CPAD DATABASE MANUAL

Version 2024b

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BEFORE USING DATA, see Data Disclaimer inside

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Contents

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A large number of other public agencies and private non-profits contributed data and advice to CPAD. We can't list them all here, but we are very thankful for their time and assistance.

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Data Disclaimer

Your use signifies agreement

Summary

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This edition of CPAD should be cited in any maps, reports, websites or other products as: “California Protected Areas Database (CPAD) – www.calands.org (December 2024)”

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Data Sources

Data in CPAD is based on a wide range of sources within the budgets available for the data's development and maintenance. The source datasets have a range of publication dates, varying degrees of accuracy, various projections, and different attribute information. GreenInfo Network has made every effort to standardize the multiple data inputs to create CPAD, but occasional errors in this process are to be expected. GreenInfo Network does not provide the original datasets from primary data source providers.

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December 2024

Acknowledgement of Indigenous and Native Lands

The GIS data in CPAD and CCED are based on land ownership or legal easements that restrict how lands can be used. The ownership focus of the databases is intended to assist in the planning, management, and long-term care of lands owned by government agencies and nonprofits for open space purposes. The lands represented here are the traditional unceded territory of more than 100 nations. To learn more about a particular territory please visit the California Native Heritage Commission's Digital Atlas.

We recognize that the Western perspective of land ownership is limited and does not reflect an important range of cultural views, especially of many Indigenous peoples. Furthermore, land ownership as a structure has been used to promote empire and colonization.

These data represent only one lens of how to view California's landscape. CPAD and CCED are not intended to represent, replace, or negate different cultural views of lands such as spiritual ownership, stewardship, or caretaking.

As we seek to respect the many diverse Indigenous people connected to this land from time immemorial, we welcome feedback on how to improve and address non-Western perspectives and how to respectfully represent them. Email us at cpad@calands.org.

Summary

The California Protected Areas Database contains data about lands that are owned outright ("in fee") and protected for open space purposes by over 1,500 public agencies or non-profit organizations. CPAD lands range from the smallest urban pocket parks all the way to the largest wilderness areas – all told, CPAD inventories over 50 million acres in 16,280 "parks" (known in CPAD as *Super Units*). CPAD is published by GreenInfo Network (www.greeninfo.org), a nonprofit technology support organization founded in 1996.

Access to CPAD GIS data is through the California Natural Resources Agency's open data portal – see www.CALands.org for more information. CPAD is available in Esri shapefile format and consists of three related data sets – *HOLDINGS* (parcel-level components of parks and preserves), *UNITS* (commonly named holdings sharing the same access level within counties) and *SUPER UNITS* (units that are dissolved on the land manager and extend across counties – these are mostly for recreation-focused applications).

Any depiction of CPAD data to illustrate public access must NOT include closed lands and must note lands coded as "restricted" as requiring permits or having limited operating times.

This is the second release of CPAD in 2024, and includes the following improvements:

Current CPAD Release Improvements (v. 2024b)

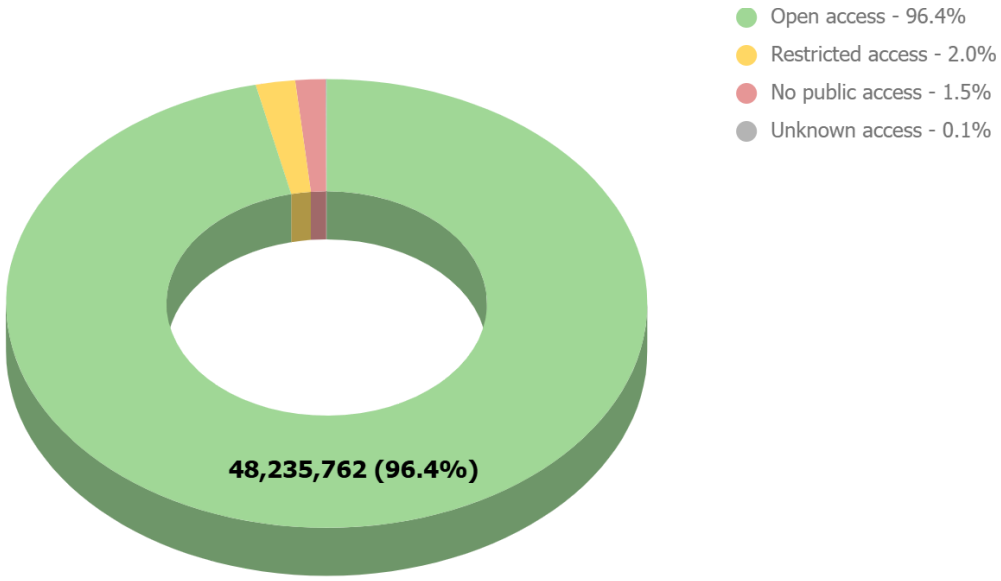
The 2024b release of CPAD includes the following updates:

- Addition of over 40,000 acres
- New and notable additions include Mojave Desert Land Trust, San Joaquin Council of Governments, San Diego County, River Partners, Marin County, and Sequoia Riverlands Trust.
- New and revised lands in 57 of California's 58 counties.
- Significant improvements have been made in improving and expanding GAP codes, with continued support from agencies resulting in an additional 79,000 acres qualifying for 30x30 since the last release.
- Removal of approximately 1,900 acres. Nearly 50% of the lands removed were lands that are protected by conservation easement and thus represented in CCED instead of CPAD. The remaining acres were removed as the result of improving park boundaries, removing private lands, and changes in land uses.

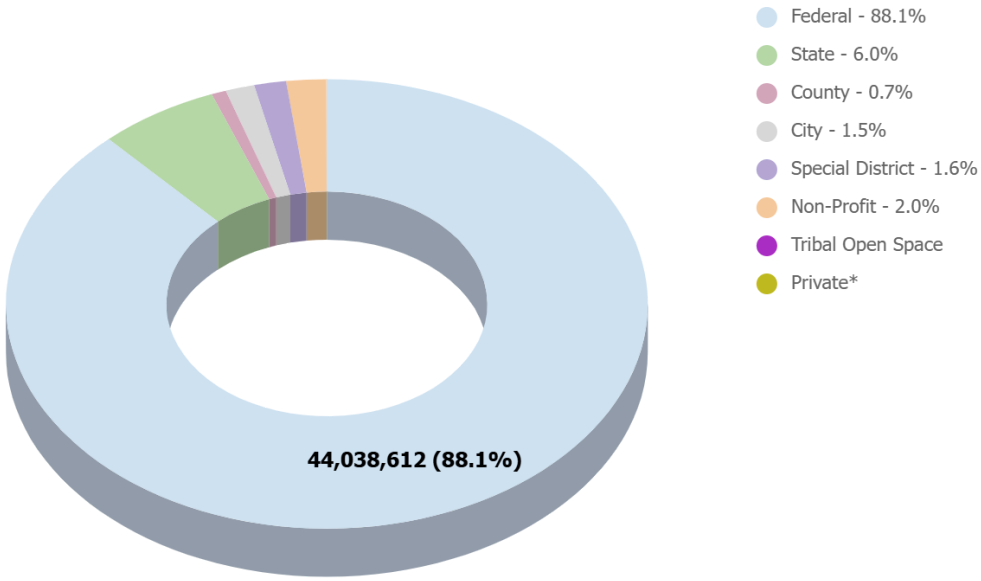
Key Statistics

version 2024b

ACRES BY ACCESS TYPE:



ACRES BY AGENCY TYPE:



*A limited number of privately owned lands are included in CPAD. They are predominantly Homeowner Associations(HOA) and account for less than 0.01% of lands in the database.

More information on CPAD at www.CALands.org

CPAD is a project of GreenInfo Network - www.greeninfo.org

Introduction

The California Protected Areas Database (CPAD) inventories open space lands that have been protected for ***open space uses*** through fee ownerships. A separate database – the California Conservation Easement Database (CCED)* – tracks lands protected through conservation easements (more below). CPAD is not a database of all public lands – for example, it does not include public buildings, water treatment sites, or other non-open space public land.

CPAD is suitable for a wide range of planning, assessment, analysis, and display purposes. CPAD should not be used as the basis for official regulatory, legal, or other such governmental actions without more detailed review of current official land records in the area of focus.

The lands in CPAD are defined by their owning and managing agencies at the Holdings and Units levels. At the Super Units level (a version of the release meant primarily for recreation applications, and for general cartography), CPAD lands are defined simply by name, managing agency, and public access.

Access to CPAD GIS data is through the California Natural Resources Agency's open data portal – a download link and more information about CPAD is at **www.CALands.org**. CPAD is released in shapefile format. The state site also hosts map services with CPAD data displayed by Access Type, Agency Classification, and Agency Level. This is a great resource for web developers interested in displaying CPAD data already classified and designed by GreenInfo's team of cartographers.

CPAD has been developed by GreenInfo Network (www.greeninfo.org), a non-profit technology support organization. Financial support for CPAD varies over time, most recently coming mainly from the California Natural Resources Agency. Many other agencies, foundations and nonprofits have supported CPAD in the past (See Acknowledgments for a listing).

*NOTE ABOUT EASEMENTS: For conservation easement holdings, GreenInfo Network developed a second database called the **California Conservation Easement Database** (CCED). CCED feeds into a national inventory of easement holdings (the National Conservation Easement Database, or NCED). This national dataset is available at www.conservationeasement.us. CCED is available, with documentation, from **www.CALands.org**.

Data Definitions

CPAD Geography

CPAD covers the entire area of California. In most counties, CPAD boundaries are aligned to digital **assessor parcel** boundaries (see "Known Issues in CPAD" below for exceptions). These boundaries are used to create three levels of CPAD geography: *HOLDINGS, UNITS,* and *SUPER UNITS*. See the **Database Structure** section for more information.

The following are key elements in the CPAD data definitions:

"Protected" Status

Lands in CPAD must be protected for open space purposes through fee title ownership (easements are in a separate database). The purpose for the fee title ownership must be primarily for the continuation of open space values. CPAD "protected" status does not mean a specific level of conservation for biodiversity values (e.g., a USGS GAP rank). Instead, "protection" refers to a general commitment to maintain the property for any of a wide range of open space uses, listed below.

Several caveats about land ownership and CPAD:

- Leases, contracts, term easements and regulatory controls adopted through land use planning processes are not considered "protected lands" in CPAD, as they are not fee ownerships (even though they may provide important protection to open space lands)
- Lands owned by public agencies that may have some open space values but that are not explicitly owned or held to protect those values are not included in CPAD. (Examples: a utility easement, unless it is also used or planned to be used as a non-motorized trail corridor intended for public use; a school with no joint use agreement for use of its play areas; a wastewater treatment plant; military installations).
- U.S. Bureau of Land Management lands are all included in CPAD, even though significant areas of these lands may be sold or traded over time to better configure and conserve public land resources. Similarly, U.S. Forest Service ownerships are included even though actively harvested (a legitimate resource-based open space use) and occasionally traded.
- Particularly for federal lands, only ownerships are included in CPAD – lands only in proclamation or planning boundaries are not part of CPAD (these are only areas of possible future jurisdiction or management, and often encompass private lands).

Open Space Uses

The lands in CPAD typically serve one or more of the following open space purposes:

- Habitat Conservation – Wildlife or plant reserve protected specifically for habitat
- Recreation – Active recreation (city parks, parks with developed areas, hiking, etc.)
- General Open Space – Open land serving a broad range of purposes
- Historical/Cultural – Historic sites, museums with large open areas
- Forestry – Active forest harvesting, tree growth for forestry
- Agriculture – Crop lands including developed pastures
- Ranching – Grazing lands - dry and grazing pasture
- Water Supply – Watersheds, waterways
- Scenic Area – Usually part of other uses, however, sometimes called out
- Flood Control – Flood plains, natural flood control channels (but generally not concrete or other impervious structures unless incidental to the overall holding)

Open Space vs. Hardscape

Open space holdings in CPAD may include buildings or other hardscape areas, provided the hardscape is subordinate or ancillary to the dominant open space purposes of the holding. As a general rule, the holding is not considered open space if structures or other hardscape constitutes a large portion of the total acreage (roughly more than half, based on visual inspection).

- **Parking lots** used principally for qualifying public recreational purposes are considered part of the protected open space holding. In smaller urban parks, parking lots may not be included due to difficulties in determining their relationship to park holdings and resource limitations for fact-checking.
- **Recreation facilities** that are primarily buildings (e.g. indoor ball courts, swim centers, stadiums without significant open space areas around them) are not included in CPAD.
- **City parks** in CPAD sometimes exclude major building areas from remaining open space, due to lack of consistent and detailed information on which buildings are parts of parks. In general, parks with more than half their area in building structures are not included in CPAD.
- **Parklets** are not included in CPAD, because they are usually entirely hardscape, extremely small, and temporary in nature.
- **Parks** on building rooftops, while often open to public use, are not included in CPAD.

Additional Open Space Criteria

- **Schools.** Park-like areas that are parts of public schools are not included in CPAD unless there is a known, defined agreement to allow those for public use (often called "joint use agreements"). You can identify these schools by searching the Special Use field for "School JUA." Only school fields and other open spaces are included in CPAD. CPAD may include some school park sites without such agreements – if you find these errors, please contact us at: cpad@calands.org

- **Cemeteries.** Privately-owned cemeteries are not considered protected open space, but cemeteries owned by the public are considered open space – and are given a special use flag of "cemetery" in the database attribute table.

- **College Campuses.** We only include off-campus open spaces such as University of California Nature Reserves. All other campus areas (sports fields, green space, etc) are not included. For GIS data of schools, including college campuses, see GreenInfo Network's other data product, the California School Campus Database (www.california school campus database.org).

- **Golf courses**. Privately-owned golf courses are not included in CPAD, but golf courses owned by the public are and are given a special "golf course" flag in the database attribute table. Golf courses owned by homeowners associations are considered privately owned and are not included in CPAD.

- **RV camping/parks.** Publicly owned RV parks and similar highly-developed camping or lodging facilities are not generally included in CPAD; however, if they are a subordinate part of a larger protected open space area and are themselves protected through fee ownership, they may qualify (e.g., if a state park has camping areas for RVs, those areas are included).

- **Fairgrounds**. Fairgrounds are not included in CPAD.

- **BLM offshore islands** that make up the California Coastal National Monument are included in CPAD and marked as "offshore islands" in the Special Use field (they can be removed by query).

- Open land holdings of **transportation** agencies (highway medians, construction staging areas, etc.) are generally not included in CPAD. (Note: such open space could be considered protected if significant enough in size and permanently protected in such use through joint-agency agreements or easements).

- **"Remnant"** parcels of open land whose location or configuration significantly impair any broader open space purpose (e.g., highway or roadway shoulders or medians) are generally not included in CPAD.

- If a non-open space use occupies **a portion of a larger open space area**, and it is a separate parcel and functions separately from the larger open space area, then it is usually excluded from CPAD. However, if it is not a separate parcel, and/or it is difficult to separate from the larger open space area, then the entire area is included in CPAD.

- Holdings of **water/flood control agencies** that do not serve open space purposes are not generally included – for example, concrete flood channels and developed access ways along such channels or other open lands that only support the use of constructed facilities, unless those facilities are a small portion of an overall open space holding owned by such an agency (e.g.,

dams that are part of recreation areas). However, trail corridors along such channels and water detention basins are often included.

Ownership

CPAD includes protected areas owned by public agencies and nonprofits. Private owners are not currently included, except for parkland owned by some homeowner associations and some conservation mitigation sites.

- **Military Lands**. CPAD does not include Defense Department lands (DOD), except for a few public recreation facilities (e.g. golf courses) which are coded as "federal" level.

- **Tribal Lands**. Tribal lands are sovereign lands and are not included in CPAD unless subject to enforceable conservation restrictions.

- **Homeowner Associations**. CPAD includes some private park holdings owned by homeowner associations (HOAs), particularly in Southern California, where they are most prevalent. These lands are coded as Restricted Access because they are typically open only to the residents of the association. Only a fraction of California's HOA parks are currently captured in CPAD. These parks are included since they provide important recreational opportunities even if restricted in use – without including them, any estimates of urban park needs could be misleading. Expansion of the CPAD inventory to cover more HOAs is under consideration. You can find all HOA parks in CPAD by filtering the Special Use flag "HOA."

- **Private Owners.** In many areas of California, open space is maintained by private owners (usually LLCs or other corporate entities, but sometimes individuals), when it is required to be dedicated as a condition of development. This category of land is not currently in CPAD but is under consideration as there are some protected areas in this category.

Ownership vs. Management

CPAD tracks lands according to the agency that owns the title to the property. If another agency manages the site, both agencies are noted: the owning agency is listed under 'Owning Agency' and the managing agency is listed under 'Managing Agency.' CPAD listings by agency may therefore differ from similar listings by an individual agency, where that agency is showing both owned and managed sites.

Public Access

CPAD lands are defined as *Open Access*, *Restricted Access*, or *No Public Access. Restricted* areas require permits or have irregular hours. *No Public Access* areas are not open to the public. Any CPAD-based map or web application of recreational opportunities must not include *No Access* areas and should indicate that any *Restricted* lands require a permit or a check-in before visiting (some restricted lands also have highly variable seasons or hours). Open Access means open to the public for ***agency-designated use***, and does not suggest what activities can or cannot occur on the land.

The best source of information for specifics about how to access individual parks is the managing agencies themselves. Two agencies have particularly nuanced access:

- Many California Department of Fish and Wildlife lands are identified as Open Access, but all visitors should refer to CDFW's website for more information before planning a visit.
- Lands owned by the Los Angeles Department of Water and Power are predominantly available to the public for day use. Although the lands are open to the public, there are restrictions such as no campfires or camping. The public should be advised that some lands are open for hunting and

must respect all signage for areas that may be closed (power facilities, restoration, exclusive use areas, etc.). Any questions about access can be addressed to the LA DWP office via their Contact Us page.

Land and Water

Water areas of protected fee land holdings (tidal areas, coastal areas, lakes/reservoirs) are included for most of the state and identified with a "water" code. Water boundaries are taken from a variety of sources including 100K DLG and the National Hydrology Dataset (NHD), and in some cases manually drawing the water boundary using aerial imagery. Some revisions have been made for Bay Area tidal zones. CPAD does not show creeks, streams, or very small water bodies (i.e., small lakes, ponds under 10 acres). The water/land attribute is only in the *HOLDINGS* feature class.

Water area definition is important for counties with large areas of tidelands (primarily in the San Francisco Bay Area) where such acreage counts can create a misleading picture of publicly-available lands.

Parcel Boundaries

In general, CPAD is intended to be aligned to assessor parcel boundaries. However, in some rural areas of the state there is differing opinion on the spatial accuracy of these lines, and federal agencies often define their boundaries with the Public Land Survey System (PLSS), which may differ from assessor lines. This issue is still being addressed in CPAD, as there is no one "correct" system for rural area boundaries – sometimes parcel lines are accurate, sometimes PLSS, and sometimes neither. In metropolitan or other developed areas, parcels are almost always of good accuracy and are consistently used in CPAD (though not every CPAD holding is yet aligned to parcels). In areas where parcel boundaries appear out of date or incorrect, aerial imagery is used as a supplement for alignment.

Agencies and organizations with highly detailed surveyor data can request CPAD use those results for alignment. If requested, and when possible, the CPAD database aligns to the survey boundary. It should be noted that this can cause conflicts with immediately adjacent properties. If authoritative boundaries are needed, the relevant agencies should be contacted for official data.

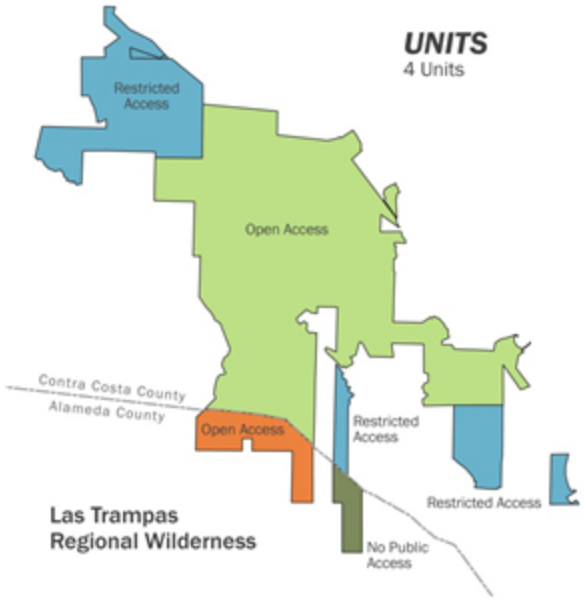
It should also be noted that county assessor's regularly update both the ownership and alignment of parcels. This can occasionally cause shifts in the parcel boundary as compared to aerial imagery or a park boundary. As a result some parks may appear to have a slightly shifted location. We aim to avoid frequent updates that do not improve a park location and typically do not realign a park unless the new location appears to be more accurate.

Database Structure

The key framework of the database is the division of open space lands into the following feature classes, illustrated for this CPAD unit. CPAD is provided in ESRI shapefile format, with separate shapefiles for *HOLDINGS*, *UNITS* and *SUPER UNITS.*

HOLDINGS are the individual parcels of protected lands.

HOLDINGS level information is the most detailed and should be used for any analysis.



UNITS are aggregations of *HOLDINGS* based on a common site name within each county.

Note:

- *UNITS* aggregated *HOLDINGS* by the following key fields: Park Name, Access, Managing Agency, Owning Agency, and County
- Some *UNITS* may be comprised of a single *HOLDING*, while others aggregate a large number of *HOLDINGS*
- *UNITS* may include multiple *HOLDINGS* that are not contiguous
- *UNITS* have fewer attributes and are primarily used for sub-county analysis or for cartographic purposes

SUPER UNITS are aggregations of *UNITS* to create use-focused polygons for each park name.

SUPER UNITS are useful for recreation applications and for cartographic representation.

Note:

- *SUPER UNITS* aggregate units based on the Park Name, Access, and Managing Agency
- *SUPER UNITS* maintain distinct units for different types of public access
- *SUPER UNITS* cross county boundaries
- *SUPER UNITS* are the most generalized representation of CPAD, and are primarily used for cartographic purposes, or to support recreational access applications

Data Dictionary

Holdings

Field Name	Description	Notes
HOLDING_ID	Holding ID	Unique ID for *HOLDING*
ACCESS_TYP	Public Access Level	Open Access, Restricted, No Public Access. “Restricted Access” is limited (permit required, days/hours limited, etc.). “Open Access” means open to the public for agency-designated use.
UNIT_ID	Unit ID	Unique ID for the *UNIT*
UNIT_NAME	Unit Name	Name of the *UNIT/ SUPER UNIT*
SUID_NMA	Super Unit ID	Unique ID for the *SUPER UNIT*
AGNCY_ID	Agency ID	Unique ID for owning agency
AGNCY_NAME	Agency Name	Full name of owning agency
AGNCY_LEV	Type of Owner	Jurisdiction level of managing agency: City, County, Special District, Joint, State, Federal, Non Profit, Private
AGNCY_TYP	Type of Agency	Subtypes for Agency Levels: FEDERAL: Federal Agency. STATE: State Agency. JOINT: Joint Powers Authority. COUNTY: County Agency - Parks, County Agency - Other. CITY: City Agency. SPECIAL DISTRICT: Airport District, Cemetery District, Community Services District, Conservation District, Fire District, Flood District, Irrigation District, Metropolitan Planning Organization, Open Space District, Port/Harbor District, Recreation/Parks District, Sanitation District, School District, Transportation Agency, Water District, Special District - Other. NON PROFIT: Non Profit - Conservation, Non Profit - Education, Non Profit - Land Trust, Non Profit - Other. PRIVATE: Conservation, Commercial, Education, HomeOwners Association, Mitigation Bank, Tribal, Utility, Other.
AGNCY_WEB	Agency Website	Owning Agency website
LAYER	Symbology Layer	Agency classifications used for general symbology (based on State of California conventions), more detailed than Agency Level field
MNG_AG_ID	Managing Agency ID	Unique ID of managing agency, if managed by an agency other than the owning agency

MNG_AGNCY	Managing Agency	Name of agency, if managed by an agency other than the owning agency
MNG_AG_LEV	Managing Agency Level	Jurisdiction level of managing agency: City, County, Special District, Joint, State, Federal, Non Profit, Private
MNG_AG_TYP	Type of Managing Agency	Subtypes for Agency Levels: FEDERAL: Federal Agency. STATE: State Agency. JOINT: Joint Powers Authority. COUNTY: County Agency - Parks, County Agency - Other. CITY: City Agency. SPECIAL DISTRICT: Airport District, Cemetery District, Community Services District, Conservation District, Fire District, Flood District, Irrigation District, Metropolitan Planning Organization, Open Space District, Port/Harbor District, Recreation/Parks District, Sanitation District, School District, Transportation Agency, Water District, Special District - Other. NON PROFIT: Non Profit - Conservation, Non Profit - Education, Non Profit - Land Trust, Non Profit - Other. PRIVATE: Conservation, Commercial, Education, HomeOwners Association, Mitigation Bank, Tribal, Utility, Other.
SITE_NAME	Site Name	Name of HOLDING per owning agency
ALT_SITE_N	Alternate Site Name	Alternate site name, if any
PARK_URL	Park Website	Specific Website for *HOLDING/UNIT*, if available
LAND_WATER	Land or Water	Land or water. The water boundaries are based on the *National Hydrography Dataset* (NHD)
SPEC_USE	Special Use	Codes for specific uses: Arboretum/Botanical Garden, Cemetery, Community Center, Community Garden, Golf Course, HCP/NCCP, HOA, OHV/ATV, Planned Park, School JUA, Senior Center, Trail Corridor, Water Supply, Wildlife Sanctuary, Youth Center
CITY	City	City *HOLDING* is within, if any
COUNTY	County	County *HOLDING* is within
ACRES	Acres	Acres, calculated by GIS
LABEL_NAME	Label Name	Abbreviated name for cartographic labeling (e.g. “Sequoia NP”). If the unit name is “unnamed” or “unknown”, this field is left blank.
DATE_REVIS	Date Revised	Date of last data revision
SRC_ATTR	Source of Attribute Data	Source of attribute data: AERIAL, AGENCY, AGENCY+, ASSESSOR, ASSESSOR+, COG, GIN HISTORIC*, PARCELS, PARCELS+, PCTL* Appended "+" symbol if more than one source, *Legacy data, being reviewed on an ongoing basis.

SRC_ALIGN	Source of Geometry Data	Source of Geometry data: AERIAL, AERIAL+, AGENCY, AGENCY+, ASSESSOR, ASSESSOR+, COG, GIN HISTORIC, PARCELS, PARCELS+, PCTL, SURVEY, SURVEY+, WATER, WATER+. Appended "+" symbol if more than one source, *Legacy data, being reviewed on an ongoing basis.
YR_PROTECT	Year Protected	Year parcel was acquired, if known. Date field in YYYY format.
YR_EST	Year Established	Year the park or management unit was formed. This field is defined at the Super Unit level and carried down to the Unit and Holding level. Date field in YYYY format.
GAP1_acres	GAP 1 Acres	Acres under GAP Status code 1 reflecting areas managed for biodiversity, where disturbance events proceed or are mimicked.
GAP2_acres	GAP 2 Acres	Acres under GAP Status code 2 reflecting areas managed for biodiversity, where disturbance events suppressed.
GAP3_acres	GAP 3 Acres	Acres under GAP status code 3 reflecting areas managed for multiple uses, subject to extractive (e.g. mining or logging) or OHV use;
GAP4_acres	GAP 4 Acres	Areas under GAP status code 4 where areas have no known mandate for protection.
GAP_tot_ac	GAP Total Acres	Summation of GAP1_acres, GAP2_acres, GAP3_acres, GAP4_acres. Not all CPAD holdings have GAP status codes. The method describing inclusion of GAP data is described in a separate document, which can be found here.
GAP_Source	GAP data source	Data source for GAP acreage calculations. Includes: USGS's PAD-US, California Department of Parks and Recreation assignment (CDPR) , or Managing agency

Units

Field Name	Description	Notes
ACCESS_TYP	Public Access Level	Open Access, Restricted, No Public Access. "Restricted Access" is limited (permit required, days/hours limited, etc.). "Open Access" means open to the public for agency-designated use.
UNIT_ID	Unit ID	Unique ID for the *UNIT*
UNIT_NAME	Unit Name	Name of the *UNIT/ SUPER UNIT*
SUID_NMA	Super Unit ID	Unique ID for the *SUPER UNIT*
AGNCY_ID	Agency ID	Unique ID for owning agency
AGNCY_NAME	Agency Name	Full name of owning agency
AGNCY_LEV	Type of Owner	Jurisdiction level of managing agency: City, County, Special District, Joint, State, Federal, Non Profit, Private
AGNCY_TYP	Type of Agency	Subtypes for Agency Levels: FEDERAL: Federal Agency. STATE: State Agency. JOINT: Joint Powers Authority. COUNTY: County Agency - Parks, County Agency - Other. CITY: City Agency. SPECIAL DISTRICT: Airport District, Cemetery District, Community Services District, Conservation District, Fire District, Flood District, Irrigation District, Metropolitan Planning Organization, Open Space District, Port/Harbor District, Recreation/Parks District, Sanitation District, School District, Transportation Agency, Water District, Special District - Other. NON PROFIT: Non Profit - Conservation, Non Profit - Education, Non Profit - Land Trust, Non Profit - Other. PRIVATE: Conservation, Commercial, Education, HomeOwners Association, Mitigation Bank, Tribal, Utility, Other.
AGNCY_WEB	Agency Website	Owning Agency website
LAYER	Symbology Layer	Agency classifications used for symbology, based on State of California conventions
MNG_AG_ID	Managing Agency ID	Unique ID of managing agency, if managed by an agency other than the owning agency
MNG_AGENCY	Managing Agency	Name of agency, if managed by an agency other than the owning agency
MNG_AG_LEV	Managing Agency Level	Jurisdiction level of managing agency: City, County, Special District, Joint, State, Federal, Non Profit, Private

MNG_AG_TYP	Type of Managing Agency	Subtypes for Agency Levels: FEDERAL: Federal Agency. STATE: State Agency. JOINT: Joint Powers Authority. COUNTY: County Agency - Parks, County Agency - Other. CITY: City Agency. SPECIAL DISTRICT: Airport District, Cemetery District, Community Services District, Conservation District, Fire District, Flood District, Irrigation District, Metropolitan Planning Organization, Open Space District, Port/Harbor District, Recreation/Parks District, Sanitation District, School District, Transportation Agency, Water District, Special District - Other. NON PROFIT: Non Profit - Conservation, Non Profit - Education, Non Profit - Land Trust, Non Profit - Other. PRIVATE: Conservation, Commercial, Education, Home Owners Association, Mitigation Bank, Tribal, Utility, Other.
PARK_URL	Unit Website	Specific Website for *HOLDING/UNIT*, if available
COUNTY	County	County that *HOLDING/UNIT* is within*
ACRES	Acres	Acres, calculated by GIS
LABEL_NAME	Label Name	Abbreviated name for cartographic labeling (e.g. “Sequoia NP”). If the unit name is “unnamed” or “unknown”, this field is left blank.
YR_EST	Year Established	Year the park or management unit was formed. This field is defined at the Super Unit level and carried down to the Unit and Holding level. Date field in YYYY format.
GAP1_acres	GAP 1 Acres	Acres under GAP Status code 1 reflecting areas managed for biodiversity, where disturbance events proceed or are mimicked.
GAP2_acres	GAP 2 Acres	Acres under GAP Status code 2 reflecting areas managed for biodiversity, where disturbance events suppressed.
GAP3_acres	GAP 3 Acres	Acres under GAP status code 3 reflecting areas managed for multiple uses, subject to extractive (e.g. mining or logging) or OHV use;
GAP4_acres	GAP 4 Acres	Areas under GAP status code 4 where areas have no known mandate for protection.
GAP_tot_ac	GAP Total Acres	Summation of GAP1_acres, GAP2_acres, GAP3_acres, GAP4_acres. Not all CPAD holdings have GAP status codes. The method describing inclusion of GAP data is described in a separate document, which can be found here .

*Note: CPAD county data is based on most recent California county GIS data published by CalFIRE and parcel data provided by individual county assessors. Not all CPAD units are perfectly aligned to these parcel lines and care should be taken when doing county-based calculations or geospatial processing, as some lands bordering one county could be included in another county’s total.

Super Units

Field Name	Description	Notes
ACCESS_TYP	Public Access Level	Open Access, Restricted, No Public Access. "Restricted Access" is limited (permit required, days/hours limited, etc.). "Open Access" means open to the public for agency-designated use.
PARK_NAME	Park Name	Name of the *SUPER UNIT*/ Park
PARK_URL	Park Website	Park website, if available
SUID_NMA	Super Unit ID	Unique ID for the *SUPER UNIT*
MNG_AG_ID	Managing Agency ID	Unique ID for managing agency
MNG_AGENCY	Managing Agency Name	Full name of managing agency
MNG_AG_LEV	Managing Agency Level	Jurisdiction level of managing agency: City, County, Special District, Joint, State, Federal, Non Profit, Private
MNG_AG_TYP	Type of Managing Agency	Subtypes for Agency Levels: FEDERAL: Federal Agency. STATE: State Agency. JOINT: Joint Powers Authority. COUNTY: County Agency - Parks, County Agency - Other. CITY: City Agency. SPECIAL DISTRICT: Airport District, Cemetery District, Community Services District, Conservation District, Fire District, Flood District, Irrigation District, Metropolitan Planning Organization, Open Space District, Port/Harbor District, Recreation/Parks District, Sanitation District, School District, Transportation Agency, Water District, Special District - Other. NON PROFIT: Non Profit - Conservation, Non Profit - Education, Non Profit - Land Trust, Non Profit - Other. PRIVATE: Conservation, Commercial, Education, HomeOwners Association, Mitigation Bank, Tribal, Utility, Other.
AGNCY_WEB	Agency Website	Managing Agency website
LAYER	Symbology Layer	Agency classifications used for symbology, based on State of California conventions
ACRES	Acres	Acres, calculated by GIS

LABEL_NAME	Label Name	Abbreviated Name for cartographic labeling (e.g. “Sequoia NP”). If the unit name is “unnamed” or “unknown”, this field is left blank.
YR_EST	Year Established	Year the park or management unit was formed. This field is defined at the Super Unit level and carried down to the Unit and Holding level. Date field in YYYY format.
GAP1_acres	GAP 1 Acres	Acres under GAP Status code 1 reflecting areas managed for biodiversity, where disturbance events proceed or are mimicked.
GAP2_acres	GAP 2 Acres	Acres under GAP Status code 2 reflecting areas managed for biodiversity, where disturbance events suppressed.
GAP3_acres	GAP 3 Acres	Acres under GAP status code 3 reflecting areas managed for multiple uses, subject to extractive (e.g. mining or logging) or OHV use;
GAP4_acres	GAP 4 Acres	Areas under GAP status code 4 where areas have no known mandate for protection.
GAP_tot_ac	GAP Total Acres	Summation of GAP1_acres, GAP2_acres, GAP3_acres, GAP4_acres. Not all CPAD holdings have GAP status codes. The method describing inclusion of GAP data is described in a separate document, which can be found here .

CPAD Data Procedures

CPAD makes use of a wide range of data sources, including source agency databases, parcel data from counties, and other research. In general, the following approach has been taken:

1. **Agency source data:** Source agency GIS data is secured for agencies where it is available. With more than 1,500 agencies and organizations having holdings in CPAD, contact with each of these is not possible. However, the top 50 agencies/organizations own over 98 percent of the acreage in CPAD and most have available source GIS data. In some cases, non-GIS source data may be acquired and used for digitizing. Not all agencies with lands in CPAD have completely accurate records, so additional research is sometimes required, and many smaller agencies do not have available or easily available source GIS data for their holdings.

2. **Parcels as geometry base:** CPAD uses assessor parcels as its base geometry in almost all of California (in the southern deserts, most BLM lands which are mainly based on the Public Land Survey System (PLSS) are currently left in that system due to resource limits and issues with some parcel data there – however near urbanized areas, BLM lands may be aligned to parcels). Assessor parcels are not always completely accurate, particularly in undeveloped rural areas, and some adjustments may be done in collaboration with source agency data (notes are provided in CPAD about alignment methods used). Parcel data is also used to identify holdings not available in agency source data or that are unclear from that data.

3. **Cross-check with other data:** Other existing protected lands information is then correlated with the parcel data – this includes prior data sets, along with GIS data sets for other related agencies or planning projects. For city, county and special district parks, checks of agency web sites are used as well (however, many cities do not have clearly-defined park maps available).

4. **Resolving conflicts:** Agency source data is generally considered to be authoritative. However, in case of data conflicts between agencies or with assessor boundaries, the following guidelines are used: in urban areas, assessor parcels are given precedence regarding geometry; in rural areas, if the owning agency explains that its data is gathered by survey or analysis of coordinate geometry and that it is confident of its boundaries, that geometry can supersede the assessor parcels (particularly with BLM or USFS holdings). Where agencies differ about their holdings, efforts are made to review these issues with the agencies (often the issue is that one agency owns a site while the other operates it) and reach a resolution. When that is not possible, best judgment is used by GreenInfo Network staff and the reason for a decision is noted in the data record.

5. **Aerial image checks:** 1-meter or better aerial photography is used to check boundaries – where there are assessor parcel conflicts with aerial imagery, operator judgment is used to decide which has precedence, but in general the rule of thumb is that parcel data will be more reliable in urban settings, and agency data will be more reliable in rural settings.

6. **Water:** Where a holding extends over significant water bodies or tidal zones, the shape is divided into sections coded as land or water, with the USGS National Hydrography Dataset being used to define water areas. Coastal shorelines are defined using a modified, more accurate version of the official California county data file – these boundaries are matched visually through high resolution aerial photography to coastal features and do not represent scientific judgments about high water marks (Note: future releases will use the State's new coastline data set). Smaller water bodies (i.e., under 10 acres) are generally not coded as water at all.

7. **County divisions:** Where a park or other property spans a county boundary, it is separated into separate *UNIT* records for each county (e.g., a National Forest holding that extends across two or more counties), and then merged into a single *SUPER UNIT*. Because CPAD's foundational geometry is based on county assessor's parcels, county boundaries are largely defined by those parcels, and may sometimes differ with official county boundaries from Cal Fire.

8. **Scale of use:** In general, CPAD is accurate to at least 1:24,000 scale, but parcels and some agency datasets have improved this to 1:5-10,000 or better in many parts of the state.

GAP Codes

Starting with the 2021a release, we have included additional details about the GAP status of easements. GAP codes are a USGS-defined metric that reflects management intent (USGS 2020, Prior-McGee 1998). GAP codes are categorized on a scale from 1 to 4 where GAP 1 and 2 are areas primarily managed with the intent to protect biodiversity, GAP 3 are areas managed for multiple uses including conservation, recreation, and extraction and GAP 4 has no known mandate for biodiversity protection. Data for GAP codes in CPAD is sourced from PADUS, CDPR and Local Agencies/Organizations

Details about the geoprocessing are available through calands.org.[1] It is important to understand that the acreages reported are estimates and for that reason have been rounded using the following methods:

Any property less than 1 acre rounds the GAP acreage to two decimal places. Properties that are 1 acre or larger have their GAP acreage rounded down to the nearest whole numbers. This rounding helps reduce the reporting of slivers and helps reduce the perception of higher accuracy beyond what is significant.

We estimate the error introduced as a result of this rounding, is less than 2% of the total CCED acres.

PADUS
With a geo-spatial intersection of CPAD and PADUS we assume an easement can contain acreage under multiple GAP codes. The results of this process ultimately assign GAP codes to approximately 91% of the acres inventoried in CPAD.

California State Parks
The inclusion of GAP codes from California State Parks cover land owned and/or managed by CDPR, this accounts for roughly 5% of GAP codes being reported.

Local Agency/Organization
As of the 2024a release, the remaining 4% of GAP codes reported in CPAD have been sourced from the group that owns and/or manages the land.

Completing the GAP Inventory
CPAD lands are predominately assigned GAP codes from PAUDS, as many of the fee lands in California are managed by federal or state agencies - both of which are well inventoried via PADUS. When available, we defer to the GAP code provided by the most local agency/organization. California's 30x30 effort has, and will continue to, offer opportunities to work with groups to define accurate GAP codes to lands they own and/or manage.

[1] Additional information on geoprocessing steps can be found at:
https://www.calands.org/wp-content/uploads/2022/12/Method-for-Including-Gap-Codes-in-CPAD-and-CCED.pdf

Known Data Issues in CPAD

CPAD has become increasingly complete over the past years and is now estimated to include over 99% of the protected lands in California, but some issues do remain. The main issues in CPAD are coverage and alignment:

1) Overlaps occur throughout the state and are predominantly slivers. Most often these are a result of disagreement between county boundaries on ownership. The total acreage of overlaps is not significant, but we do aim to resolve these over time. As of the 2024b release we now offer a report of overlaps at each release. The zip file contains a gdb itemizing overlaps at the holding level and a readme describing the various attributes. This can be downloaded at: https://bit.ly/overlap_analysis

2) Historically CPAD updates were focused heavily on the 50 largest agencies/organizations who own 98% of the acres in CPAD. Of the remaining agencies, many of these have been carefully assessed at one point but are not actively surveyed for each release. Efforts are being made to secure better review of these smaller agencies/organizations, through the use of the CPAD MapCollaborator application (www.mapcollaborator.org/cpad) which allows any user to quickly review their holdings in CPAD and inform GreenInfo of needed changes. California's 30x30 efforts have also allowed for an increase in data collection from smaller agencies. We anticipate this trend will continue over the next decade to allow for more accurate land tracking.

3) Parcel alignment in some areas is also not complete – while most of CPAD data is parcel aligned, there are areas of the state where this is not yet the case, or where there are small differences to parcels. Users can use the "aligned to" code in the CPAD Holding attributes to determine alignment basis.

- Southern California Desert: CPAD lands in eastern Riverside and San Bernardino are mostly aligned to BLM base data – these areas are almost entirely BLM-owned and BLM ownerships here change rapidly, making use of the BLM base data (instead of parcels) more efficient in relation to the resources we currently have available, except in developed areas where parcels are mainly used in CPAD.
- In some cities, CPAD holdings may overlap development in aerial photos indicating that parcel alignment has not yet occurred – there should be little of this error as of 2013.
- With some agencies, occasional holdings are not aligned to parcels where those agencies have confirmed that their data has been field surveyed, and parcels have been shown to be inaccurate.
- Areas of the central Sierra and northern California have significant acreages of US Forest Service lands that are not yet parcel aligned.

Other CPAD issues:

4) Small slivers and gaps occur in the dataset where polygons are not seamlessly aligned.

5) The Access attribute in CPAD is sometimes a best estimate, as GreenInfo is not able to fully determine the access status of every parcel in CPAD – where access cannot be determined, and there is no evidence of closed access, it is assumed to be "Open Access." "Open Access" means lands are open to the public for ***agency-designated use***. Historically, the data has used "Unknown" as a fourth access type, but this domain will be retired in future versions of CPAD. User feedback on these codes is always welcome.

CPAD Releases and History

Current CPAD Release Improvements (v. 2024b)

The 2024b release of CPAD includes the following updates:

- Addition of over 40,000 acres
- New and notable additions include Mojave Desert Land Trust, San Joaquin Council of Governments, San Diego County, River Partners, Marin County, and Sequoia Riverlands Trust.
- New and revised lands in 57 of California's 58 counties.
- Significant improvements have been made in improving and expanding GAP codes, with continued support from agencies resulting in an additional 79,000 acres qualifying for 30x30 since the last release.
- Removal of approximately 1,900 acres. Nearly 50% of the lands removed were lands that are protected by conservation easement and thus represented in CCED instead of CPAD. The remaining acres were removed as the result of improving park boundaries, removing private lands, and changes in land uses.

As with any large data gathering program, there are likely to be lands that have been missed, wrongly included, or mis-attributed. We welcome feedback on corrections – see www.calands.org for more information, including information about GreenInfo's MapCollaborator application, which allows online markup of mapped CPAD data with comments and proposed revisions. You can also email us at cpad@calands.org.

History of CPAD

CPAD was developed out of efforts to create regional open space databases in parts of California. In the San Francisco Bay Area, tabular inventories by Greenbelt Alliance in the 1980s led to GIS-based inventories in the mid-1990s by the then-newly formed GreenInfo Network. This data was created based primarily on USGS topographic maps, comparing paper maps of owning agencies and digitizing the resulting boundaries. Originally, the protected lands data included only lands of 10 acres or greater and included some public lands that were not entirely open space (the original data title was "Public Lands Database"). In 2005, funding was secured to begin including Bay Area urban parks through the support of TOGETHER Bay Area, the earliest partner in the development of CPAD.

In the early 2000s, the State of California developed an initial statewide coverage of protected lands known as the Public and Conservation Trust Lands (PCTL) database. This data included mainly state and federal lands owned in fee (with some other lands included), and was developed through a consortium of these agencies (last updated in 2005). PCTL, however, did not cover regional and local land holdings very completely and is now a legacy data set, replaced by CPAD.

In the early 2000s, funding from the Resources Legacy Fund helped underwrite expansions of CPAD data to other parts of the state. In 2005, GreenInfo Network received special funding from the Annenberg Foundation to begin work on a Southern California version of the Bay Area database, and shortly thereafter funding was also secured from the California Coastal Commission for inventories of the Central Coast and Southern Central Valley. These data inventories were built up from newly available GIS-based assessor's parcels to ensure accuracy and consistency. The Bay Area database was also revised to begin matching available digital assessor parcels during this time period. First versions of this data were completed in late 2006.

In late 2006, GreenInfo Network also completed work on its first version of the ParkInfo web portal to support public access to this data – **www.parkinfo.org** provides users the chance to find parks near them, in particular cities, or by zip code and then get maps, lists and driving instructions, and follow out web links to source agency sites for more details (in mid-2012, the ParkInfo web map was greatly upgraded).

In mid-2007, funding was secured from the California Department of Parks and Recreation to complete the state and to improve existing data accuracy and currency. During this version 1.1 revision, the entire file structure of the databases was overhauled, migrating the files to an ESRI file geodatabase format, integrating them into a single file and greatly increasing the attribute robustness of the database.

In 2008 through mid-2009, further extensive updating was conducted (see Release History for details), greatly improving the coverage, accuracy and completeness of the database.

Two editions of CPAD were released in 2010. These were all incremental improvements that expanded alignment to parcels, improved the accuracy of data and included newly acquired holdings. Also in 2010, GreenInfo's MapCollaborator web application was launched as an online tool to let CPAD users more easily point out where corrections to CPAD are needed.

CPAD also became a major data source for the USGS Gap Analysis Program's Protected Areas Database of the U.S. (PAD-US) in 2010.

In January 2011, another update of CPAD was released, followed by a release in September 2011. The next release was published in July 2012 and was a minor update.

In late 2012, GreenInfo Network began a major project to improve CPAD, supported by a 20 month grant from the California Strategic Growth Council in collaboration with the USGS Gap Analysis Program. This project enabled GreenInfo to make major improvements in the quality of CPAD data and in the processes used to develop and maintain CPAD. It also supported an active outreach program to educate users and provide more extensive user support. This funding ended in April 2014.

From April 2014 to early 2015, there was no direct support of CPAD from any agency or organization. However, two projects aided in various improvements to CPAD: 1) the development of CaliParks.org, a mobile-friendly park finder application supported by the Resources Legacy Fund and developed by Stamen Design with GreenInfo Network providing editing and expanded CPAD data (including site URLs for the 800 largest parks).

In early 2015, the California Natural Resources Agency contracted with GreenInfo Network for two years of CPAD support, through the California Department of Water Resources. This work funds twice-yearly updates of CPAD (and CCED, the easement data), and outreach and engagement about CPAD and its use.

In spring 2018, GreenInfo Network received generous funding from the California Natural Resources Agency and Department of Water Resources to continue this important work through spring 2020. Additionally, CPAD and CCED are now hosted on the CNRA's open data portal at https://data.cnra.ca.gov/organization/protected-areas-gis-data.

CPAD Release History

Version 2024a- Published in June 2024, this release contained the addition of over 144,000 acres with new and revised lands in 58 of California's 58 counties. Significant improvements were made in improving and expanding GAP codes. PADUS 4.0, updated data from California State Parks, as well as over 80 agencies and organizations have all been included resulting in over 385,000 acres qualifying for 30x30. Removal of approximately 17,075 acres also occurred. Of the lands removed, over 75% were lands that were sold in fee title but are now protected via conservation easement and thus represented in CCED instead of CPAD.

Version 2023b– No release, 2023b was not released due to contracting and budget constraints.

Version 2023a – Published in June 2023, this was the only release for the year of 2023. It included an addition of 175,000 acres, significant spatial geometry improvements, as well as the removal of 985 acres.

Version 2022b– Published December 2022. A net addition of approximately 88,000 acres were added within 32 of California's 58 counties. Notable additions: BLM lands, Carrizo Plane Conservancy, Mojave National Preserve, McArthur Swamp, Lassen/Shasta/ Sierra National Forests, Grouse Ridge Forest. Key improvements were made for lands held by over 36 agencies. In a continued effort to resolve overlaps and slivers, roughly 85,000 acres were removed.

Version 2022a– Published July 2022. The release marked an important bug fix in the GAP code assignments for CPAD and CCED lands, and as a result we now assign all lands that contain GAP data in PAD-US, CDPR, or from a local agency. Included an incremental increase in the integration of GAP Codes, through input of local agencies. This release added over 65,000 acres in 31 out of California's 58 counties. Removal of 300 acres.

Version 2021b– Published December 2021. Added over 28,000 acres and over 200 new/expanded units. 2021b also included additional Gap Code acres for more CDPR lands. Extensive edits in the Delta, adding over 25,000 acres through new and improved boundaries. New and revised lands in 48 of California's 58 counties. Removal of approximately 37,000 acres. Over 95% of acres removed were a result of improved BLM, NPS, and USFS boundaries detailed above.

Version 2021a– Published July 2021. Over 60,000 acres were added across 55 of Californias' 58 counties. More than 150 California cities had new or revised city parks. We reviewed and resolved 100 contributions from MapCollaborator submissions. Divided large holdings of BLM and USFS lands at parcel geometry. Information on the GAP status code for each holding, unit and super unit was added. These data are now present in each geographic level as a total estimated acreage of the holding/unit/super unit that is GAP code 1, 2, 3, or 4.

Version 2020b– Originally published December 2020, updated January 2021. The January 2021 update was conducted to include GAP Code fields missing in the original December 2020 release, no other changes were made. The most current shapefiles include "2020b" in the name, for example "CPAD_2020b_Units.shp".

Version 2020a– Published June 2020. Approximately 30,000 acres were added across 48 of Californias' 58 counties. Over 100 cities had new or revised parks data, along with new and revised lands for over 20 state agencies, lands trusts, and non profit organizations.

Version 2019b – Published November 2019. A total of nearly 150,000 acres added, including approximately 10,000 acres in the Klamath and Shasta-Trinity National Forests. Continued focus on the accuracy of community parks in support of ensuring equitable access to recreation, a special project with the California Department of Parks and

Recreation. Moderate additions to the Year Protected and Year Established fields. Significant edits and additions to conserved lands in Riverside County. New and revised city parks in: Carlsbad, Chico, Fowler, King City, Oceanside, Lake Elsinore, Los Angeles, Manteca, Merced, Murrieta, Redlands, San Diego, San Ramon, Santa Paula, Santa Rosa, Shafter, and others. New acquisitions and edits to lands held by: Riverside County Habitat Conservation Agency, Western Riverside County Regional Conservation Authority, Riverside County Regional Park and Open Space District, California Department of Fish and Wildlife, California Department of Parks and Recreation, Mojave Desert Land Trust, Peninsula Open Space Trust, Coachella Valley Mountains Conservancy, Santa Clara Valley Open Space Authority, Ojai Valley Land Conservancy, Save the Redwoods League, Friends of the Desert Mountains, Lake County Land Trust, Sequoia Riverlands Trust, SCAPOSD, Valley-Wide Recreation and Park District, San Mateo County, San Francisco Public Utility Commission, Tuleyome, Northern California Regional Land Trust, University of California Reserve System, Santa Monica Mountains Conservancy / Mountains Recreation & Conservation Authority.

Version 2019a – Published June 2019. Major revisions to the ownership boundaries of the Los Padres, Klamath, Six Rivers, and Siskiyou National Forests. New and revised city parks in Cities of Alameda, Anderson, Avalon, Azusa, Belmont, Carlsbad, Carson, Claremont, Colma, Compton, Covina, Culver City, Desert Hot Springs, Duarte, El Centro, Fillmore, Fremont, Fresno, Galt, Gardena, Glendora, Gonzales, Greenfield, Hawthorne, Hollister, La Mirada, Lincoln, Long Beach, Los Angeles, Lynwood, Maywood, Millbrae, Monrovia, Monterey Park, Norwalk, Oakland, Orland, Palmdale, Pasadena, Point Arena, Rancho Cucamonga, Rancho Palos Verdes, Redding, Redondo Beach, Rolling Hills Estates, Rosemead, San Bernardino, San Diego, San Pablo, San Luis Obispo, San Marcos, San Rafael, Sanger, Santa Clarita, Santa Fe Springs, Santa Monica, Santa Paula, Santa Rosa, South El Monte, South Gate, South Pasadena, Temecula, Torrance, Turlock, Union City, Walnut, Visalia, Vista, West Hollywood, Westlake Village, Whittier, and Yucca Valley. New and revised conserved lands for land trusts across the state, including: Peninsula Open Space Trust, Truckee Donner Land Trust, Lake County Land Trust, Sequoia Riverlands Trust, and Solano Land Trust.

Version 2018a – Published December 2018. Added new 40,980 acres and 18 agencies. A new field was also introduced, Year Established (YR_EST). This field provides the year a park or management unit was formed, and now covers 92% of land in CPAD. Renamed the D_ACQ_YR field to YR_PROTECT, a more descriptive name for a field that represents the year an individual parcel was protected when it was acquired by a public or conservation agency. This field is only partly populated in the San Francisco Bay Area, but will be an ongoing effort to be updated in future releases. Captured the Jack and Laura Dangermond Preserve (24,000 acres), established in late 2017, a significant achievement in protecting rare coastal habitat in Santa Barbara County. Major review and updates to public access definitions for lands held by the California Department of Fish and Wildlife, with thanks to thoughtful input from CDFW staff. continue to refine and maintain naming conventions and special use flas, particularly for school parks and homeowners association parks. Updates and new additions to lands held by Orange County Parks, Midpeninsula Open Space District, Peninsula Open Space Trust, Land Trust of Santa Cruz County, California Department of Parks and Recreation, United States Forest Service, Yolo County, Marin County Parks, San Diego County, San Diego River Park Foundation, and cities of Poway, National City, Brentwood, Monrovia, Vista, Cayucos, Sacramento, Orangevale, and Carmichael.

Version 2017a – Published August 2017. The 2017a release of CPAD was inclusive of edits made for the 2017 update of BPAD, the Bay Area Protected Areas Database. That work accounted for most improvements made in the 9 county San Francisco Bay Area in this release. 2017a included the addition of 10,415 new acres and 5 new agencies. Significant revisions and additions made in: San Diego, Santa Clara, San Mateo, San Bernardino, Contra Costa, and Alameda Counties. The Wildlands Conservancy preserves were updated and include over 7,000 new acres in 5 units. Most notable is Spyrock Reserve in Mendocino County. Agency data was reviewed for updates or missed lands for: San Mateo County Parks, Santa Clara County Parks, East Bay Regional Parks District, Santa Clara Valley Open Space Authority, Napa Land Trust, Midpeninsula Open Space District, Marin County Open Space District, Napa County Regional Open Space District. In San Diego County we corrected park names, added owning and managing agencies, and made big strides in improving the public access field. We made additions and

improvements to protected lands in the following cities: Clayton, Concord, Cupertino, El Cerrito, Fremont, Hayward, Napa, Palo Alto, San Jose, San Ramon, Santa Cruz, Vallejo.

Version 2016b – Published December 2016. Added new land acquisitions made by the top 50 agencies in CPAD, such as: Peninsula Open Space Trust, San Diego County, City and County of San Francisco, San Mateo County, Santa Clara County, Los Angeles County, Sonoma County Agricultural Preservation and Open Space District, and the Midpeninsula Regional Open Space District. Improvements to parcel alignment in San Mateo County and Orange County. Added dozens of new city parks, in cities across California - Los Angeles, San Diego, Fresno, Cupertino, Fremont, Temecula, Clayton, Davis, Elk Grove, Kingsburg, Redlands, Arcata, Santa Rosa, Chino, Chino Hills, Corona, Huntington Beach, Newport Beach, Loma Linda, Yorba Linda, and more. Expanded abbreviations in the Park Name field (names are still abbreviated in the Label Name field) to facilitate better querying. Reviewed data accuracy in San Joaquin and Mariposa Counties. Reviewed and improved park data along the Santa Ana River Parkway corridor. Improved the stability and reliability of the Unit ID structure by condensing dozens of duplicate unit records. Started the process of eliminating the "Unknown Access" category. Added Date Established data for many Holdings. Significant revisions made to correct overlapping geometries.

Version 2016a – Published June 2016. Major improvements to the Designation Type (previously called Primary Designation Type) and GAP Status fields. GreenInfo staff worked closely with the USGS publishers of PAD-US to update and improve the methods for generating these fields. Both fields are now 90% complete. This release focused on updates to lands held by the top 50 agencies. Major data reviews were conducted for: California Department of Parks and Recreation, East Bay Regional Parks District, California Department of Fish & Wildlife, and the California Tahoe Conservancy. Updates to other agency lands include: Humboldt County, San Diego County Sonoma Land Trust, Peninsula Open Space District, Land Trust of Santa Cruz County, San Mateo County Department of Parks, Santa Clara County Parks and Recreation, and The Nature Conservancy. Many contributions were submitted by the public, via our Map Collaborator tool. Extensive technical edits were also completed for internal consistency and accuracy.

Version 2015b – Published December 2015. Substantial improvements in Los Angeles County: Over 3,000 holdings were revised or added, with improvements made to the spatial alignment and attributes of lands; nearly 700 new units covering over 15,000 acres; major agency updates for SMMC/MRCA, County lands, LAUSD lands, cities of: Los Angeles, Long Beach, Santa Clarita, Azusa, Palmdale, Glendale; inclusion of many parks covered by joint use school agreements. Updates also included core attribute improvements, such as name and label field standards. Major improvements were also made in San Diego County: the addition of approximately 100 parks in the City of San Diego, and improvements/corrections to an additional 150+ existing city holdings; improvements to large-scale parks and open space in San Diego County, including Otay Ranch Preserve and San Dieguito River Park. In addition, there were minor fixes to Bureau of Land Management, CalFIRE, and the San Pablo Bay National Wildlife Refuge holdings; and the incorporation of over 50 user-submitted edits across the state through our MapCollaborator application.

Version 2015a – Published April 2015. This was a minor update to CPAD including: General improvement of park boundary accuracy, especially for parks over 1,000 acres, and in the San Francisco Bay Area; major improvement to accuracy of Access levels for parks over 1,000 acres, and for other parks in the Bay Area; addition of 800 park-specific URLs, mainly for parks over 1,000 acres; major updates to and improvement of California Dept. of Parks and Recreation attributes and geometry; agency data updates from East Bay Regional Parks District, Peninsula Open Space Trust, SCVOSA (data received Fall 2014) in the Bay Area; open space additions in Marin, Sonoma County (minor updates); City/County park updates in San Mateo County, City of San Jose, Riverside County, and Los Angeles County (minor updates); incorporated edits submitted by users through MapCollaborator (minor updates).

Version 2014a – Published March 2014. This was a minor update to CPAD including: addition of 27,347 acres of protected land, including most recent CDFW, City of San Jose, The Conservation Fund, Jurupa Community Services

District, and the City of Healdsburg; updates to 200 older holdings that were inaccurate; numerous edits and additions from submissions to the CPAD MapCollaborator; Major updates to Yuba County and other updates in Santa Clara and Kern counties. (Note Esri ArcGIS 10.3 users may experience a bug in using CPAD with 10.3, having to do with incorrect field ID display – this has been adjusted in CPAD 2015a, since Esri is not fixing its bug).

Version 2013b – Published September 16, 2013. CPAD 2013b includes 194 new parks, with an additional 248,553 acres of protected land from 994 agencies (14 agencies new in this release). Major updates to San Diego County, the addition of GAP codes, updated data from major agencies, and continued improvements to legacy data. New naming convention adopted, to more efficiently identify releases for users.

Version 1.9 – Published March 15, 2013, released April 2013. CPAD 1.9 included almost 400 more urban parks, hundreds of corrections and changes submitted via MapCollaborator – CPAD Edition, extensive other corrections and updates from major agencies. This release also included systematic improvements such as improved spatial alignment to assessor parcels and improved attributes for hundreds of parcels that had previously been missing information.

Version 1.8 – Released July 2, 2012. CPAD 1.8 was a minor update, with updates to information for 940 agencies, removal of inferior legacy data, and addition of newly protected areas. CPAD 1.8 included 7 more agencies/organizations and roughly 1,000 more holdings than CPAD 1.7, with a net increase of over 65,000 acres of protected areas. The field “d_acq_yr” was added for acquisition dates (currently only available in the Bay Area).

Version 1.7 – Released September 11, 2011. This version of CPAD continues to refine the database with better parcel alignment, removal of inferior legacy data, and addition of newly protected areas. CPAD 1.7 includes 24 more agencies/organizations than CPAD 1.6, including a net increase of over 65,000 acres of protected areas. It has roughly 550 more Holdings and 180 more Units than version 1.6.

Version 1.6 – Released January 31, 2011. CPAD 1.6 includes significant city park updates in the Southern California region. Orange County in particular has been completely updated and aligned to parcel data, with many new sites added to CPAD. This version more accurately captures the transition of lands from the State Land Commission or lands trust to the BLM in the desert region. National Park boundaries have been revised based upon more accurate alignment. Homeowner associations’ parks have now begun to be incorporated into CPAD. Data is better aligned to parcels throughout the state. In general, the top 20 agencies/organizations have been surveyed for new data and revisions made accordingly in CPAD.

Version 1.5 – Released June 9, 2010. CPAD 1.5 had significant updates made to federal lands in the Sierra Nevada region, plus updates to all federal and state agencies generally. Most land trust data was updated, especially in the Bay Area, the Sierra Nevada region and the San Joaquin Valley. Super Units, used for cartography were revised so that they aggregate just federal and state holdings (national forests, etc.) across county boundaries – other ownerships retain their Unit-based configuration. Managing agencies were more fully identified (especially Calif. Dept. of Fish & Game), but not all managing agencies are yet identified. CPAD 1.6 also removed a dozen State Lands holdings that were Calif. State Univ. campuses or prisons.

Version 1.4 – Released February 3, 2010. CPAD 1.4 features updated city data in most areas of the state, and includes city park data for many smaller incorporated areas that were not included in previous releases. Parks and open spaces within incorporated areas of San Diego County have been updated extensively. The San Joaquin Valley data is greatly improved from the smallest city parks to larger state and federal preserves. In the nine county Bay Area, CPAD 1.6 is aligned to parcels and more inclusive. Special attention was paid to updating Calif. DFG and US FWS lands across the state. Super Units is a new feature class in CPAD 1.6. They differ from Units in that Super units are not divided by owning/managing agency or by county. Super units are intended to be used for cartographic purposes.

Version 1.3 – Released August 27, 2009. The CPAD 1.3 has a more extensive management attributes, especially in regards to CDFG and CDPR managed lands that are owned by other agencies such as the State Lands Commission, BLM and Bureau of Reclamation. In addition management around reservoir areas is now more accurate. Version 1.3 continues to capture more urban park coverage. GreenInfo Network relied heavily on the CPAD user community to report errors in CPAD through www.calands.org. Federal and state agency data has been aligned and updated throughout the state. CPAD 1.3 has improved parcel alignment and more extensive and accurate attributes. This work has been supported by grants from the California Department of Forestry and Fire Protection, the California Endowment, and the Resources Legacy Fund Preserving Wild California program.

Version 1.2 – Released March 10, 2009. The CPAD 1.2 dataset was a major improvement over past CPAD data, with extensive new urban park coverage, full holding updates for major agencies, many new agencies and organizations, numerous geographic focus areas updated, improved parcel alignment, and more extensive attributes. This work has been supported by grants from the Calif. Dept. of Parks and Recreation, the Sierra Nevada Conservancy and the Resources Legacy Fund Preserving Wild California program.

Version 1.1 – Released June 3, 2008. This was a minor update. Contains several corrections to Calif. Department of Fish & Game lands, including removal of some easement areas marked as fee, correction of Lake Sonoma as Army Corps not DFG, change of owner for lands transferred earlier to the department by the Land Trust of Napa County near Lake Berryessa, and additions of small areas of DFG land missed in Version 1.0 inventory. Contains minor additions for land trust fee lands in the Sierra foothills, additions for various agencies in the San Francisco Bay Area and in the Northern Sierra. Major holding changes for the U.S. Forest Service and Bureau of Land Management have been updated to most recent available releases for those agencies. Additional Calif. State Lands Commission lands (mostly School Lands) have been added where over 60 acres. Attributes of some city parks have been improved.

Version 1.0 – Released May 8, 2008. Original CPAD statewide release. Limited data, many areas not fully inventoried, many inaccuracies.