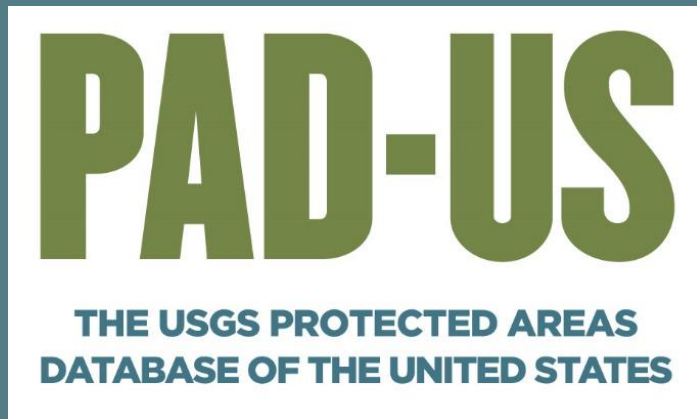


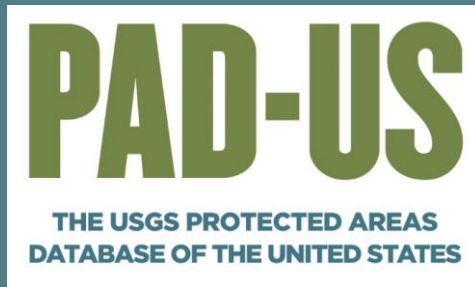
America's Inventory of Parks and Protected Areas



New and improved!

National Trails System GIS Network

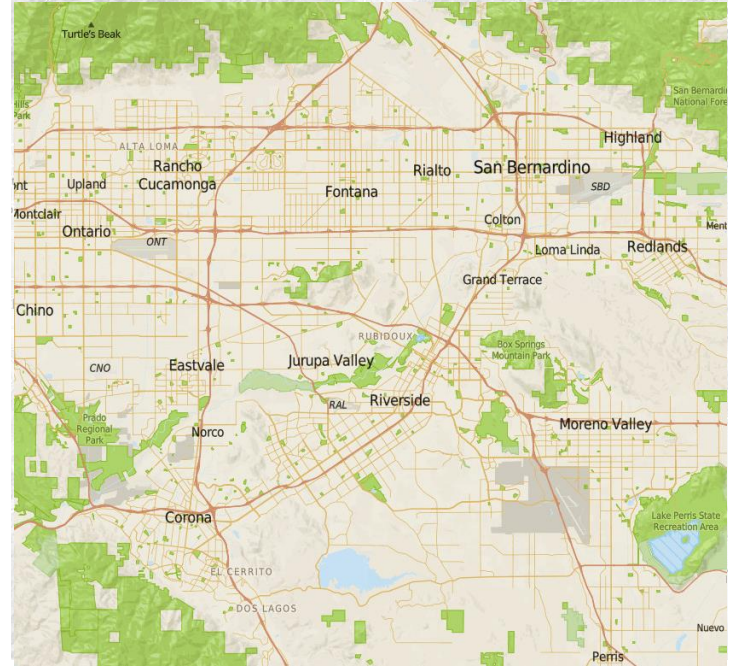
What is PAD-US?



First, what do we all want?

- Find **any** U.S. park or protected area
- All in **one** dataset
- Designed to serve **many** user needs

This is the PAD-US vision



What do we all want to include? Everything.



What is a “protected area”?

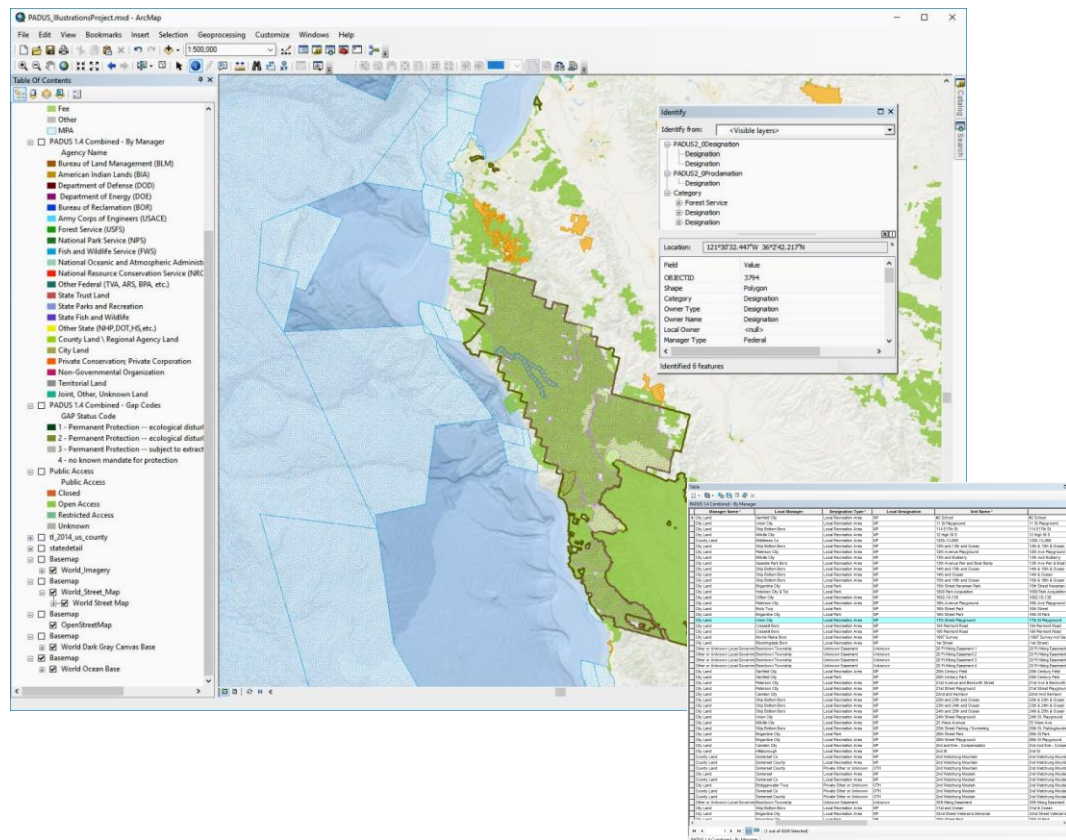
Broad meaning:

- Natural, Rec., Historic, Cultural
- Includes public land + nonprofit areas
- Public fee, conservation easements, management designations, marine
- Small to large
- Public parks and other protected



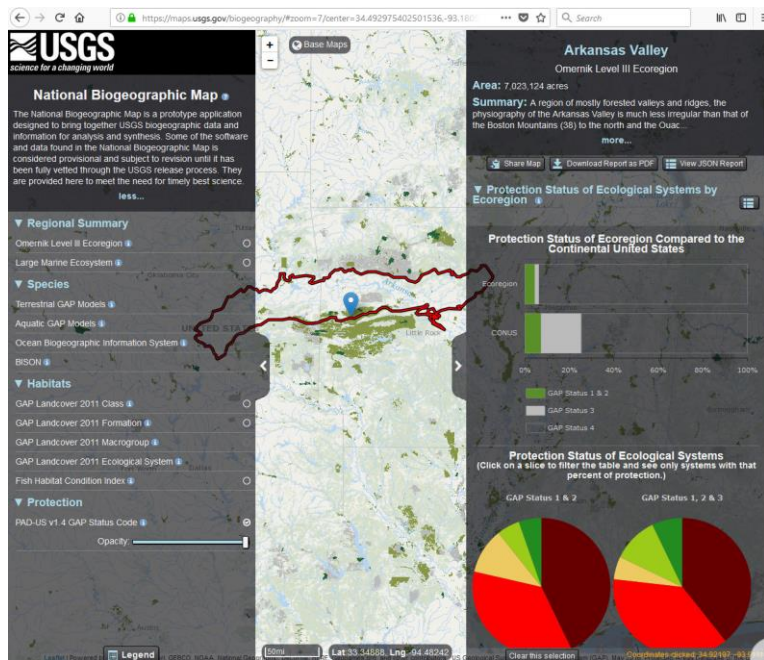
- 9.3 billion acres*
- 360,000+ units
- 18,000+ agencies
- Published by USGS

*total includes ownership and overlapping designations, easements, proclamation boundaries, plus marine areas

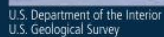


PAD-US is managed by USGS

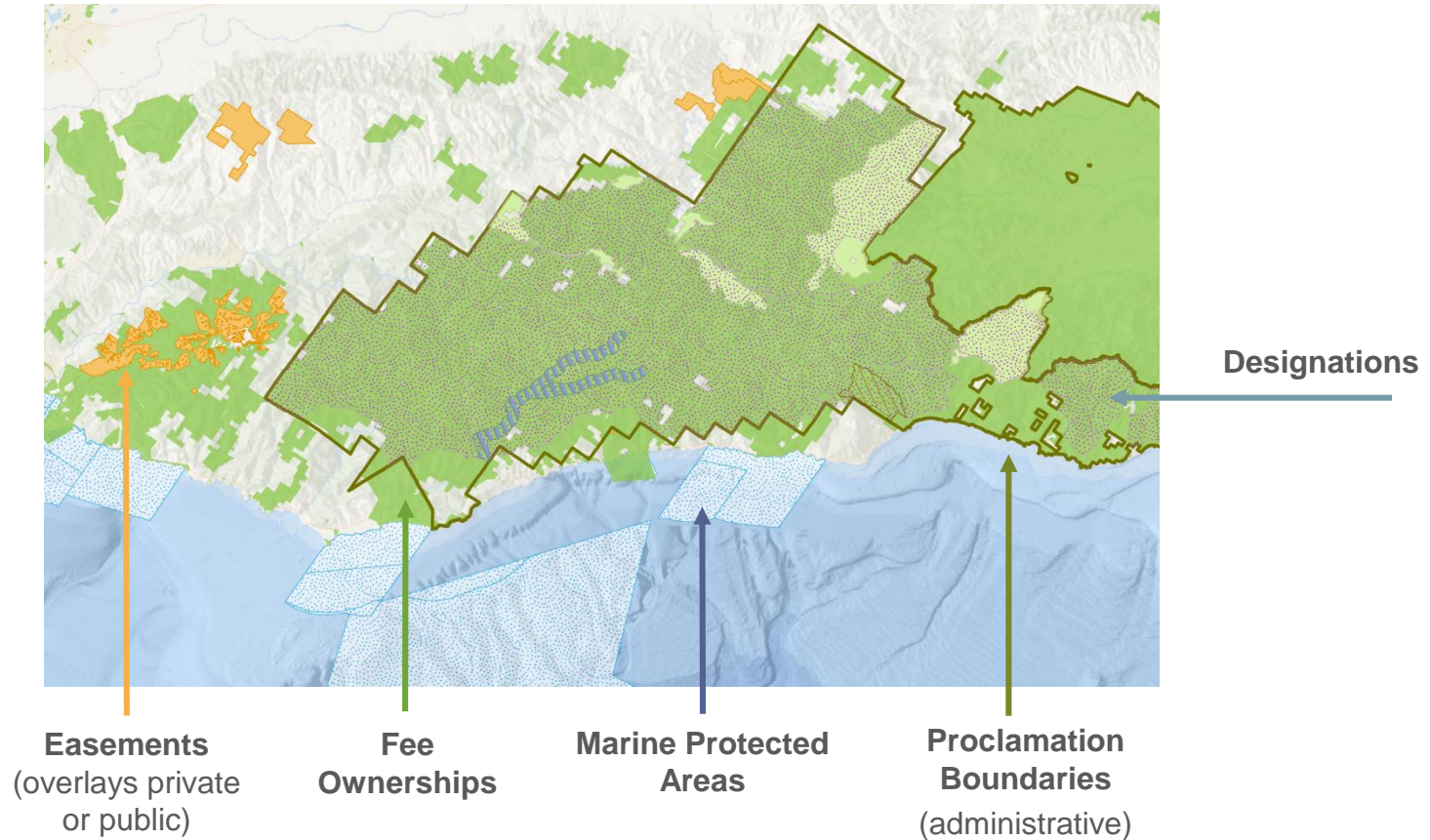
- Part of the National Biogeographic Map
- Required for USGS biodiversity analysis mission
- But also built for general, diverse uses
- Broad org commitment to PAD-US



<https://maps.usgs.gov/biogeography/>



PAD-US is boundaries



Many users and uses



- ✓ Recreation planning
- ✓ Wildfire management
- ✓ Energy facility siting
- ✓ Biodiversity conservation
- ✓ Public health
- ✓ Emergency management
- ✓ Land use planning
- ✓ And more . . .

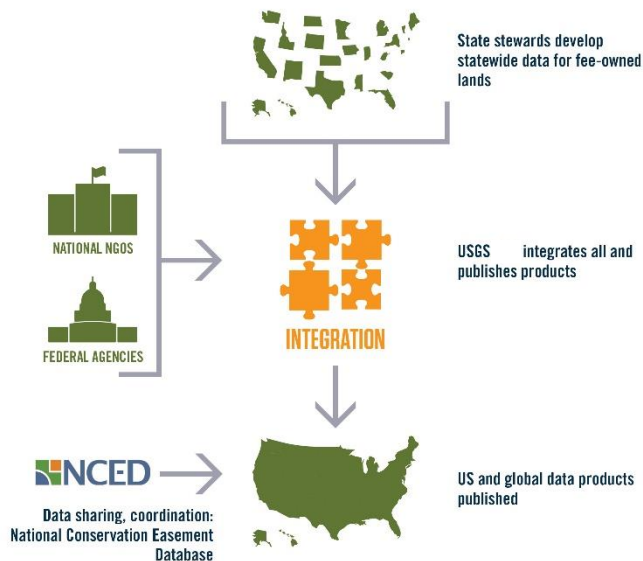
Collaboration builds PAD-US

How PAD-US is Built

States

Federal

Nonprofits



PAD-US 2.0 Publication Status



For PAD-US announcements and updates, **contact**

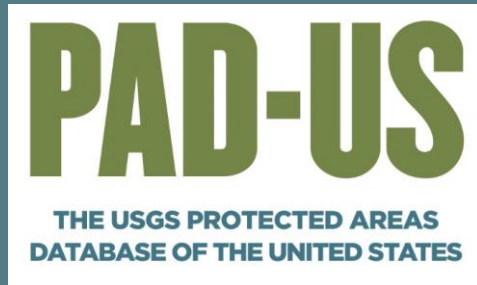
Julie Prior-Magee

jpmagee@usgs.gov

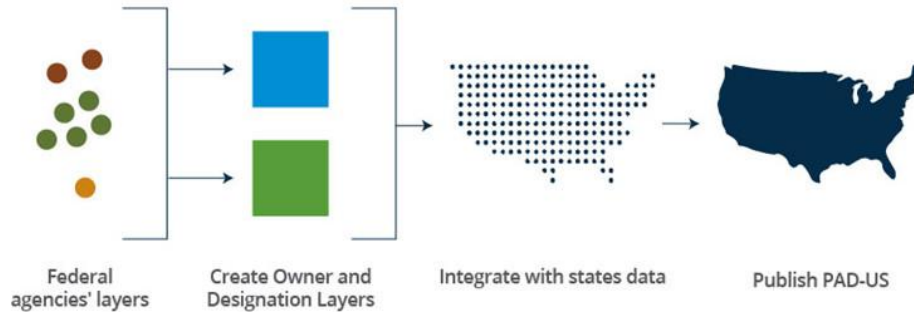
What's new in 2?

PAD-US 2.0

(September 2018)



Federal updates



Steward reports

ESTIMATED FEDERAL LANDS

Individual federal agency estimate including fee parcels, easement in

National Park Service
Forest Service
Fish and Wildlife Service
Bureau of Land Management
Army Corps of Engineers
Department of Defense
Bureau of Reclamation

Online and PDF c

Protected Areas Database of the United States (PAD-US) — Data Steward Report

FEDERAL

Forest Service



Steward program description: Established in 1905, the Forest Service is an agency of the U.S. Department of Agriculture and manages national forests and grasslands which encompass 193 million acres of land in almost 300 separate units. The Service's Automated Lands Program (ALP) provides data on these lands to PAD-US.

Steward Information

Program Name: Washington Office-Lands and Realty Management-Automated Lands Program
Organization Status: Active
Program Status: Active
Website: <https://www.fs.fed.us/>
Data Download URL:
<https://data.fs.usda.gov/geodata/edw/datasets.php?xmlKeyword=PADUS>
Other Page or Portal: <https://www.fs.fed.us/land/staff/index.shtml>

Primary Contact

Troy Warburton, ALP Program Manager
Organization: Forest Service
trwarburton@fs.fed.us / 801-975-3433

Secondary Contact

Holly Martin, Data Analyst
Organization: Forest Service
hlmartin@fs.fed.us / 503-729-6676

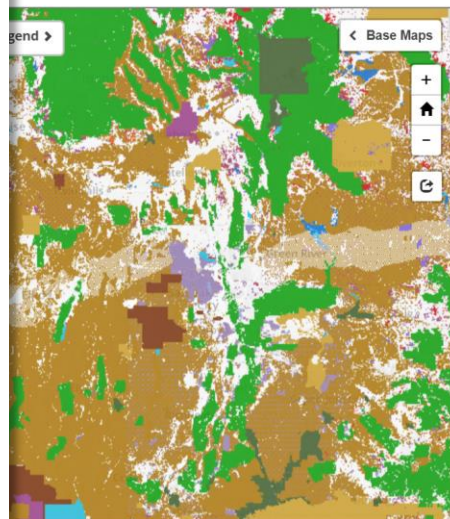
This report is in support of PAD-US, the Protected Areas Database of the US, published by USGS. Information on PAD-US data stewards can be found at the www.ProtectedLands.net PAD-US companion website. More information about PAD-US is available on the USGS PADUS website: <http://gapanalysis.usgs.gov/padus>

Current Completeness of Agency Data: 99 %

Notes: Fee parcel ownership, easement interest and designations (congressional and executive) for all USFS lands available in PAD-US format from national data steward. Active participation in FGDC Federal Lands Working Group. Improved administrative designations (complete RNAs, national grazing/mining allotments, etc.) are needed to better represent biodiversity protection and/or recreation opportunities on multiple use lands.

Updates Contributed to PAD-US

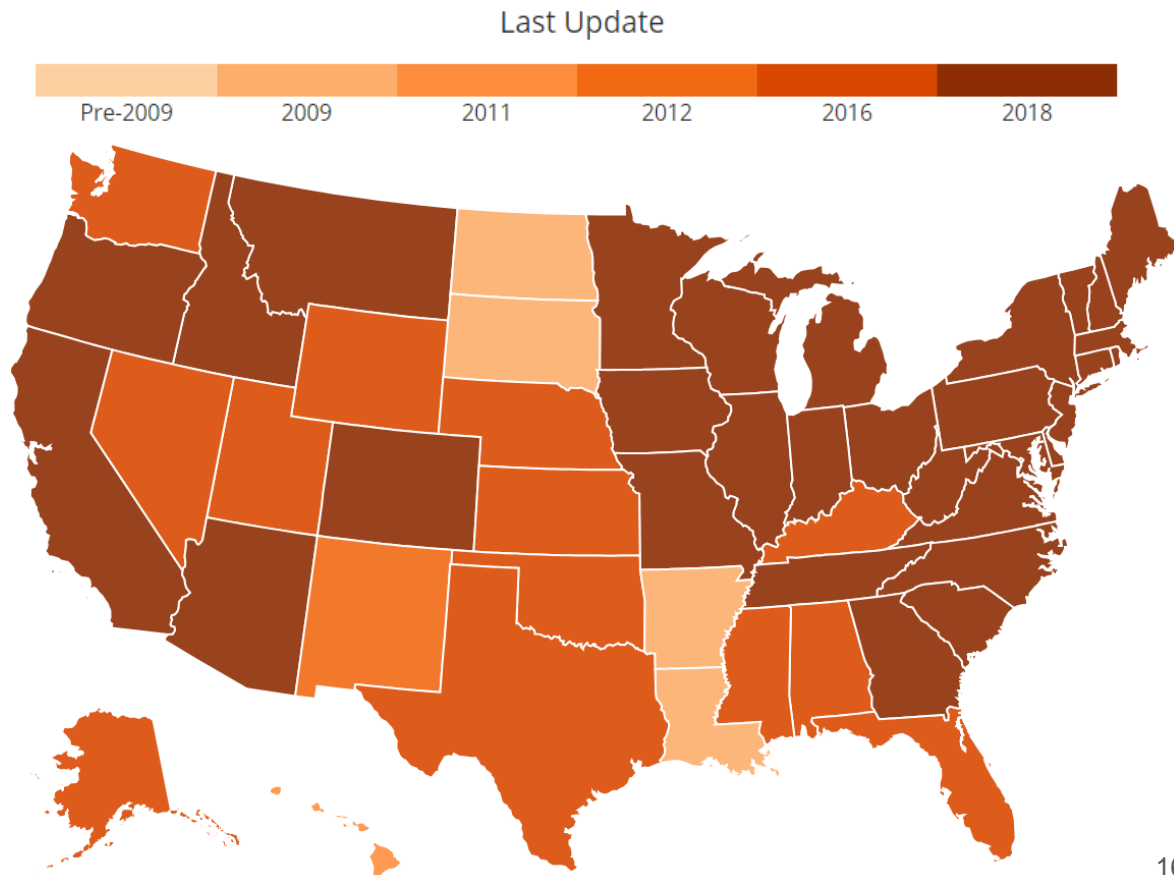
PAD-US 2.0	Other Designated	September 2017
PAD-US 2.0	Easements	September 2017
PAD-US 2.0	Spec. Interest Area	September 2017
PAD-US 2.0	Wilderness	September 2017
PAD-US 2.0	Wild/Scenic Rivers	September 2017
PAD-US 2.0	Roadless Areas	September 2017
PAD-US 2.0	Withdrawal Areas	September 2017
PAD-US 2.0	NFS Land Units	September 2017
PAD-US 2.0	Surface Ownership	September 2017



Over 30 state updates

12 from state steward network:

- California
- Georgia
- Iowa
- Idaho
- Minnesota
- Missouri
- New Jersey
- New York
- Oregon
- Tennessee
- Virginia
- West Virginia



Nonprofit databases integrated

TPL Conservation Almanac – Major updates in 9 states: Arizona, Colorado, Georgia, Illinois, Montana, North Carolina, New Jersey, Oregon & South Carolina.

DU Conservation and Recreation Lands (CARL) Database – Improvements to 5 states: Illinois, Indiana, Michigan, Ohio & Wisconsin.

TNC Secured Areas – Full data replacement in 9 eastern states + D.C.: Connecticut, Delaware, Massachusetts, Maryland, Maine, New Hampshire, Pennsylvania, Rhode Island, & Vermont.

TNC Fee Lands – Lands owned/managed by The Nature Conservancy

TPL ParkServe – *Coming next*



State details

<http://www.protectedlands.net/data-stewards/>

ProtectedLands.net

A Resource for the Protected Areas Database of the United States (PAD-US)

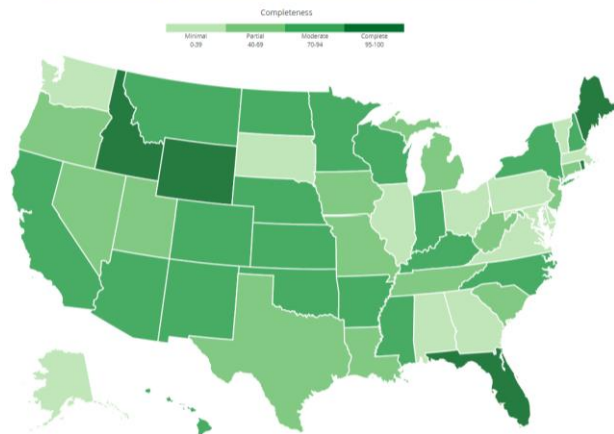
[Map](#) [Data](#) [Uses](#) [Vision](#) [Partners](#) [News](#) [About](#)

Partners

PAD-US contains data developed by many partners, including State Steward organizations, federal agencies and national nongovernmental organizations. **Click on any state** for a more detailed view of that state and to access a fact sheet. Note that the "complete" ranking means between 90 and 100 percent complete.

▼ [Read more about partners and the maps below](#)

[Completeness](#) [Last Update](#) [Capacity](#) [Table](#)



[Return to Partners Page](#)



Massachusetts

Data Steward: Executive Office of Energy and Environmental Affairs

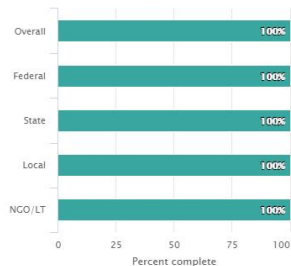
Last Update: 2012

Type: State

Capacity: high

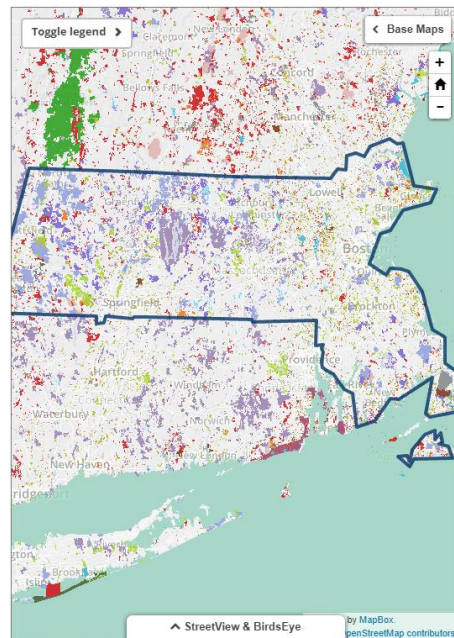
Contact: Benjamin Smith

Estimated Completeness (+/- 5%)



[Report](#)

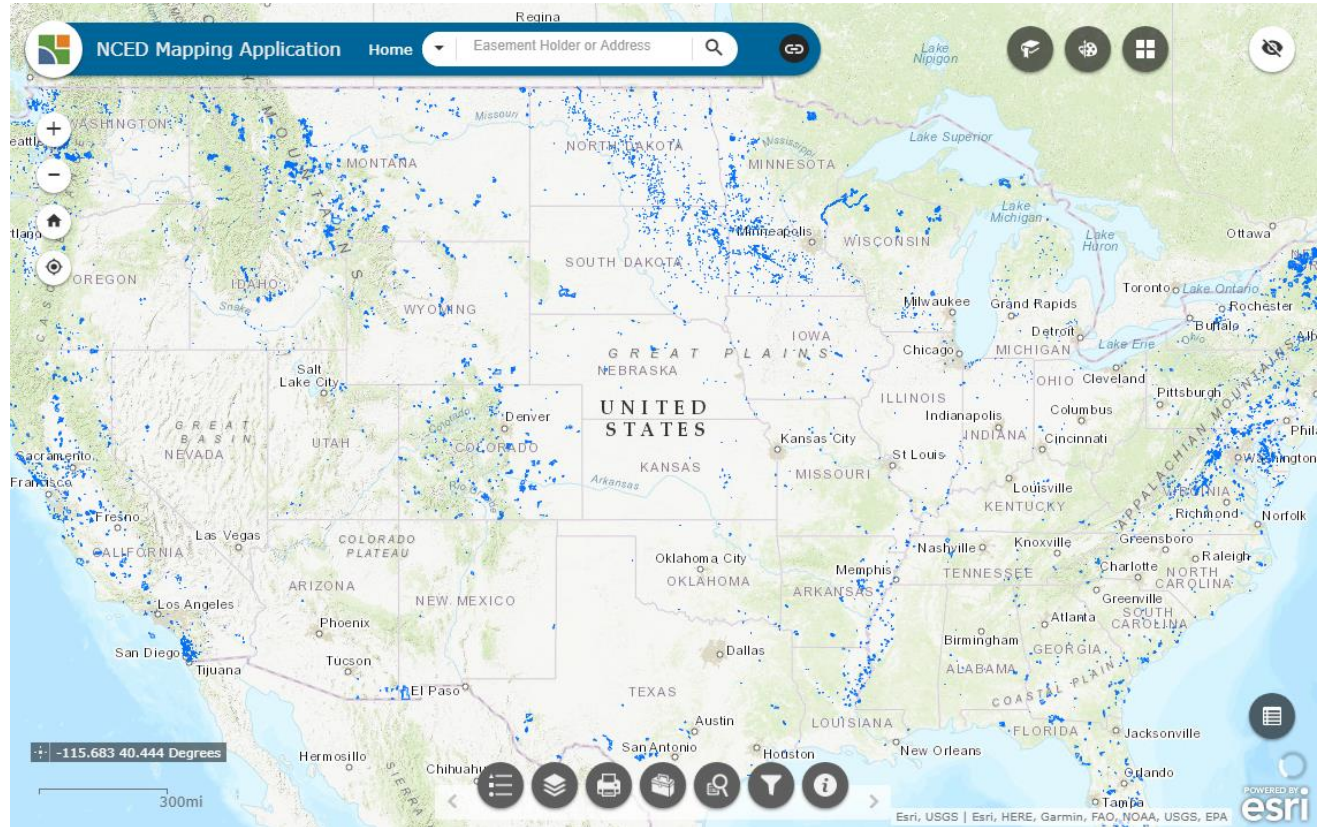
[Full PADUS map](#)



New easements from NCED

National
Conservation
Easement
Database

(NGO-led)

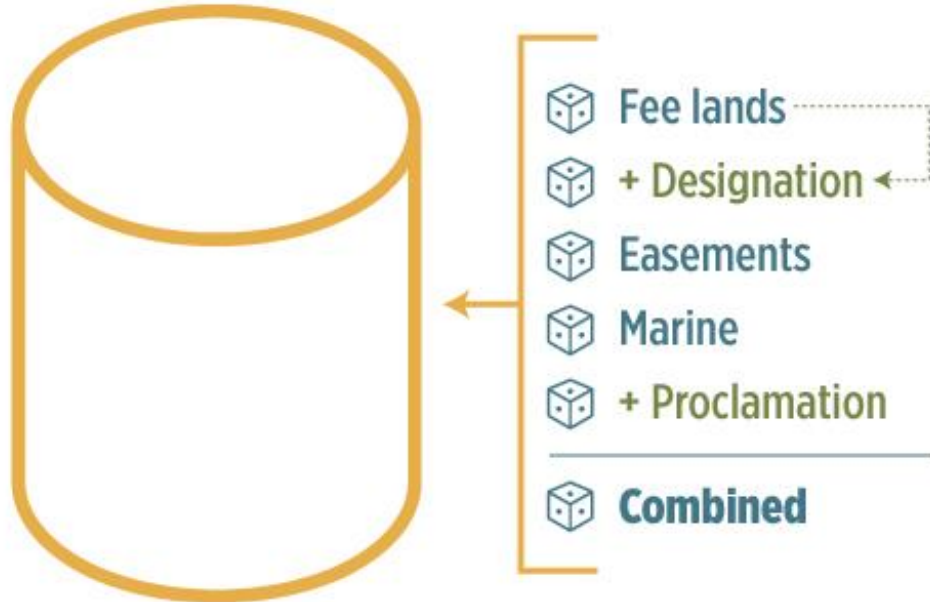


Nearly 24 million acres in PAD-US

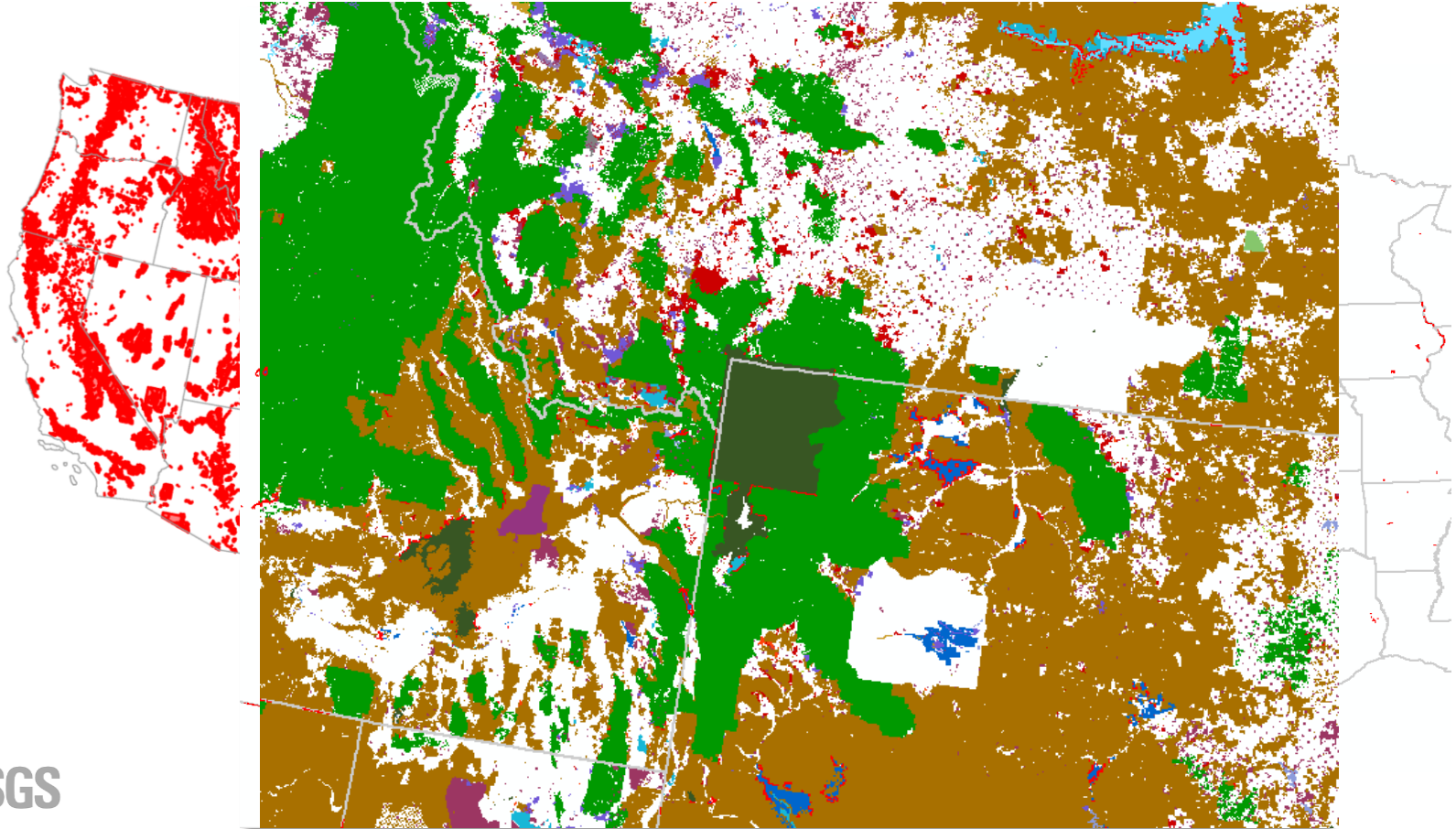
A better database – new structure

- Improve management of overlapping data
- Easier mapping and analysis

A Better Geodatabase for PAD-US

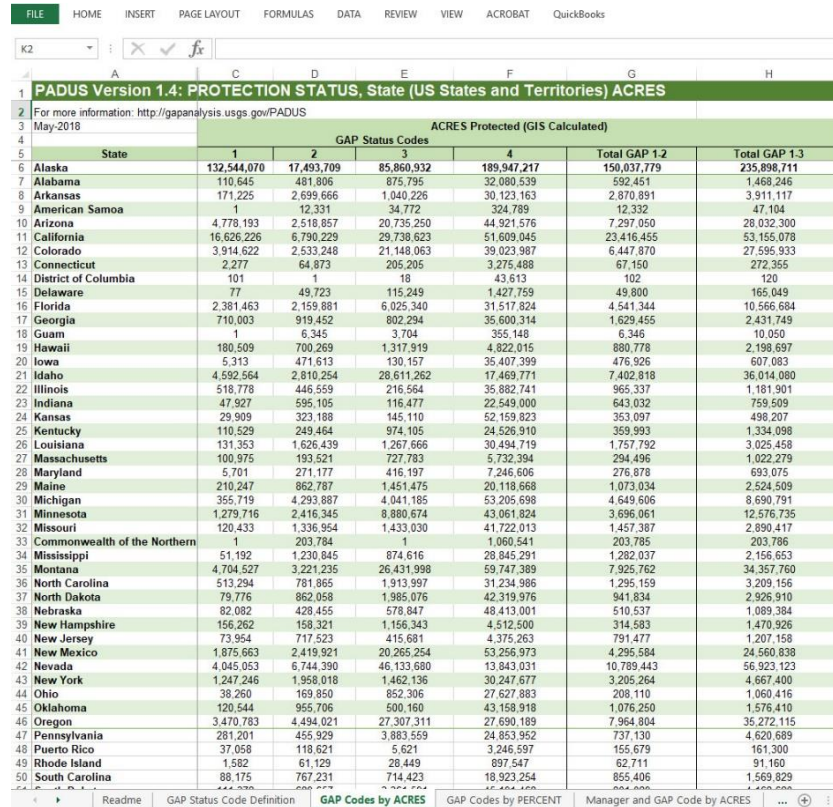


A better database – improved geometry



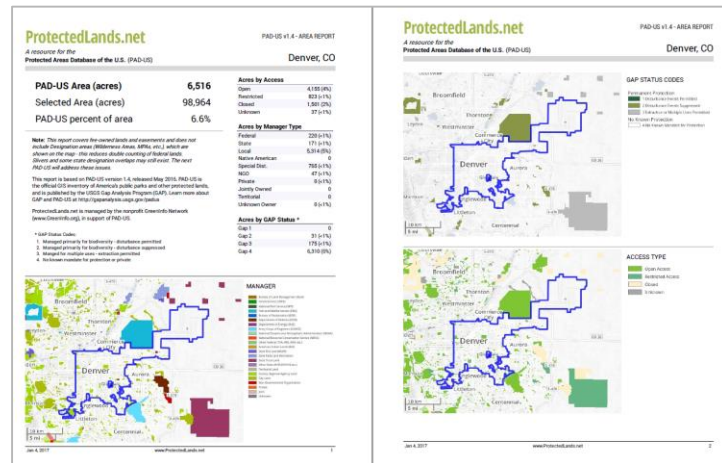
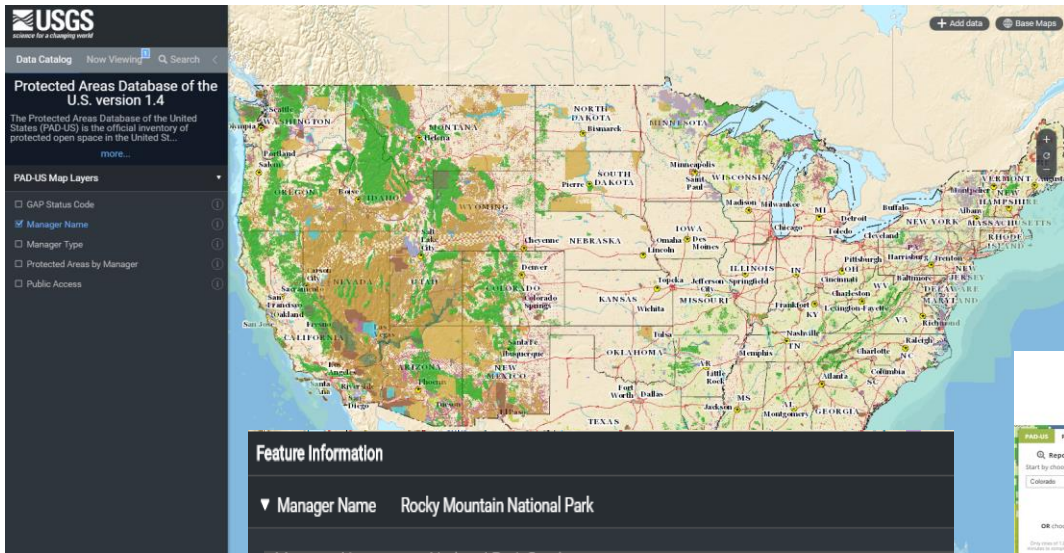
Downloadable statistics

Detailed Excel file
with pre-calculated
statistics



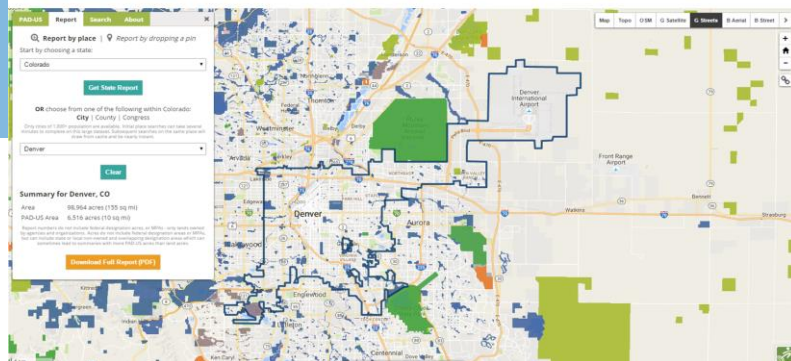
PADUS Version 1.4: PROTECTION STATUS, State (US States and Territories) ACRES						
ACRES Protected (GIS Calculated)						
State	1	2	3	4	Total GAP 1-2	Total GAP 1-3
Alaska	132,544,070	17,493,709	85,860,932	189,947,217	150,037,779	235,898,711
Alabama	110,645	481,806	875,795	32,080,539	592,451	1,468,246
Arkansas	171,225	2,699,666	1,040,226	30,123,163	2,870,891	3,911,117
American Samoa	1	12,331	34,772	324,789	12,332	47,104
Arizona	4,778,193	2,518,857	20,735,250	44,921,576	7,297,050	28,032,300
California	16,626,226	6,790,229	29,738,623	51,609,045	23,416,455	53,155,078
Colorado	3,914,622	2,533,248	21,148,063	39,023,987	6,447,870	27,595,933
Connecticut	2,277	64,873	205,205	3,275,488	67,150	272,355
District of Columbia	101	1	18	43,613	102	120
Delaware	77	49,723	115,249	1,427,759	49,800	165,049
Florida	2,381,463	2,159,881	6,025,340	31,517,824	4,541,344	10,566,684
Georgia	710,003	919,452	802,294	35,600,314	1,629,455	2,431,749
Guam	1	6,345	3,704	355,148	6,346	10,050
Hawaii	180,509	700,269	1,317,919	4,822,015	880,778	2,198,697
Iowa	5,313	471,613	130,157	35,407,399	476,926	607,083
Idaho	4,592,564	2,810,254	28,611,262	17,469,771	7,402,818	36,014,080
Illinois	518,778	446,559	216,564	35,882,741	966,337	1,181,901
Indiana	47,927	595,105	116,477	22,549,000	643,032	759,509
Kansas	29,909	323,188	145,110	52,159,823	353,097	498,207
Kentucky	110,529	249,464	974,105	24,526,910	359,993	1,334,098
Louisiana	131,353	1,626,439	1,267,666	30,494,719	1,757,792	3,025,458
Massachusetts	100,975	193,521	727,783	5,732,394	294,496	1,022,279
Maryland	5,701	271,177	416,197	7,246,606	276,878	693,076
Maine	210,247	862,787	1,451,475	20,118,668	1,073,034	2,524,509
Michigan	355,719	4,293,887	4,041,185	53,205,698	4,649,606	8,690,791
Minnesota	1,279,716	2,416,345	8,880,574	43,061,824	3,696,061	12,576,735
Missouri	120,433	1,336,954	1,433,030	41,722,013	1,457,387	2,890,417
Commonwealth of the Northern Mariana Islands	1	203,784	1	1,060,541	203,785	203,786
Mississippi	51,192	1,230,845	874,616	28,845,291	1,282,037	2,156,653
Montana	4,704,527	3,221,235	26,431,998	59,747,389	7,925,762	34,357,760
North Carolina	513,294	781,865	1,913,997	31,234,986	1,295,159	3,209,156
North Dakota	39,776	862,059	1,985,076	42,319,976	941,834	2,925,910
Nebraska	82,082	428,455	578,847	48,413,001	510,537	1,089,384
New Hampshire	156,262	158,321	1,156,343	4,512,500	314,583	1,470,926
New Jersey	73,954	717,523	415,681	4,375,263	791,477	1,207,158
New Mexico	1,875,663	2,419,921	20,265,254	53,256,973	4,295,584	24,560,838
Nevada	4,045,053	6,744,390	46,133,680	13,843,031	10,789,443	56,923,123
New York	1,247,246	1,958,018	1,462,136	30,247,677	3,205,264	4,667,400
Ohio	38,250	159,850	852,306	27,627,883	208,110	1,060,416
Oklahoma	120,544	955,706	500,160	43,158,918	1,076,250	1,576,410
Oregon	3,470,783	4,494,021	27,307,311	27,690,189	7,964,804	35,272,115
Pennsylvania	281,201	455,929	3,883,559	24,853,952	737,130	4,620,689
Puerto Rico	37,058	118,621	5,621	3,246,597	155,679	161,300
Rhode Island	1,582	61,129	28,449	897,547	62,711	91,160
South Carolina	88,175	767,231	714,423	18,923,254	855,405	1,569,829

Web maps, reports – updates coming soon!



ProtectedLands.net

Map Data Uses Vision Partners News About




New online help system – coming soon!

ProtectedLands.net

A Resource for the Protected Areas Database of the United States (PAD-US)

Map Data Uses Vision Partners News About



PAD-US HELP

QUICK START

INTRODUCTION TO PAD-US

OVERVIEW OF PAD-US

WHAT'S NEW IN PAD-US V2

HOW TO GET PAD-US

Introduction to PAD-US

Overview of PAD-US | |

The USGS Protected Areas Database of the U.S. (PAD-US) is the official GIS-based national inventory of park and protected area boundaries within the U.S.

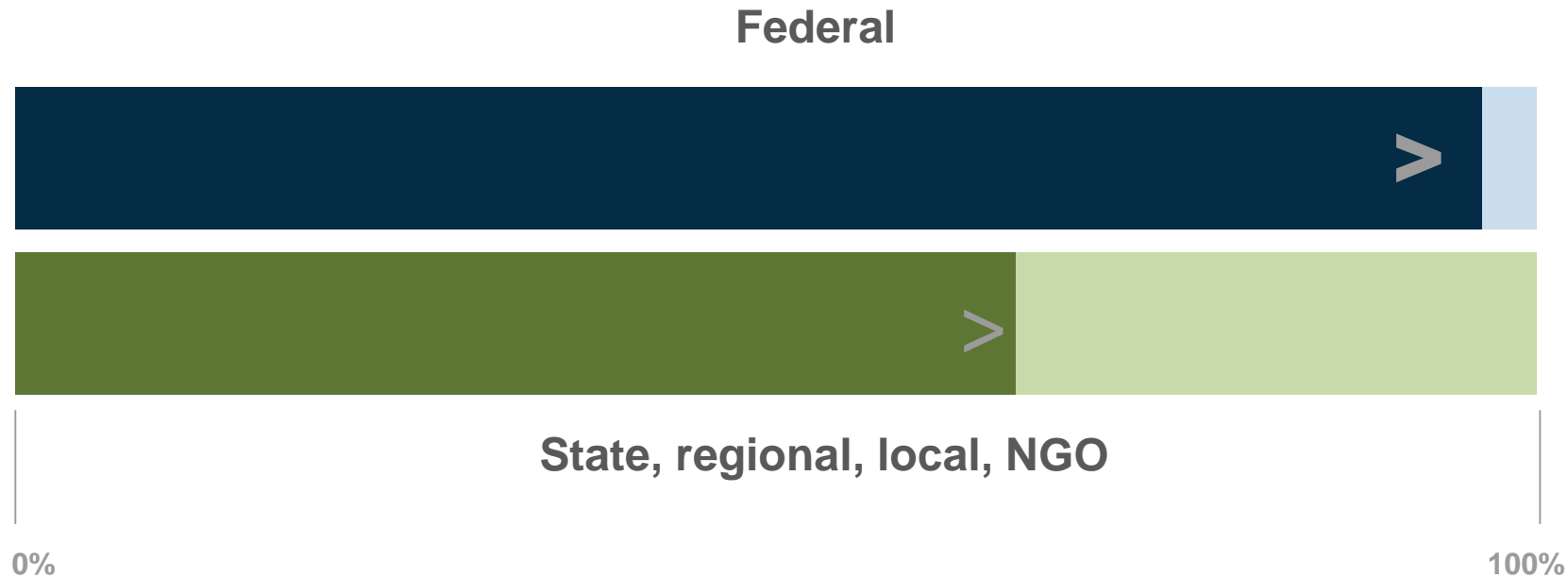
- Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum sit amet ligula eleifend, tristique nisl vitae, maximus metus.
- Sed aliquet turpis sit amet lectus feugiat porttitor.
- Morbi dictum nunc sit amet aliquet faucibus.
- Sed maximus nisi eget facilisis laoreet.
- Sed id orci pellentesque, elementum nulla ac, sodales dolor.

What's new in PAD-US version 2.0 | |

PAD-US version 2 was published in December 2017 and includes:

- Federal lands - updated for all agencies to most current federal land data
- Federal lands - updated for all agencies to most current federal land data
- State updates - updated data for (list states..)
- NCED updates - (as of date)

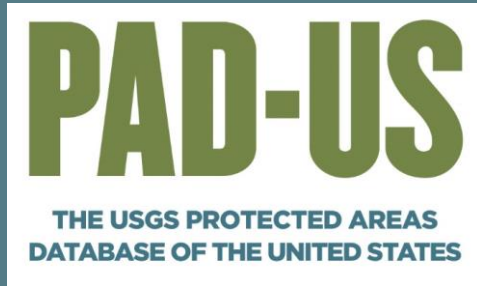
Inventory completeness at 2.0



Next – all urban parks!



Get the data!

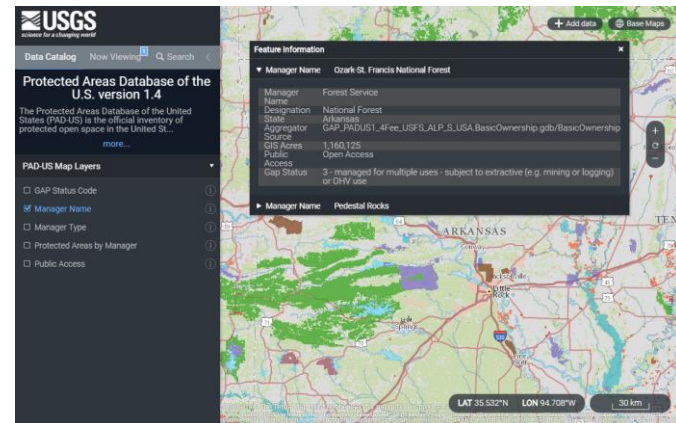


Get PAD-US data

Data downloads



Online mappers



Protected Areas (PAD-US) – Version 1.4 web services

- All Protected Areas – Green
- Terrestrial Protected Areas – Gray
- Terrestrial Protected Areas – Green
- Easements
- Categories – Fee, Easement, Other, MPA
- Categories – Fee, Easement, Other
- Public Open Space
- Public and Private Open Space
- Public Access
- General Agency Level
- Mid Agency Level
- Fine Agency Level
- Federal Management Agencies
- Federal, Tribal, Other

Downloadable print map files

All Managers



poster-sized (.pdf)
for print/web (.jpg)

Federal Managers



poster-sized (.pdf)
for print/web (.jpg)

Protection Status:



poster-sized (.pdf)
for print/web (.jpg)



More Info

<https://gapanalysis.usgs.gov/padus/>

USGS
science for a changing world

National Gap Analysis Project (GAP) | Protected Areas Data Portal

USGS Home
Contact USGS
Search USGS

Search this site. Go Sitemap

GAP HOME | **PAD-US HOME** | VISION | VIEWER | DATA | PARTNERS | RESOURCES | NEWS | CONTACTS

Protected Areas Database of the U.S. (PAD-US) - Land Management

Enhancing data for protected areas in the U.S.

We are creating a spatially explicit inventory that lets any user – from the general public to professional land managers – know exactly what lands are protected anywhere in the United States and allows them to easily use this inventory in conservation, land management, planning, recreation and other uses.

[Learn more: Download PAD-US Factsheet »](#)

Best Data Practices

California

The California Protected Areas Database (CPAD) contains GIS data about lands that are owned in fee and protected for open space purposes by almost 1,000 public agencies or non-profit organizations. Download a flyer describing CPAD. ... [Learn more >>](#)

PAD-US News

- Mapping Public Lands in the United States >>
- New Report Released: Completing America's Inventory of Public Parks and Protected Areas: An Action Plan for 2016-2020 >>
- Webinar Recording Available for PAD-US Presentation to LCCs >>
- Interior's Office of Policy Analysis Seminar to Feature PAD-US >>

Access PAD-US Data

- [DOWNLOAD DATA](#)
- [PROTECTED AREAS VIEWER](#)
- [DOWNLOAD MAPS](#)
- [WEB SERVICES](#)

www.protectedlands.net

ProtectedLands.net

A Resource for the Protected Areas Database of the United States (PAD-US)

Map Data Uses Vision Partners News About

PAD-US GIS data supports biodiversity, recreation, health, energy siting and many other uses.

[Explore the Map](#) [Be a Data Partner](#) [Download Data, Reports](#) [For Developers](#)

The **Protected Areas Database of the United States (PAD-US)** is the national inventory of America's parks and other protected lands, and is published by the **USGS Gap Analysis Program**.

ProtectedLands.net showcases uses of PAD-US and provides additional information about the data.

How PAD-US is Being Used

- Energy sites that protect natural resources
- Parks and wilderness next to cities
- Access to active living and recreation

ProtectedLands.net is a project of **GreenInfo Network**, a nonprofit technology support organization. This web site is a supplement to the **USGS PAD-US** web site, not an official USGS web site.

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Read about PAD-US vision

www.protectedlands.net/vision



1. STARTING POINTS — RATIONALES AND USER NEEDS

Overview of Data Needed

Why We Have Public Parks and Other Protected Areas

The Value of Having a Complete Inventory

What User Needs Should the Inventory Support?

2. ABOUT PUBLIC PARKS AND PROTECTED AREAS DATA

Concepts and Terms

About Spatial Inventories

Structure of a Parks and Protected Areas Inventory

Who's Who

3. THE PROTECTED AREAS DATABASE OF THE U.S. (PAD-US)

The Status of PAD-US

The State of PAD-US by State

How PAD-US Is Developed

The Structure of PAD-US

Data Related to PAD-US

PAD-US: What More Is Needed?

4. RECOMMENDED PRACTICES

General Principles

Data Framework

Management System for Data

5. ACTION PLAN - Tasks, Funding and Sources

Federal Lands Working Group - an interagency success story



PAD-US Federal Lands VISION



Complete Accurate Standardized Annual

aggregation of federally owned lands and waters

with management designations to fulfill **common agency needs**

Aiming for: full parcel-based inventory + automated updates



Federal Lands Working Group (FLWG)

14 agencies collaborating to develop federal parcel ownership database

<https://communities.geoplatform.gov/ngda-govunits/federal-lands-workgroup/>

Integrating Federal Lands into PAD-US

Geospatial and realty professionals from land management (USFS, BLM, NPS, FWS, BOEM, BIA, USBR, NRCs, DoD, USACE, NOAA) and other federal agencies (USGS, Census, NWS) are working to integrate federal ownership and management boundaries to fully common agency needs.

Formed in October 2011, the FGDC Federal Lands Working Group is a subgroup of the National Boundaries Group (NBG). Based on the development and annual publication of a cadastral geodatabase of aggregated federal lands and waters.

FY 2018 Goals:

- Automate the translation of agency data into the PAD-US format
- Contribute to the next PAD-US update, published by USGS
- Assess and improve inventory completeness
- Assess and improve the compatibility of core attributes between agency datasets
- Implement standard ID system for links to other databases
- Identify and correct boundary overlaps to produce a "flat" file
- Share FLWG goals and accomplishments through outreach

FY 2017 Accomplishments

- Aggregated federal land ownership and management boundaries and characteristics into the PAD-US 2.0
- Automated the translation of USFS, NPS, and USBR data into PAD-US format
- Developed a tool to identify and resolve boundary overlaps and other errors
- Significantly reduced boundary overlap errors between agency datasets, identified new priorities
- Estimated inventory completeness and developed agency reports to document source data
- Expanded outreach to include OCS, BIA, and NOAA, in addition to the last group of Public Lands
- Maintained monthly calls, annual meetings and agency contacts

GeoPlatform | Governmental Units

Federal Lands Workinggroup

Current Fact Sheet

[NGDA Datasets](#)
[Theme Strategic Plan](#)
[Theme Implementation Plan](#)
[FGDC Address Standard Wiki](#)

Federal Lands Workinggroup

Geospatial and realty professionals from land management (USFS, BLM, NPS, FWS, BOEM, BIA, USBR, NRCs and DoD) and other federal agencies (USGS, Census, NWS) are working to integrate land ownership and management boundaries to fulfill common agency needs.

Formed in October 2011, the FGDC Federal Lands Working Group (FLWG) is a subgroup of the National Boundaries Group (NBG), focused on the development and annual publication of a cadastral geodatabase of aggregated federal lands.

Objectives:

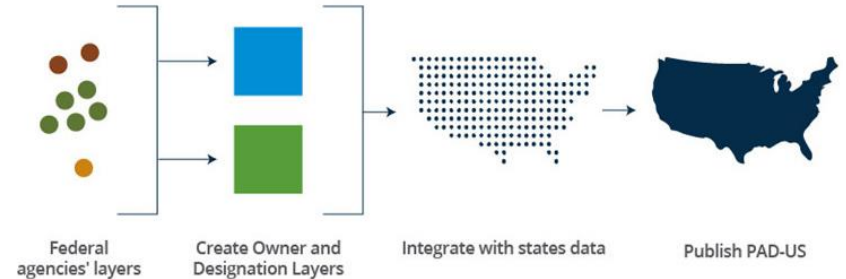
- Automate the translation of authoritative source data into the PAD-US format
- Contribute to the next PAD-US update, published by USGS
- Assess and improve inventory completeness

Upcoming Webinar meetings:

- Wed, June 13th (3-4 EDT)

FLWG drives data quality

- **Aggregated** data sets are only as good as **inputs**
- Federal lands in PAD-US come directly from **agencies**
- **FLWG** is THE coordinating framework for federal lands and waters
- Each agency has a data steward or team – need **support** to ensure the best inputs to PAD-US and agency use



Find public land recreation with PAD-US

Bob Ratcliffe

Chief, Conservation and Outdoor Recreation, NPS



Find recreation with PAD-US

Federal Recreation Council

- **Coordination** for land/water managing agencies
- Support **outreach** for tourism, improve **management** for recreation



Find recreation with PAD-US

1980s map of federal recreation – time for an **update!** (with better data, too...)



New poster map/brochure w PAD-US 2.0!

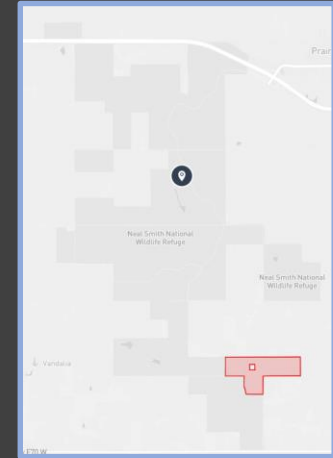
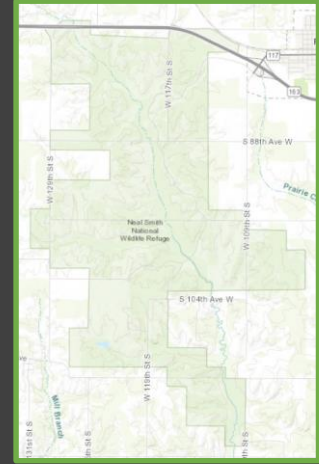
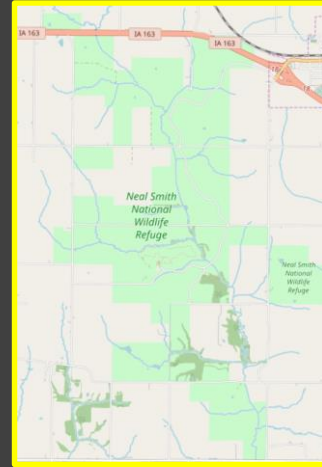
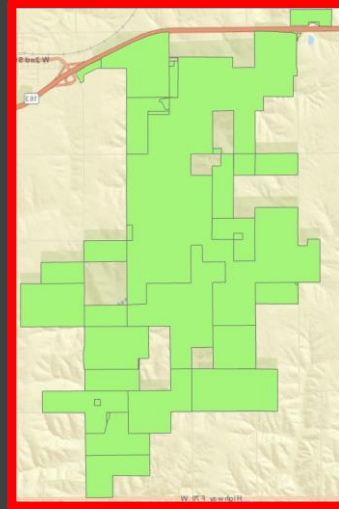
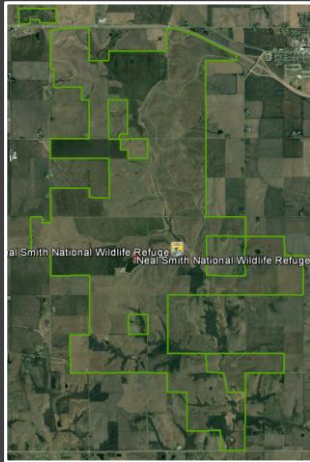


Find recreation with PAD-US

- **How to get** the Federal Recreation brochure?
 - <http://www.protectedlands.net/uses/>
- **Next steps:**
 - PAD-US goal – have full inventory by 2020
 - Full inventory will be an asset for Recreation.gov



FLWG drives data quality — Guidance to basemap providers



FLWG Benefits Summary

- Most questions start with **where**?
- Develops **foundational** dataset – PAD-US
- Fosters broad **cooperation** – DOI, Ag, Commerce, DOD, etc.
- Facilitates **vision** across admin boundaries
- Provides **authoritative** data
- Supports vertical **integration** – no gaps and overlaps
- Helps produce **scale** independent product

DOI Seminar – FLWG Panel

- Hear more stories from the FLWG
- Includes info re agency source data development
- Department of the Interior Office of Policy Analysis Seminar:
- <https://livestream.com/accounts/3723018/events/8246532/player?enableInfoAndActivity=true&defaultDrawer=&autoplay=true&mute=false>

How you can help build PAD-US

- **Support** agency data stewards, push to develop data quality
 - FLWG making great progress for federal data
 - Next step - help more states do better (State Lands Working Group, etc.)
- **Share** PAD-US 2.0 release when USGS announcement is available
- Let us know **how you use** the data (or improvements needed)

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Discussion

Your turn!

PAD-US

THE USGS PROTECTED AREAS
DATABASE OF THE UNITED STATES