Marin City Stormwater Plan Update

MARIN COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

FLOOD ZONE 3 ADVISORY BOARD MEETING

JULY 9, 2024

Judd Goodman, PE
Senior Civil Engineer

Agenda

- Project Recap
- Analysis
- Improvement Concepts
- Evaluation

Project Recap

Stormwater Plan Purpose

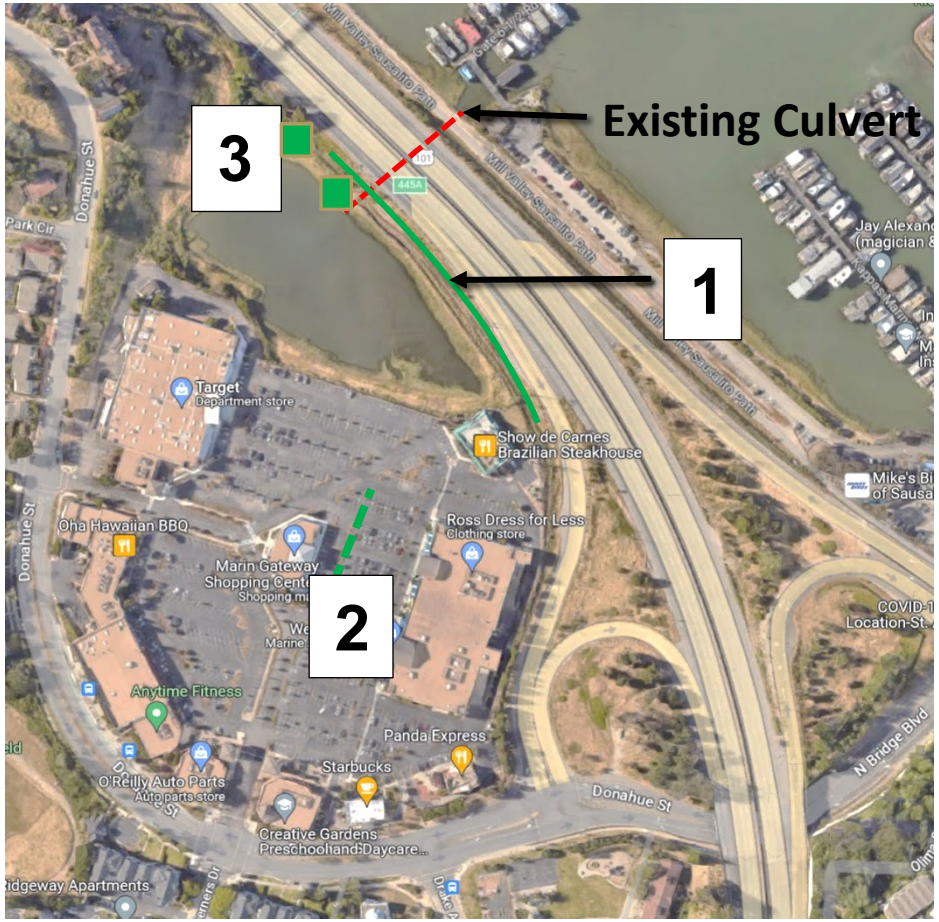
- **Identify** flood and drainage issues
- **Recommend** and prioritize improvements to reduce flood risk with **community** input
- **Improve** effectiveness of flood management operations
- **Integrate** with Caltrans Planning
- **Attract** funding

Timeline

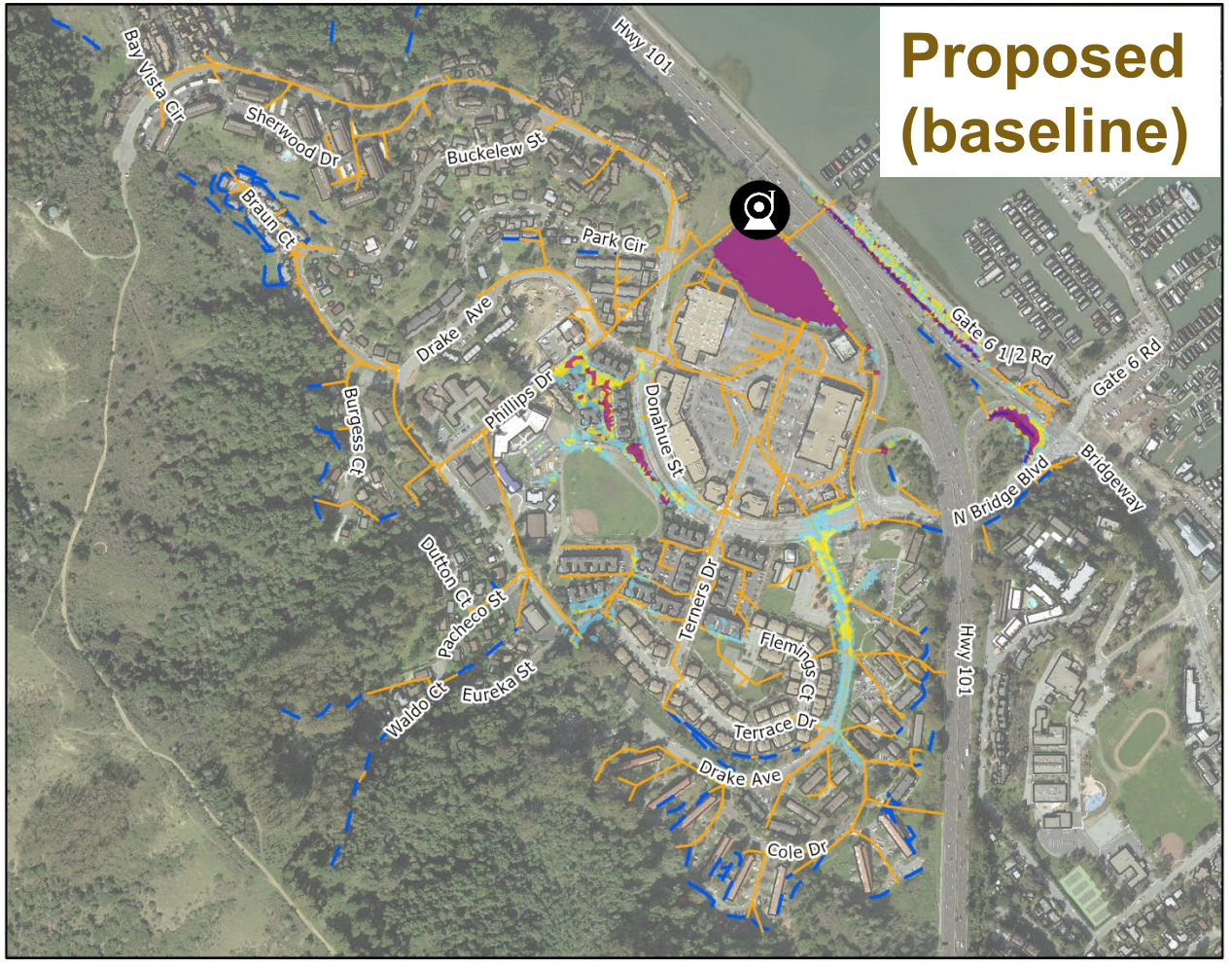

Task Force Meeting 1
April 3
Task Force Meeting 2
August 1
County met with Task Force
Nov-Dec
2023
Community Meeting1
June 1
Task Force Meeting 3
October 4
MLK Day Table
January 15
Community Meeting 2
March 9
Task Force Meeting 4
June 11
Community Meeting 3
October
2024
CSD Meeting
February 28
Office Hours
March-April
Task Force Meeting 5
September
Project Completion
November

Analysis

Proposed Baseline Projects



1. Install Permanent Floodwall
2. Upsize pipe
3. Permanent Pump Station



Flood Risk Reduction
10yr, MHHW, 24-hr

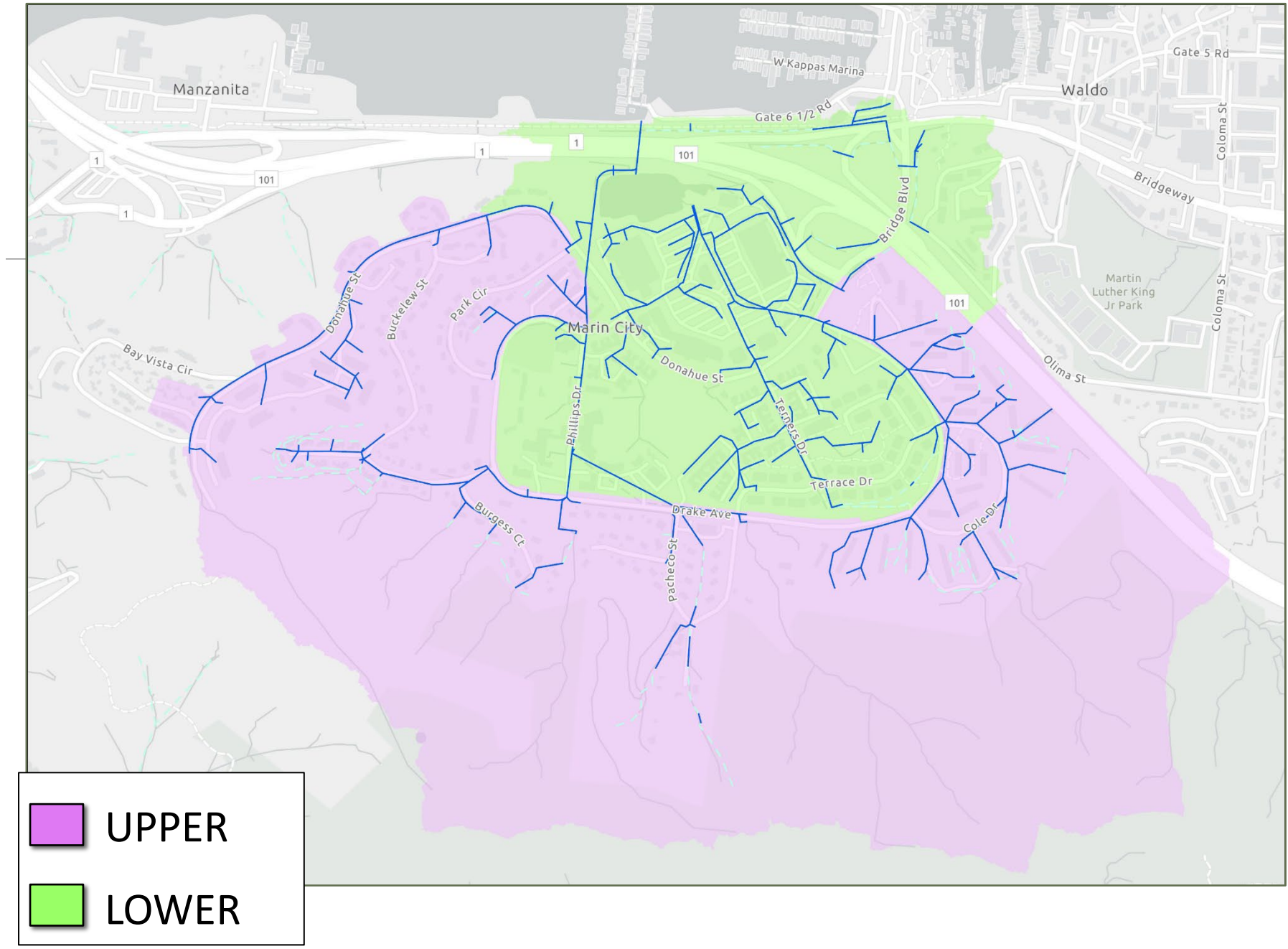
Flood Depth (Ft)

- 0.1 - 0.5
- 0.5 - 1
- > 1

- Channel
- Pipe

Improvement Concepts

Upper vs Lower Watershed



Lower Watershed Concepts

- Drake Pipe Upsize and Increase Inlet Capacity
- Bypasses
- Drake and Donahue Street Raising
- Drake Watershed Detention
- New Outfall
- Maintenance & Repair

Green Infrastructure

Images from MCSTOPPP

Upper Watershed Concepts

- Improve Trash Racks
- Increase Inlet Capacity
- Connect Hillside Drainage
- Sediment Basins
- Hillside Management
- Maintenance & Repair

Images from Marin City Peoples' Plan

Evaluation

Initial 9 Criteria

- Flood management effectiveness
- How can this improve the entrance/exit to Marin City?
- Does this reduce flooding near our homes and buildings?
- Climate change resiliency
- What is the impact on our community's health?
- Will this project affect our plants, air, trees, water, etc.?
- Will this increase access to our recreational areas?
- Can the project be combined with green infrastructure features?
- How will this impact our community during construction?

Criteria Weight

- Online Survey
- Community Meeting Voting Exercise
- In-Person Surveys at Community Events

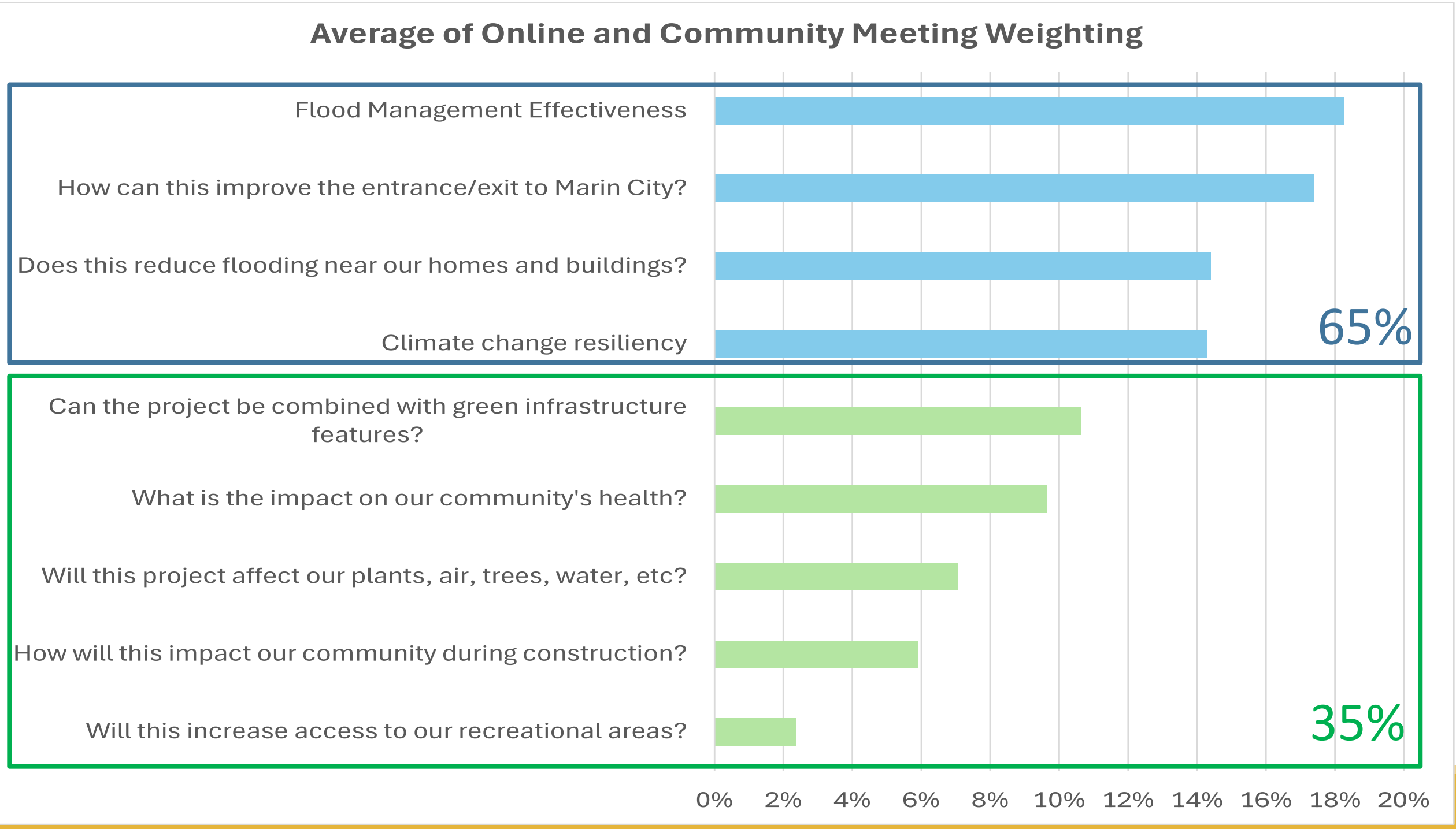
June Community Outreach

- 3 Saturday Events
- Increased community input
  from 31 to ~200 surveys

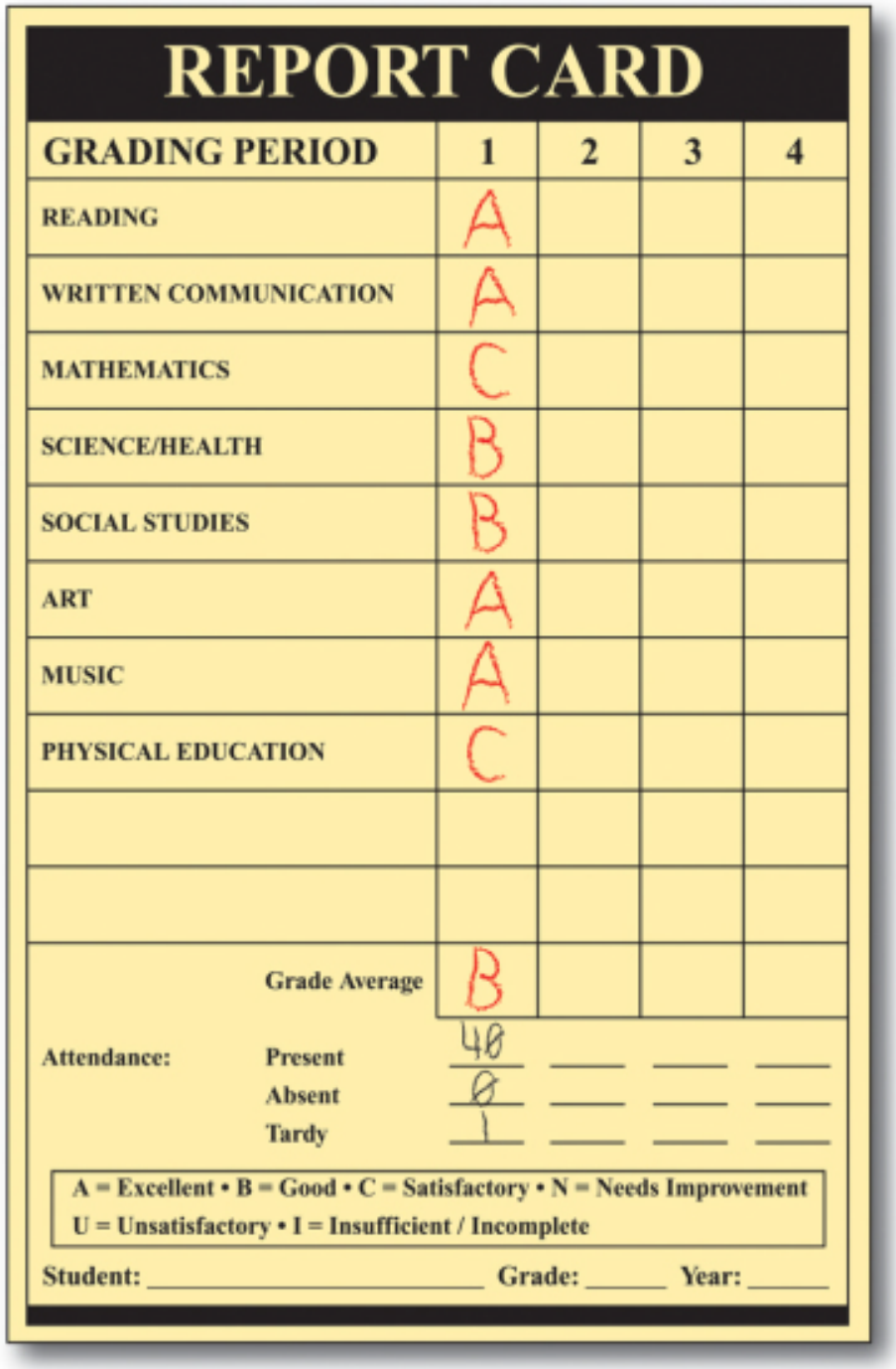

Sources Together


ZERO WASTE MARIN
Protecting Our Resources Together


Protecting Our Resources Together


Average of Online and Community Meeting Weighting
Flood Management Effectiveness
How can this improve the entrance/exit to Marin City?
Does this reduce flooding near our homes and buildings?
Climate change resiliency
65%
Can the project be combined with green infrastructure features?
What is the impact on our community's health?
Will this project affect our plants, air, trees, water, etc?
How will this impact our community during construction?
Will this increase access to our recreational areas?
35%
0%
2%
4%
6%
8%
10%
12%
14%
16%
18%
20%

How do we Score?



REPORT CARD

GRADING PERIOD	1	2	3	4
READING	A			
WRITTEN COMMUNICATION	A			
MATHEMATICS	C			
SCIENCE/HEALTH	B			
SOCIAL STUDIES	B			
ART	A			
MUSIC	A			
PHYSICAL EDUCATION	C			
Grade Average	B			
Attendance: Present	40			
Absent	0			
Tardy	1			

A = Excellent • B = Good • C = Satisfactory • N = Needs Improvement
U = Unsatisfactory • I = Insufficient / Incomplete

Student: _____ Grade: _____ Year: _____

Entrance/Exit Marin City

A

No flooding in road for 10-year and 2yr

F

Major flooding (> 6 inches) in road in 10yr and 2yr

Impacts to plants, air, trees, water

A

Major habitat creation

F

Major habitat reduction

UPPER WATERSHED

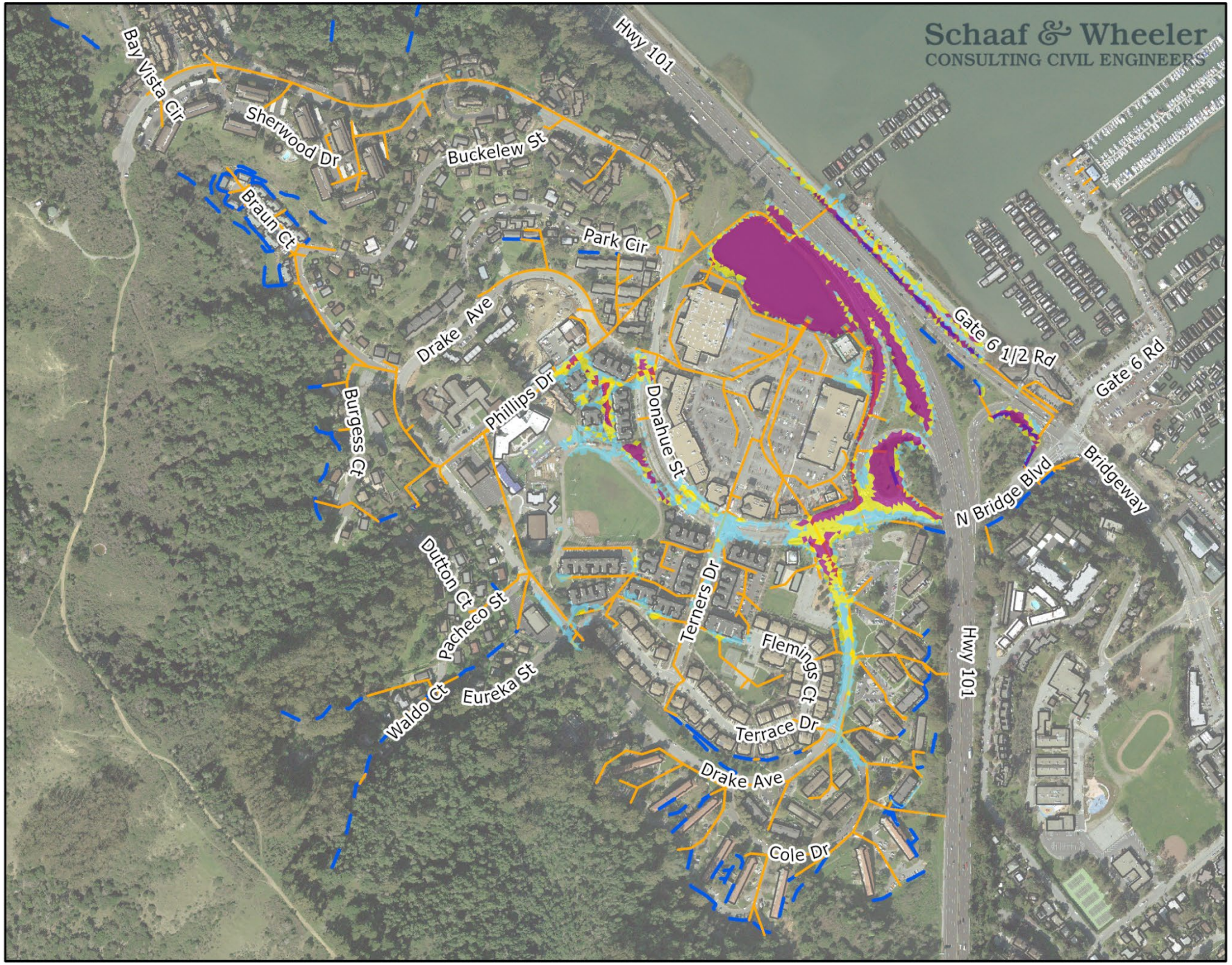
DRAFT

Concept	Flood Effectiveness	Community Environment Health	GPA	Overall Grade
Weight	65	35		
Maintenance and Repair	A	B	3.5	A-
Higher Capacity Inlets at Waldo Court	A	B	3.4	A-
Higher Capacity Inlets at Housing	A	B	3.4	A-
Trash Rack and Sed Basin at Phillips	B+	B+	3.3	B+
Trask Rack and Sed Basin at Eureka Pacheco Ditch	B+	B	3.2	B+
Trail Improvements on Hillsides - turn outs	B	A-	3.2	B+
Connect the Pipes on the Hillside	B+	B	3.2	B+
Permanent Hillside Slide Repair and Remove K-Rail	B+	B	3.2	B+
Vegetated Channel	B-	A	3.1	B+
Re-Reroute Caltrans	B+	C+	3.0	B
Sed Basin at top of Cole Drive	B	B	2.9	B

LOWER WATERSHED Concept

DRAFT

	Flood Effectiveness	Community Environment Health	GPA	Overall Grade
Weight	65	35		
Do Nothing	D-	C	1.1	D+
Proposed Baseline Projects	C	B-	2.2	C+
Phillips Drive Bypass to New Bay Outfall	B+	B	3.1	B+
Donahue Bypass Library to Bay	B	C+	2.8	B
Drake Partial Bypass to New Bay Outfall	B	C+	2.8	B
Drake Watershed Detention	B-	B	2.8	B
Pond New Outfall	C+	B	2.5	B-
Drake Pipe Upsize	C+	B-	2.4	B-
Drake Partial Bypass to Pond	C+	B-	2.4	B-
Drake and Donahue Street Raising	C	C+	2.1	C+



EXISTING CONDITION: 10 YR STORM MHHW TIDE

DRAINAGE

- Channel
- Pipe

Basemap

- Buildings

Flood Depth (Ft)

- 0.1 - 0.5
- 0.5 - 1
- > 1

D+

BASELINE PROJECTS: 10 YR STORM MHHW TIDE

DRAINAGE

- Channel
- Pipe

Basemap

- Buildings

Flood Depth (Ft)

- 0.1 - 0.5
- 0.5 - 1
- > 1

C+

PROPOSED COMBO - PHILLIPS DRIVE, DRAKE PIPE, PUMP, DETENTION 10YR STORM MHHW TIDE

DRAINAGE

- Channel
- Pipe

Basemap

- Buildings

Flood Depth (Ft)

- 0.1 - 0.5
- 0.5 - 1
- > 1

~A

Next Steps

- Prioritized Improvement Concepts
- Task Force Meeting 5
- Community Meeting 3
- Publish Report
- Seek Funding

Question & Answer