



TOPIC TALK

CALIFORNIA STATEWIDE BROWNFIELD INVENTORY: INTRODUCTION AND ITS USE

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Statewide Potential Brownfields Inventory

Building a parcel-level screening database and dashboard for California

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WHY THIS MATTERS

California had no comprehensive picture of its brownfields

DTSC'S DEFINITION

“Properties that are contaminated, or thought to be contaminated, and are underutilized due to perceived remediation cost and liability concerns.”

- Brownfields cluster in low-income and environmental-justice communities, blocking redevelopment
- No single federal or state database of brownfields has ever existed
- Prior CA estimate — Center for Creative Land Recycling, 2007: **96,285–200,000 parcels**, built from assumptions and extrapolation, not site-level data

BUILDING THE DATABASE • STEP 1

Start with every parcel in California

Goal: build the first parcel-level, statewide screening inventory of potential brownfields — using existing public data, with no new fieldwork.

Start

CA statewide tax parcel layer

10.7M

parcels, by Assessor Parcel Number

Remove ineligible land

Protected open space (CPAD) and active U.S. Department of Defense land — together nearly 100M acres not eligible for redevelopment

Clean and simplify

Consolidate co-located parcels (e.g. condo units); reclassify 279 raw land-use codes into ~50 working categories

BUILDING THE DATABASE • STEP 2A

Known contamination: eight regulatory databases

Source	What it tracks	Data points
EPA TRI	Toxic Release Inventory — on-site industrial pollution releases	2,659
CalGEM	Oil and gas well locations and status	155,237
EPA NPL	National Priorities List — federal Superfund sites	114
SWIS	CalRecycle Solid Waste Information System — landfill and waste facilities	5,072
HWTS	DTSC Hazardous Waste Tracking System — active and inactive generators	1,338,584
EnviroStor	DTSC cleanup, permitting, and investigation sites	13,363
GeoTracker	State Water Board — leaking underground tanks, groundwater cleanup sites	73,737
RCRA	EPA hazardous waste handlers and treatment/storage/disposal facilities	3,276

These 8 sources, plus business-activity data (next slide), total **1,665,217** points of environmental concern statewide

BUILDING THE DATABASE · STEP 2B

Perceived contamination: vacancy and business activity

DTSC's definition includes sites only *thought to be* contaminated. Regulatory databases can't capture that — so two more signals were added.

Vacant parcels

Identified directly from parcel land-use codes — vacant, underused sites often carry unresolved contamination concerns.

Active business operations — Data Axle

A private business-location dataset, filtered by **NAICS code** — the federal classification system for industry type — to pull businesses in fields with real contamination potential: mining, oil & gas extraction, waste management & remediation, metal & chemical manufacturing, and similar.

Result: **70,950** business locations added — capturing active, ongoing risk that static regulatory records miss.

BUILDING THE DATABASE · UNDER THE HOOD

How it's stitched together

Briefly — three steps in ArcGIS turn nine separate datasets into one flagged parcel layer.

1. Merge

All 9 environmental data sources are combined into one standardized layer with common fields (source, date, status, location)



2. Spatial join

That merged layer of 1.66M points is joined to the statewide parcel layer — matching each point to the parcel it falls within

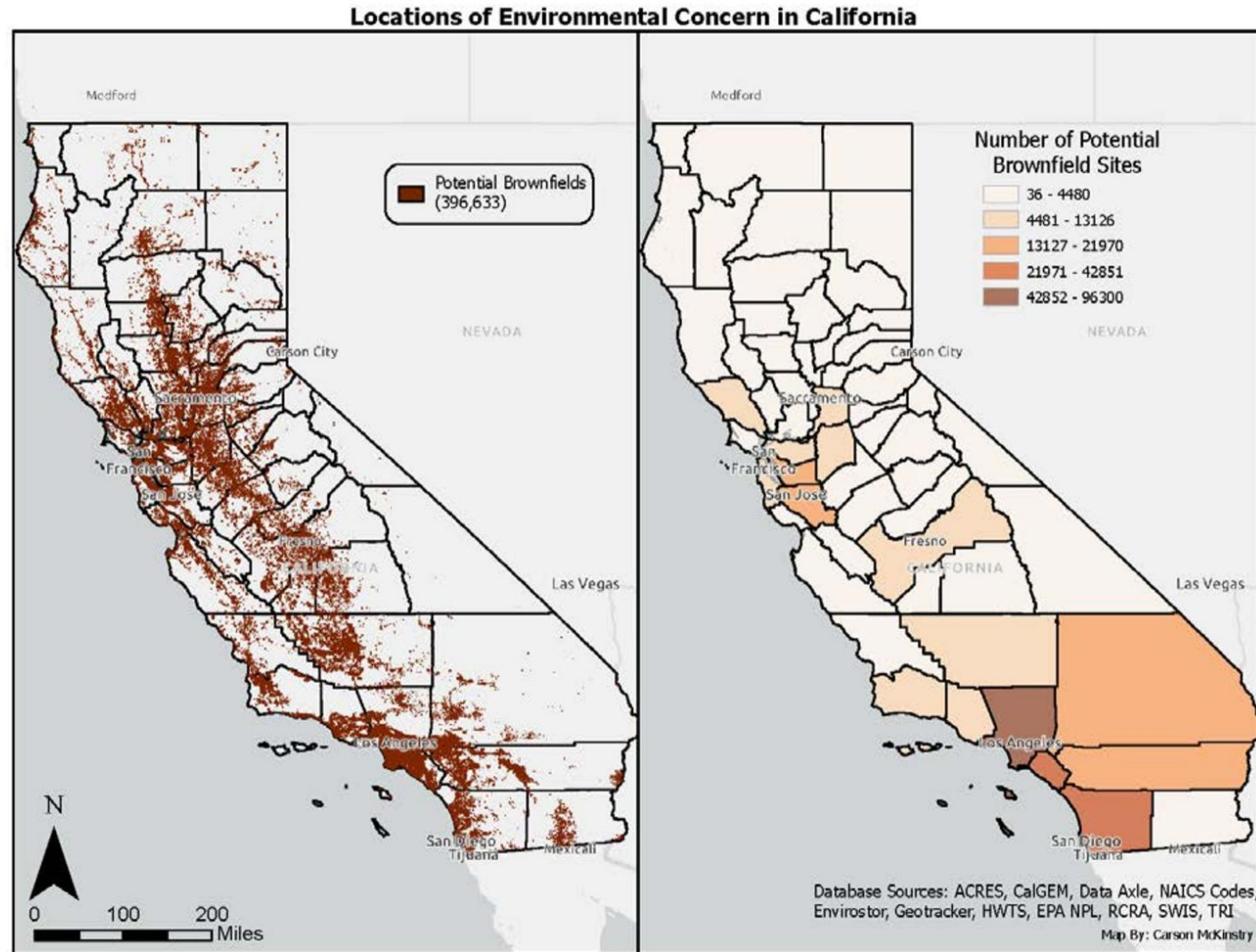


3. Flag

Any parcel touching one or more concern points is flagged as a potential brownfield, with a count of how many points it contains

WHERE THE FLAGGED PARCELS ARE

Potential brownfield parcels, statewide and by county



Source: Swayne et al., 2024, Figure 5
Statewide Potential Brownfields Inventory

RESULTS

396,633 parcels flagged as potential brownfields

3.7%

of all 10.7M parcels statewide

3.6M acres

10.2% of land area under consideration

L.A. County

highest count — 96,279 potential brownfield parcels

Orange County

highest share of its own parcels flagged — 6.4%

Santa Barbara County

highest share of land area flagged — 31.3%

Top land uses

auto-related (gas stations, auto repair),
industrial/manufacturing, recycling

FROM INVENTORY TO ACTION

A prioritization layer, plus redevelopment context

Every parcel is scored on **11 yes/no criteria** across four categories:

Proximity to sensitive uses — within 1,000 ft of schools, parks, daycare, healthcare

Disadvantaged-community status — SB 535 designated census tracts

Environmental & hazard severity — number and diversity of concern points

Land use — land use of concern, vacancy, active contaminating business

Criteria are kept separate, not combined into one weighted score — so users can weight them to match their own priorities.

Plus redevelopment context

HUD affordable-housing incentive areas (DDA / QCT)

Transit priority areas

Flood zone & fire hazard severity

Existing EPA brownfields grant funding (ACRES)

Parcel size

Together: go from 396K parcels statewide to the handful that matter to your community.

IMPORTANT CAVEATS

What this is — and isn't

This is a screening tool

A parcel flagged “potential brownfield” does not mean confirmed contamination — and no data is provided on its nature or extent.

Site-specific investigation is always required before any redevelopment or funding decision.

Known data limitations

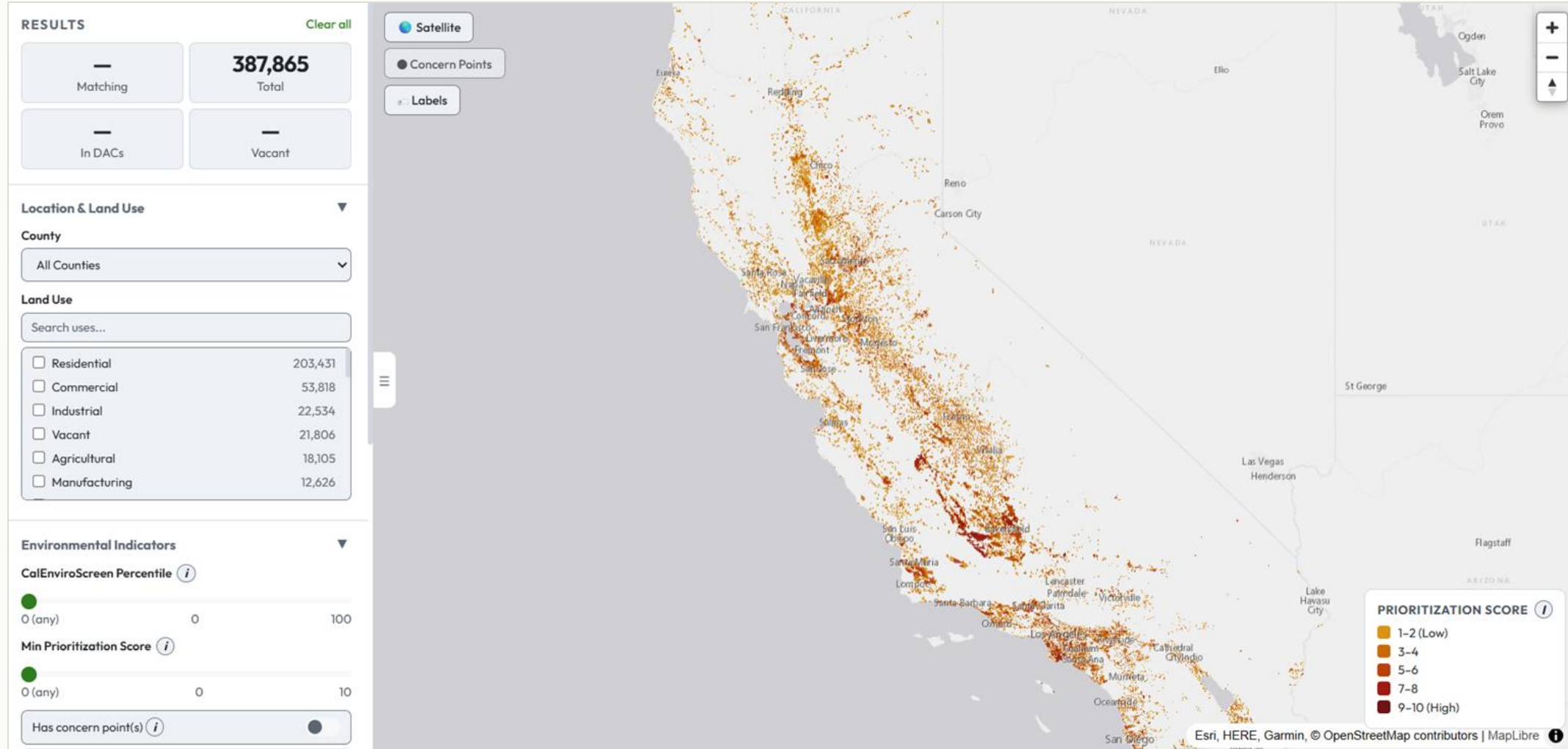
Some source data is **self-reported** and unvalidated

Facility **polygons are represented as points**, which can shift which parcel gets flagged

Some facility addresses carry **geocoding errors**

THE DASHBOARD

387,865 parcels, filterable down to what matters to you



USING THE TOOL

Explore it yourself: the Brownfields Dashboard

1

Select your county or area

2

Filter by what matters to you
— disadvantaged-community
status, proximity to schools
or parks, land use,
prioritization score

3

Explore the interactive map —
toggle data sources, adjust
search radius

4

Export results as CSV,
GeoJSON, or Shapefile for your
own planning or grant work

Live demo — crs.sdsu.edu/programs/brownfields/inventory

PUTTING THE DATA TO WORK

What communities can do with it

Grant applications

Build the case for EPA and state brownfields and environmental-justice funding

Targeted assessment

Prioritize which sites deserve site-specific environmental investigation first

Local planning

Inform land-use and smart-growth planning around known and perceived hazards

What's next

A deeper look at parcels in environmental-justice communities (75th+ percentile CalEnviroScreen) including ground-truthing; creating a replicable how-to for other states; adding ***your*** data

THANK YOU

Questions

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crs.sdsu.edu/programs/brownfields/inventory



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Department of Toxic Substances Control - Cleanup in Vulnerable Communities Initiative



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