



Disadvantaged Community Mapping Tool

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Overview

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Definition

Disadvantaged Community (DAC):

A community with an annual MHI that is less than 80% of the Statewide annual MHI (PRC §75005 (g))

DAC and IRWM – What's the Connection?

IRWM Plans

- CWC §10540 requires that: IRWM Plans “shall address.....the Identification and consideration of the water-related needs of DACs in the area within the boundary of the Plan”

IRWM grant program

- DWR encourages DAC participation in IRWM through its grant program by:
- Giving preference to proposals that address critical WS or WQ needs of DACS (Program Preference) PRC §75026.(b)(6)
- DAC Funding Target
- Funding Match Waiver

The data behind the DAC Mapping Tool

The American Community Survey



Formerly: MHI included in Decennial Census (US Census Bureau)

- last included in Census 2000

Replaced by: **American Community Survey (ACS)**

(for socioeconomic data collection)

A nationwide, household survey conducted on a continuous basis (by US Census Bureau)

- began surveys in 2005

The data behind the DAC Mapping Tool

The American Community Survey

ACS MHI data are published for many “census geographies” including:

- Counties, Census: Places, Tracts & Block groups



Census Tracts – subdivisions of County
4,000 people



... with Block Groups - subdivisions of tracts
1,500 people

The data behind the DAC Mapping Tool

The American Community Survey

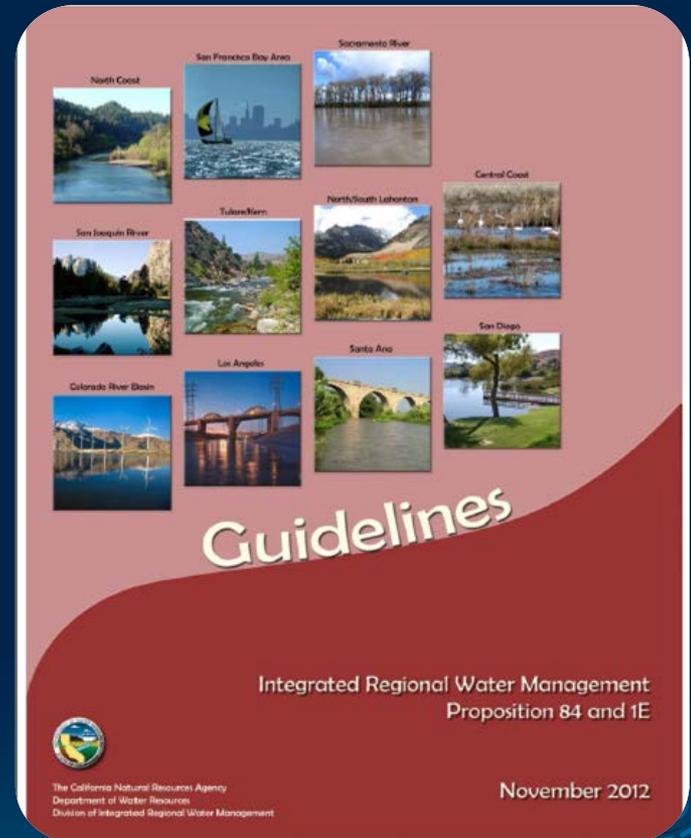
1-year estimate	3-year estimates	5-year estimates
12 months of data	36 months of data	60 months of data
populations of 65,000+	populations of 20,000+	Data for all areas/ populations of almost any size
Smallest sample size	Larger sample size than 1-year	Largest sample size
Less reliable than 3-year or 5-year	More reliable than 1-year; less reliable than 5-year	Most reliable (statistically)
Most current data	Less current	Least current
Best when	Best used when	Best used when
Analyzing large populations	Analyzing smaller populations Examining smaller geographies because 1-year estimates are not available	Analyzing very small populations Examining tracts & other smaller geographies as 1-year & 3-year estimates not available

ACS combines data & releases 1-year, 3-year & 5-year data products
EVERY YEAR

Tracts & block group data released in 5-year data products
ONLY

What do the IRWM Guidelines recommend?

"The applicant may use ACS MHI data at the Census Place, tract or block group geographic levels to show whether a project serves a DAC, based on the geography that is the most representative for that community."



DAC Mapping Tool – Why Developed?

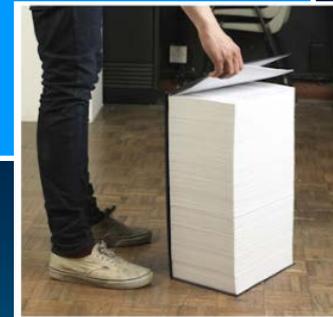


Accessing published MHI data from US Census website can be cumbersome for non-experts



Some ACS data are published through:

- American FactFinder (AFF) website (no block group data)
- ACS Summary File (all data)
 - Technical manual warns.... "*Experienced users only*"



DAC Mapping Tool designed to make ACS/MHI data more accessible

DAC Mapping Tool – Overview

❖ Key Features – 1st choose the map

<http://www.water.ca.gov/irwm/grants/resourceslinks.cfm>

DAC Maps

Note: Maps may take 25-45 seconds to load. However, if using an older web browser with slow internet speeds, recommended to use Internet Explorer 9 or newer, or Google Chrome as the web browser.

For guidance on how to use the maps and additional information view the following ReadMe File. [\[PDF\]](#) (85 KB)

- [Map 1: DACs - Alameda County to Lassen County \(18 Counties\) - Beta 1.0](#)
- [Map 2: DACs - Los Angeles County \(1 County\) - Beta 1.0](#)
- [Map 3: DACs - Madera County to Riverside County \(14 Counties\) - Beta 1.0](#)
- [Map 4: DACs - Sacramento County to San Diego County \(4 Counties\) - Beta 1.0](#)
- [Map 5: DACs - San Francisco County to Santa Clara County \(6 Counties\) - Beta 1.0](#)
- [Map 6: DACs - Santa Cruz County to Yuba County \(15 Counties\) - Beta 1.0](#)

GIS Files

- Census Block Groups [\[ZIP\]](#) (47.1 MB)
- Census Tracts [\[ZIP\]](#) (27.1 MB)
- Census Places [\[ZIP\]](#) (8.9 MB)

**For questions or comments on use of the DAC mapping tool, please submit an email to: DWR_IRWM@water.ca.gov.
Tool.**



DAC Mapping Tool Overview

➤ Development

- Web-based & interactive - by DWR
- ESRI's ArcGIS Online
- Need URL & web access - No special software* or GIS skill needed
- ACS 5-year 2006-2010 data
- Identify DACs at place, tract & block group level
- Estimate: 80% of statewide annual MHI is \$48,706

DAC Mapping Tool – Overview

Key Features:

- Turn on/off as needed
 - Census places, tract, and block group layers
- Search feature
- Different base maps
- Pop-ups - click map feature for data (layer must be turned on)
- Standard zoom/pan functions
- Print

Note: Default when open: only DAC
“Census Places” layer on

The screenshot displays the ArcGIS web application interface for the DAC Mapping Tool. The browser address bar shows the URL: www.arcgis.com/apps/OnePane/basicviewer/index.html?appid=4a79fb45ca314c7f9. The page title is "DACs - Madera County to Riverside County (14)". The interface includes a "Layers" panel on the right with the following items:

- Census Places (Statewide) - Non DAC
- Census Places (Statewide) - DAC
- Tracts - Counties include: Madera to Orange
- Tracts - Counties include: Placer to Riverside
- Block Groups - Counties include: Madera to Nevada
- Block Groups - County includes: Orange (1 of 2)
- Block Groups - Counties include: Orange (2 of 2)
- Block Groups - Counties include: Placer to Plumas
- Block Groups - County includes: Riverside (1 of 2)
- Block Groups - County includes: Riverside (2 of 2)

The map shows a red-shaded area representing the DAC region, with labels for "Wintner", "Merced", and "Merced College". A "Details" panel is open, showing the "Census Places (Statewide) - DAC" layer. A data pop-up window is visible, displaying the following information:

FID	133
PLACEFP10	46898
PLACENS10	02411080
GEOID10	0646898
NAME10	Merced
NAMELSAD10	Merced city
INTPLAT10	+37.3055770
INTPLON10	-120.4711470
Pop	77,080
MHI	36,269
HH	23,753
DAC	Y

A red circle highlights the "Pop", "MHI", "HH", and "DAC" rows in the pop-up window. A red arrow points from this circle to a summary pop-up window at the bottom of the screen, which displays the following data:

Pop	77,080
MHI	36,269
HH	23,753
DAC	Y

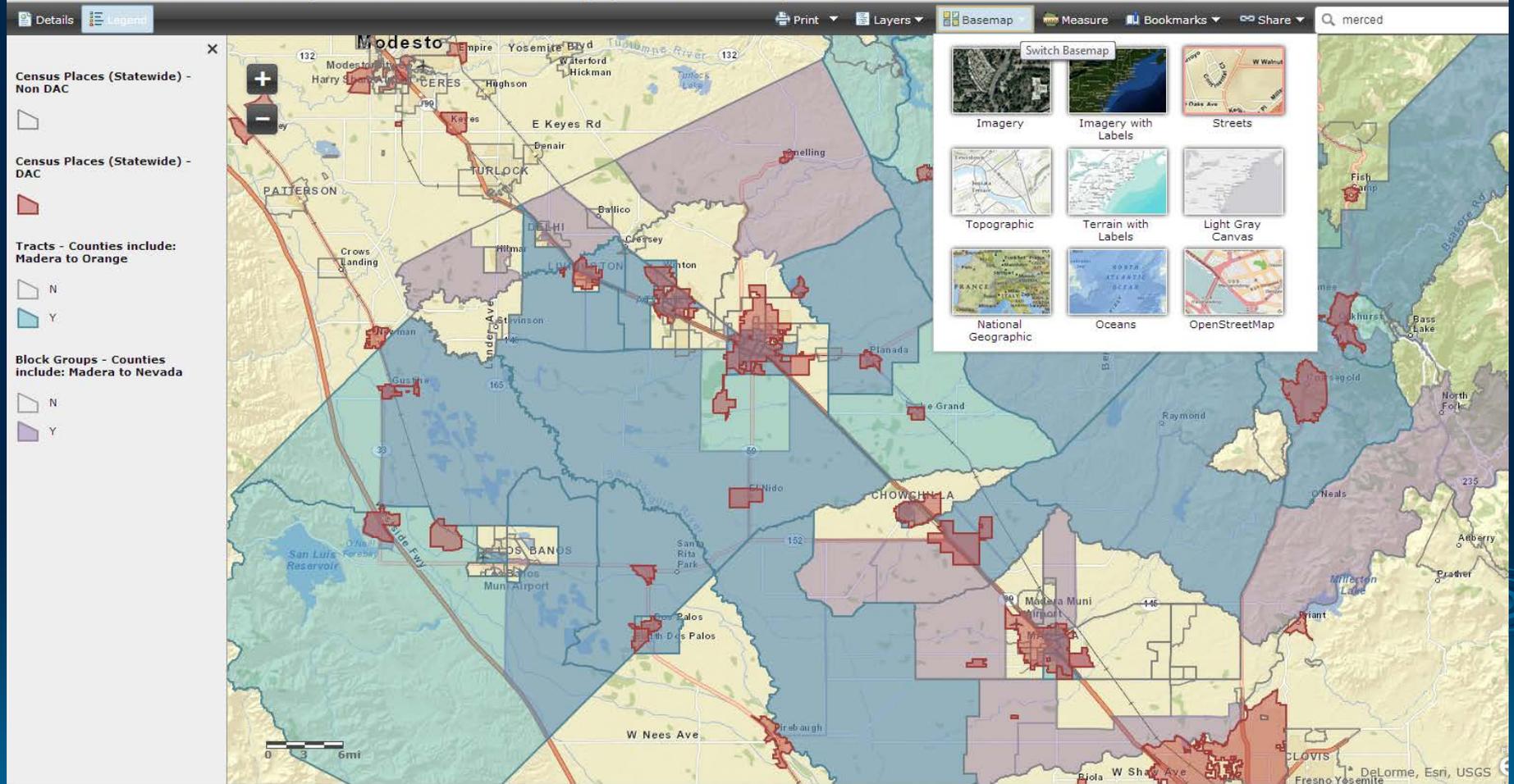
DAC Mapping Tool – Overview

The screenshot displays the DAC Mapping Tool interface. The top navigation bar includes 'Print', 'Layers', 'Basemap', 'Measure', 'Bookmarks', 'Share', and a search bar containing 'merced'. The 'Layers' panel on the left lists various data layers with checkboxes: 'Census (Display layer list) - Non DAC', 'Census Places (Statewide) - DAC', 'Tracts - Counties include: Madera to Orange', 'Tracts - Counties include: Placer to Riverside', 'Block Groups - Counties include: Madera to Nevada', and several 'Block Groups - County includes' options for Orange, Placer to Plumas, and Riverside counties. A red circle highlights the 'Block Groups - Counties include: Madera to Nevada' layer, and a red arrow points from the search bar to this layer. The 'Basemap' panel on the right shows a 'Switch Basemap' dropdown and nine basemap options: Imagery, Imagery with Labels, Streets, Topographic, Terrain with Labels, Light Gray Canvas, National Geographic, Oceans, and OpenStreetMap.

- Select the layer(s) to turn on or off
- Search for town/autozoom
- Change basemap

DAC Mapping Tool – Overview

DACs - Madera County to Riverside County (14 Counties) - Beta 1.0



DAC Mapping Tool – Limitations

Map files are large which means:

Maps slow to load (25-45 seconds)



Maps may not load if using an older browser/slow internet connection

(contact DWR)

Use Google Chrome (1st choice), or IE9 or newer, as your web browser



When will DWR update dataset/mapping tool?

DWR will not update ACS data set until early 2014

Will include ACS 2008-2012
5-yr data

Will correspond to CWP
2013 update/needs



Mapping tool currently in "Beta" – and will be updated as performance improvements are available

Other Data Sources are Available to determine DAC status

GIS files used in tool are available to download (DWR)

- Statewide Coverage (Census: Place, Tract, Block Group)

Using different MHI data may be appropriate:

- Newer data set (ACS 2007-2011) released Dec. 2012
- Different geography (zip code, school district, etc.)
- 3rd party surveys
- Consult Appendix G of 2012 IRWM Guidelines

Useful Web Links... ...and Questions:



➤ DWR

- DAC Mapping Tool and GIS Data:
<http://www.water.ca.gov/irwm/grants/resourceslinks.cfm>
- IRWM Proposition 84/1E Guidelines:
http://www.water.ca.gov/irwm/grants/docs/Guidelines/GL_2012_FINAL.pdf

➤ US CENSUS BUREAU

- Homepage: <http://www.census.gov/>
- American FactFinder:
<http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>
- American Community Survey: <http://www.census.gov/acs>



Contact: Tanya.Meeth@water.ca.gov or (916) 651-9227