

Conservation & Mitigation Banking in California

Opportunities, Constraints, & a Shifting Marketplace

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CALCIMA

California Construction And Industrial Materials Association



GREAtecology

a **TE** TRUE ENVIRONMENTAL company

Dr. Jill McGrady

- Chief Technical Officer – Great Ecology
- 15+ years experience with natural capital investment, habitat restoration, & regulatory strategies
- Director & project manager for dozens of mitigation/conservation banking projects throughout the USA



Refresher: Conservation & Mitigation Banking

Similar, but Different

Offset environmental impacts via **natural asset trading**

	CONSERVATION BANK	MITIGATION BANK
Primary Focus	Species & habitat conservation	Wetlands, streams, & aquatic resources
Regulatory Framework	Endangered Species Act (ESA); California ESA (CESA)	Clean Water Act (CWA); CA Porter-Cologne Act
Regulating Agencies	USFWS; CDFW	USACE; EPA; SWQCB/RWQCB
Credits Sold For	Offsetting habitat/species loss	Offsetting aquatic resource impacts

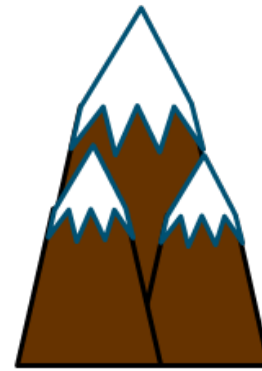
Valuing Natural Capital



Air



Water



Soils + Geology



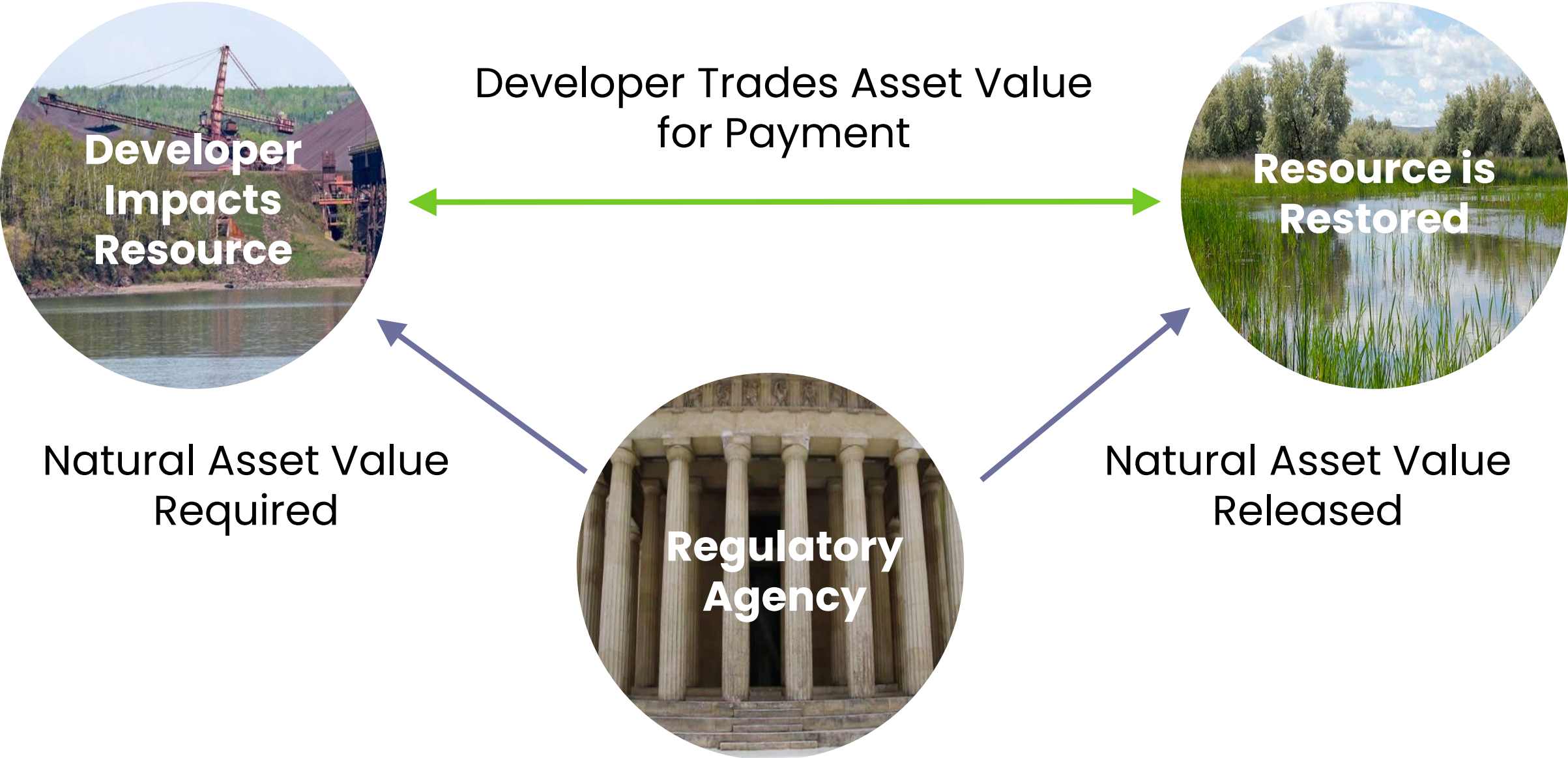
Biodiversity

There are countless methods & metrics by which to value natural capital assets & the ecosystem services they provide

Natural Capital is monetized in the **ecosystem marketplace**

Natural Asset Trading

Driven by **regulations**



Regulations Drive the Industry

Wetlands + Streams

Species

California

SWQCB

State Agencies & Regulations

CDFW

Local

Army Corps Districts
RWQCBs

Habitat Conservation Plans
(HCP/MSCP)

Federal

Clean Water Act
U.S. Army Corps of Engineers

Endangered Species Act
U.S. Fish & Wildlife Service

Regulatory Drivers: the Trump Administration

Wetlands + Streams

Species

California

SWQCB

State Agencies & Regulations

CDFW

Local

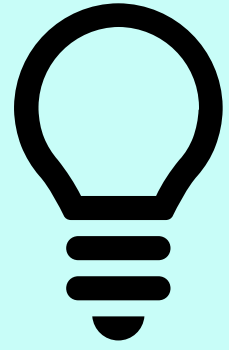
Army Corps Districts
RWQCBs

Habitat Conservation Plans
(HCP/MSCP)

Federal

Clean Water Act
U.S. Army Corps of Engineers

Endangered Species Act
U.S. Fish & Wildlife Service



What are the benefits of banking in California?

- Supports California's 30 x 30 goals
- Guarantees conservation in perpetuity
- Reduces need for operators to invest in self-funded projects
- Provides a faster route to project approvals
- Mitigation / conservation bank assumes liability of the project





Banking Considerations

- Credit requirements must be of same type and in similar location
- Credits for species are limited or nonexistent in some regions
- New credits take up to 5 years to establish
- Agency coordination is key to securing fair & attainable credit requirements
- There are alternatives to conservation & mitigation banking






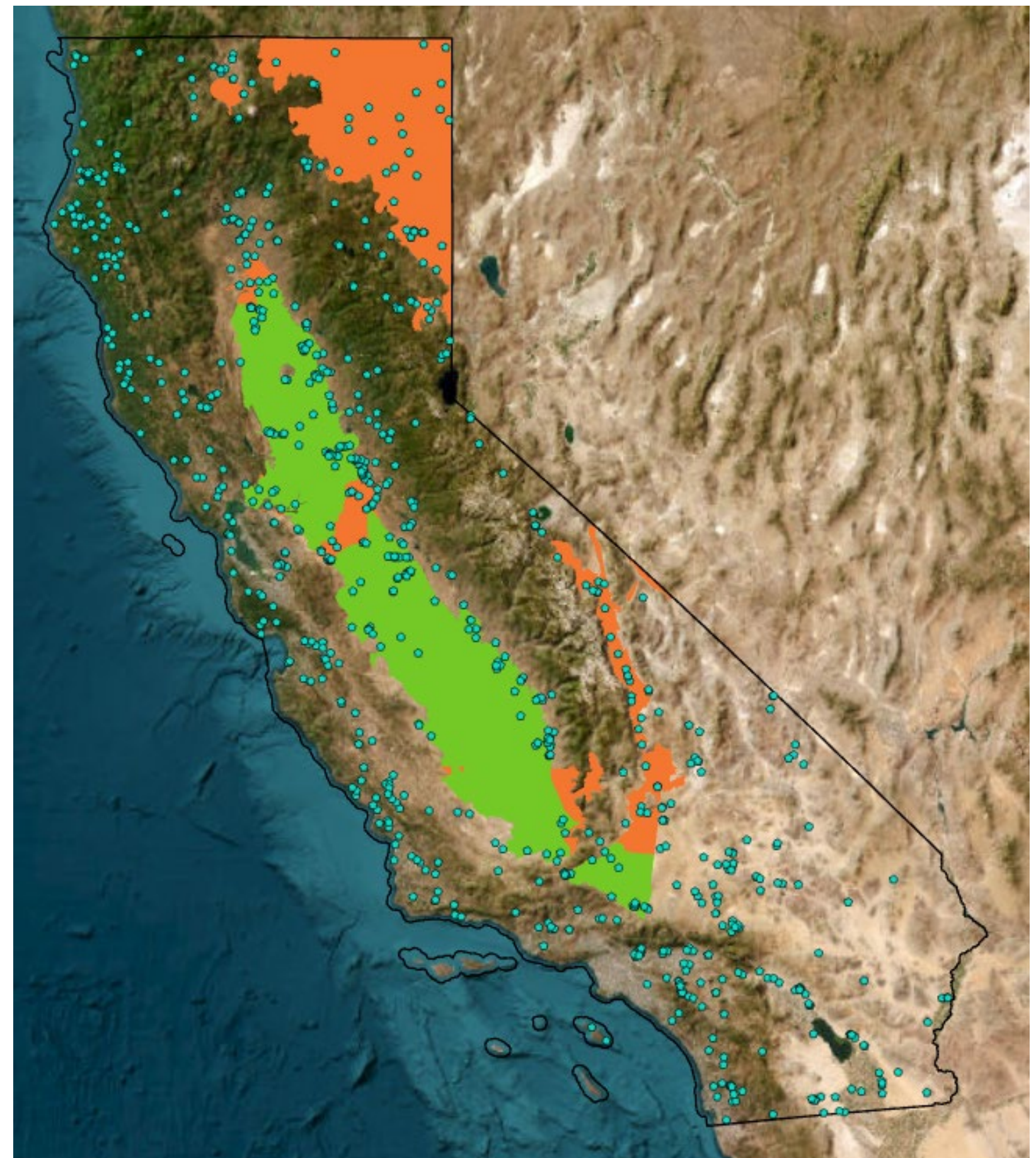
The Credit Situation: A Visual Review

Swainsons Hawk

- State threatened, unlisted federally



-  Range without credits available
-  Range with credits available
-  Aggregate Mines






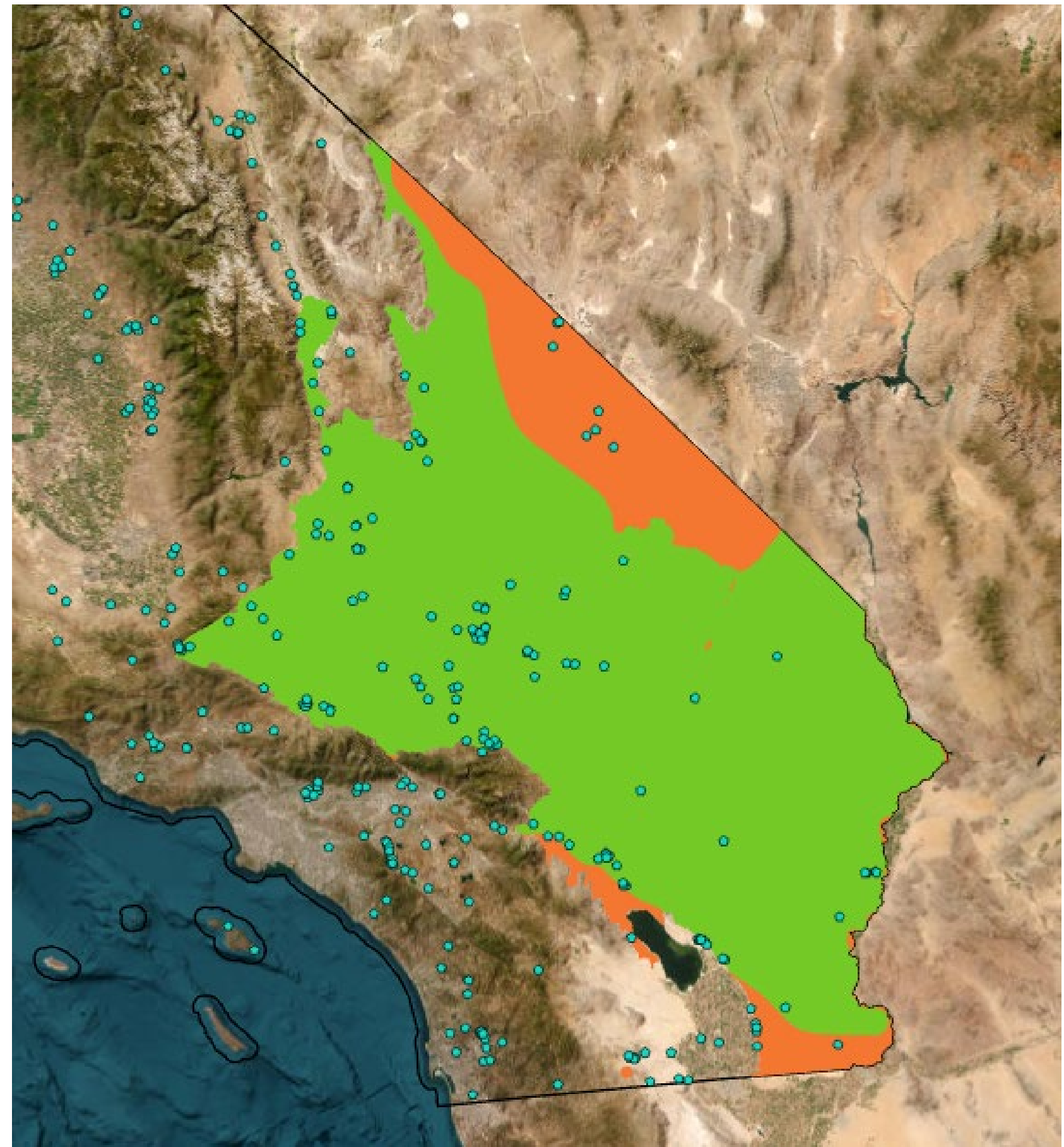
*Species credit information from CDFW & RIBITS, based on reporting from conservation banks.
Only the bank sponsor can confirm current availability of a particular credit type.

Desert Tortoise

- Threatened at state and federal level



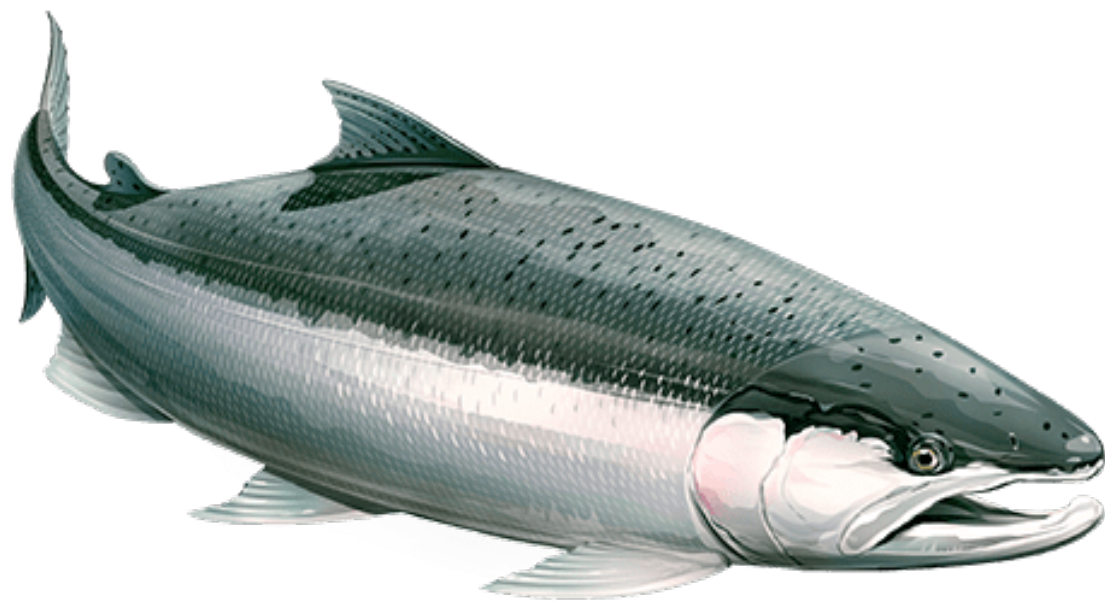
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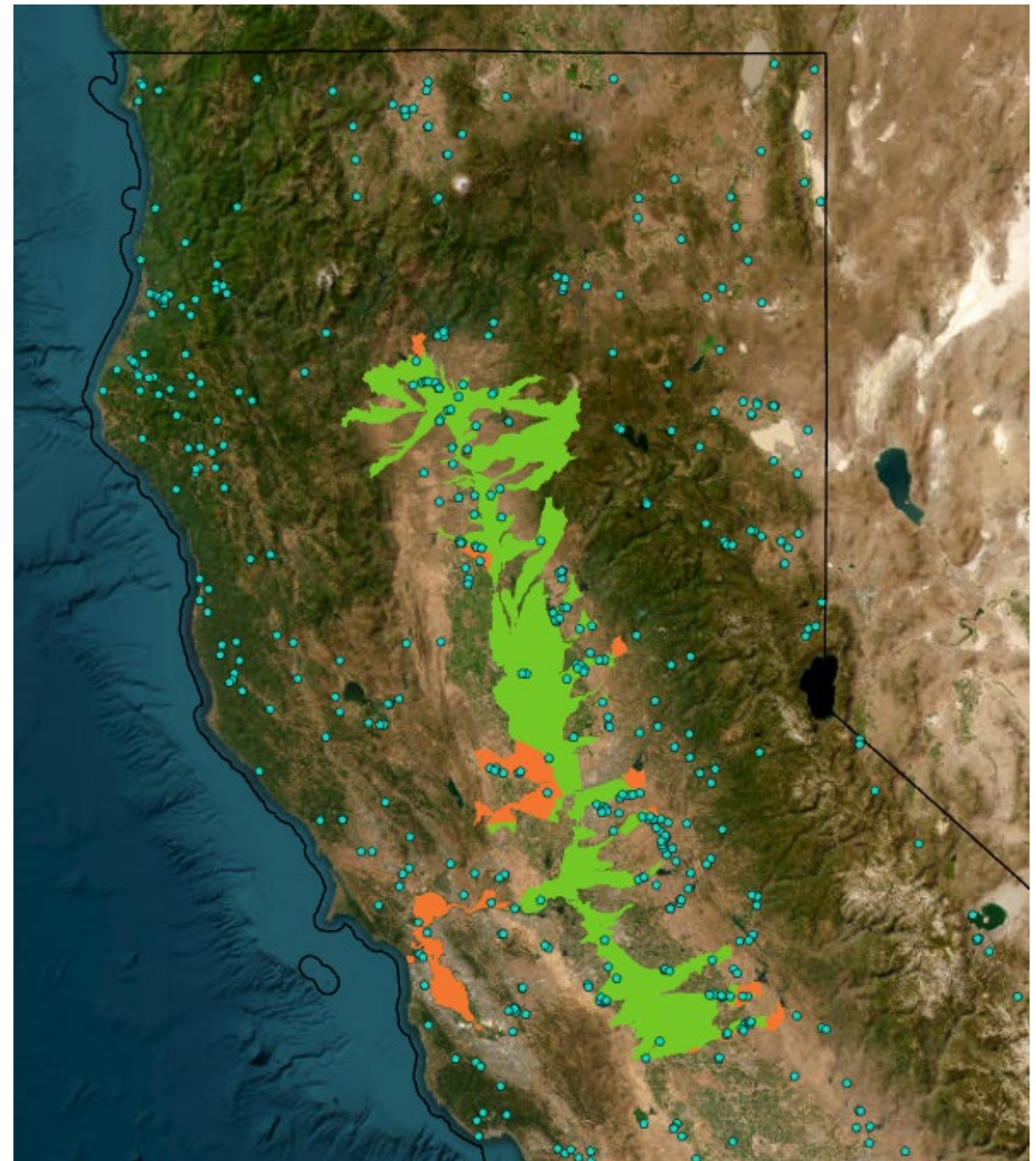
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Central Valley Steelhead

- Threatened at federal level but no listing in California
- Protections susceptible to federal rollbacks



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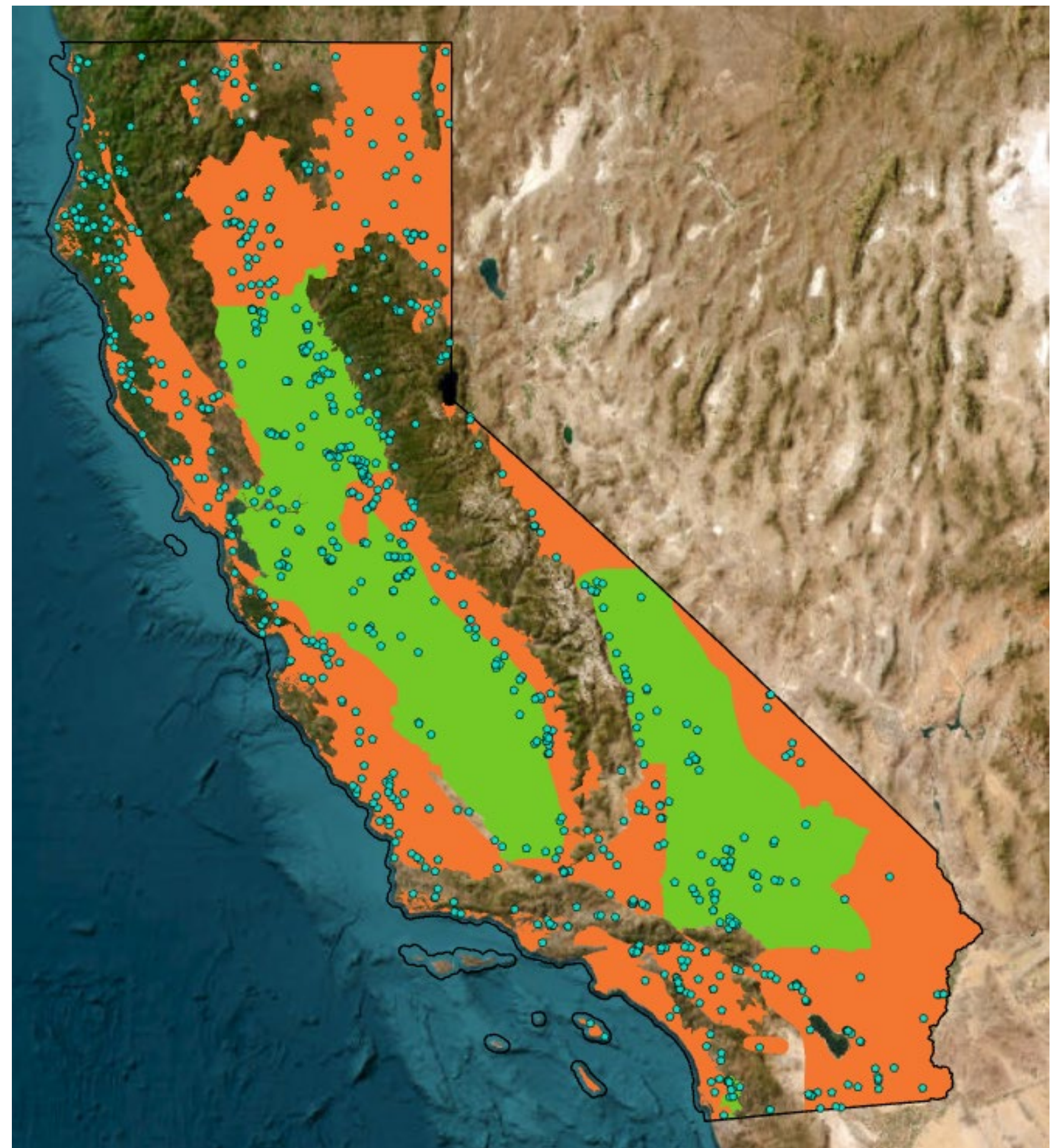
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Burrowing Owl

- Candidate for state listing
- CDFW Species of Special Concern



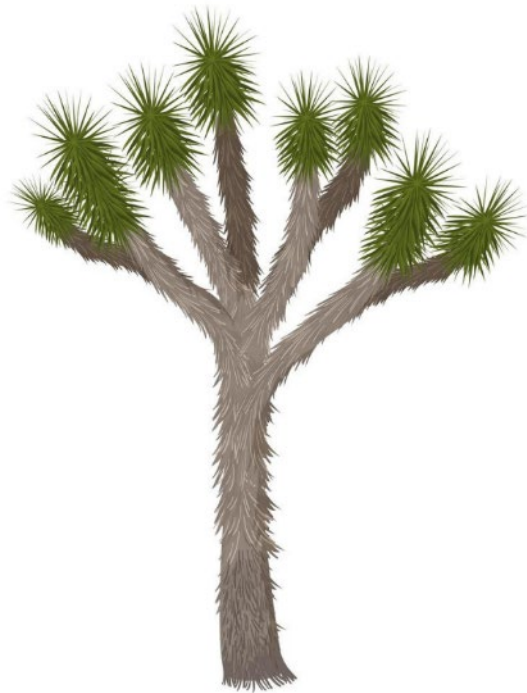
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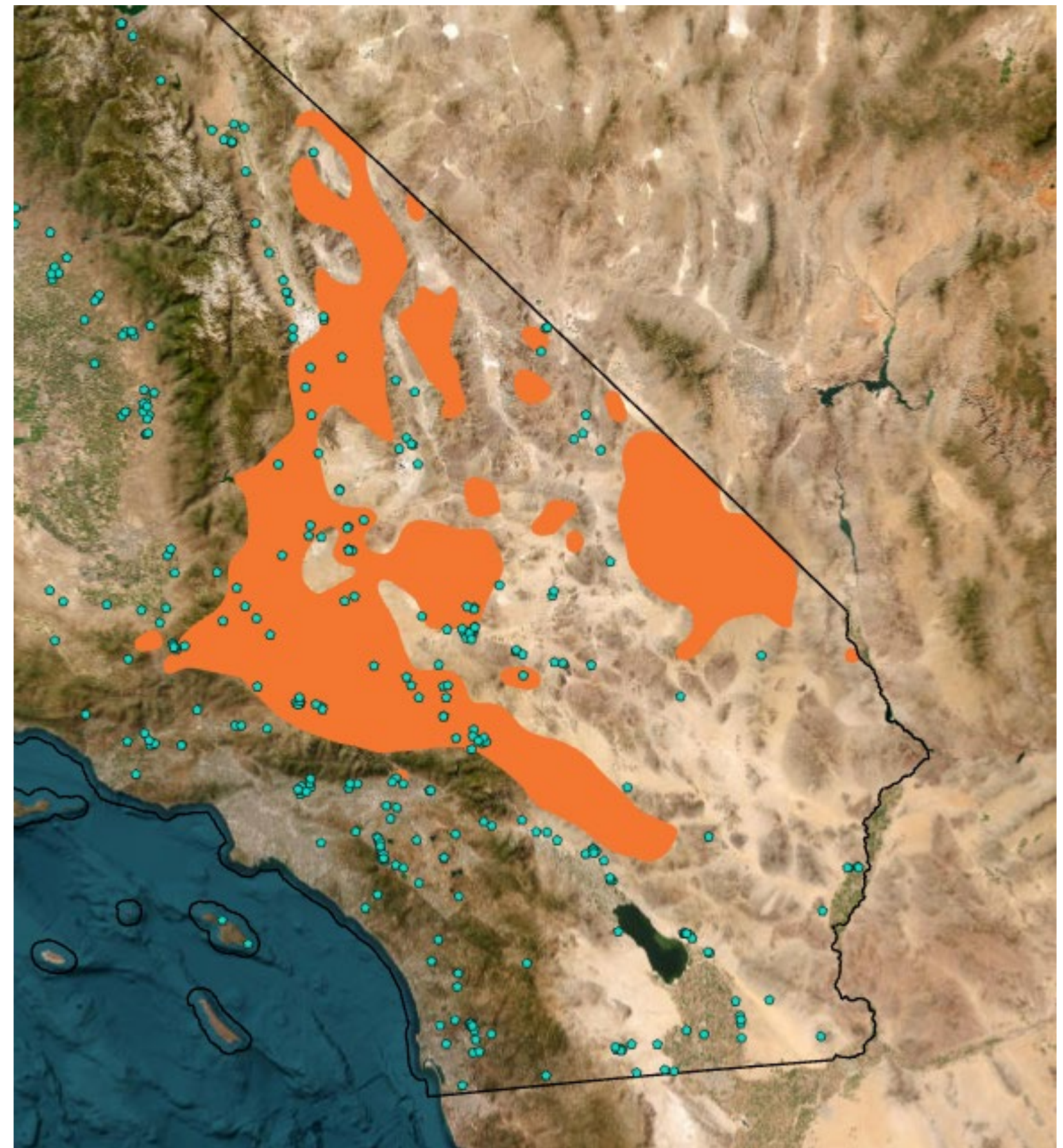
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Joshua Tree

- Candidate for state listing
- Protected by Western Joshua Tree Conservation Act (WJTCA)
- WJTCA take permit requires in-lieu fee payment



-  Range without credits available
-  Range with credits available
-  Aggregate Mines






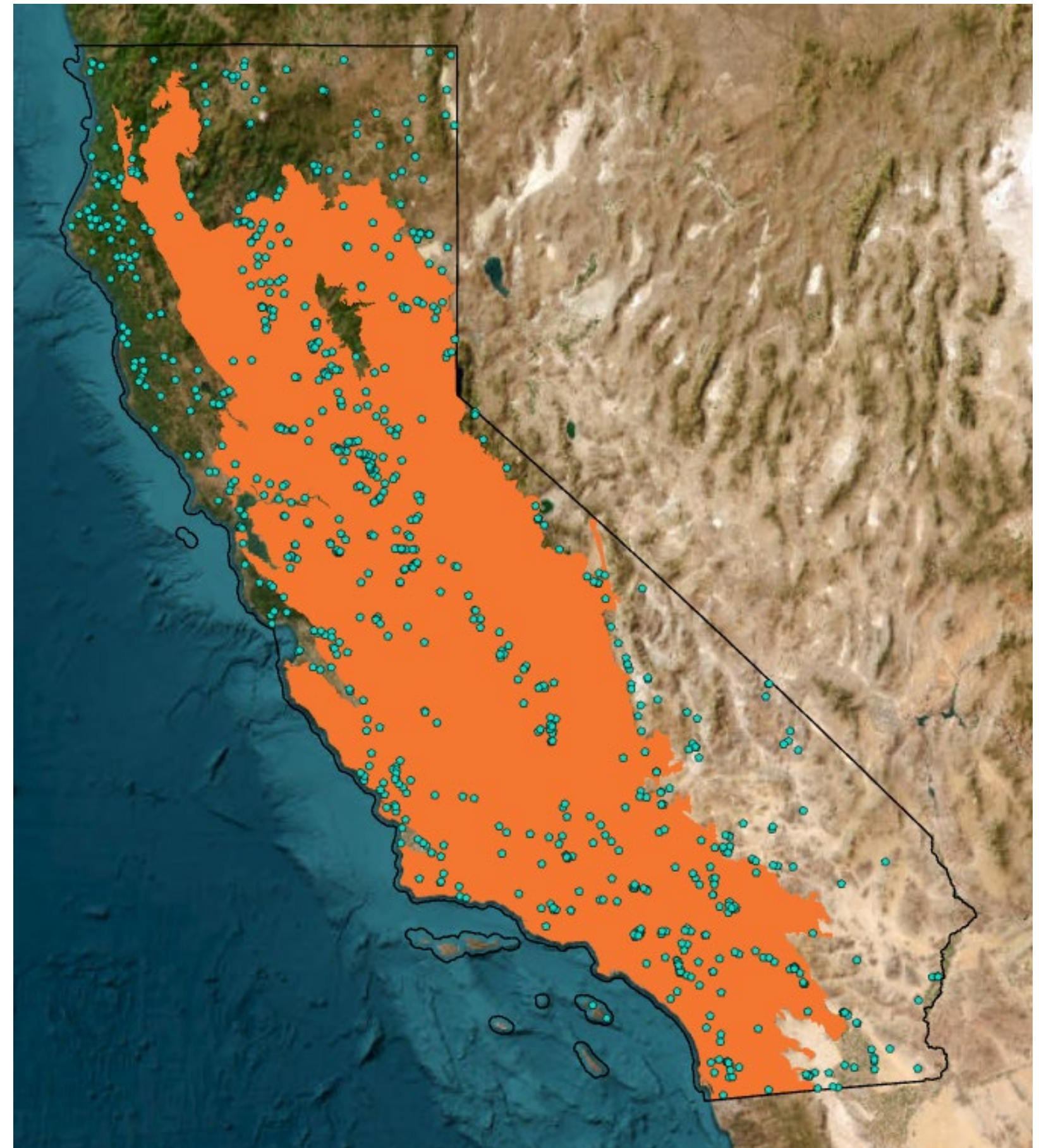
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Western & Crotch's Bumble Bees

- Candidates for state listing



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-  Range with credits available
-  Aggregate Mines



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Credit Solutions & Opportunities

Can't Buy Credits? There Are Solutions

- In-lieu fee
- Permittee responsible mitigation onsite or offsite within service area
- Create single-user or multi-user bank



Case Study: Multi-user bank

Pond 20 Wetland Mitigation Bank

San Diego, CA – Port of San Diego



Case Study: Permittee Responsible Mitigation

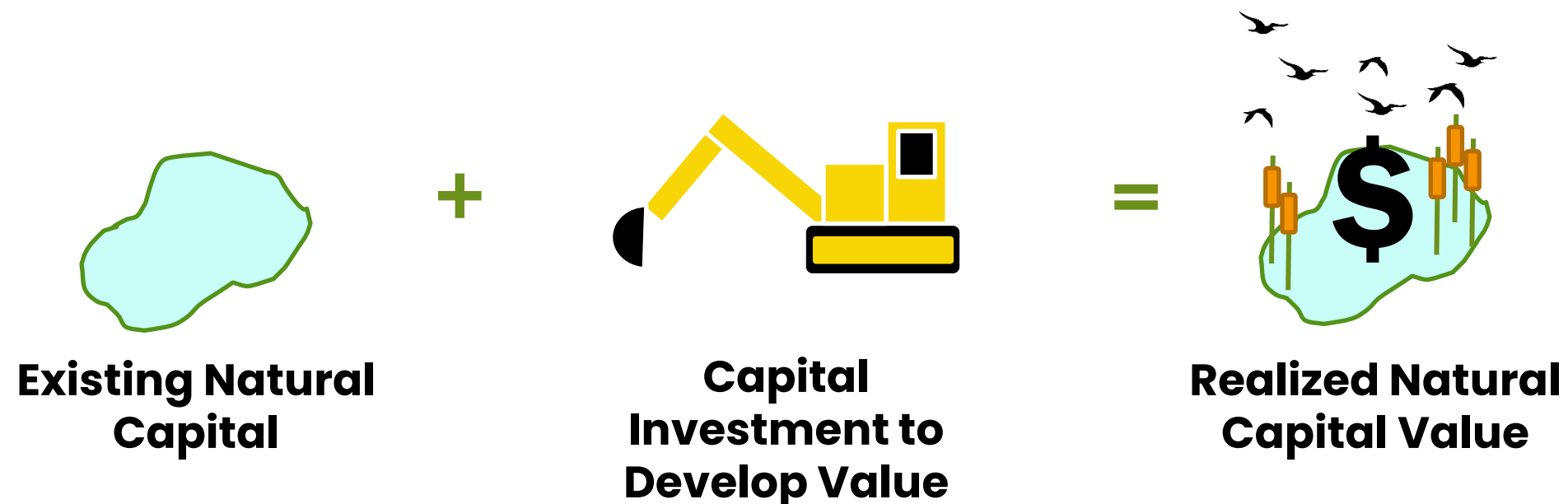
Hell's Kitchen Geothermal Project

Imperial County, CA – Controlled Thermal Resources



Have Surplus Property? There Are Opportunities

- Generate value through habitat restoration
- Create single-user or multi-user banks



Case Study: Beneficial ReUse

Surplus Property Mitigation Bank Evaluations

Central California Coast – Chevron



Case Study: Beneficial ReUse

Agricultural Property Ecosystem Credit Analysis

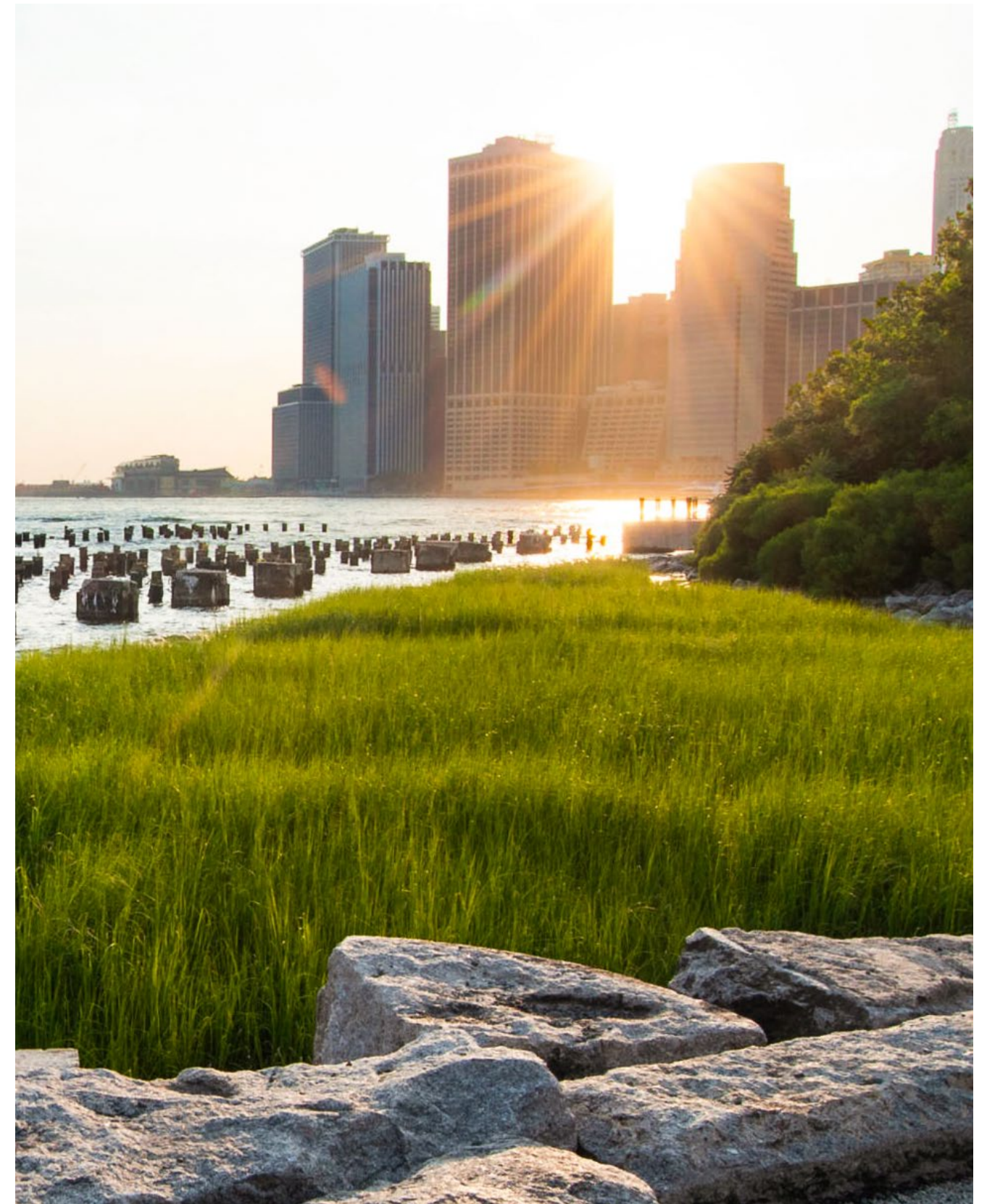
USA – Blue Apron





Partner with Experienced Consultants

- Understand the agencies & regulatory approval success factors
- Negotiate fair mitigation requirements
- Develop & advocate novel mitigation solutions supported by both sides
- Identify & assess feasibility of beneficial site reuse



Thank You

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