

HONORABLE MEMBERS
OF
THE SANTA BARBARA COUNTY BOARD OF
SUPERVISORS

THE ORCUTT HILL RESOURCE ENHANCEMENT PLAN PROJECT
BY
PACIFIC COAST ENERGY COMPANY

October 11, 2016

THE ENHANCED ORCUTT HILL PROJECT

- Since the Planning Commission decision in July 2016, we have:
 - Carefully reviewed and considered the comments and findings of the Planning Commission, and the County Planning Department's staff report
 - Engaged in a dialogue with community groups, elected officials and staff, and representatives of organized labor
 - Refocused on mitigation measures related to the key issues to increase the net environmental benefits of the project
- As a result of this work, we have made substantial enhancements to the Orcutt Hill project, which we are pleased to present to the Board of Supervisors today for approval

WHAT'S NEW: ADOPTION OF THE CAREAGA EXCLUSION

- We have adopted the Careaga Exclusion
- The County's EIR for the project identified the Careaga Exclusion Alternative as the Environmentally Superior Alternative, and Planning staff recommended adoption of this Alternative
- The Careaga Exclusion Alternative would eliminate drilling in the Careaga zone and therefore the possibility of seeps associated with the new wells

WHAT'S NEW: 100 % OFFSET FOR ALL GREENHOUSE GASES

- We had already designed the project to minimize environmental impacts:
 - The project will use eight existing oil field well pads, on only 3.1 acres of the 10,000 acre Orcutt Oil Field
 - The project will use only existing, already-permitted steam generators that comply with AB32
- We have voluntarily decided to include additional mitigation to ensure that all greenhouse gas emissions will be completely offset

WHAT'S NEW: CTS HABITAT CONSERVATION AND LYS RESEARCH

- The California Tiger Salamander (CTS)
 - We are working with the US Fish and Wildlife Service to establish a Habitat Conservation Plan that furthers the Service's goals for the recovery of CTS in the County
 - The permanent conservation of CTS breeding habitat on Orcutt Hill will provide a net benefit to the species, as the value of the breeding habitat is much greater than the potential upland habitat impacted by the project
- The Lompoc Yerba Santa (LYS)
 - LYS is now flourishing on the property, with coverage tripling since 2008 from 8 to 23 acres
 - The Habitat Restoration Plan will build on the success of the species on-site and meet the project mitigation requirements
 - We have also agreed to fund research on how to further enhance the proliferation of LYS; this additional mitigation was included in our Habitat Conservation Plan recently submitted to the Service

OUR FINAL PROJECT: CAREFULLY DESIGNED TO MINIMIZE ENVIRONMENTAL IMPACTS

- No new oil field well pads will be created
- Only eight existing well pads will be used for 96 new steam-injection production wells
- Because existing pads are being used, only minimal grading and vegetation removal will be necessary
- Existing steam generators that are fully compliant with AB32 and already permitted by the Air District
- No impact on ground water
- Recycled brine water produced by other operations on-site will provide 100% of water for steam
- Use of existing roads, facilities, and established pipeline corridors

ECONOMIC BENEFITS TO SANTA BARBARA COUNTY

- **Construction Benefits**
 - \$160-\$200 million of economic benefit during the construction phase
- **Ongoing Operation Benefits**
 - \$900 million - \$1.3 billion of ongoing economic benefit over the life of the project
- **Property Tax**
 - PCEC is one of the largest property taxpayers in SB County, paying \$3.7 million each year on average
 - PCEC estimates it will pay between \$1.8 million and \$2.6 million in additional annual property tax attributable to OHREP

ECONOMIC BENEFITS TO SANTA BARBARA COUNTY

- PCEC provides quality jobs for the working families of the region
 - Average wage is \$100,000 vs. \$48,000 in the county*
 - PCEC employs 55 people directly
 - The Project will create 35-75 new construction and drilling jobs
 - PCEC works with over 200 contractors and the project will create and maintain indirect employment as well
- The project will be covered by a Project Labor Agreement negotiated with the California Building Trades to ensure that high paying, high quality jobs are created

* Total annual payroll divided by total employment (2014) equals \$48,000.

CONCLUSION:

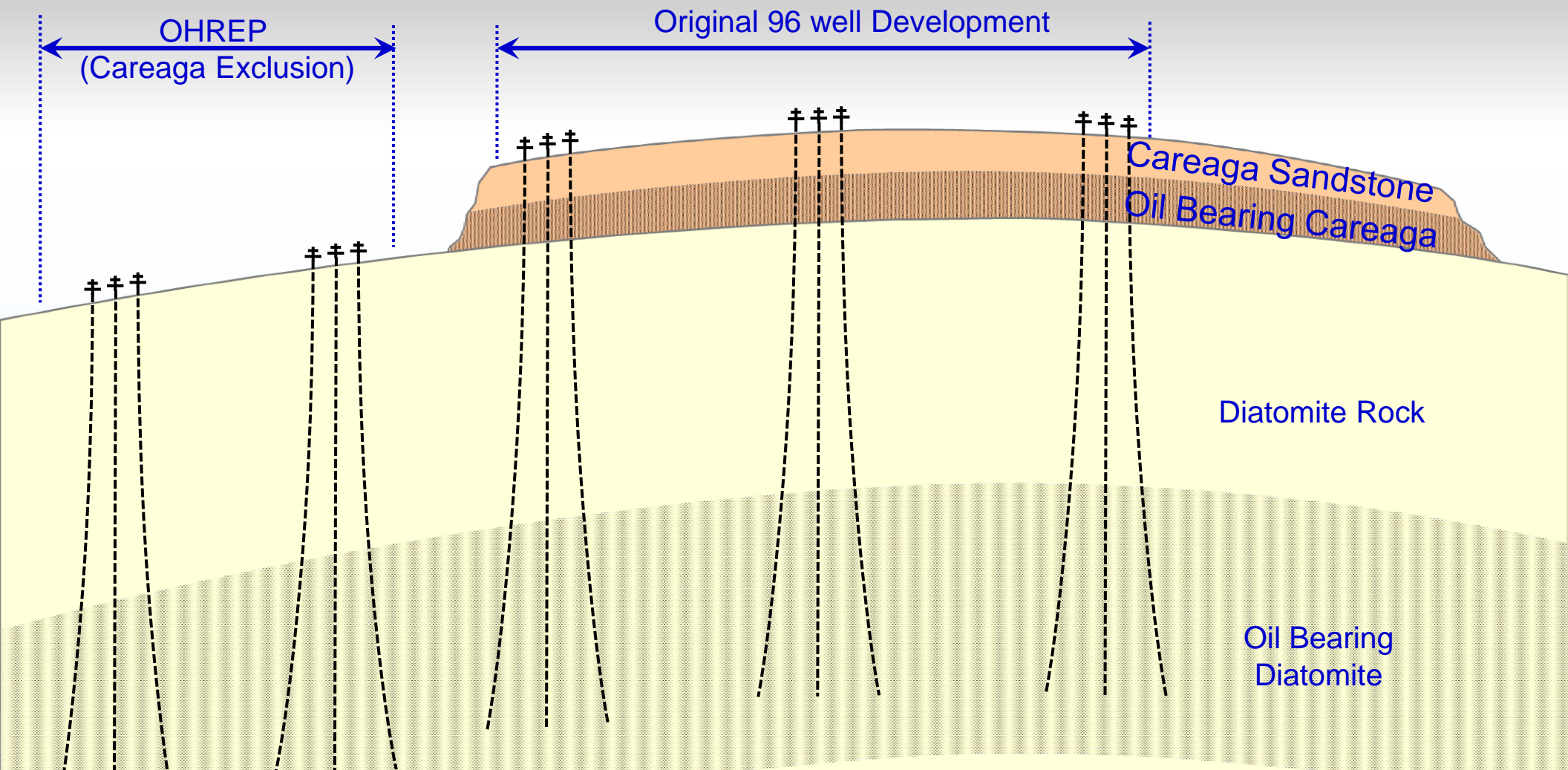
WHAT PROJECT APPROVAL WOULD MEAN

- Net benefit to California Tiger Salamander by conserving valuable onsite breeding habitat, advances USFWS recovery goals
- Continued proliferation of Lompoc Yerba Santa on-site, and funding for beneficial research on LYS propagation
- Greenhouse gas emissions mitigated to zero
- Well paying jobs for local families, guaranteed by a Project Labor Agreement with the Building Trades
- \$1.8 - \$2.6 million of additional property taxes each year
- \$900 million - \$1.3 billion in economic benefit to Santa Barbara County
- No increase in seeps associated with new wells

PCEC respectfully requests that you grant the appeal and approve our project.

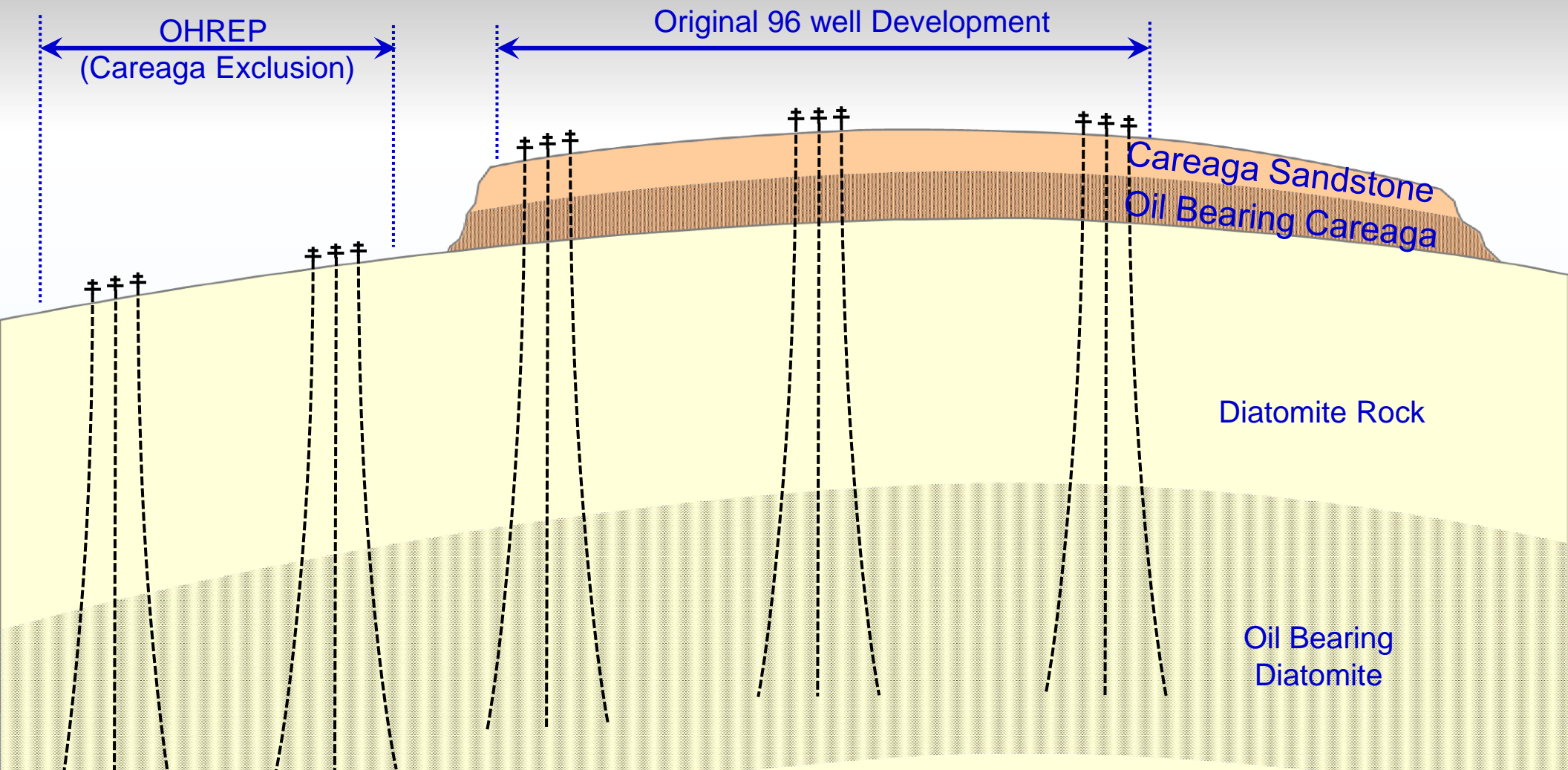


Orcutt Oil Field Geology



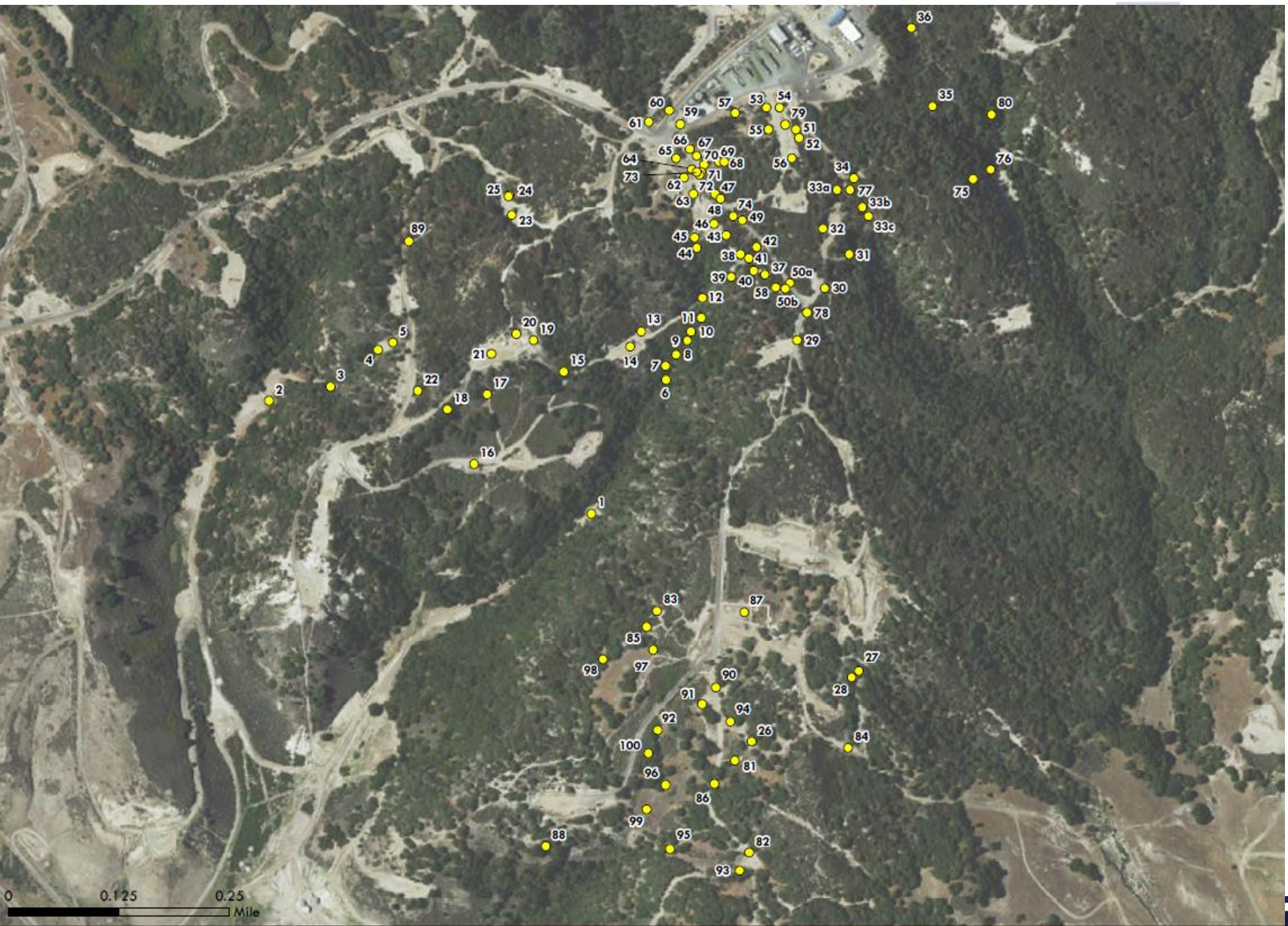
Year	2016	2015	2014	2013	2012	2011	2010	2009	2008
Seeps	2	4	1	8	7	16	10	24	27

Orcutt Oil Field Geology



Achieved Net Zero Injection ← Pumps Installed

Year	2016	2015	2014	2013	2012	2011	2010	2009	2008
Seeps	2	4	1	8	7	16	10	24	27



0 0.125 0.25
 Mile



PREPARED BY SCS TRACER
 MARCH 2016
 GCS, NAD 83
 SOURCE: USGS, CASIL



PACIFIC COAST ENERGY COMPANY
 ORCUTT OILFIELD
 SANTA BARBARA COUNTY, CALIFORNIA

● SEEP CAN LOCATION

EXISTING SEEP CAN LOCATIONS

ORCUTT OILFIELD

Cyclic Steaming

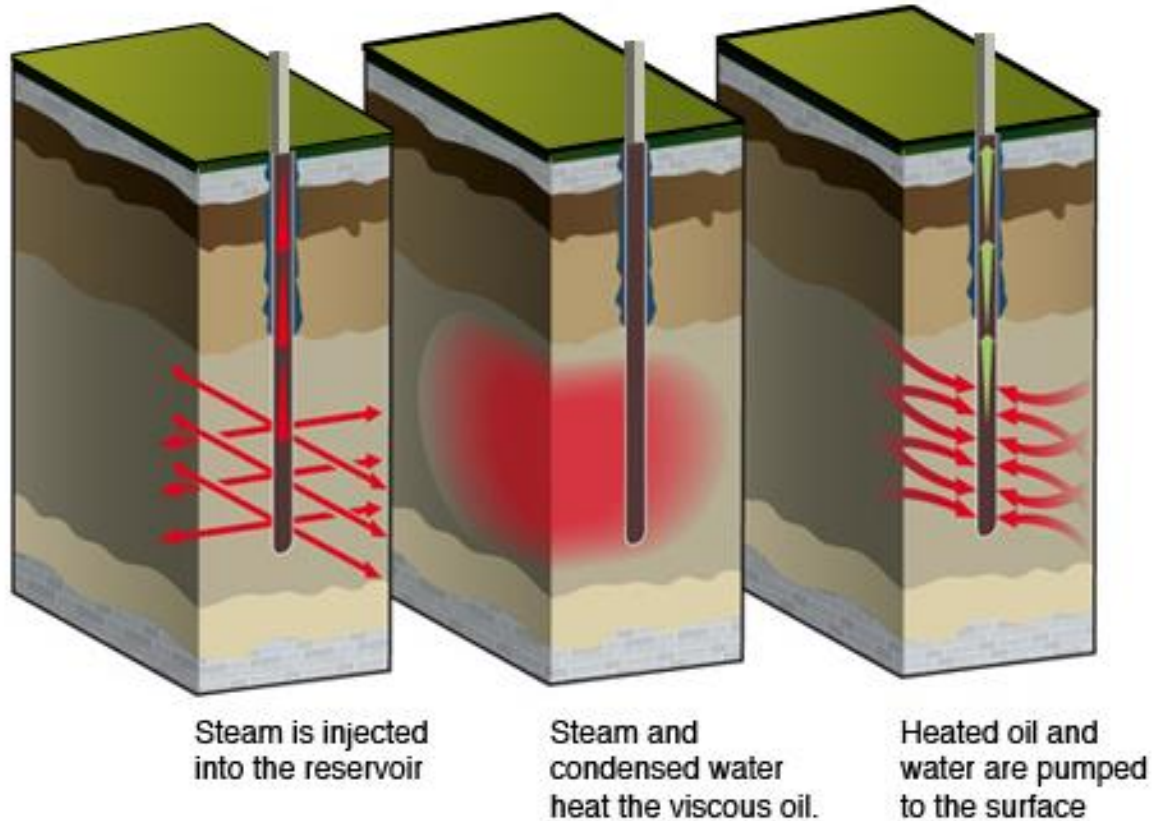
Stage 1
Steam Injection

Stage 2
Soak

Stage 3
Flowback

Stage 4
Pump

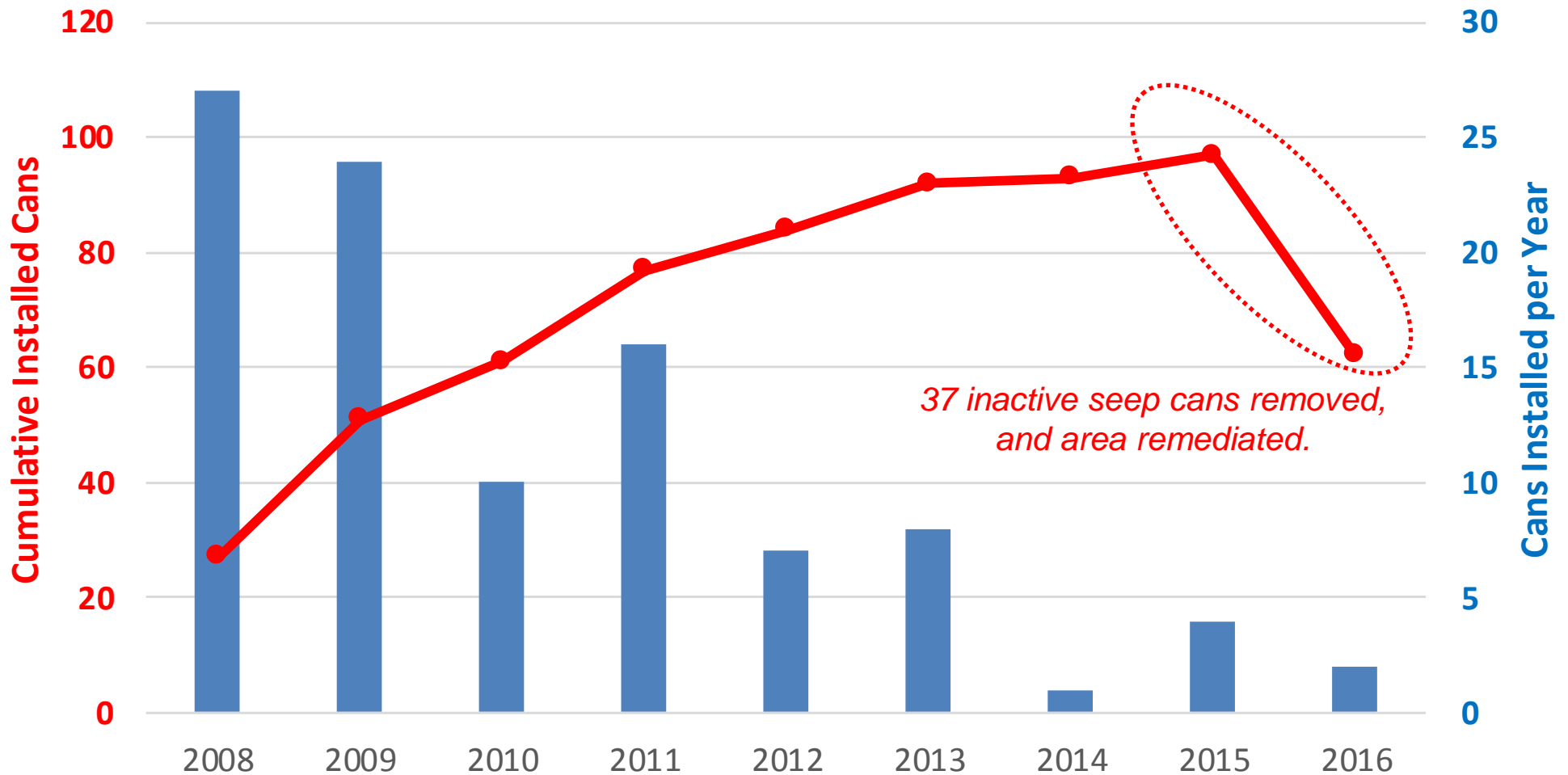
Achieves zero net injection



Seep Can Installation, 2008 to 2016

Seep Cans

Seep cans 1-100, note there is no Seep can 80.

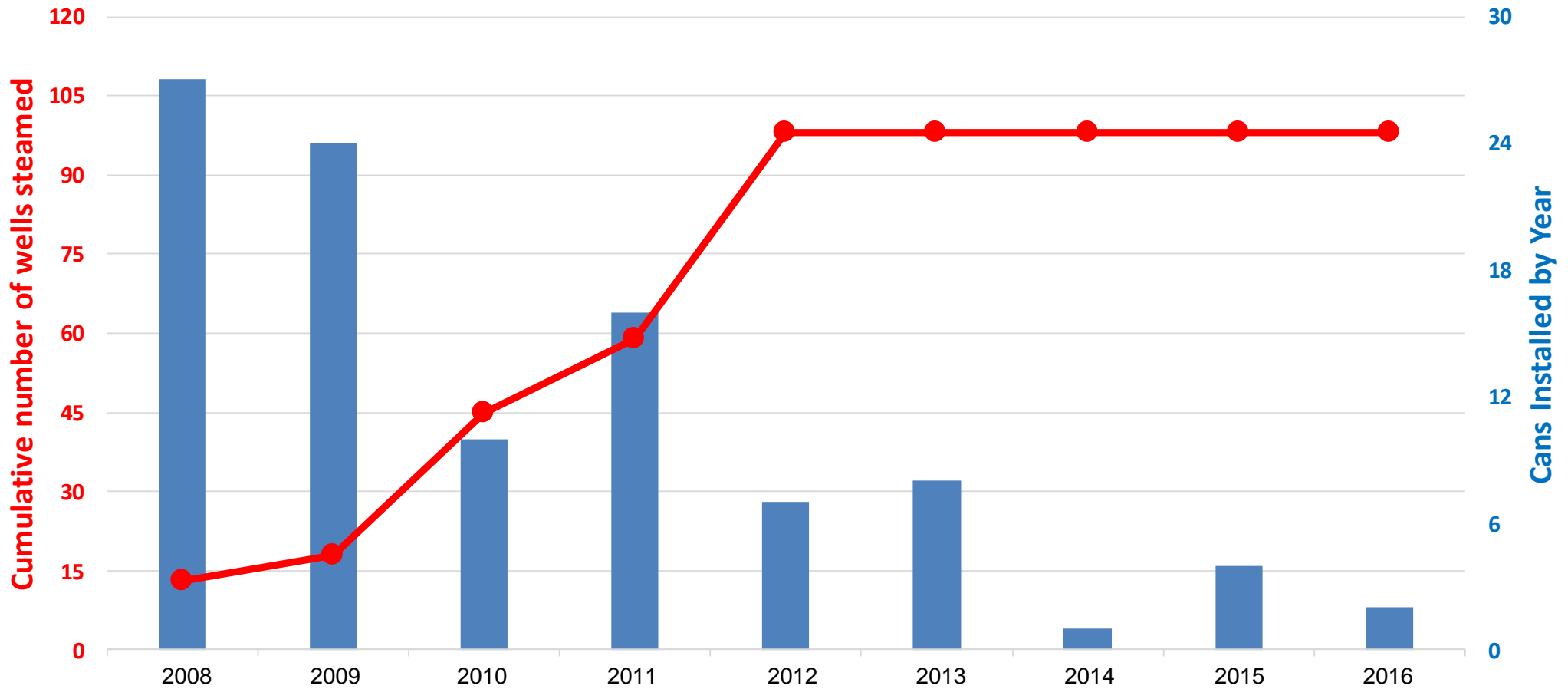


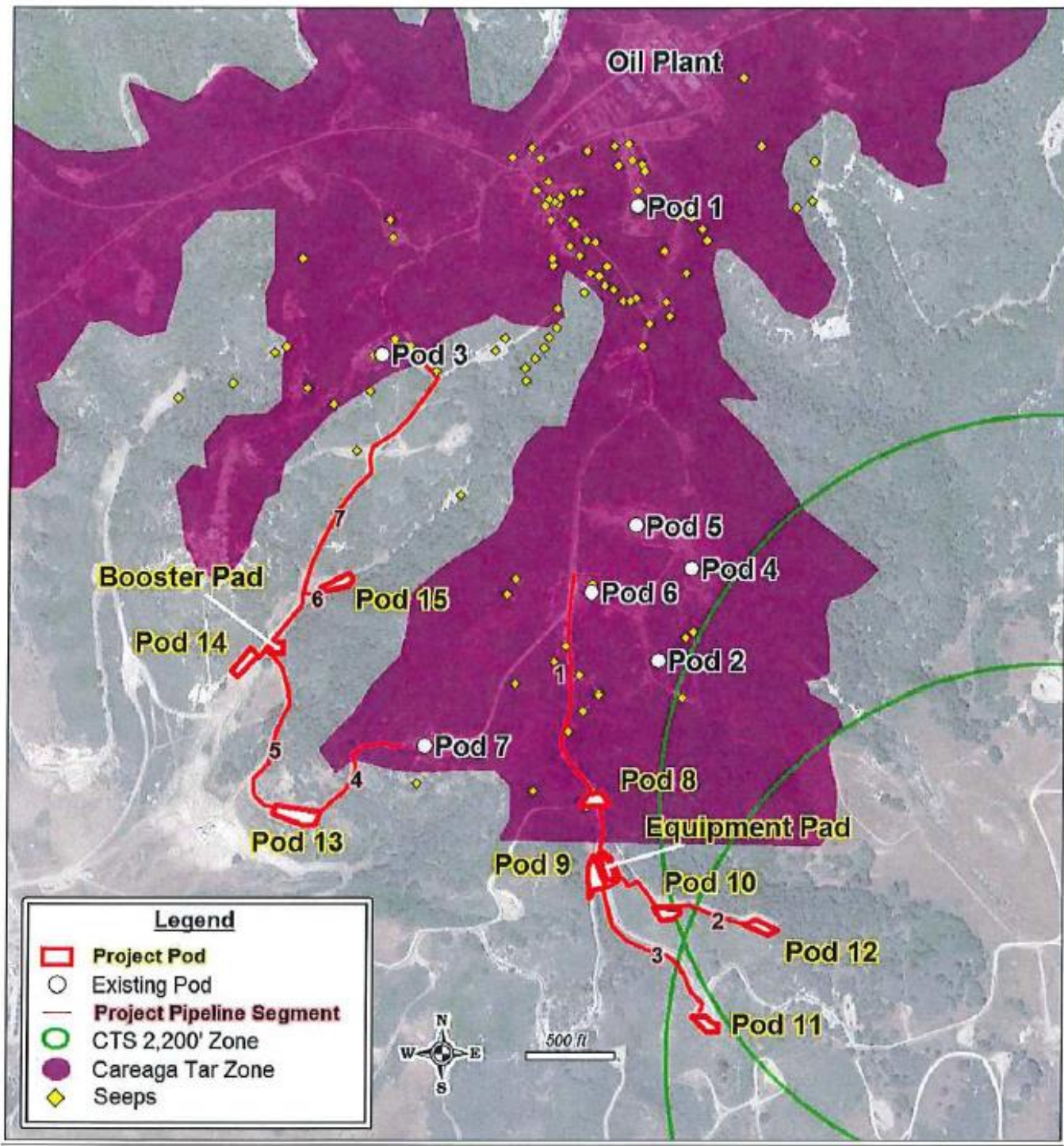
37 inactive seep cans removed, and area remediated.

As of Oct 2016, 62 cans remaining, with 49 active.

Seep Can Installation, 2008 to 2016

Total Seep Cans vs. Cumulative Diatomite Wells steamed





Seep Can Removal 2016

- 99 Seep cans installed since 2008 to present
- 80% of cans installed in period 2008 to 2011
- Significant reduction in seep activity in recent years, 7 cans installed since end 2013
- As of Oct 2016, 49 of 62 remaining seep cans are active
- 37 long term inactive cans removed in 2016, and area remediated.



New Wells Constructed Only on Eight Existing Pads



LEGEND

- PROJECT SITE
- PROPOSED POD LOCATION
- PROPOSED EQUIPMENT/MULTIPHASE BOOSTER AREA



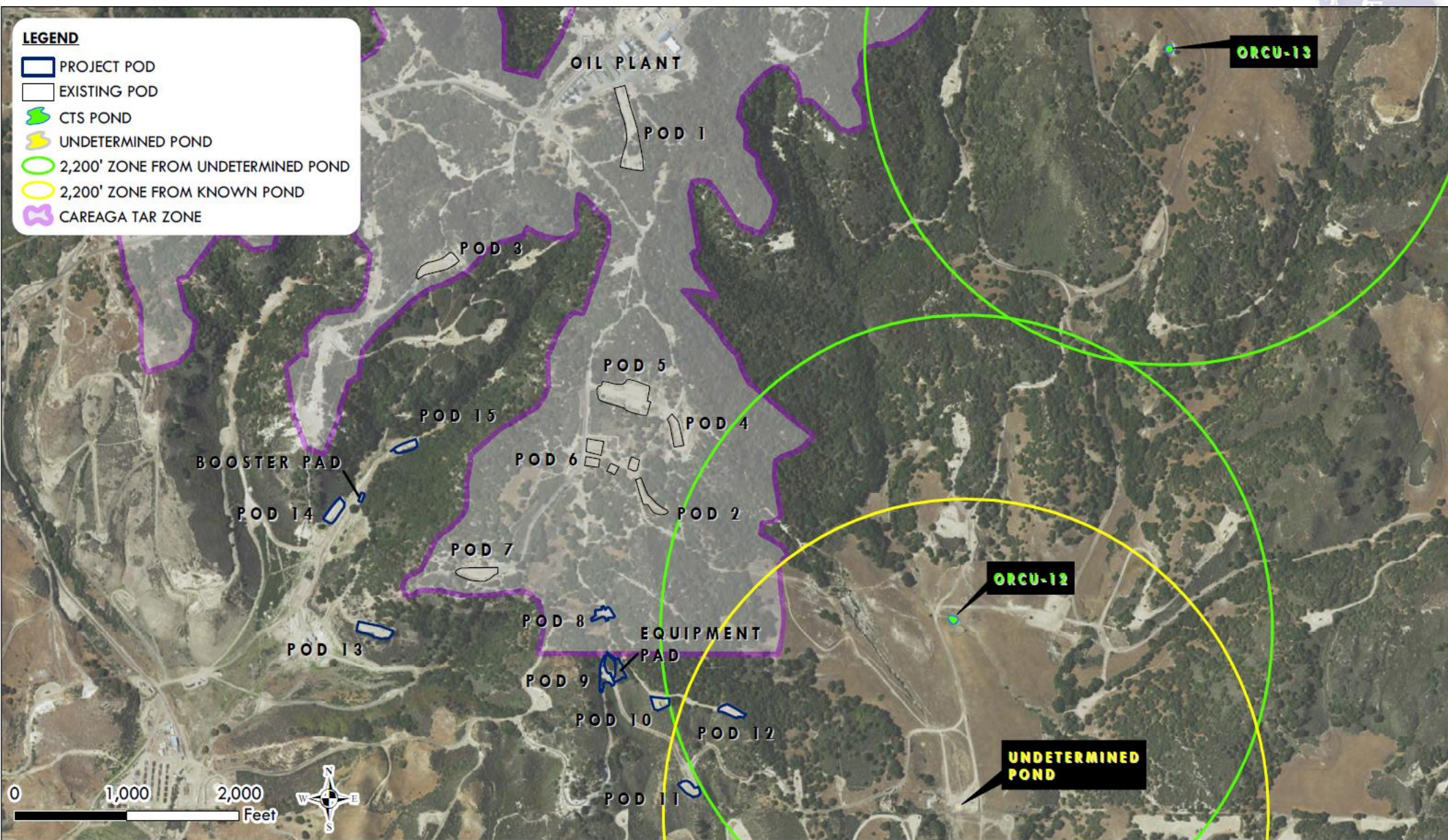
PREPARED BY SCS TRACER
 MAY 2014
 23, NAD 83
 SOURCE: USGS, CASI

PACIFIC COAST ENERGY COMPANY
 ORCUTT OILFIELD
 SANTA BARBARA COUNTY, CALIFORNIA

FUTURE DIATOMI

ORCUTT HILL I

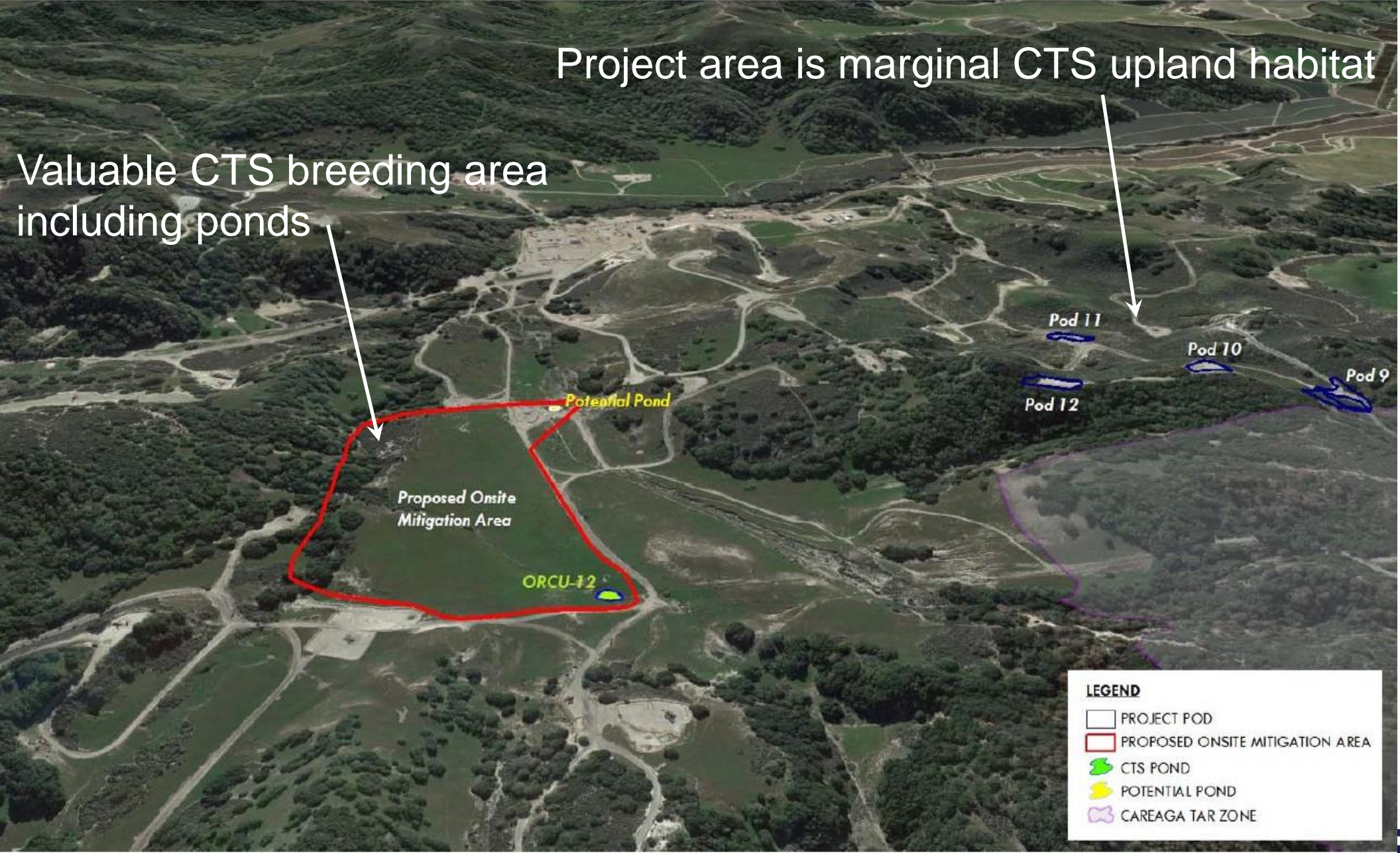
California Tiger Salamander (CTS)



California Tiger Salamander On Site Conservation

Project area is marginal CTS upland habitat

Valuable CTS breeding area including ponds



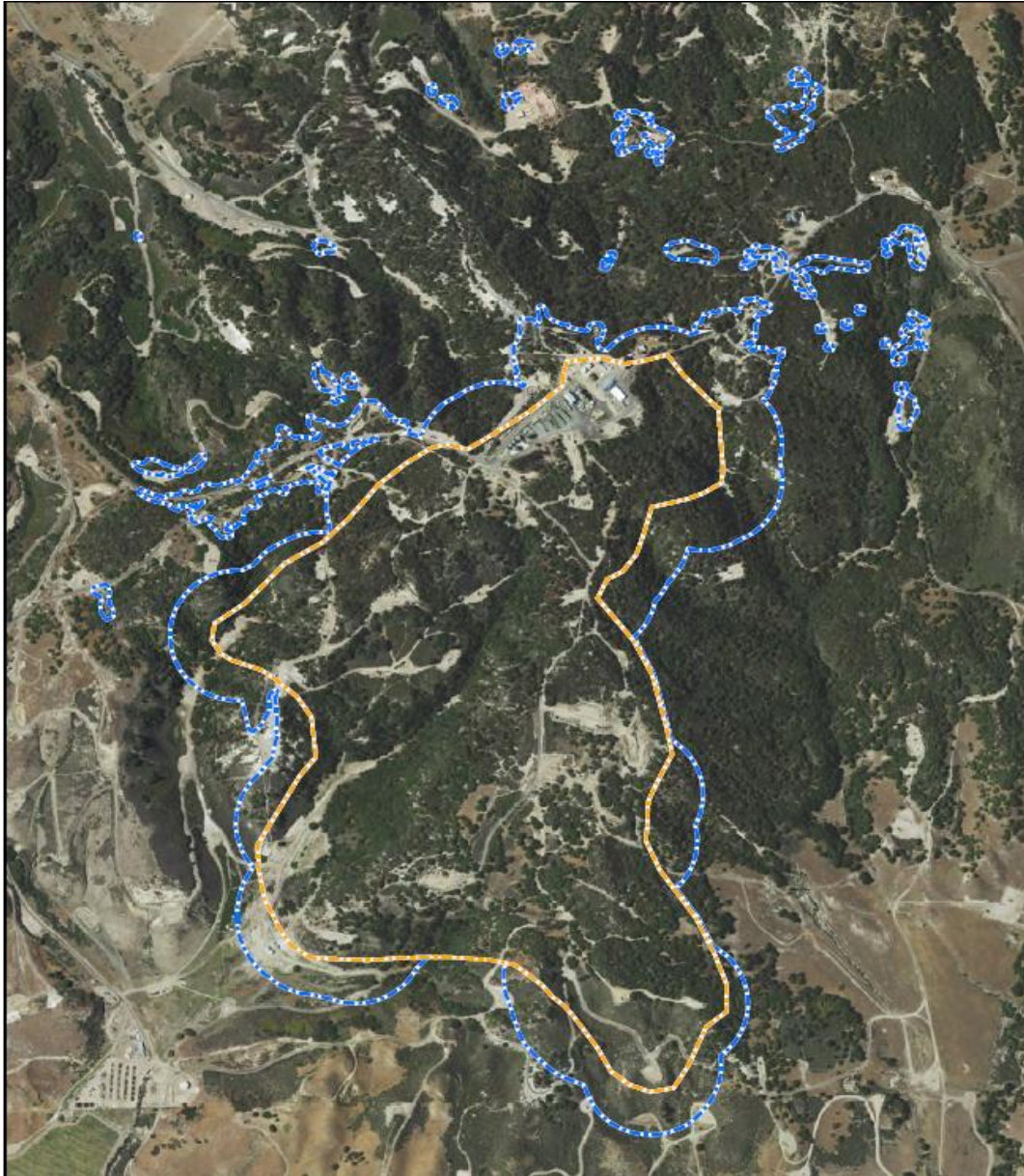
LEGEND

- PROJECT POD
- PROPOSED ONSITE MITIGATION AREA
- CTS POND
- POTENTIAL POND
- CAREAGA TAR ZONE

US F&W Service

The proposed area mitigation encompasses habitat that is of greater value than that which is being impacted and would aid in the recovery of the species. In general, mitigation for impacts to California tiger salamander and their habitats should occur at a location within the affected California tiger salamander metapopulation. The Ventura Fish and Wildlife Office views the proposed mitigation lands as an appropriate location for mitigation and favorable for recovery of the California tiger salamander in the metapopulation.

Proliferation of Lompoc Yerba Santa (LYS)



2008 - 2,239 Acres Surveyed,
7.85 Acres of LYS coverage

2016 - 423 Acres Surveyed,
22.83 Acres of LYS coverage

Proliferation of Lompoc Yerba Santa (LYS)

