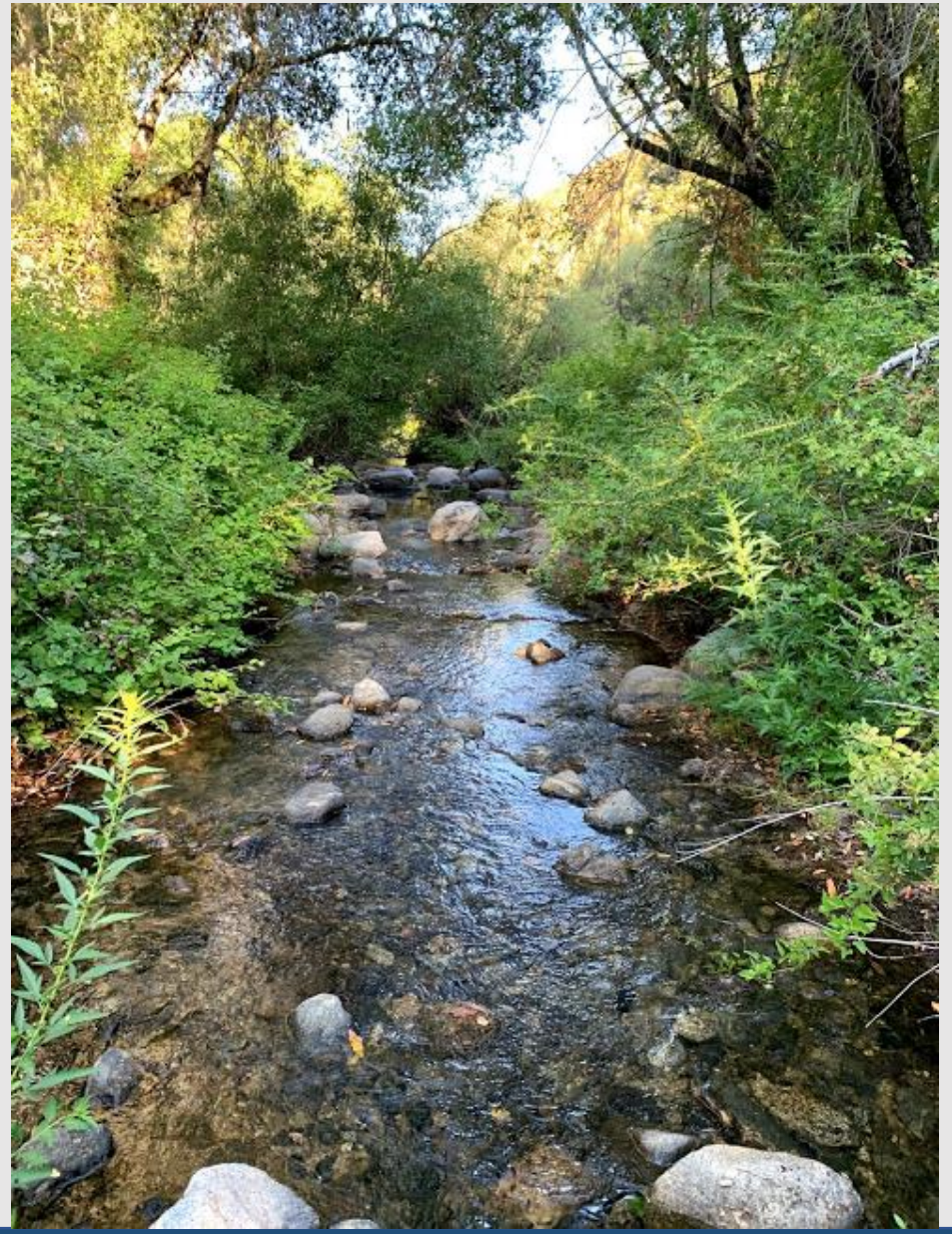
Hastings Natural History Reservation:

Ford Replacement Project



Jen Hunter

Museum of Vertebrate Zoology
University of California Berkeley

UCNRS Mission Statement:

to contribute to the understanding and wise stewardship of the earth and its natural systems by supporting university-level teaching, research, and public service at protected natural areas throughout California.

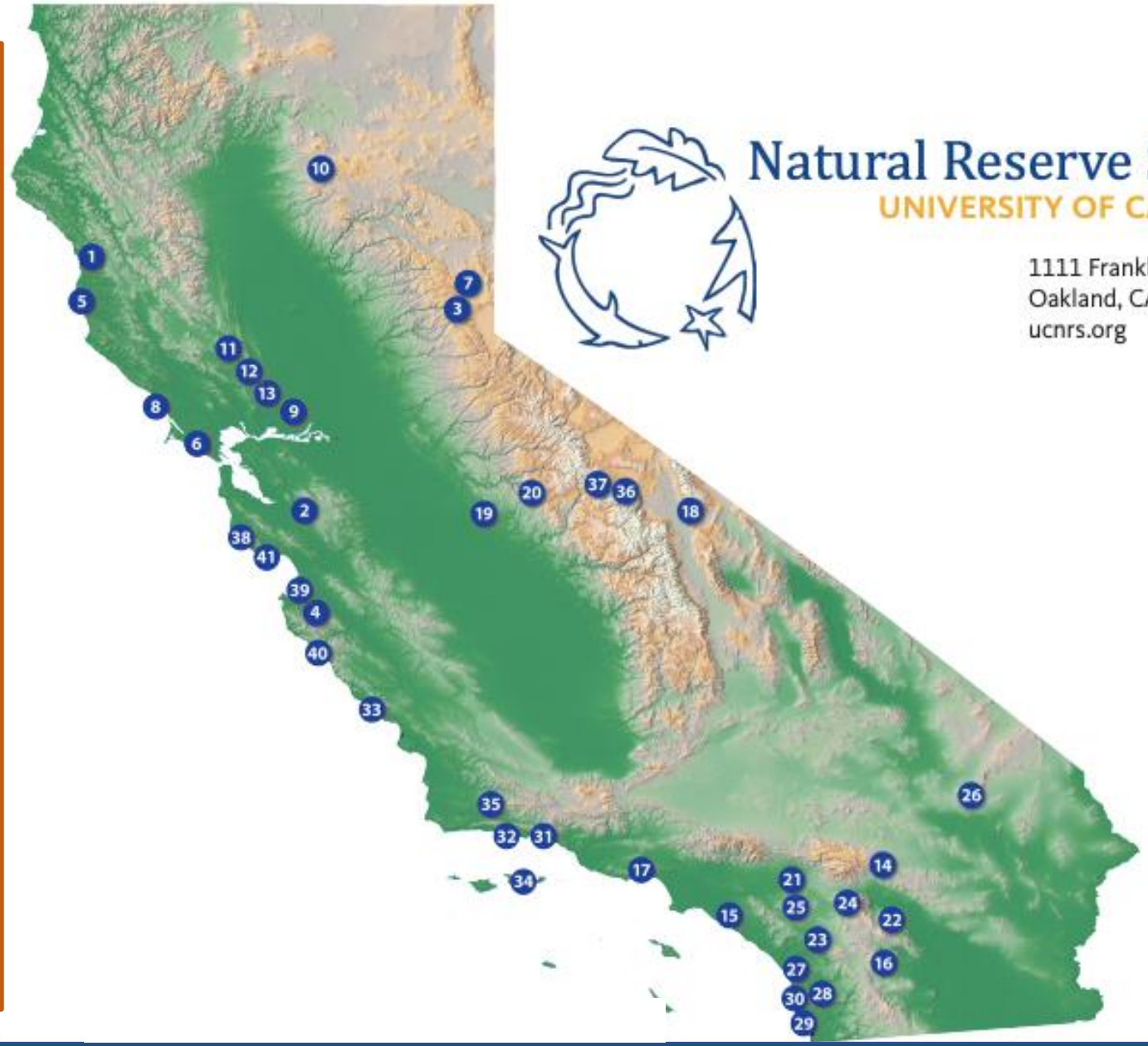
Hastings Natural History Reservation

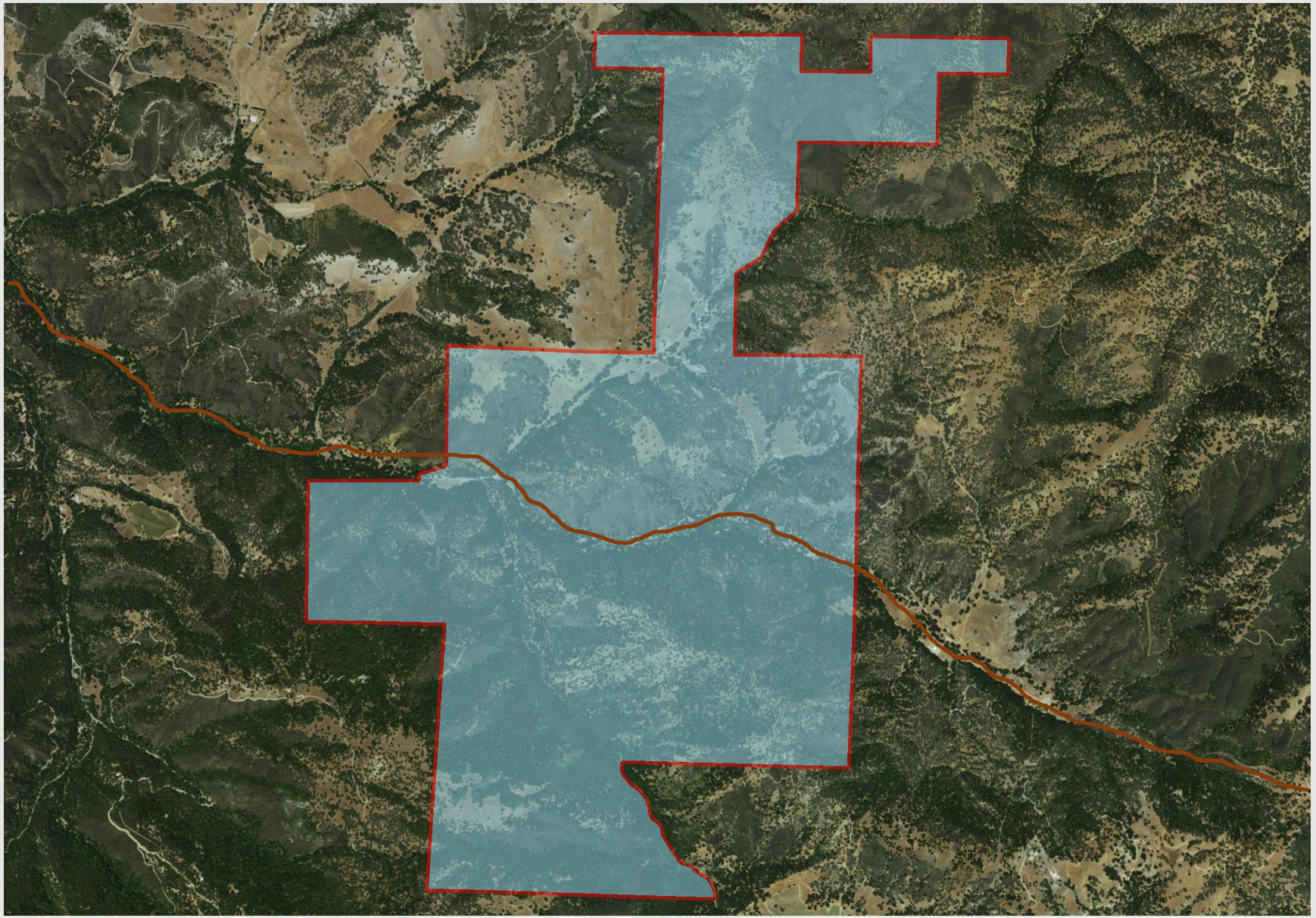
UC Natural Reserve System (est. 1970)

9 Campuses
41 Reserves
756,000 acres

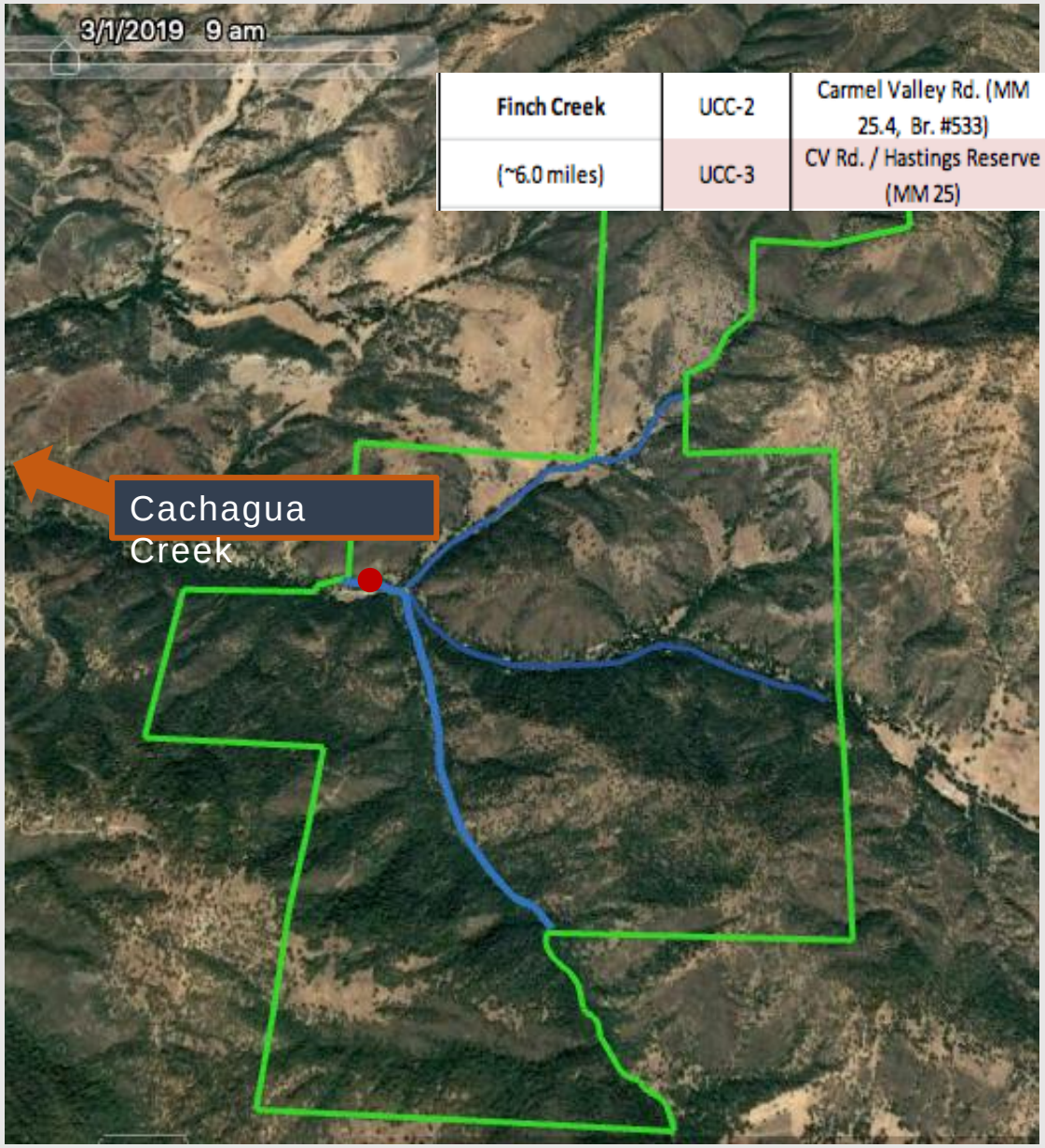
Oldest: Hastings Nat. History Res. (1937)

Newest: Lassen Field Station (2019)





Hastings Natural History Reservation



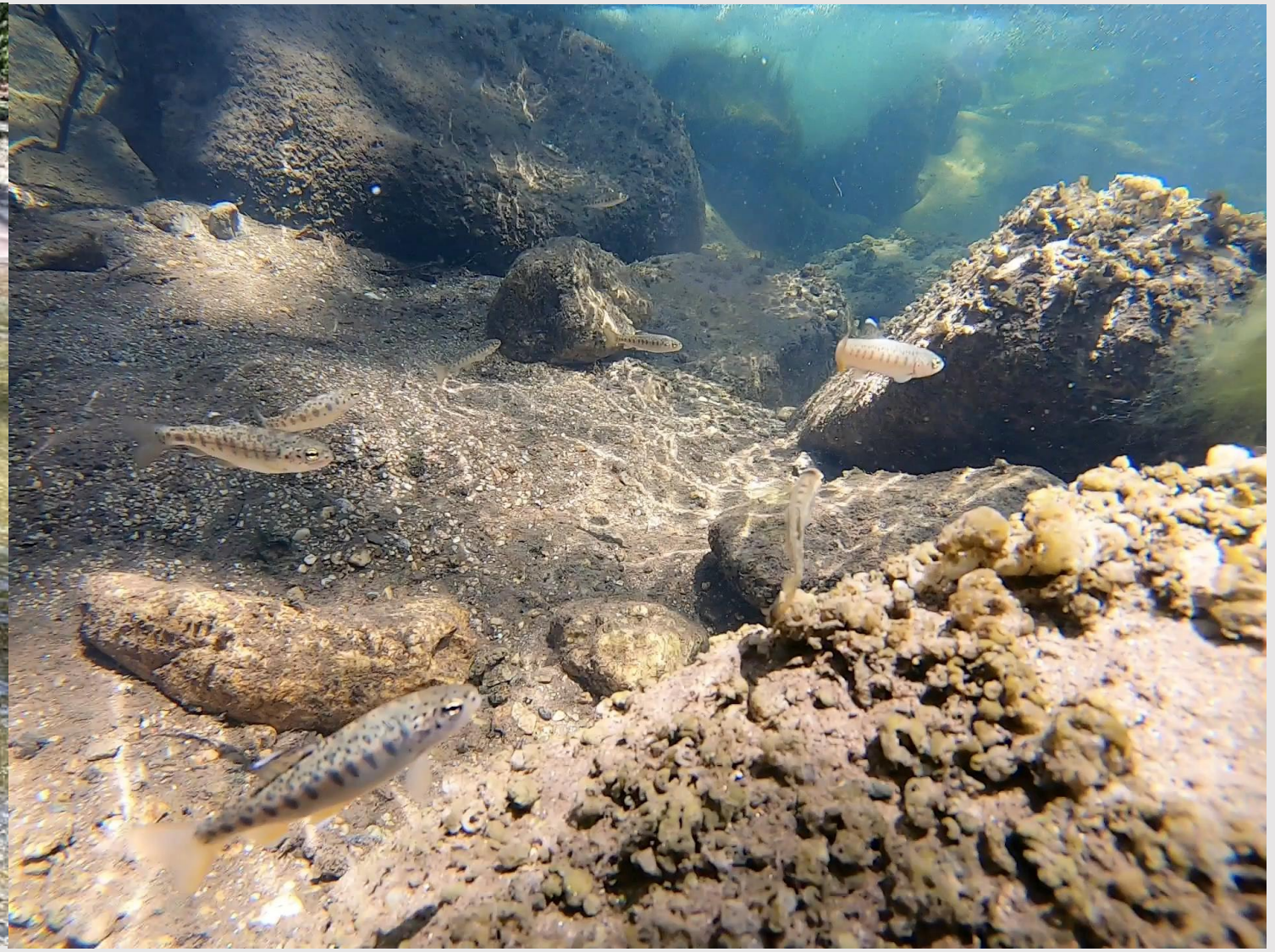
Finch Creek	UCC-2	Carmel Valley Rd. (MM 25.4, Br. #533)	Bridge	G	No	No	4.3	
(~6.0 miles)	UCC-3	CV Rd. / Hastings Reserve (MM 25)	Ford	R/Y	Yes	No	3.8	Replace with bridge. Severe barrier.

Fish Passage Barrier Removal/Improvement Rankings - Four Carmel River Tributaries

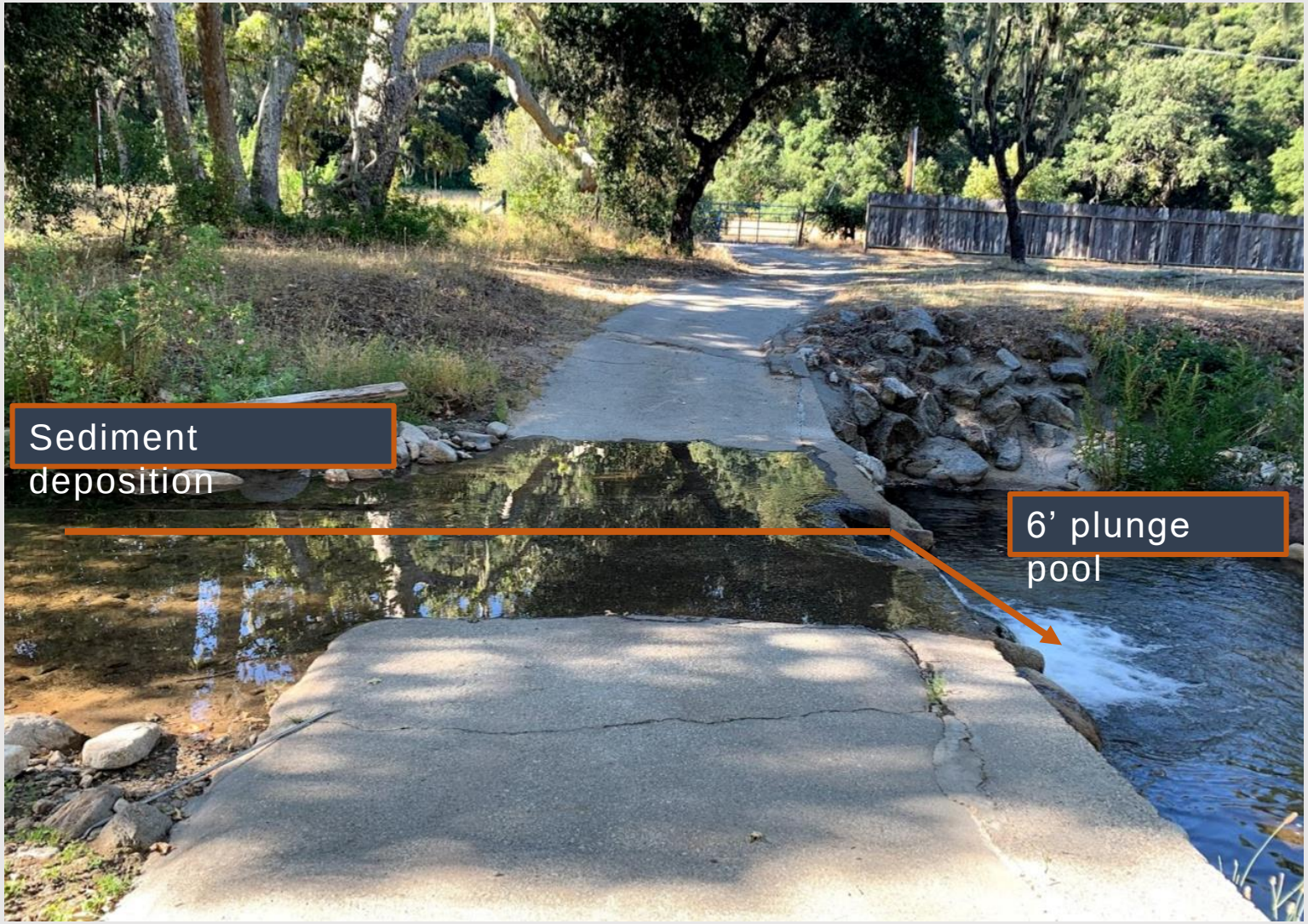
Ranking #*	Location	Site	# Miles Additional Stream Access	Recommendation	Notes
1	San Clemente Cr.	Trout Lake Dam, Ladder, and Spillway	6.8	At minimum, ladder and spillway must be brought up to modern standards.	Largest manmade fish barrier on tribs. Blocks or delays access to two productive upper tributaries. Unclear how structure operates in the winter.
2	Cachagua Cr.	Ford near Boronda Cr.	8.3	Replace with small bridge	Depth and velocity barrier. Has caused a large scour hole d/s and sediment trap upstream
3	Cachagua Cr.	Ringer's Ford	8.1	Replace with small bridge	Depth and velocity barrier. Has caused a large scour hole d/s and sediment trap upstream
4	San Clemente Cr.	No Name Rd. Ford	3.0	Replace with small bridge	Ford is in very poor condition. Complete barrier at low flows.
5	San Clemente Cr.	Summer Dam near clubhouse	6.3	Remove	This structure is a total fish barier at low flows and a sediment trap.
6	Cachagua Cr. (Finch)	Hastings Reserve Ford	3.8	Replace with small bridge	Depth and velocity barrier. Has caused a large scour hole d/s and sediment trap upstream
7	Potrero Cr.	CVAC parking lot Culvert	2.8	Replace with small bridge	Complete velocity and depth barrier. Very poor design.
8	Potrero Cr.	CVAC access road Culverts	2.7	Replace with small bridge	Double culverts in poor condition. Velocity barriers.
9	Potrero Cr.	Quail Lodge Golf Course	3.2	Reconfigure reach between confluence and VG Rd.	Too steep for fish passage and no has habitat value.
10	Cachagua Cr.	Jensen's Camp Ford and Culverts	10.4	Replace with small bridge or larger culverts	Likely velocity barriers in high flows.
11	Mainstem C.R.	Flavin's Crossing (Ford)	9	Remove	Low flow fish passage barrier and sediment trap.
12	San Clemente Cr.	Summer Dam on Dormody Rd.	3.2	Remove	This illegal structure is a fish barier and sediment trap.

* Rankings are based on a combination of the severity of the barrier, the length of additional stream that would become assessable if the barrier were removed, and the general "value" of the creek for steelhead spawning and rearing.

Restoration and monitoring



Hastings Natural History Reservation


Sediment deposition
6’ plunge pool

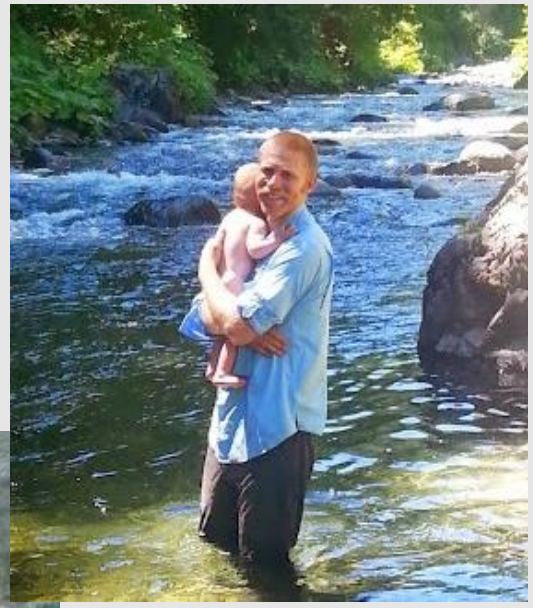
Metrics to monitor

1. Channel geometry
2. Sediment characteristics
3. Large woody debris
4. Benthic macroinvertebrate community
5. Juvenile steelhead
6. Invasive species
7. Riparian vegetation

Pre- & Post- removal effects

Fish passage monitoring

UC Berkeley students/faculty



Visiting students/faculty

Project Costs

EXHIBIT B - ESTIMATED BUDGET FOR CONSULTING SERVICES

2/18/2019

Client: UC Berkeley
Project Name: Hastings Natural History Reservation
Waterways Job No.: 19-003

		Waterways Consulting				CMAG Engineering			Streeter Group		
		Principal Engineer	Senior Engineer	Staff Engineer	Survey Crew	Principal Geotechnical Engineer	Geotechnical Senior Engineer	Geotechnical Staff Engineer	Principal Structural Engineer	Structural Project Engineer	Budget Allocation
		(Weld)	(Zacharia)	(Baker)	(2 person)	(Garner)	(Chome)	(Buringa)	(Streeter)	(Taylor)	
#	Task Description	$175	$140	$115	$265	$185	$175	$145	$175	$160	
1	Project Administration and Coordination of subcontractors	10	10			3			2		$4,055
2	Topographic Mapping	1		9	10						$3,860
3	Hydrologic and Hydraulic Modeling	4	12	14							$3,990
4	Concept Level Design Alternatives (2 options) & Summary Memorandum	10	20	14					4		$8,880
5	Geotechnical Report					6	20	8			$5,770
6	65% Design Drawings and Cost Estimate	14	30	24					4	24	$13,950
7	Permit Support	4	6							4	$2,180
8	100% Designs, Specifications, and Cost Estimate	8	14	12					2	8	$6,370
										Sub Total	**$47,035.00**

Direct Expenses	7860	Allocation
Office Expenses		$100.00
Field Supplies (disposable)		$50.00
Per Diem		
Geotechnical Laboratory Testing - $1705		$1,705.00
Geotechnical Drill Rig or Backhoe - $2500		$2,500.00
Mileage (@ $.58/mile)		$296.96
10% service charge on direct expenses		$465.20
	Subtotal	$5,117.16
	Total	**$52,152.16**

Project Costs

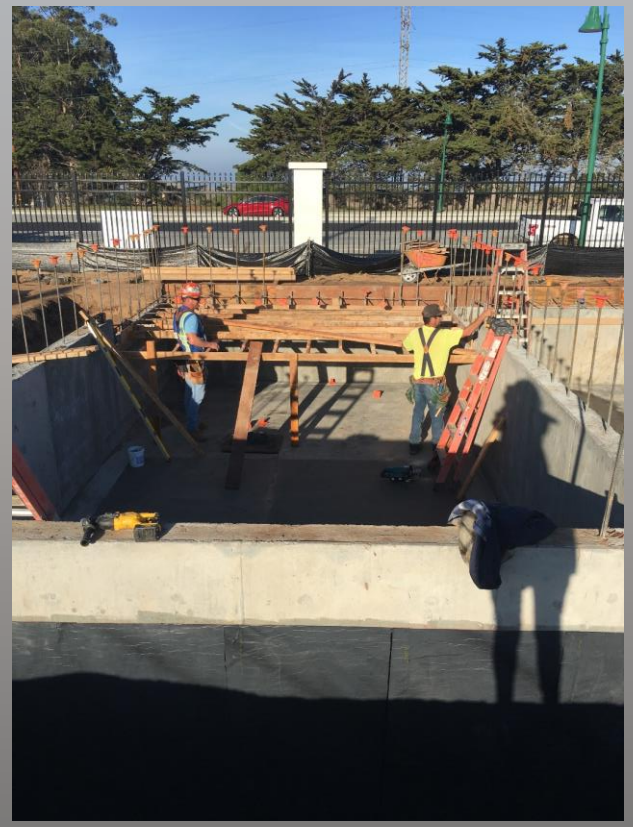
Sponsor	Amount	Type
UC Berkeley	$9,000	In-Kind
UC Berkeley	$81,000	Foregone IDC
MPWMD	$100,000	Grant
State Coastal Conservancy (CalAm Settlement Funds)	$500,000	Grant

Santa Margarita Construction

Status
05 February, 2020

Pouring Cellar Floor

Set Mezzanine Forms and Rebar



Drains and Backfill

Potholing

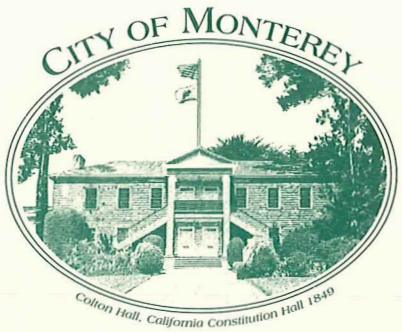
Schedule

- CPM under review
- Ready for Cal Am SCADA installation estimated 7/23/2020
- Critical path submittal 3 weeks ahead of schedule; building construction 2 weeks ahead of schedule
- 52 submittals, 39 closed

Budget

- No requested change orders
- 5% of budget expended

Submitted by Staff at 2/5/20 Committee Meeting New Agenda Item 7



February 4, 2020

David Stoldt
General Manager
Monterey Peninsula Water Management District
P.O. Box 85
Monterey, CA 93940

Re: Monterey Peninsula City Managers Respond to Supply and Water Demand for the Monterey Peninsula

Dear Dave,

The following proposal is submitted on behalf of the City Managers of the Cities of Carmel by the Sea, Del Rey Oaks, Monterey, Pacific Grove, City of Sand and Seaside.

First of all, thank you again for allowing us to review the Supply and Demand Memo. We appreciate the opportunity to verify the correct use of the AMBAG numbers in the memo. This letter proposes an additional process of verification of the numbers used in the memo. We feel that this approach is appropriate and timely.

Our group of Monterey Peninsula City Managers has discussed the memo titled "Supply and Demand for Water on the Monterey Peninsula". It is in the best interest of our communities to ensure that our future water supply allows our elected officials the highest degree of flexibility in making policy decisions on various levels. Stated more simply: today's water constraints and restrictions clearly show that our current water supply affects our peninsula's quality of life. Two examples: The existing water supply prohibits compliance with State laws mandating increased affordable housing projects, thus driving up rents as housing inventory becomes more and more scarce. Likewise, commercial property owners cannot provide entrepreneurial opportunities to businesses based on market needs, but instead are restricted to comply with water usage tied to the individual property.

Here is what we propose:

First, we request sufficient time to allow a professional independent third party with requisite expertise to review the Supply and Demand memo. We do not have the expertise on staff to adequately assess the various water sources and associated supplies mentioned in your memo. It is necessary to have a peer review conducted by experts selected by our Cities. We know that our suggested peer review will be non-controversial and will provide clarity between your forecast model as well as Cal-Am's analysis conducted by Hazen & Sawyer.

Secondly, we suggest that the District simultaneously submit the Supply and Demand Memo to the State Water Resources Control Board (SWRCB) for review and ask if the SWRCB would consider lifting the CDO and meter moratorium based on the presented rationale. This would allow us all the benefit of any questions posed by the SWRCB, as well as their view of the memo's impact on the lifting of the CDO.

Third, we suggest that the District also submit the Supply and Demand Memo to the Watermaster TAC and Board to review the content and to respond to any assumptions or implications of the document on the Seaside Basin and its management, and in particular, the availability of non-native water to address potential basin issues.

It would help all stakeholders to have these steps implemented in order to inform the discussion of the Water Management District in the consideration of the water resources and acreages as outlined in the Supply and Demand Memo.

Our suggested path forward is respectfully requesting that our Cities be allowed a thorough review. The future of our peninsula and the quality of life of our residents requires this prudent approach.

On behalf of the Monterey Peninsula City Managers,

Hans Uslar
City of Monterey

cc: Chip Rerig, City Administrator, City of Carmel
Dino Pick, City Manager, City of Del Rey Oaks
Craig Malin, City Manager, City of Seaside
Aaron Blair, City Manager, City of Sand City
Ben Harvey, City Manager, City of Pacific Grove

Carmel City Council
Del Rey Oaks City Council
Seaside City Council
Sand City Council
Pacific Grove City Council
Monterey City Council