

California Conservation Easement Database (CCED)

Notice for Database Manual

Before You Use CCED Data . . .

Your use of CCED data signifies that you will abide by the guidelines below and in the Disclaimer that follows.

CCED contains GIS data for conservation easements over public and private property. While this data is from public records, **your use of the data should make every effort to respect the privacy concerns** and sensitivities of land owners and those agencies and organizations who work with them.

1. Any maps of CCED data should show clearly that easement properties are closed to any public access, unless CCED has specific information to the contrary. Very few easements allow public access.
2. Private land owner names are typically not included in CCED and should not be attached to CCED data shown on maps. When labeling easement properties, users should access the generic holding name field [ease_label], use “restricted lands”, or use an equivalent general title whenever feasible.
3. Likewise, avoid showing on maps the individual agencies or organizations who hold easements, unless essential to your task. Instead, consider using the agency level field [eholdtyp] classifying the agency as: federal, state, local, or nonprofit, to indicate the type of easement holder.
4. If specific easement boundaries are not needed for map display, use center point symbols or other forms of abstraction.
5. CCED is provided as is, without any warranty of accuracy. CCED boundaries are as provided by source agencies and have not been enhanced to align with parcels or other GIS data. Where CCED is missing data, please contact us at cced@calands.org to let us know about these gaps.

CCED is suitable for a wide range of planning, assessment, analysis, and display purposes. CCED should not be used as the basis for official regulatory, legal or other such governmental actions – these types of uses require official land records from county recorders or easement holding agencies in the area of focus.

Thank you for your consideration and cooperation in using and improving CCED.

GreenInfo Network
December 2016

[This page was intentionally left blank]

California Conservation Easement Database (CCED) - Version 2016

CCED DATABASE MANUAL

Revised: December, 2016

BEFORE USING DATA, see Data Disclaimer inside and note that:

- Easement lands are most frequently private property - maps must clearly show them with no public access
- CCED is not suitable for property survey or other legally-binding functions – see source agency data or County Recorder records for such information
- CCED data may not be the most current data for any specific agency or organization, as it is updated less frequently
- Display on maps of easement holder agency/organization names and actual property names should be avoided whenever feasible, in favor of more generic titles

For more information on CCED, go to: www.CALands.org/cced

CCED is published by GreenInfo Network
www.greeninfo.org



Contents

Acknowledgements.....	i
DISCLAIMER.....	ii
SUMMARY.....	iv
CCED 2016 – KEY STATISTICS	v
I. INTRODUCTION	1
CCED Geography.....	2
Conservation Easement Status and Purposes	2
Easement Definition within a Parcel.....	2
Ownership vs. Management.....	2
No Public Access	3
III. DATABASE STRUCTURE	4
IV. CCED DATA DICTIONARY.....	5
V. CCED DATA PROCEDURES	6
VI. KNOWN ISSUES IN CCED	7
VII. CCED RELEASES AND HISTORY	8
Current Release - CCED 2016 (December, 2016).....	8
Brief History of CCED	8
CCED Release History.....	9

Acknowledgements

GreenInfo Network staff and interns who designed CCED and created the data contained in it include:

Amanda Recinos, Gina Rosa Cova, Maianna Voge, Yessenia Chaiu Zhang, Stephanie Ding, Dariya Draganova, and Larry Orman

For more information on CCED and CPAD (data on fee owned protected areas), visit www.CALands.org

DISCLAIMER

Summary

The California Conservation Easement Database (“CCED”) has been developed by GreenInfo Network for general use in land use planning, education or other activities that do not rely upon the data for a legally binding decision. While GreenInfo Network strives to provide the best data possible, GREENINFO NETWORK MAKES NO REPRESENTATION OR WARRANTY AS TO ITS ACCURACY, TIMELINESS, OR COMPLETENESS. GREENINFO NETWORK MAKES NO WARRANTY OF MERCHANTABILITY OR WARRANTY FOR FITNESS OF USE FOR A PARTICULAR PURPOSE, EXPRESSED OR IMPLIED, WITH RESPECT TO THESE PRODUCTS OR THE UNDERLYING DATA. Any user of this data, accepts same AS IS, WITH ALL FAULTS, and assumes all responsibility for the use thereof, and further covenants and agrees to defend, indemnify, and hold GreenInfo Network harmless from and against all damage, loss, or liability arising from any use of this product, in consideration of GreenInfo Network having made this information available.

Independent verification of all data contained herein should be obtained by any user of these products, or the underlying data. GreenInfo Network disclaims, and shall not be held liable for, any and all damage, loss, or liability, whether direct, indirect, or consequential, which arises or may arise from these products or the use thereof by any person or entity.

This edition of CCED should be cited in any maps, reports, websites or other products as: “California Conservation Easement Database (CCED) – www.CALands.org (December 2016)”

1. Disclaimer Details

This digital data and metadata, (hereinafter collectively referred to as the "information"), are provided on an "AS IS", "AS AVAILABLE" and "WITH ALL FAULTS" basis. Neither GreenInfo Network nor any of its employees makes any warranty of any kind for this information, express or implied, including but not limited to any warranties of merchantability or fitness for a particular purpose, nor shall the distribution of this information constitute any warranty.

GreenInfo Network shall in no event be liable to you or anyone else for any inaccuracy, error failures, delays or interruptions in the use of the database and shall in no event be liable to you or anyone else for any consequential, incidental, special or tort damages arising out of or relating to the use or inability to use the database. It is the sole responsibility of the user to determine whether or not the data is suitable for the intended purpose.

The information is collected from various sources and will change over time without notice. GreenInfo Network and its officials and employees assume no responsibility or legal liability for the accuracy, completeness, reliability, timeliness, or usefulness of any of the information provided nor do they represent that the use of any of the information will not infringe privately owned rights.

The information is not intended to constitute advice nor is it to be used as a substitute for specific advice from a licensed professional. You should not act (or refrain from acting) based upon the information without independently verifying the information and, as necessary, obtaining professional advice regarding your particular facts and circumstances.

Uses

CCED is made available without charge for a wide range of uses, for example, use by government agencies in planning and operations, use by private consultants in the development of plans and analyses, use by non-profit organizations and educational institutions for strategy, research, planning, management and other functions. While agencies, organizations, individuals and businesses may distribute free of any charges copies of the data, any such replication must include this disclaimer and require user to review the provisions therein.

CCED may be used on computer data networks, but should not be published for public website maps that allow users to view the data at a scale of 1:100,000 or larger.

See the attached document, “Before You Use CCED Data” for further use guidelines.

Data Sources

Data in the CCED 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. Over time, and as funding allows, most CCED boundaries will be aligned to ownership parcel boundaries, but that independent alignment work has not been conducted for this edition. GreenInfo Network has made every effort to standardize the multiple data inputs to create CCED, but occasional errors in this process are to be expected. GreenInfo Network does not provide the original datasets from primary data source providers.

Limitation of Liability

IN NO EVENT WILL GREENINFO NETWORK BE LIABLE TO YOU OR ANY THIRD PARTY FOR ANY DAMAGES ARISING OUT OF THE USE OF OR INABILITY TO USE THE DIGITAL DATA, EVEN IF GREENINFO NETWORK IS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

December 2016

SUMMARY

IMPORTANT: Easements are special types of protected areas, where the land can remain in private ownership. Consequently, anyone using California Conservation Easement Database (CCED) data shall follow these overall guidelines:

1. Any maps of CCED data should show clearly that easement properties are **closed to any public access**, unless CCED has specific information to the contrary (very few easements allow public access).
2. Private land owner names are typically not included in CCED and **should not be attached** to CCED data shown on maps. When labeling easement properties, users should access the generic holding name field (“ease_label”) or use “restricted lands” or equivalent general title) whenever feasible.
3. Likewise, showing on maps the individual agencies or organizations who hold easements should **be avoided** whenever feasible. Instead, consider using the agency level field [eholdtyp] classifying the agency as: federal, state, local, or nonprofit, to indicate the type of easement holder.

CCED contains data about lands that are under conservation or open space easement (as opposed to those in CPAD that are owned outright “in fee”). Easements lands are typically private property and are only rarely open to the public (some easements overlay publicly-owned lands, however)

CCED easement lands range from the very small parcels near cities to large rural or wild landscapes. Uses on these parcels may include farming, ranching, timber harvesting or open space (including use as floodways, scenic viewsheds or for the protection of biodiversity). Easement protected lands are sometimes parts of larger protected landscapes and sometimes they exist on their own. It is important to note that one privately owned property may have two or more easements held by agencies or nonprofits (“stacked” easements) – this can affect statistical counts of easement acres.

This edition of CCED inventories over 2 million acres in 11,870 easements, held by roughly 200 agencies and nonprofits. CCED is published by GreenInfo Network (www.greeninfo.org). Access to CCED data files is available online - see www.CALands.org for more information. CCED is available in ESRI shape file format. Related data sets are available at www.CALands.org for fee-owned protected areas (CPAD), as well as military and tribal lands.

The current release is CCED 2016, published in December 2016. This is the third official release of the CCED data set.

NOTE: CCED is regularly submitted to the National Conservation Easement Database (NCED – <http://conservationeasement.us>) and is expected to become a part of their next release in 2017, though minor differences may be present.

CCED 2016 – KEY STATISTICS

December 2016

IMPORTANT: The CCED dataset contains overlapping and “stacked” polygons (see Section III., Database Structure below). The stacked polygons represent lands under easements held by more than one agency, multiple funding sources, transaction dates, or other unique situations. This release focused on the removal of duplicates and represents a significant improvement from CCED 2015a however some overlaps remain for tracking purposes. Some easements may exist on land that is also in fee ownership, and will overlap wholly or partly with land identified in CPAD, the California Protected Areas Database.

CCED statistics are provided statewide, by agency, and by agency level. This reflects the amount of acreage estimated to be on the ground. Statistics by managing agency and agency level assign acres only to the primary easement holding agency or organization.

- Total acres statewide in California = 2,025,114*
- Count of easement polygons = 11,870
- Count of agencies included in CCED = 216
- The largest easement in CCED is the 82,053 acres, the smallest is less than 1 acre.

**Minimal overlaps are still present; acres are estimated given data constraints.*

Top 10 easement holding organizations:

AGENCY/ORGANIZATION	ACRES
The Nature Conservancy	335,015
California Rangeland Trust	190,319
California Department of Fish and Wildlife	166,788
United States Fish and Wildlife Service	156,614
United States Natural Resources Conservation Service	137,313
Tejon Ranch Conservancy	108,900
Sonoma County Agricultural Preservation and Open Space District	106,527
Pacific Forest Trust	88,552
Wildlife Heritage Foundation	54,088
The Conservation Fund - California	51,243

**California Rangeland Trust (CRT) easements are not completely represented in CCED as CRT has not make this information available – the 2015 [Land Trust Alliance census](#) reported CRT holds 287,000 acres.*

CCED is published by GreenInfo Network (www.greeninfo.org) – more information on CCED is available at www.CALands.org/cced.

I. INTRODUCTION

The California Conservation Easement Database (CCED) inventories lands that have been protected through conservation or open space easements. A separate database (CPAD – the California Protected Areas Database) tracks open lands owned outright (“in fee”).

Conservation easements are legal restrictions created by a contract between a land owner and a qualified agency or organization that are usually based on limiting the future uses of a property to those compatible with open space, conservation, farming or other defined uses. Such easements reduce or remove development opportunities on these lands. All easements in California are officially filed with the relevant County Recorder’s office (not necessarily the Assessor’s office) and are public records data. Some easements are acquired with public funding; others are created by landowner donations, and many by a combination of the two. Where public funding is involved, public records describing and mapping the property and presenting its appraisal are created.

CCED is focused on lands conserved for natural or other open space purposes and does not include all easements – for example, it does not include utility easements, or easements created for short terms (10 or fewer years).

CCED is suitable for a wide range of planning, assessment, analysis, and display purposes. CCED should not be used as the basis for official regulatory, legal or other such governmental actions – these types of uses require official land records from county recorders or easement holding agencies in the area of focus.

The lands in CCED are defined by the agency or organization who manages the site, and no information is included on the private land owner unless already available in public records and reported to CCED. Some easement holders do, indicate owner name in property titles (e.g., “Jones Ranch easement”) and this source information is transferred into CCED.

Access to CCED GIS data is through the via a download link, see more information at **www.CALands.org/cced**. CCED is available in ESRI shape file format.

CCED has been developed by GreenInfo Network, a non-profit technology support organization (www.greeninfo.org), with support from other non-profits, foundations and public agencies. Previous supporters of CPAD and CCED have included: California Department of Parks and Recreation, Sierra Nevada Conservancy, and the Coastal Conservancy. From 2012 to 2014, CCED development was supported by a grant from the California Strategic Growth Council through the U.S. Geological Survey’s Gap Analysis Program (GAP). CPAD is currently supported by funding from the California Natural Resources Agency, through the Department of Water Resources – we greatly appreciate this assistance.

NOTE ABOUT EASEMENTS ACROSS THE US: A national inventory (the National Conservation Easement Database, or NCED) is available to track easements. Access to this national data set is presently available through: <http://nced.conservationregistry.org/> CCED is integrated into NCED, though minor differences may be present.

II. DATA DEFINITIONS

CCED Geography

CCED covers the entire state of California. Easements boundaries are most frequently identified by the managing agency. Given their unique status, these boundaries may not align precisely to digital assessor parcel boundaries. Future releases will explore options for improving alignment (see “VI. Known Issues in CCED” below for further discussion).

Conservation Easement Status and Purposes

Lands in CCED have been identified as those with legal conservation or open space easements, typically serving one or more of the following open space purposes:

- Habitat Conservation - wildlife or plant reserve protected specifically for habitat
- General Open Space – open land used serving a broad range of purposes
- Historical/Cultural - historic sites
- Forestry - active forest harvesting, tree growth for forestry
- Agriculture - crop lands including irrigated pastures
- Ranching - grazing lands – grasslands, mixed forest, dry and grazing pasture
- Water Supply - watersheds, waterways
- Scenic area – viewscapes, etc.
- Flood Control – flood plains, natural flood control channels

Easement Definition within a Parcel

Conservation easements can be placed on part of a parcel, or the entire parcel. Existing buildings, hardscape areas, and ancillary structures may be present on the parcel. The data in this release has not been reviewed in great detail to include or exclude portions of parcels that may not be a part of an easement. **Users should therefore exercise caution when using the data and should refer to county recorder property records and/or the easement holding agency/organization for most current and accurate information.**

Ownership vs. Management

CCED tracks lands according to the agency that manages the easement over the property. Information on the owner of the land is not included, nor is it planned to be included in future releases.

No Public Access

Almost all lands in CCED should be considered *Closed* and not open to the public. **Any maps including easement lands must clearly and prominently indicate that these lands are *Closed* areas – and any map of recreational or other public access sites/opportunities must not include easement lands. Where easement properties are known to allow managed public use, these opportunities may be shown, but only where they are validated with the easement holder.**

Parcel Boundaries

While CPAD has generally been aligned to assessor parcel boundaries, most CCED data is not. In many cases easement boundaries from source agencies have been digitized independently of assessor parcel data – sometimes due to accuracy issues in the assessor data, sometimes because assessor data may not have been available when easement data was created. In addition, assessor parcels in rural areas are not always highly accurate spatially.

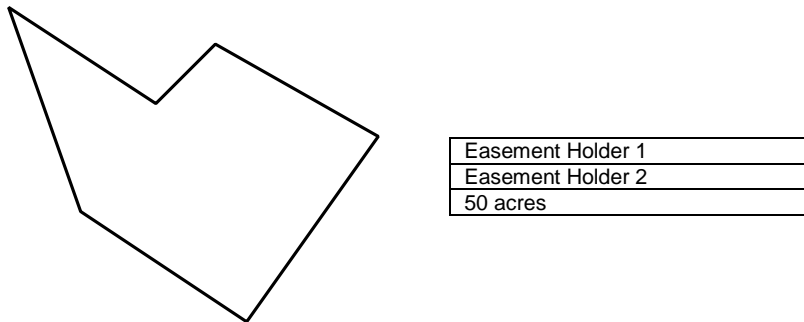
Easements may also vary in their coverage of a parcel. Some easements cover an entire parcel; others only define a portion of the parcel as an easement. The first release of CCED made an initial assessment of the alignment of easement edges with CPAD lands, but was not resolved given funding restraints. Substantial work would be required in future releases to improve the accuracy of easement boundaries.

III. DATABASE STRUCTURE

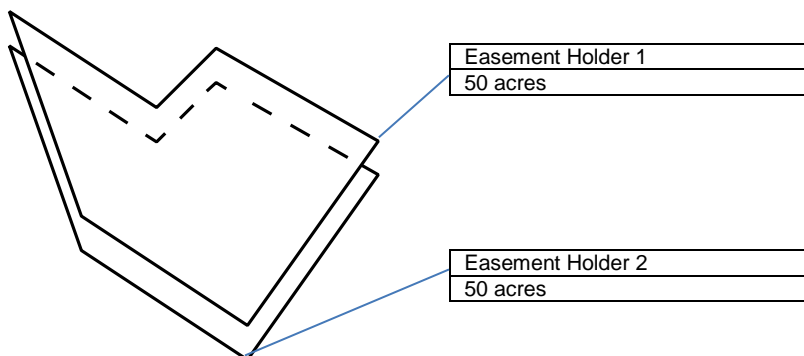
The CCED easement database is a single ESRI formatted shapefile containing polygons. The current CCED data set contains a mix of geographic levels. Some easements are defined by individual parcels (or pieces of parcels), while others are dissolved groupings of parcels. Future releases of CCED will explore the possible use of a holdings/units structure, as is implemented in CPAD, where parcels aggregate to commonly named units in order to provide consistent definitions of parcels and aggregated easements held by the same land owner and managing agency.

It should be noted that the source data sets used to create CCED often identify easements in different manners. In particular, the overlap of easements when there are multiple easement holders and/or funding sources is not consistent. CCED makes an initial attempt to standardize the data from disparate sources, but additional work will be needed in future releases to standardize the data. For this reason, users should exercise caution when reporting acreage statistics that may contain stacked polygons.

Example 1 - Source data that tracks multiple easement holders in a single polygon. There is one polygon and an attribute table with multiple columns to track additional easement holders. This is the most common method used in CCED 2016



Example 2 - Source data that tracks multiple easement holders via multiple “stacked” polygons. There are two polygons, each lists only one easement holder. This is common when boundaries reported by multiple agencies differ significantly. There estimated to be less than 100 duplicates in this release.



IV. CCED DATA DICTIONARY

The core fields of CCED match NCED. This allows for the California data to efficiently transfer into the national data set. It should be noted that all NCED fields are maintained in CCED, though not all NCED fields are included in the CCED release. As future funding allows for additional resources to fully attribute easements, additional fields may be included in CCED releases. The table below is a brief listing of the fields released in CCED, see the GIS metadata for a full detailing of: field alias, data type, length, and source.

Field Name	Description
ease_label	Conservation Easement (text, for use in most mapping displays, rather than site name)
sitename	Site name, as reported by source data
esmthldr	Primary easement holder name
year_est	Year easement began (yyyy)
nced_uid	NCED unique identifier
eholdtyp	Easement holder level: federal, state, local, NGO, or other legal classification
pubaccess	Identifies if an easement is: closed, restricted, or open (assume closed)
duration	Identifies whether the easement is permanent or term-limited
term	Numeric field noting the term of the easement
dataentry	Date when record entered by operator
comments	Any comments from either the source, provider, or aggregator
projectid	WCB unique identifier
dtmboardap	Date of easement project approval (often a board meeting decision)
county¹	County holding is within
src_align	Source of the easement spatial geometry
src_attr	Source of the easement table attribute data
cced_id	CCED unique identifier for given version of dataset
gis_acres	Easement acres, as calculated in GIS

¹ Fields not included in NCED, but created for CCED

V. CCED DATA PROCEDURES

CCED 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 hundreds of agencies and organizations having holdings in CCED, contact with each of these is not possible. However, the top 20 agencies/organizations are believed to hold over 90 percent of the easements in CCED and many have GIS data. Additionally, some easements are defined by public data sets covering county or statewide inventories (eg, that of the Wildlife Conservation Board - WCB). Not all agencies have contributed data to CCED. When possible, additional research is done to define very large known easements through available public information sources.
- 2. PARCELS AS GEOMETRIC BASE:** CCED is evaluated in the context of assessor parcels and, to some extent, the Public Land Survey System (PLSS) but is not aligned to this base data. The information gathered will be used in future releases to guide a refined geometry of easements. Easements do not always cover entire parcels, as they may exclude existing structures and development.
- 3. CROSS-CHECK WITH CPAD:** CCED is spatially reviewed in context with CPAD to try and evaluate easement boundaries, future efforts will be required to resolve edge matching. Both gaps and silvers occur when using CCED in conjunction with CPAD and other GIS layers.
- 4. RESOLVING CONFLICTS:** Agency source data is generally considered to be authoritative in CCED. When an easement is defined in multiple contributing data sources, data contributed directly from the agency managing the easement is assumed to be authoritative over compiled data sets such as WCB. Given the unique scenario of easements, additional in-depth research is often required by data users to accurately define the easement boundaries.
- 5. AERIAL IMAGE CHECKS:** As possible, 1-meter or better aerial photography is used to verify the location of an easement. Future efforts will be taken to check boundaries against physical features such as fence lines, roads, waterways, and physical structures. However, parcel boundaries will generally be accepted even if they do not perfectly align to such aerial images.
- 6. COUNTY BREAKS:** Easements that span a county boundary are assigned to the county they have the most acreage in.
- 7. SCALE:** The scale of accuracy is highly varied across the state. In general, the data is best used at scales above 1:24,000.

VI. KNOWN ISSUES IN CCED

CCED is a developing data set and contains a number of unresolved issues.

Main issues:

- 1) Not all agency/organization easement data is in CCED. CCED is heavily focused on easements that are already defined by the managing agency in GIS format. Many smaller easements are not included, as it is difficult to survey all possible easement holders across the state. Efforts are under way to encourage all easement-holding agencies/organizations to participate in CCED. In particular, many city and county easements are not yet included.
- 2) Alignment of easements varies greatly - some match parcel boundaries, some use physical features of the landscape or manmade features, others are loosely defined with no obvious reason for the boundary definition. CCED currently accepts any agency/organization submitted boundary as the most accurate. Future release will attempt to improve the alignment and accuracy of easement boundaries.
- 3) Slivers will exist when using CCED in coordination with other layers such as CPAD.
- 4) Complete attributes are not always available for all easements; these are blank until further information is found.
- 5) Easements have not been attributed as being on land or water, future releases may include tracking of tidal or submerged lands.
- 6) Agencies may track multiple easement holders on one property differently. Stacked polygons are used to indicate multiple easement holders with significant differences in the geometry and/or attributes. For this reason, CCED users must use caution when reporting any acreage or number easements statistics. CCED 2016 has removed many duplicate easements in previous release, but easements under 100 acres have not been comprehensively reviewed for duplicates.

VII. CCED RELEASES AND HISTORY

Current Release - CCED 2016 (December, 2016)

This is the third official release of CCED and it builds on the previously distributed inventory of conservation easements across California.

Notable aspects of the work in this release:

- Inclusion of over 150 new agencies
- Over 500,00 easement acres have been added
- Duplicate records over 100 acres have been individually reviewed and removed as necessary
- Update and improve data documentation

As with any large data gathering program, there are likely to be lands that have been missed, wrongly included, or miss-attributed. If you find errors, please contact GreenInfo Network at cced@CALands.org. Not all inquiries can be responded to given funding constraints. However, issues and errors are logged for future research if/when funding is available.

Brief History of CCED

CCED was developed during 2013-2014 and first published in March 2014. The dataset was created in response to direction from the California Strategic Growth Council (SGC), which is overseeing a wide range of planning related efforts for the state. The data has been prepared in response to frequent requests by local, state and federal agencies and nonprofits for a more complete representation of California's protected landscape. Easements are a vital part of protected California's natural resources. As such, it is important to know their location, size and how they relate to whole host of other features (soil types, watersheds, flood control, habitat, etc.).

Initial efforts to track easements go back as far as the initial work on CPAD in the 1980s, mostly focused in the San Francisco Bay Area. However, funding has only now become available to try and standardize and improve information about easements. Previously, when data on a conservation easement was received it was filed in a digital collection of folders and files. It was not integrate with other data on easements, reviewed for accuracy, or researched for important attributes.

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, but it did include some conservation easements. It did not include: regional lands, local lands, non-profit lands – for both fee and easements. It was last updated in 2005 and is now a legacy data set, replaced by CPAD and CCED.

From the early 2000s to 2006 GreenInfo Network received funding from a variety of sources to advance the CPAD content, structure and distribution. However, easement data did not receive funding and remained stagnant until 2012. In late 2012, GreenInfo Network began a major project to improve CPAD and create CCED, supported by a grant from the California Strategic Growth Council in collaboration with the USGS Gap Analysis Program. See details on www.CALands.org.

In 2015, GreenInfo received funding from the California Natural Resources Agency for two years of support for CPAD and CCED. Future funding has not been defined for either data set.

CCED Release History

CCED 2016 (Published December 2016) – The current version of CCED is a major release. It includes the addition of hundreds of new agencies and over half a million new acres. Duplicate easements have been resolved in most cases and fields continue to sync with the NCED format.

CCED 2015a (Published April 2015) – The second release of CCED was a minor release. It included the addition of 37 easements and covers 71,898 new acres. Data formats were changed, for three fields, to match NCED.

CCED 2014a (Published March 2014) – The first release of CCED, it included conservation easements held by 93 agencies/organizations covering 1.5 million acres. Initial attempts were made to standardize the data attributes, assess edge alignment, and compile spatial data from all contributing groups. The release also defined the database structure, documented known issues, provided a detailed user manual, and outlined a use agreement and data usage policy for CCED.