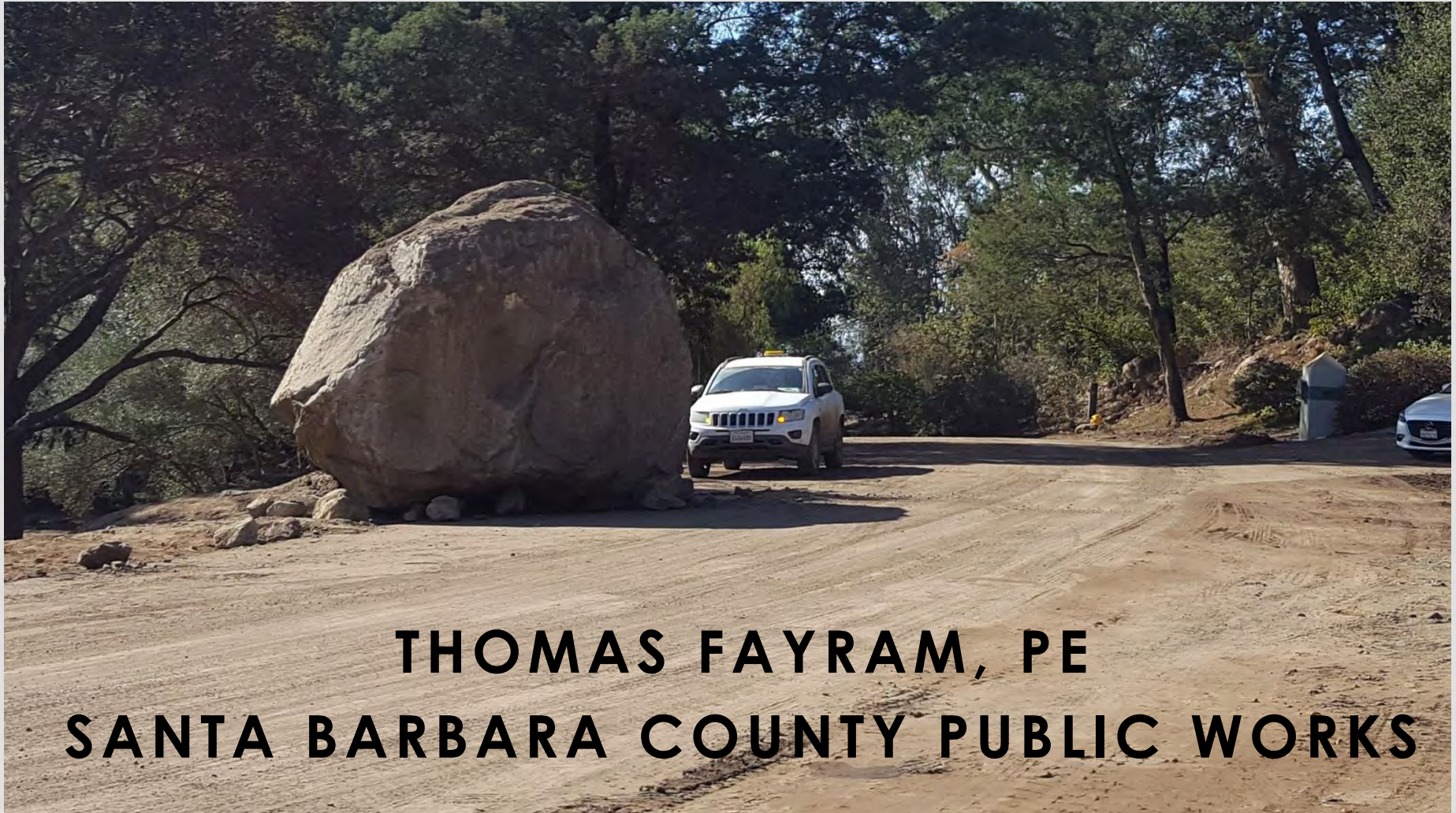


THOMAS FIRE AND THE 1-9 DEBRIS FLOW DECEMBER 2017 – JANUARY 2018



THOMAS FAYRAM, PE
SANTA BARBARA COUNTY PUBLIC WORKS

THOMAS FIRE FOOTPRINT



Department of Public Works
Water Resources Division
County of Santa Barbara

Legend



Fire Perimeter 12/26/2017
10:00 A.M.

	Acreage Burned	% of Watershed
Rincon	7,558	83%
Steer	4,681	92%
Carpinteria	3,091	67%
Miller	355	37%
Franklin	521	80%
High School	177	24%
Santa Monica	2,004	82%
Arroyo Paredon	1,066	35%
Toro Canyon	1,086	47%
Picay	1,929	51%
San Ysidro	2,011	77%
Oak Creek	235	25%
Montecito	2,842	77%
Sycamore	292	30%
Mission	200	5%

Basins

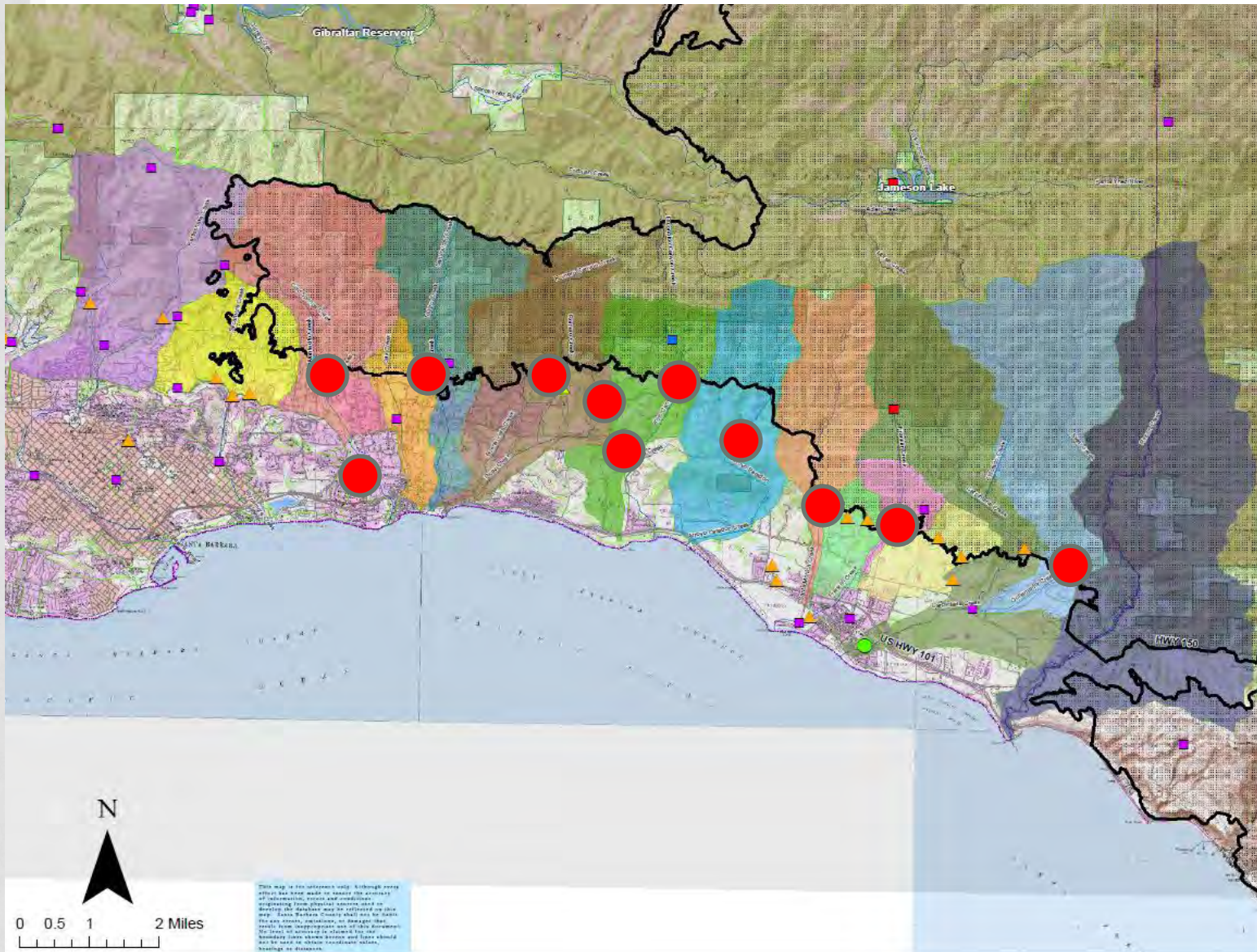
- ▲ Basin
- ▲ Basin Cleanup
- ▲ Basin Cleanup - completed
- Basin Inlet Cube Structure

Hydrologic Station

- Hydrologic Station
- Hydrologic Station Repair
- Hydrologic Station Upgrade

Channels

- Channel Debris Removal
- Reservoirs
- Los Padres National Forest
- County Boundary



**Thomas Fire
Protective Measures**

Santa Barbara County, California

Prepared by the Water Resources Division 1/5/2018

GOVERNADOR DEBRIS BASIN

Clearing
December 2017



Post clearing
December 2017

BEFORE THE STORM (DEC 15 – JAN 5) RACE TO MAKE 11 BASINS “WHISTLE CLEAN”

- 11 Debris Basins cleared
- Work completed on Jan. 5, 2018



DEBRIS MOVEMENT

- Upper creek reaches scoured clear
- Lower reaches enormous deposition



CHANNELS OVERWHELMED





January 9, 2018 Storm Clean-up Progress Map

Legend

Basin Cleanout

- Complete
- In Progress
- ✓ Spillway Repair

Bridge Clearing

- Complete
- In Progress

Stream Clearing

- Work Done by USACE
- Complete
- In Progress
- To Be Done
- Thomas Fire



0 0.5 1 2 Miles

This map is for reference only. Although every effort has been made to ensure the accuracy of information, errors and omissions originating from physical sources used to develop the database may be reflected on this map. Santa Barbara County shall not be liable for any errors. No level of accuracy is claimed for the boundary lines shown hereon and lines should not be used to obtain coordinate values, bearings or distances.

March 8, 2018 4:00 P.M.

COUNTY / CORPS CHANNEL CLEARING





San Ysidro Creek Cleanout at US 101 – County Forces

POST "INITIAL CLEARING" – FINAL CLEARING



Montecito Creek at Olive Mill

CHANNEL CLEARING

County / Corps



County Forces



GOVERNADOR DEBRIS BASIN

Post Debris Flow

Post Corps Cleanout



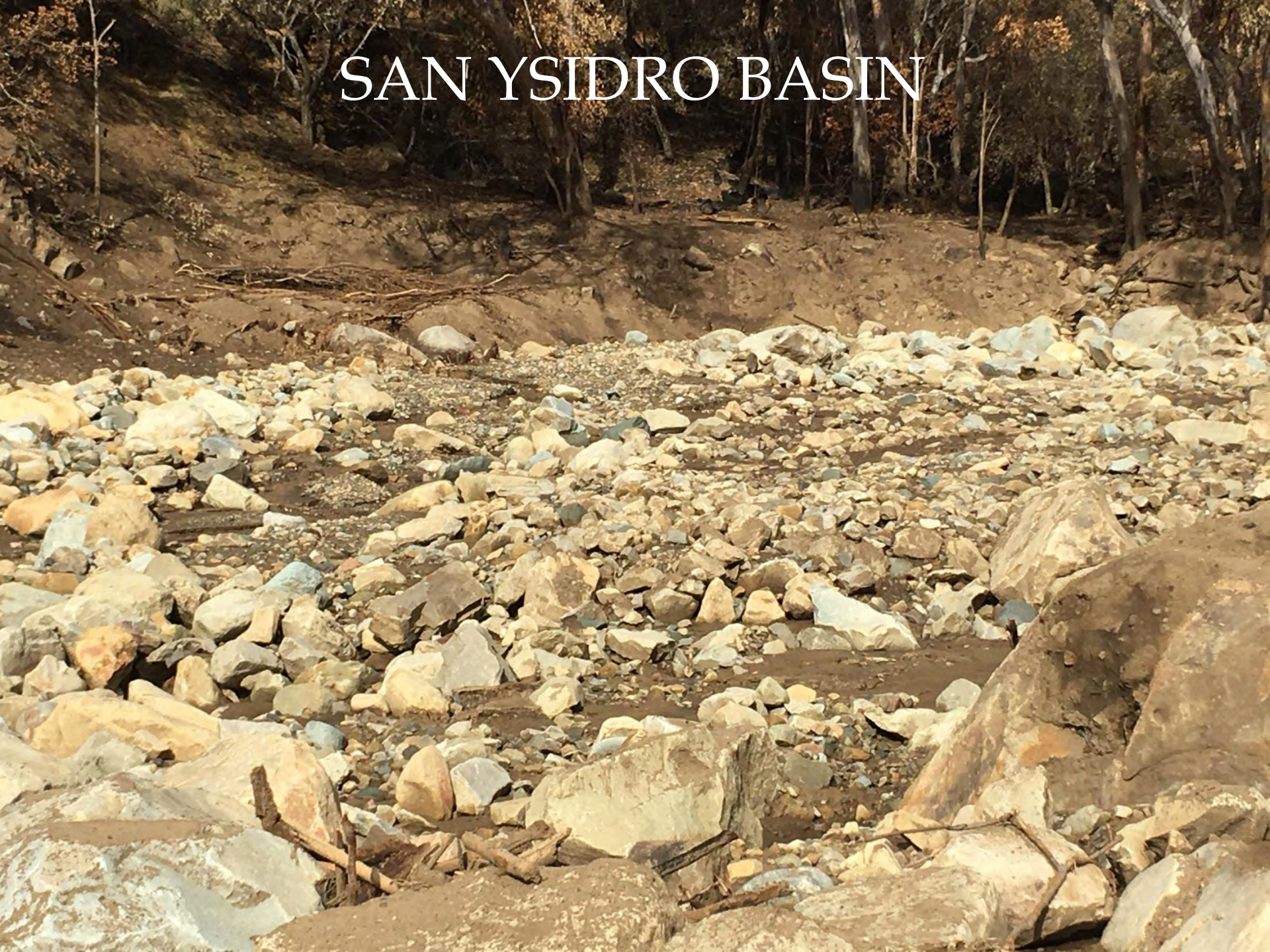
COLD SPRINGS DEBRIS BASIN



COLD SPRINGS DEBRIS BASIN



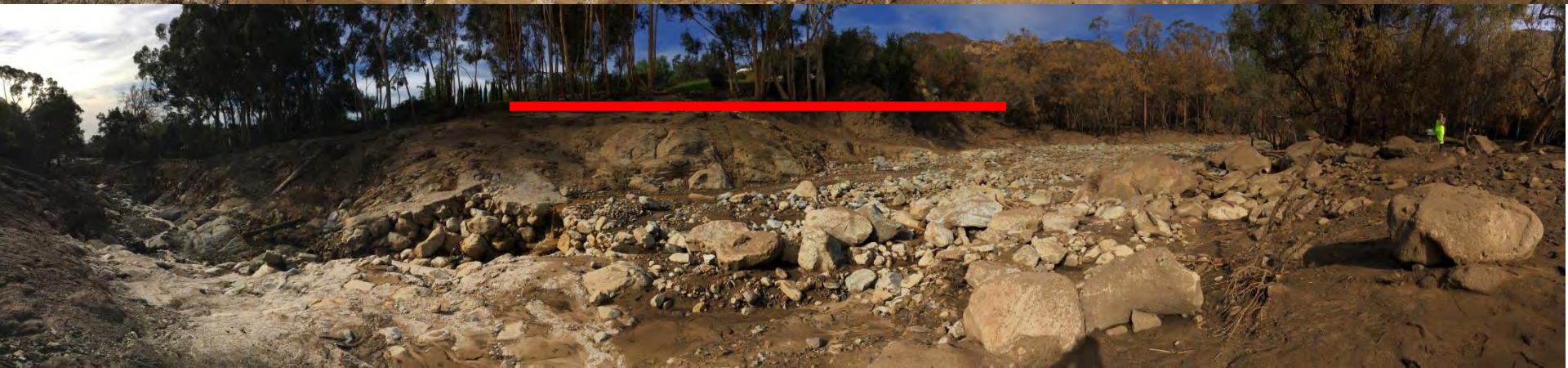
SAN YSIDRO BASIN



SAN YSIDRO CREEK DEBRIS BASIN



DEBRIS BASINS OVERWHELMED SAN YSIDRO BASIN



MONTECITO CREEK DEBRIS BASIN

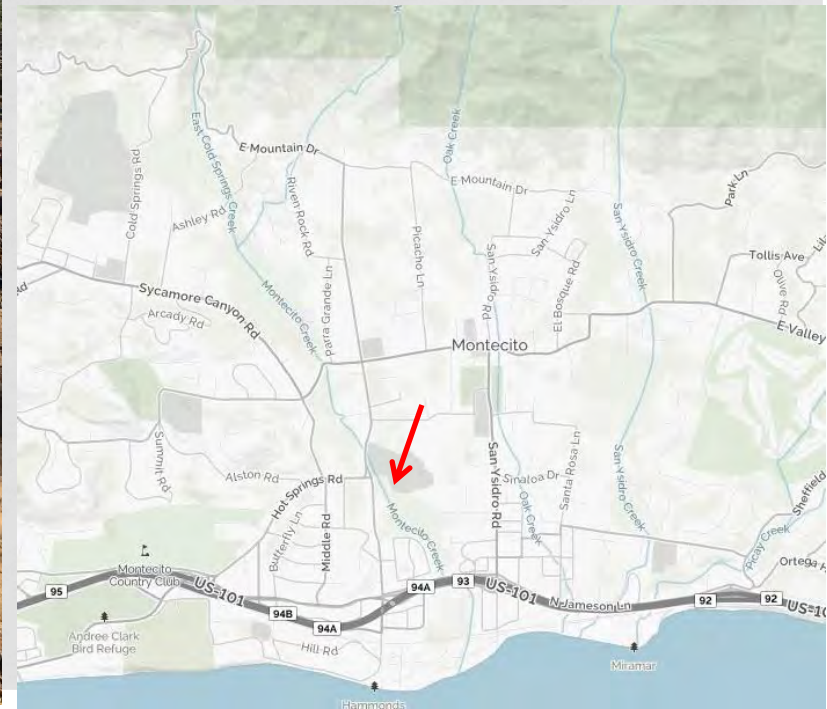




MONTECITO CREEK DEBRIS BASIN



Approximate Debris
Flow Line



SAN YSIDRO CREEK, HWY 192



BASINS
AS OF: 08 MAR 2018 @ 1700 hours

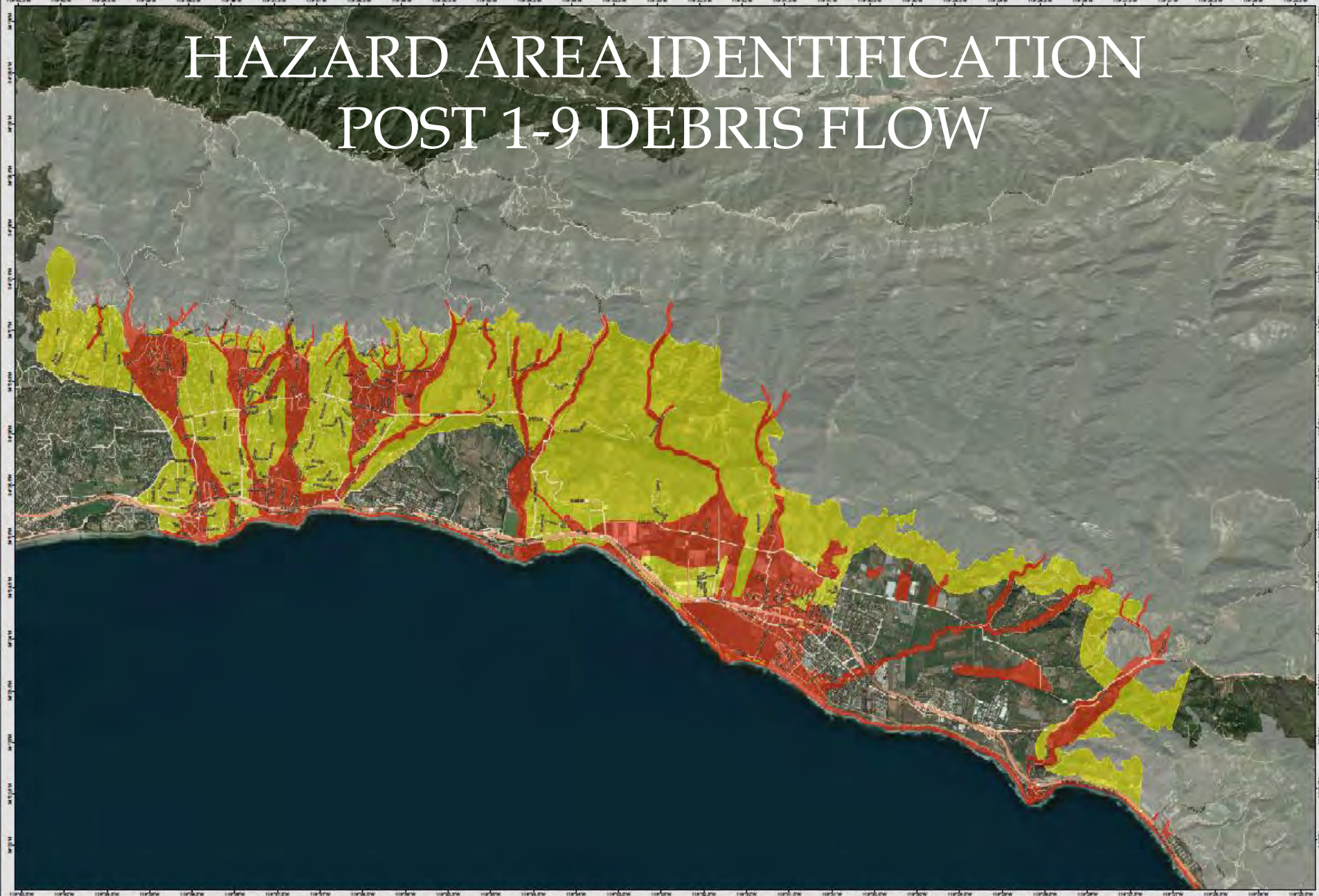
Basin/Site	Hauling Start Date	Status	Truck Loads	CY	Total to date	Revised Quantities	Actual / Estimated	Expected End Date
Cold Springs	14-Jan	Hauling Complete	0	0	24,782	24,782	Actual removed (complete)	Debris removal complete
Montecito	17-Jan	Hauling Complete	0	0	2,325	2,325	Actual removed (complete)	Debris removal complete
Gobernador	16-Jan	Hauling Complete	0	0	11,408	11,408	Actual removed (complete)	Debris removal complete
Franklin	18-Jan	Hauling Complete	0	0	1,162	1,162	Actual removed (complete)	Debris removal complete
Santa Monica	15-Jan	Stockpiling & breaking rock	48	531	146,199	156,000	Estimated (basin capacity + overburden)	15-Mar
San Ysidro	16-Jan	Hauling Complete	0	0	21,747	21,747	Actual removed (complete)	Debris removal complete
Romero	21-Jan	Hauling Complete	0	0	43,216	43,216	Actual removed (complete)	Debris removal complete
Arroyo Paredon Basin	17-Jan	Hauling Complete	0	0	24,029	24,029	Actual removed (complete)	Debris removal complete
Toro Upper West	21-Jan	Hauling Complete	0	0	15,916	15,916	Actual removed (complete)	Debris removal complete
Toro East	21-Jan	Hauling Complete	0	0	15,151	15,151	Actual removed (complete)	Debris removal complete
Toro Lower West	23-Jan	Hauling Complete	0	0	12,277	12,277	Actual removed (complete)	Debris removal complete
			48	531	318,212	328,013	Percent complete	97%

STREAMS AND CREEKS
AS OF: 08 MAR 2018 @ 1700 hours

Basin/Site	Hauling Start Date	Status	Truck Loads	Cubic Yardage	Overall Quantities	
					Estimated quantities	Total to date
Montecito Meadow (@ Ashley Rd)	7-Feb	Hauling Complete	0	0	3,388	3,388
Montecito Creek (Hot Springs Creek)	8-Feb	Hauling Complete	0	0	2,352	2,352
Romero Creek (@ Sheffield)	9-Feb	Hauling Complete	0	0	5,489	5,489
Montecito Creek (Meadow Wood Lane)	12-Feb	Hauling Complete	0	0	5,341	5,341
Arroyo Paredon Creek (u/s HWY 192)	14-Feb	Hauling Complete	0	0	3,365	3,365
East Toro Creek (u/s of HWY 192)	18-Feb	Hauling Complete	0	0	5,819	5,819
Hot Springs Creek (@ Riven Rock Road)	27-Feb	Hauling Complete	0	0	6,625	6,625
Toro Cyn Creek (Torito Rd)	14-Feb	Hauling Complete	0	0	3,796	3,796
Toro West Creek (at SR-192)	23-Feb	Hauling Complete	0	0	3,041	3,041
San Ysidro Creek (upstream of San Leandro)	20-Feb	Hauling Complete	0	0	5,925	5,925
Santa Monica Creek (upstream of Santa Monica Derbis Basin)	TBD		0	0	20,000	0
PERCENT COMPLETE		69%	0	0	65,141	45,141



HAZARD AREA IDENTIFICATION POST 1-9 DEBRIS FLOW



DEBRIS FLOW RISK AREAS / ÁREAS DE RIESGO DE FLUJO DE ESCOMBROS
Santa Barbara County EOC
2018 Storm 1 - 18STM1

Legend / Leyenda

- Extreme Risk / Riesgo Extremo
- High Risk / Riesgo Alto
- Thomas Fire Burn Area - High Risk
Incendio Thomas Área Quemada - Riesgo Alto

0 2 Miles
0 1,200,000 Feet

2018
January Storms
Tormentas de enero
Data Update 2020/01/01

QUESTIONS



“If the rain comes as predicted and the debris flow estimates are true, it’s probably going to be something we haven’t seen before,”