313 Newell Road, Palo Alto, CA***

### Meeting Objectives

1. Recap Workshop 1
2. Hear stakeholder presentations of new information on feasible alternatives
3. Seek the advice of participants to ensure successful project implementation

### Pre-meeting Open House

SFCJPA held an informal open house where participants had the opportunity to review informational posters and maps on the San Francisquito Creek Flood Protection, Ecosystem Restoration and Recreation Project Upstream of Highway 101 (Project) and ask questions. Snacks and refreshments were provided.

### Welcome & Opening Remarks

Marci DuPraw, Managing Senior Facilitator with the CCP, opened the meeting and welcomed Gary Kremen, Director, SCVWD Board and Vice Chair, SFCJPA Board, to provide opening remarks. Mr. Kremen welcomed participants and commented on the importance of the work underway to improve flood protection on the SF Creek; he emphasized the need to continue to move forward with the Project. Mr. Kremen explained that the SFCJPA has five member jurisdictions: the Cities of Menlo Park, East Palo Alto, and Palo Alto, San Mateo County, and the SCVWD, and that the more quickly the SFCJPA can decide on the right alternative, the faster it can be built. He highlighted the importance of reducing both flood risk and the associated need for flood insurance, but also the importance of ensuring that community members who need flood insurance get it. The focus of tonight's meeting is to look at alternative methods of reducing flood risk upstream of Highway 101, and in particular, considerations for implementing one or more of these alternatives with as little disruption as possible. He provided his phone number and invited participants to contact him about the Project. Mr. Kremen passed along regrets from David Pine, SFCJPA Board Chair, who was not able to attend the meeting.

### Recap of October 4 Workshop & of Workshop #2

Ms. DuPraw explained her role as a facilitator, highlighting that she is impartial with respect to the content of tonight's discussions and that her job is to enable constructive participation by all. She reviewed the workshop objectives and agenda, provided a brief overview of the small group exercise, and went over the workshop materials. She noted that CCP would be providing a summary of the event, and community members will be able to access it on the SFCJPA.org website.

This is the second event in a series of three that SFCJPA is hosting to get community input on the alternatives under consideration. The first one was a workshop held on October 4<sup>th</sup>. Ms. DuPraw provided a recap of that workshop, which included a progress report on alternatives and the EIR analysis and community input on the alternatives' strengths and weaknesses. Key points from that workshop included:

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- During the scoping process, the number of alternatives grew from 5 to 16;
- Alternatives will be analyzed in a two-step screening process (first, with reference to Project objectives and second, with reference to key considerations explained in workshop presentations); and
- All alternatives include widening the creek just upstream (west) of West Bayshore Road to align the Palo Alto creek bank with the soon-to-be completed Highway 101 project.

Key takeaways from the community feedback and input received at Workshop 1 were as follows:

- Upstream detention was most frequently mentioned as a preferred alternative, but many mentioned obstacles to implementing this alternative.
- Replacing Pope-Chaucer Bridge was the second most frequently discussed as a preferred alternative.
- There is a need to increase the flow capacity of the creek.
- Many people suggested combining elements of different alternatives.
- There is a need to consider erosion rates under different alternatives.

At the October 4<sup>th</sup> workshop, stakeholders were invited to submit presentations by October 19 that they could give at this workshop. These presentations should have new information regarding feasible alternatives that meet project objectives. One person requested time on the agenda of this workshop to make a presentation, and that person will speak tonight.

On October 14, 2017, SFCJPA hosted a bus tour to orient interested members of the public to the project area and key landmarks referenced in documents describing the alternatives under consideration. The bus made stops at Pope-Chaucer Bridge, West Bayshore Road, Newell Road Bridge, and the University Avenue Bridge.

The focus of today's meeting is on implementation considerations. SFCJPA wants to be prepared to implement and construct the chosen alternative as smoothly as possible. At today's workshop, SFCJPA is looking for input on what to keep in mind during the implementation phase.

Len Materman, SFCJPA Executive Director, thanked participants for coming. He reviewed the Project objectives, which are as follows:

- Provide maximum feasible protection, and minimize impacts;
- Enhance habitat;
- Create recreational opportunities and connections;
- Minimize operations and maintenance; and
- Avoid precluding projects that could increase flood protection later.

Mr. Materman explained that SFCJPA has to look at a reasonable range of feasible alternatives that provide meaningful flood protection to develop a project that is achievable in the near term. He noted that "meaningful flood protection" means, at minimum, protection against a repeat of the 1998 flood flow; and "achievable in the near term" means starting construction in 2020. SFCJPA does not want the proposed Project to preclude any potential future projects, which would have its own, separate EIR.

Mr. Materman also reviewed the information gathering and decision-making steps that apply to the proposed Project. He reminded participants that there were two scoping periods in 2013 and then

another in 2017 to discuss and deliberate the alternatives with the community. The SFCJPA wants to move forward with a project that is supported by the local communities and regulators and start construction as soon as possible. After the alternatives are evaluated in accordance with the two-phase screening process, then the remaining alternatives will be analyzed in greater detail in the EIR.

Mr. Materman provided an overview map of the floodplain in the SF Creek area as well as key flood control projects in the area. Construction is underway on a flood control project for the reach of the creek downstream from Highway 101, which is planned to be completed around the end of 2018. Caltrans has also been working to increase the creek flow capacity at Highway 101 and that work is scheduled to conclude in early 2018.

For the next phase of flood control efforts related to the creek, focusing on protecting communities upstream of Highway 101 during major storms, there are three fundamental options:

1. Bypass water around the flood plain area;
2. Contain water in the creek through the floodplain; and
3. Detain water before it reaches the floodplain.

Mr. Materman reviewed the potential flooding impacts of several options included in the alternatives. SFCJPA developed and proposed five alternatives at the end of 2016. After receiving comments in the public scoping workshops, the SFCJPA added 11 more alternatives to the list. The EIR will discuss all 16 alternatives, which will be measured against project objectives and key considerations.

With regard to erosion concerns raised at the October 4 workshop, the EIR will include information on alternatives as they relate to hydrology, geology, and soils. Although erosion and sediment scour were not explicitly mentioned in the October 4 presentation, current erosion conditions are being documented and future erosion-related impacts will be studied as part of the EIR.

## Questions & Comments

- At the October 4 workshop, we did not discuss costs to implement the alternatives, and mitigation, which can be costly, is not on the list of considerations. What is the timeline for making cost and mitigation information for the alternatives available to the public?
  - Response: SFCJPA will develop a cost estimate based on the final list of project alternatives. Yes, mitigation can be an expensive part of any project. As we determine which aspects of the project will have impacts, we will outline potential mitigation activities and their costs. In terms of a timeline, we will have those costs closer to the end of developing the Draft EIR.
  - Follow up comment: It is unclear to me where mitigation would occur if the decision is made to keep the park at Pope Chaucer Bridge.
- Caltrans reworked the Highway 101 Bridge and added a culvert. As of now, that additional bore is closed off. What is the timing for opening the fourth bore and does it relate to this project?
  - Response: Widening the creek bank upstream of the highway and opening the culvert is part of this project, and it will be included in the EIR and our permit applications. At this time without opening that culvert, that part of the creek has a lot more capacity than before.

## Stakeholder presentation

Jim Wiley, resident of Menlo Park, presented on his experience living near the creek and items for SFCJPA to consider. He said he lives downstream from Pope-Chaucer Bridge on the Menlo Park side and

has studied the alternatives for flood control since the beginning of the project. He discussed the characteristics of alluvial creeks, which he said generally flood everywhere at one time. In the 1800s, there was flooding throughout the alluvial fan; this type of creek floods a few inches at the bank, which then piles up water miles away. In the case of the SF Creek floodplain, people did not realize that their houses were only a few feet above sea level. Early maps did not show that the creek reached the Bay. Forcing water to stay in the bank is not how alluvial creeks work. He said that during the flood of 1998, he witnessed flooding in several areas. He walked to Pope-Chaucer Bridge, where there was half an inch of water coming over the highest part of the bridge. Very little of it was flowing into Menlo Park; some was flowing into Palo Alto. He concluded that additional floodwaters that impacted the area must have come from somewhere upstream—there was a big breakout on the Palo Alto side. There was 3-4 inches of overtopping downstream of Pope-Chaucer Bridge. At Emma Court, enough water flowed that it flooded underground parking structures. He commented that none of the flooded areas he observed are in the models he has seen SFCJPA use, which makes him skeptical about why the modeling places the problem primarily at the Pope-Chaucer Bridge. He provided additional comments and suggestions on the following topics:

- Flood Mitigation Options Not Yet Mentioned
  - There was a proposed bypass route from Guinda to Channing to Greer that does not seem to be included in the discussion of alternatives anymore. Ninety degree bends are much harder to engineer than 45 degree bends, which is what this route proposes.
- Recreation Options Not Yet Mentioned
  - He would like to see the mitigation plan for getting rid of the park near Pope-Chaucer Bridge. He emphasized that street signs directing people to other recreational areas are not trails. There is no need for a viewing bump on the bridge. Viewing stations should be upstream. A bike bridge at Marlow would be a good option.
- Ecosystem Restoration Options Not Yet Mentioned
  - It is very important to address invasive species that are clogging the creek.
- Erosion Mitigation Options Not Yet Mentioned
  - If more water flows under Pope-Chaucer Bridge, it will likely result in flooding on the Menlo Park side. If the capacity is increased, which is the plan in the proposed alternatives, and the water flows more quickly, this also has an impact on erosion. The best option is to avoid increasing the flow and thus avoid increased velocity and erosion at Pope-Chaucer.

Mr. Wiley emphasized that the upstream detention basin alternatives are the most ecologically desirable alternatives. Upstream detention on Stanford-owned lands is the best option, and since Stanford is looking to expand offices and housing, this is the time to ask for land for upstream detention basins in exchange for a new general use permit (GUP).

### Questions & Comments on the Stakeholder presentation from the public

- I am a 1998 flood survivor and I understand your concern about flooding and your house in Menlo Park. However, the presentation seemed to support the fact that the Pope-Chaucer Bridge is a trouble point. I think we have to replace the Newell and Pope-Chaucer Bridges. I would also like to see upstream detention, but there are difficulties in achieving that, and it does not seem to be at the forefront of the GUP discussions with Stanford.

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- As I understand it, the proposed increase in capacity at Pope-Chaucer Bridge is from 5,500 cfs to 7,200 cfs.<sup>2</sup> At most, that would be a 31% increase, but you said the increase would be 50%. You seem to be expressing concern based on numbers that I do not see represented in the alternative.
  - Response by Mr. Wiley: 50% was a rough estimate—I can see that the 31% number is more accurate. The mathematical relationship between flow, velocity, and rate of erosion is such that a small increase in flow and velocity can have a very large impact on the rate of erosion; this is a primary concern.
- I agree with you that upstream diversion and detention is highly preferred. Stanford is in the EIR process for its increase in offices and housing on campus. Would you suggest that the City of East Palo Alto contact Stanford and suggest the exchange of land for permits? Please clarify.
  - Response by Mr. Wiley: I am not sure that East Palo Alto is the main entity that would make this request; it might be Menlo Park and Palo Alto. Palo Alto is the only one in Santa Clara County, so that would be the most logical entity to ask. Actually, this would be an SFCJPA request since it involves all three cities.
- Can you elaborate on the Guinda-Channing-Greer underground bypass alternative that is no longer included in the plans?
  - Response by Mr. Wiley: It could be that it is still being considered; we will not know until we see the Draft EIR. It was in one of the presentations four years ago. Now all I see is the Middlefield route. The alternative route I am referencing would take water out at Guinda, then into Channing, to Greer, and then re-enter the creek. This would be advantageous because of the 45 degree, rather than 90 degree, bends.
  - Len Materman provided additional information on the route mentioned. He showed a map illustrating the three proposed options for constructing an underground bypass (alternative 4). The culvert would be roughly 8 feet tall and 17 feet wide—a huge box under the street. He explained that this alternative would have a lot of impacts. The SFCJPA’s engineering consultants looked at several different routes and decided that taking water out of the creek at Seneca was a more feasible option than Guinda, since the system has to be gravity-fed. Water taken out at Guinda would not be able to move downstream with gravity. The Guinda route did not disappear, but was analyzed from a hydrological and engineering perspective, and a slightly different route was chosen as more feasible for inclusion in the alternative.
- I would like to make a few comments on Stanford. Several of us have worked on an advisory group over the last two years regarding several alternatives for the future of Searsville Dam that Stanford looked at. Their preferred solution is to put a hole in the base of the Dam, which would essentially convert it into an upstream detention site during large storms. This would restrict the flow downstream, possibly to a degree that would not exceed the capacity of Middlefield. Water would be detained upstream and released slowly over time through the new hole in the Dam. Stanford has been sued by ecological interests to remove the Dam; if that were done, it would eliminate Searsville Reservoir as a potential detention site. To convert the dam would maybe cost \$200 million dollars. I think that going forward incrementally is a good approach to achieve flood protection. The issues about Stanford and land for other upstream detention basins are not the only pieces here, and the GUP process is not holding this project up.

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<sup>2</sup> Although the text above accurately reflects the participant’s comment, SFCJPA staff indicate that the correct numbers are “from 5,800 cfs to 7,500 cfs.”

## Implementation Considerations

Mr. Materman reviewed many of the key considerations to implementing this project, and told participants that the SFCJPA is looking for insights on such implementation-related considerations related to the alternatives under analysis. For tonight's discussion, the alternatives have been grouped into the following geographical areas or "zones" where multiple alternatives would take place:

- A. Widen the creek and open the 4<sup>th</sup> culvert under Highway 101 immediately upstream (west) of **West Bayshore Road**.
- B. Replace railing at **Woodland & University**, and raise capacity by either widening creek bottlenecks at certain locations between Newell Road and Southwood Drive and between University Avenue and Emma Lane, or constructing floodwalls in many areas between Newell Road and Marlowe Street.
- C. Replace or modify **Pope-Chaucer Bridge**.
- D. Construct one or more **upstream detention basins west of Highway 280**.

He reviewed the four geographically-based groupings of alternatives with illustrative maps and photos describing key components of the alternatives. The maps also showed primary construction/staging areas in and along the creek and channel access points needed for construction.

Participants were invited to give input about how these areas might be impacted, either positively or negatively, depending on which alternative is implemented. Mr. Materman provided examples of local resources that could be impacted: traffic, noise, aesthetics, utilities, land use and land rights, air quality, and special status species.

With regard to the upstream detention sites, he urged consideration of all the opportunities and complications. He showed a map of potential upstream detention basin sites. The basins would begin filling during flows larger than what Pope-Chaucer could safely pass at this time. Pope-Chaucer can pass about 5,800 cfs, and Middlefield can pass about 7,500 cfs. The difference is 1,700 cfs. That is the capacity that either needs to be captured upstream or safely passed downstream via the creek if Pope-Chaucer is replaced. The goal with the upstream detention basins is to capture a minimum of 1,700 cfs.

## Questions & Comments

- In the map you showed, the purple line along Woodland includes my property, and you mentioned a bottleneck in this vicinity. What bottleneck are you referring to exactly? I am very concerned about impacts to my property.
  - Response: The purple line represents the geographic extent where work-related activities will occur if that alternative is chosen. In many cases, this is greater than the extent of the permanent change would occur; for example opening the bottleneck between University and Oak Court would require construction related activities beyond just that area. We want to hear from participants about the impacts to the particular areas that will be affected by the work.
- Right now, the road is closed on West Bayshore and traffic is really backed up. What roads are you planning on closing? That will greatly impact residents in East Palo Alto and Palo Alto.
  - Response: Traffic is a really important question for this project and the Newell Bridge project. The SFCJPA is very aware of the need for coordination with the Newell Bridge project regarding traffic concerns. This is an excellent concern to write down on the feedback form tonight.

- What is the height of the floodwalls and what is the material of which they would be made?
  - Response: The floodwalls will be a maximum of 2 feet high and made of concrete.
  - Follow up question: Is the railing currently 2 feet high as well?
  - Response: At the University Avenue Bridge, it is about 2 feet high and then goes down to 1 foot near Manhattan. We will match the height on both sides of the creek.
- Please clarify the capacity of the upstream detention basins; I do not understand how you are comparing a flow and a volume.
  - Response: The size of the detention basin and the location of the inlet that takes water from the creek into the basin are designed to begin capturing and storing water only when the creek reaches a certain flow rate. The idea is to create a basin with enough space to accommodate a particular creek flow rate for several hours to take the peak off the hydrograph and reduce the need for capacity downstream. Then, after the brunt of the storm has passed, water can be released from the basin back into the creek.
  - Comment from participant: The hydrograph is a profile of the modeled flow rate passing down the creek. The hydrograph runs for a certain number of hours. Peaks in the hydrograph can be reduced during critical times by partially diverting flows in to detention basins. The flow rate may be longer or higher because of global warming. The hydrograph being used for the project is based on the worst case flow profile for the creek.
- Visualizations of the proposed alternatives are very helpful—for example, the rendering of the Pope-Chaucer Bridge bores. I would like to see renderings for all of the alternatives in the EIR (such as the two-foot floodwalls).

## Small Group Discussion

Participants broke into small groups, aiming to gather diverse perspectives, expertise, and knowledge of various project constraints. They were asked to provide advice on how to minimize implementation impacts in any/all four of the geographic zones. Each group filled out one “feedback form” as a whole, with one page for each of the four zones. Groups were instructed to pick a leader to keep the group on task, as well as a scribe/rapporteur. After a 40-minute discussion, each group had a few minutes to report out in plenary. Key points from the small group reports and the plenary discussion follow.

### Group 1

- The group agreed that in **Zone A**, the design needs to be environmentally friendly and the 2-foot wall needs to aesthetically integrate with neighborhood. They expressed concerns about sedimentation and maintenance in this area. There are recreational opportunities to pair with this alternative. The concrete stacks that are degrading the environmental quality of the creek should be removed.
- With regard to **Zone C** (replace or modify Pope-Chaucer Bridge), the group said they want to see this project completed. It is exciting to see the plan from 10 years ago come to fruition. A culvert is suboptimal relative to replacing the bridge. There is an opportunity to be sensitive to the landscaping—for example, keep the trees or replace them with nice landscaping.
- The alternatives in **Zone D** are a good complement to the others. Downstream projects alone will not achieve full 100-year flood protection. There is a need for both upstream and downstream projects in order to eliminate the need for flood insurance. However, constructing upstream detention basins will be time consuming.

## Group 2

The rapporteur prefaced his/her comments by noting that most of this subgroup did not live in the areas immediately affected by the implementation of the alternatives under consideration.

- In **Zone A**, there is a challenge with large trucks getting in and out of the area. The group expressed concern about staging and construction traffic, especially if trucks get lost. There might also be impacts to backyards.
- With regard to **Zone B**, SFCJPA should consult closely with those who are knowledgeable on the local traffic patterns in the neighborhood (e.g., Elizabeth Jackson, resident from East Palo Alto) to mitigate traffic concerns. The group expressed a desire for recreational use to be preserved along Woodland while the creek is under construction—perhaps to develop a flexible design for a recreation area and flood control. The group encouraged a “people first” approach. The 2-foot wall is an entrance to a neighborhood and needs to be attractively designed.
- In **Zone C**, the park adjacent to the Pope-Chaucer Bridge is valuable to the community. The group said maybe the bores would be a better approach to maintain the feeling of the area.
- The group agreed that alternatives in **Zone D** would be very helpful to the whole process. Downstream efforts are a shorter-term priority, however.

## Group 3

The rapporteur said that comments from this group apply to all scenarios/zones.

- Erosion is a big concern. The hydrology needs to be studied adequately; impacts should be well known and described.
- There is worry about the taking of property and a hope that damage to lots can be avoided.
- The group was concerned about construction impacts and quality of life, particularly how those impacts will be publicized to the community.
- The group commented on the importance of historical structures in the community that contribute to local character. Those areas need to be called out in the EIR and given protection. Two addresses in particular are 27 Crescent in Palo Alto, and 1450 Woodland Ave in Menlo Park.
- Managing traffic is a big issue. Signage should be posted strategically so that drivers can anticipate detours ahead of time and not encounter them at the last minute.
- The EIR should analyze the possibility of the Searsville Dam serving as a stream impoundment site. Removing sediment could provide extra capacity and contribute to the upstream detention alternative.
- Minimize property damage before, during, and after construction.
- Preserve natural functions of the creek as much as possible.

## Plenary Comments

- One participant said that when his house flooded, it seemed that groundwater came up into the basement—not from streets or over bridges. Do these solutions address groundwater issues?
  - Kevin Murray responded that it is hard to know the source of water in this particular case; the specific hydrogeology matters. The alternatives that SFCJPA is looking at focus on removing water from the channel or upstream detention, not groundwater.
  - Len Materman added that the City of Palo Alto has a strong storm drain improvement program. Increasing capacity downstream enables better function of the storm drains.
  - Michel Jeremias commented that groundwater takes about 2-3 months to move down to the Bay, and that many of the basements in Palo Alto have a perimeter surface drain with a pump. She noted that, if the pump stops working, there will be water under the house. Gutters can also be a cause for water going into the basement. There are a number of scenarios that could have occurred in this case.

- I am a long-time advocate of upstream detention basins. I used to think that we could detain water in a thousand different places and it would all add up, but it does not work that way with topography and geology. In reality, SFCJPA is presenting the best suite of opportunities for this approach. The potential upstream detention basins are all on Stanford lands, and they all have existing dedicated uses (e.g. Jasper Ridge biological reserve). Jim Wiley brought up the possibility of using the GUP process. I would not discourage people from getting involved in that if they want to, but there are problems with that approach. The GUP process is specific to the county. Stanford is required to mitigate for the building itself; they cannot add to flows to the creek with their construction. Stanford is required to do mitigation for the creek, but there is no legal standing in the GUP process for the suggested quid pro quo for upstream detention sites. There are real challenges in the placement of the upstream detention basins. There are big environmental impacts associated with some of the sites. There are tradeoffs. The current proposal for Searsville Dam—put a big hole in it—does not get us all the increased capacity we need. I encourage SFCJPA to do the best project that provides protection against the 1998 levels. Then we can talk about upstream detention, but I am not particularly hopeful about that option.
- One participant emphasized the need to get the project done soon, and to consider opportunities to create multiple benefits in projects (e.g., trails).

The facilitator summarized the recurring themes across the groups, which included:

- Participants have concerns about sediment management;
- The implementation approach should minimize disruptions to people's lives (traffic in particular);
- Participants want to avoid or minimize impacts to private property;
- Communication is key (signage, notifications about work, etc.);
- Concrete structures need to be attractive;
- Protect park-like places to the extent possible (the aesthetic feeling); and
- Protect natural functions and aesthetics of the creek.

## Closing Comments

Mr. Materman indicated that community input from this workshop will be incorporated into the EIR. He said the SFCJPA Board meets monthly and all are welcome to attend; upcoming meetings are on October 26 at 3:30 in Menlo Park and on November 16 in East Palo Alto. The meetings are another forum for engagement with the public. People can also comment on the public Draft EIR when it comes out. He said SFCJPA will email workshop attendees about its release, and it will also be posted on member organizations' websites. Mr. Materman thanked participants for their participation and comments, and adjourned the workshop.

## Appendix A: Implementation Considerations in Reducing Flood Risk from San Francisquito Creek

### Group 1

<b>A. WIDEN THE CREEK UPSTREAM OF WEST BAYSHORE ROAD</b>	
<b>Consideration</b>	<b>Advice</b>
<b>Aesthetics</b>	Environmentally friendly design
<b>Special status species</b>	Fish run
<b>Other</b>	Sedimentation, maintenance environmental
<b>Other</b>	Would be nice to make it pleasant for recreation, walking paths, bike parts if property rights allow
<b>Other</b>	Remove the concrete wall above university and remove concrete sacks
<b>C. REPLACE OR MODIFY POPE-CHAUCER BRIDGE</b>	
<b>Consideration</b>	<b>Advice</b>
<b>Other</b>	Replace the bridge
<b>Other</b>	Forget the bypasses – still limited capacity
<b>Other</b>	Environmentally friendly post construction landscaping  *Please get this done!
<b>D. CONSTRUCT ONE OR MORE UPSTREAM DETENTION BASINS</b>	
<b>Consideration</b>	<b>Advice</b>
<b>Other</b>	Good compliment to downstream widening and bridge replacement
<b>Other</b>	Will hopefully get us 100-yr flood protection, lowering flood insurance

Group 2

<b>A. WIDEN THE CREEK UPSTREAM OF WEST BAYSHORE ROAD</b>	
<b>Consideration</b>	<b>Advice</b>
<b>Traffic</b>	Construction traffic Big trucks can't get out Challenge with staging. Parking challenge
<b>Noise</b>	Right next to residential
<b>Land use and land rights</b>	Potential eminent domain?/ cut into people's backyards?
<b>Air quality</b>	Dust, fuel odor
<b>Special status species</b>	Steelhead
<b>B. REPLACE RAILING AT WOODLAND &amp; UNIVERSITY &amp; RAISE CAPACITY BY WIDENING CREEK BOTTLENECKS OR BY CONSTRUCTING FLOODWALLS</b>	
<b>Consideration</b>	<b>Advice</b>
<b>Traffic</b>	Traffic on Woodland/university Limited ingress/egress Light? Parking Elizabeth Jackson has good ideas
<b>Noise</b>	Neighbor nearby on both sides
<b>Aesthetics</b>	Concrete wall should be attractive—It's a gateway to the area
<b>Land use and land rights</b>	Impact on private properties to widen
<b>Special status species</b>	Steelhead Impact on oak trees, landscape
<b>Dual Purpose Design</b>	Recreational opportunity on land adjacent to creek EPA needs park space on Westside
<b>Other</b>	Levees important – no flooding in EPA Take care of people first – but keep it as attractive as possible
<b>C. REPLACE OR MODIFY POPE-CHAUCER BRIDGE</b>	
<b>Consideration</b>	<b>Advice</b>
<b>Traffic</b>	Replacing bridge would remove park – not good plus huge traffic impact
<b>Noise</b>	Adjacent neighbor

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<b>Utilities</b>	Bores could have utility impacts
<b>D. CONSTRUCT ONE OR MORE UPSTREAM DETENTION BASINS</b>	
<b>Consideration</b>	<b>Advice</b>
<b>Traffic</b>	Less traffic impact than other alternatives
<b>Land use and land rights</b>	Big challenge
<b>Other</b>	Neighbor concerned about environmental issues

Group 3

<b>ALL ALTERNATIVES</b>	
<b>Consideration</b>	<b>Advice</b>
<b>Traffic</b>	During construction, somehow try to manage traffic if possible Better signage + placed strategically with enough warning for the detours!
<b>Aesthetics</b>	Historic properties contribute to P.A. character #27 crescent #1450 Woodland, m.p. Important to catalog the historic structures to make sure special protections are in place
<b>Land use and land rights</b>	Minimize damage to property before during and after
<b>Special status species</b>	Use Searsville, dam as water storage detention basin
<b>Other (Erosion)</b>	Will it be studied adequately Will erosion result in property "take"
<b>Other (Construction Impacts)</b>	On individual properties? Disruption of life. How long, how frequent
<b>Other (ADA)</b>	Smoothing out the arch at Pope-Chaucer Bridge
<b>Other</b>	Use Searsville Dam as water storage detention basin Would require removing existing sediment
<b>Other</b>	Creek ecosystem

## Appendix B: List of Attendees

Based on sign-in sheets; sign-in was optional.

Name	Affiliation
Sue Dinewidde	
Ken Dinewidde	
Kevin Lewis	City of East Palo Alto
Xavier Fernandez	San Francisco Water Board
Trish Mulvey	Palo Alto resident
Eric Zickler	Lotus Water
Madan Avadhani	Self
Ann Stillman	SMCFCD
Mark Harris	Self
Bill Quackenbush	Self
Dennis Parker	Gardens, EPA
Luella M. Parker	Gardens, EPA
Sue Dremann	PA Weekly
Judd Volino	Self
Len Weisberg	Self
Robert Lipshitz	Self
WH Abbott	
Susan Glendening	San Francisco Water Board
Jim Wiley	
Jerry Hearn	
Veronica Chowinard	
Hamilton Hitchings	
Robert Allen	
Claire Amkraut	Self
Al Keicher	
Pam Boyle Rodriguez	City of Palo Alto
Esther Nigenda	
Xenia Hammer	
Joon Lee	
Kamal Fallaha	East Palo Alto
Kathy Thibodeaux	Columbia Property Trust
Jennifer Schneider	Resident
S Sanders	Resident
Elizabeth Jackson	Self, East Palo Alto
Tom Rindfleisch	Self
Virginia Saldich	Homeowner
Michael Griffin	Self
Kamal Fallaha	EPA
Bryce Wilson	Lotus Water
Len Materman	SFCJPA
Tess Byler	SFCJPA
Kevin Murray	SFCJPA
Saied Hosseini	SCVWD

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<b>Russell Chen</b>	SCVWD
<b>Michael Martin</b>	SCVWD
<b>Jessica Collins</b>	SCVWD
<b>Jose Villarreal</b>	SCVWD
<b>Rajeev Hada</b>	City of Palo Alto
<b>Michel Jeremias</b>	City of Palo Alto