

SONOMA ECOLOGY CENTER RESTORATION PROGRAM PROJECTS 2021

Funded by SCWA Zone 3A

Presented at Annual Meeting

December 9, 2021

Presenter #1: Barry Hill, SEC Restoration Program Manager



Debris Removal Project

- Community creek clean-ups Sept. 18, November 21
- Removed trash from Sonoma Creek along Warm Springs Road
- Cleaned encampment at Lawndale Creek
- Currently planning 3 woody debris removal projects
- Considering use of highline cable system to protect banks
- Most projects will need to wait till after June 15 due to CDFW permit
- Currently we have spent about \$10k of annual funding of \$50k
- Trash and encampment cleanups are not specified in current contract, could be added in 2023.

Oct. 24 Storm Debris



Kohler Creek,
Glen Ellen



Sonoma Creek, Sonoma



Calabazas Creek,
Glen Ellen



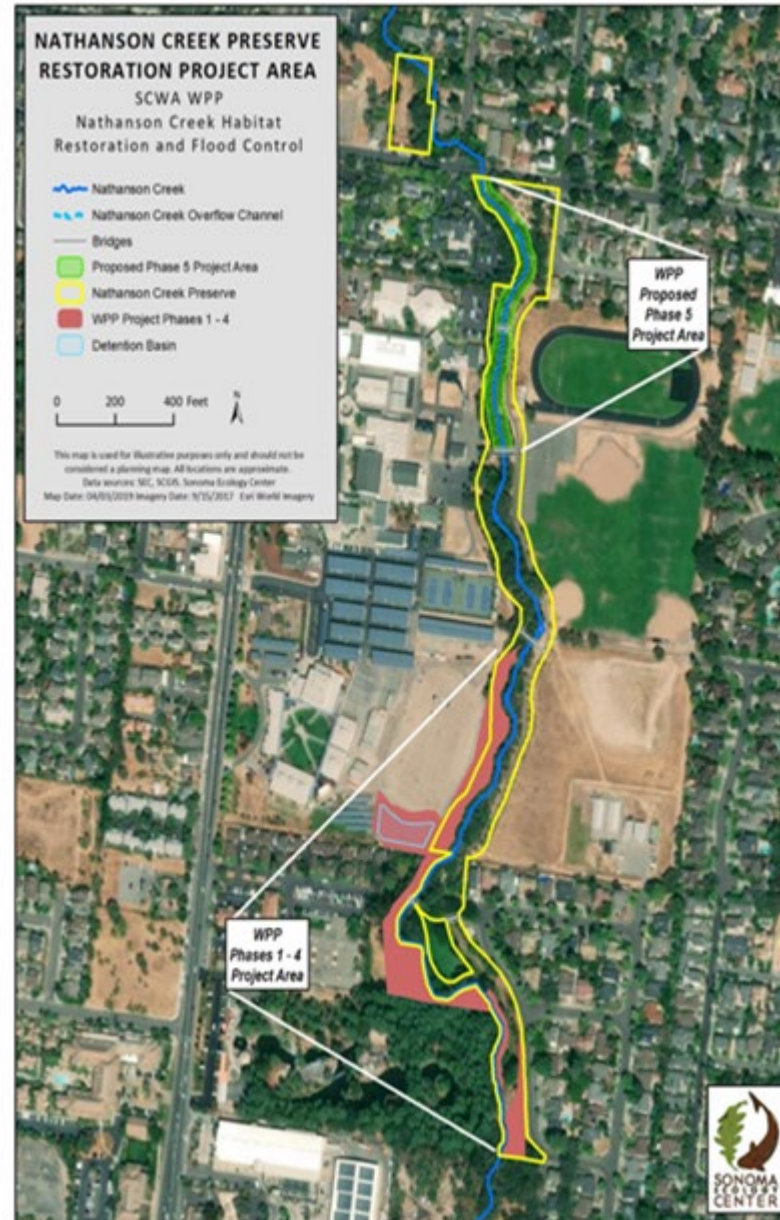
Anella Creek,
Santa Rosa

October 24 2021 Storm at Nathanson Creek, WPP Projects Phases 1 to 6

- Minimal damage to erosion control measures
- Very little woody debris in channel
- Banks overtopped at some locations
- Overflow channel worked well
- Minor damage to irrigation systems
- Bank erosion not extensive
- Sedges in channel protected bed from incision



- **Nathanson Creek
WPP Phases 1 to 6**



Photos taken October 29, 2021

Sedges and willows protecting the channel bed



Jute netting downstream of bridge

Potential future projects

- Sonoma Creek watershed Arundo removal
- Rogers Creek stewardship agreement with Creekside HOA

Potential future projects:



Invasive plants in Rogers Creek



Headcut and channel incision, Rogers Creek



Arundo
infestation,
Sonoma
Creek



Zone 3A Annual Meeting

December 9, 2020

- Upper Nathanson Creek stormwater management feasibility study (SEC/PCI)
- Upper Sonoma Creek gravel translocation feasibility study (SEC/ESA)

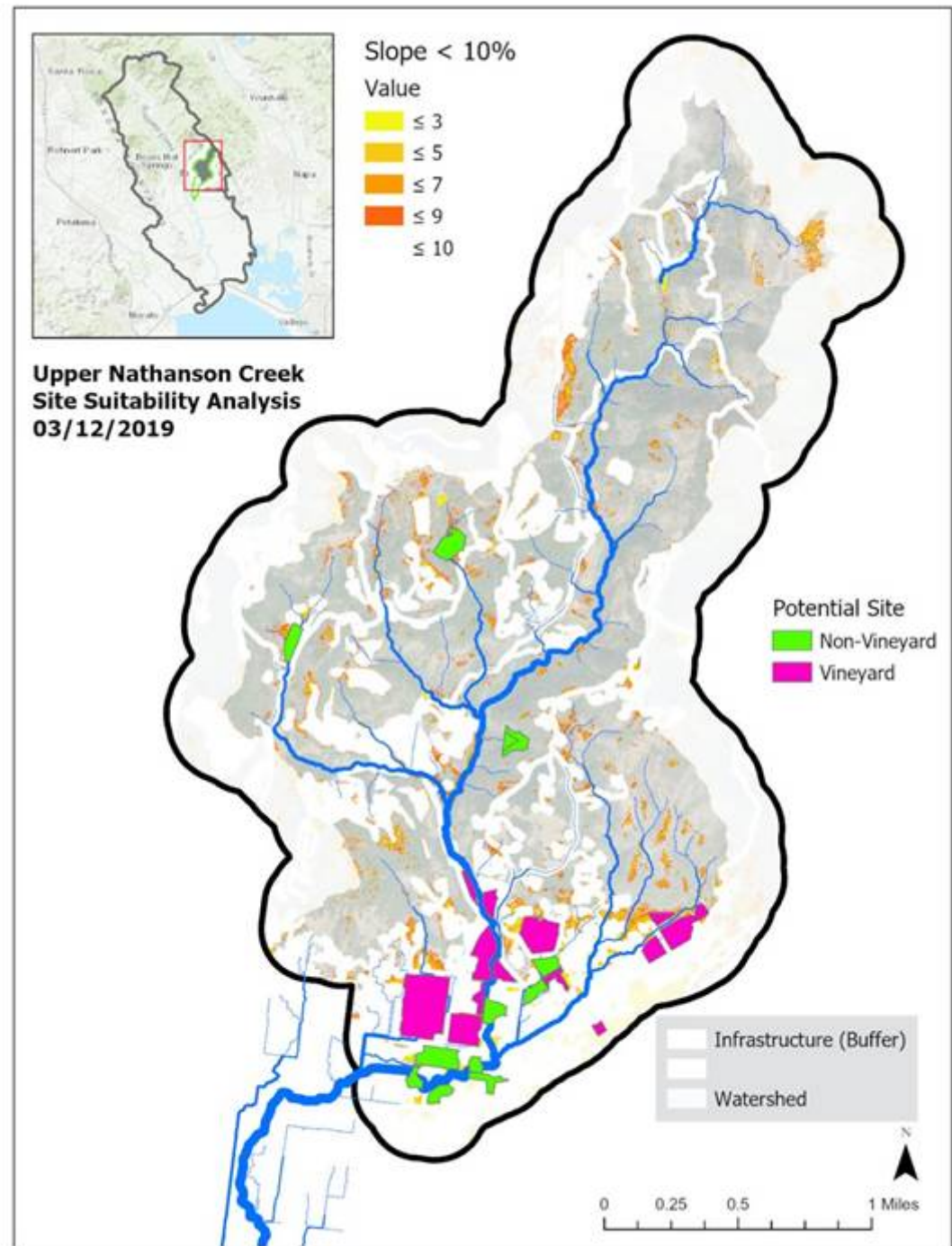
Presenter #2: Steven Lee, SEC Senior Scientist and Research Program Manager

Upper Nathanson Creek stormwater landscape analysis



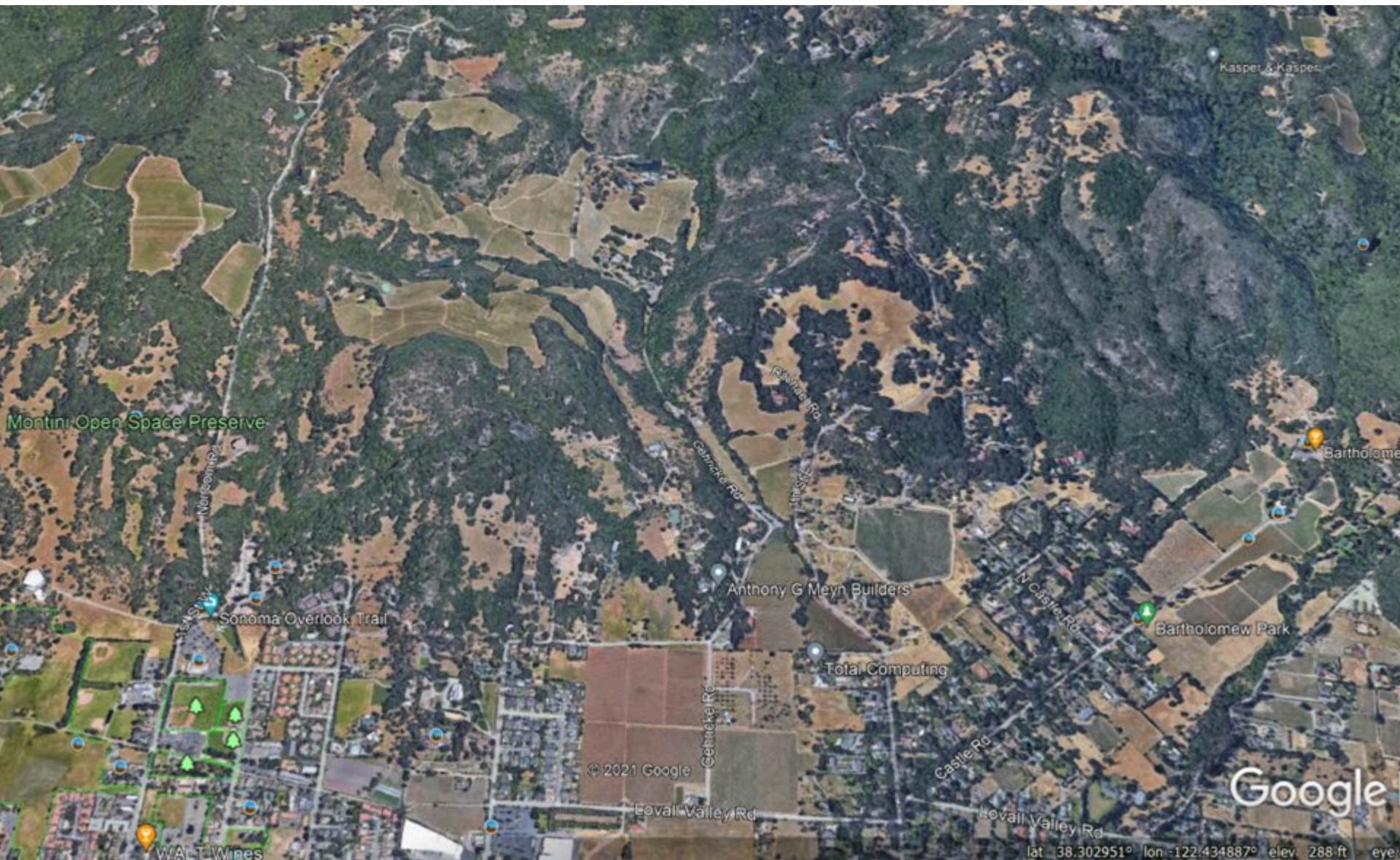
GIS analysis considerations:

- Slope
- Proximity to creeks
- Exclude existing infrastructure and buildings
- No great options for large, singular off channel flood detention project



Since last presentation

- New outreach yielded one landowner (Haywood) interested in issue and willing to explore possibilities for off channel detention, storm forecasted pond management and potential vineyard conversion
- Also, successful outreach to Sebastiani (Foley) land managers who were willing explore stormwater retention on vineyard areas and truck lot
 - Sebastiani winery is now closing with no further plans to continue winery operations there
- Prunuske Chattem Inc brought on as partner for planning/feasibility



Montini Open Space Preserve

Kasper & Kasper

Bartholomew

Anthony G Meyn Builders

Total Computing

Bartholomew Park

© 2021 Google

Google

WALT Wines

lat 38.302951° lon -122.434887° elev 288 ft eye



Les Chemins Vineyards

Gerrick Rd

Gerrick Rd

© 2021 Google

Google

lat 38.309407° lon -122.442697° elev 270 ft eye





Upper Sonoma Creek Habitat Restoration Vision



Upper Sonoma Creek
RESTORATION VISION

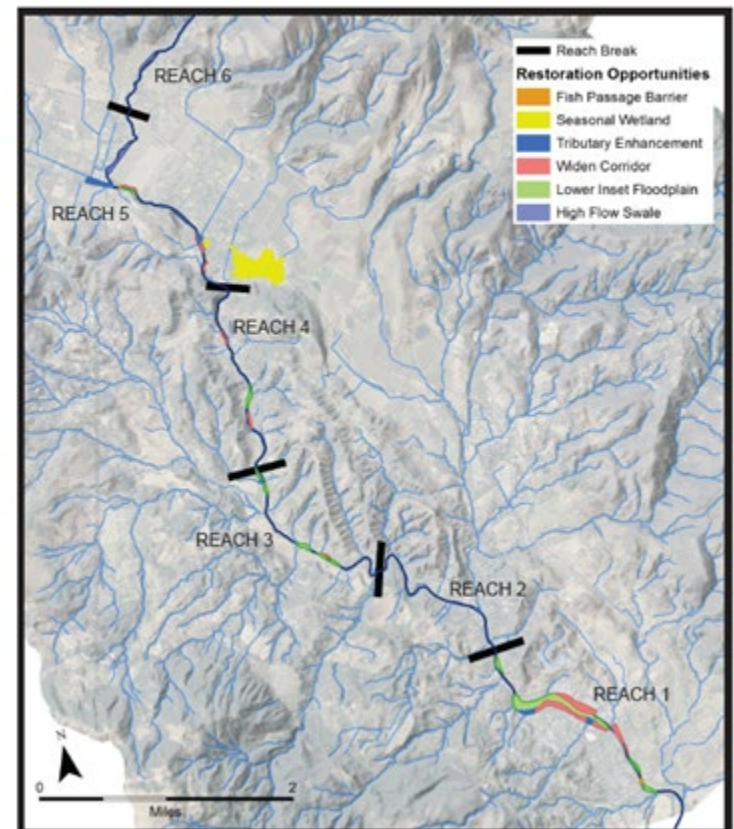


<https://sonomaecologycenter.org/restoration-vision/>



Upper Sonoma Creek

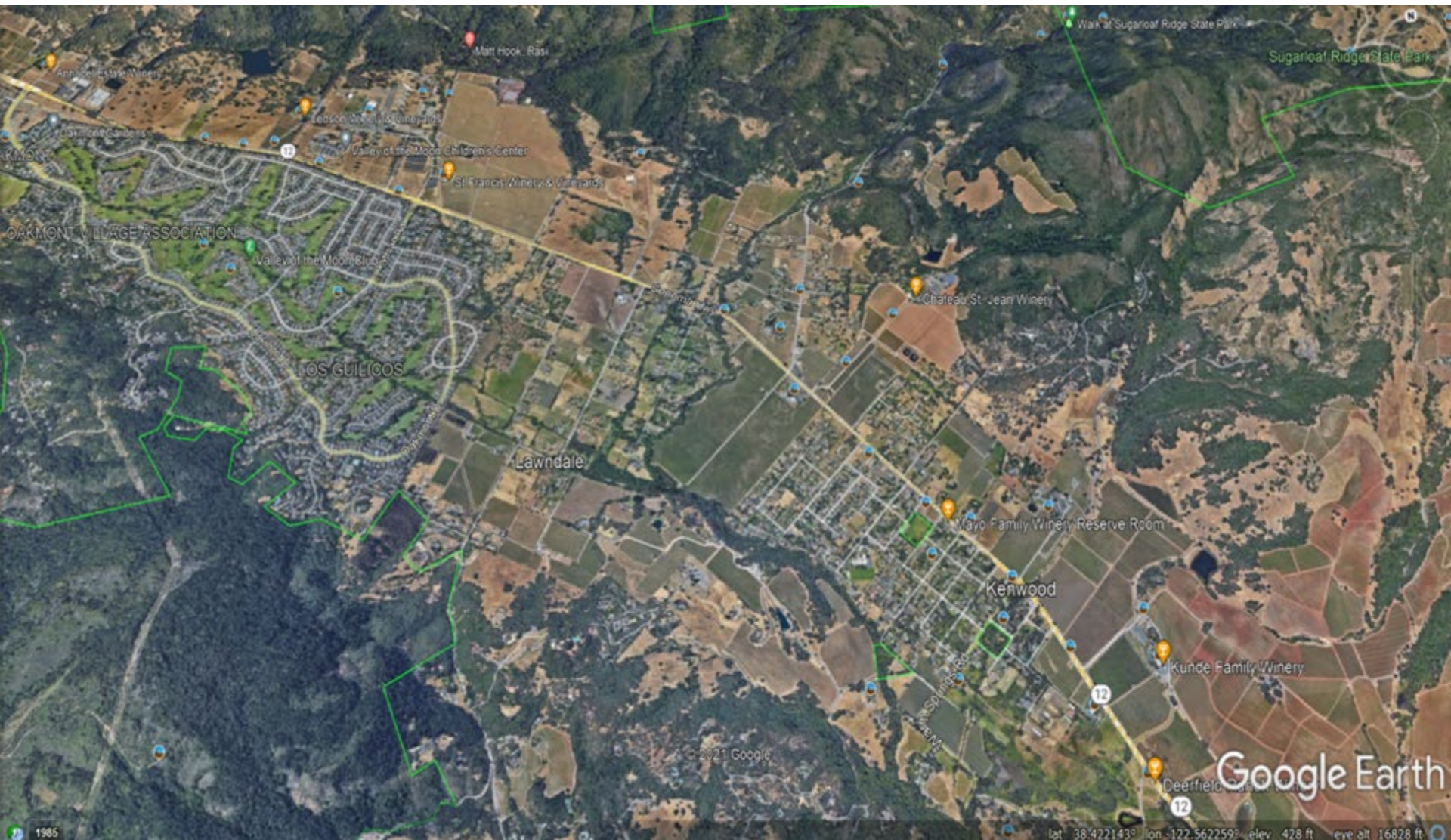
RESTORATION OPPORTUNITIES OVERVIEW



Partner: Environmental Science Associates

Goal: Create a Restoration Vision and design a demonstration project to

- **Improve Steelhead Habitat**
- **Slow Water**
- **Improve Water Quality**
- **Reduce Bank Erosion**
- **Improve Riparian Habitat**





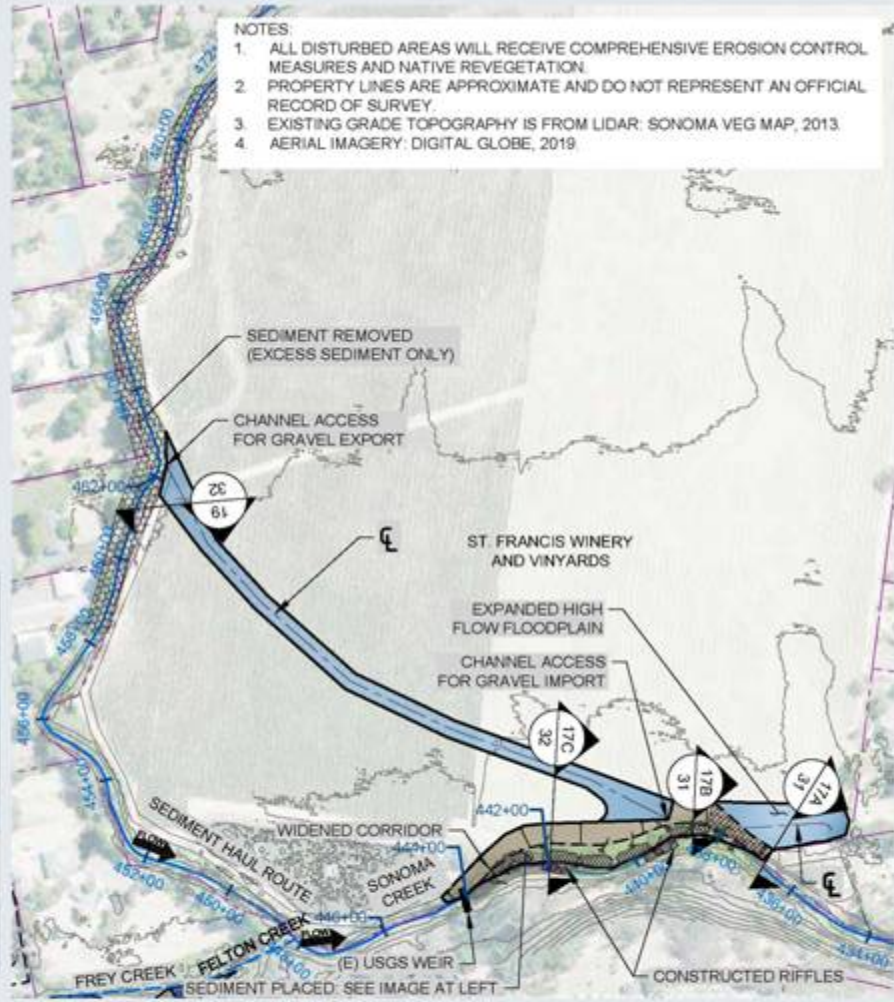
Google Earth

lat: 38.419828° lon: -122.558332° elev: 428 ft eye alt: 6881 ft

- NOTES:
1. ALL DISTURBED AREAS WILL RECEIVE COMPREHENSIVE EROSION CONTROL MEASURES AND NATIVE REVEGETATION.
 2. PROPERTY LINES ARE APPROXIMATE AND DO NOT REPRESENT AN OFFICIAL RECORD OF SURVEY.
 3. EXISTING GRADE TOPOGRAPHY IS FROM LIDAR: SONOMA VEG MAP, 2013.
 4. AERIAL IMAGERY: DIGITAL GLOBE, 2019.

TABLE OF CONTENTS

	BRUSH MATTRESS (DETAIL 1)
	DISTURBED EDGE STRUCTURE
	LOW FLOODPLAIN BENCH
	STABLE SLOPE
	HIGH SWALE
	SEDIMENT REMOVAL AREA
	SEDIMENT PLACEMENT AREA
	PROPERTY LINE
	SONOMA CREEK ALIGNMENT
	TRIBUTARY CHANNEL ALIGNMENT
	GRADING LIMIT
	BANK TOE
	SLOPE ARROW
	FLOW DIRECTION
	LARGE WOOD STRUCTURE (DETAIL 2)
	WILLOW BAFFLE (DETAIL 3)
	DETAIL # # TYPICAL SECTION
	(E) 5 FT CONTOUR



CONCEPTUAL SEDIMENT PLACEMENT



UPPER SONOMA CREEK RESTORATION PROJECT • D170565

FIGURE 30

SITES 17 & 19 PLAN

Comments? Questions?

