

MAKING YOUR OWN DATASET VIDEO

1. Watch [this video](#) to learn how to make your own Water Conservation Data Jam dataset.
2. If needed, refer back to the following instructions for reminders of each step.

FINDING YOUR LOCAL WATER USE DATA - NEW MEXICO

Water Use by Categories Data from New Mexico Office of the State Engineer Water Use Technical Reports and Data

1. Download the [spreadsheet template here](#).
2. Go to this website: https://www.ose.state.nm.us/WUC/wuc_waterUseData.php.
3. Scroll down to find "County Data," and click on the desired year. Click on your county.

County Data	River Basin Data
2015 Data by County	2015 Data by River Basin
2010 Data by County	2010 Data by River Basin
2005 Data by County	2005 Data by River Basin
2000 Data by County	2000 Data by River Basin
1995 Data by County	1995 Data by River Basin
1990 Data by County	1990 Data by River Basin

New Mexico Water Use Data 2015 by County		
COUNTIES		
Bernalillo	Harding	Roosevelt
Catron	Hidalgo	Sandoval
Chaves	Lea	San Juan

4. The example below is the data table from Bernalillo County 2015. Find the Total Withdrawals column (TW).

Summary of water use in acre-feet in Bernalillo County, 2015.					
CN	COUNTY	CATEGORY	WSW	WGW	TW
1	Bernalillo	Commercial (self-supplied)	0	6,352	6,352
1	Bernalillo	Domestic (self-supplied)	0	1,440	1,440
1	Bernalillo	Industrial (self-supplied)	0	1,417	1,417
1	Bernalillo	Irrigated Agriculture	36,646	2,543	39,189
1	Bernalillo	Livestock (self-supplied)	5	58	63
1	Bernalillo	Mining (self-supplied)	0	114	114
1	Bernalillo	Power (self-supplied)	0	288	288
1	Bernalillo	Public Water Supply	52,720	44,884	97,607
1	Bernalillo	Reservoir Evaporation		0	0
County Totals			89,371	57,096	146,470

Key: CN=county number; WSW=withdrawal, surface water; WGW=withdrawal ground water; TW=total withdrawal.

5. Copy and paste the values for each water category into the spreadsheet template. Copy the following values directly: Irrigated Agriculture (Agricultural Use), Livestock (Livestock Use), Commercial (Commercial Use), and Power (Power Use). Combine the value for Domestic and Public Water Supply to get the value for Residential Use. Combine Industrial and Power to get the value for Industrial and Power Use.

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FINDING YOUR LOCAL PRECIPITATION DATA

Precipitation Data (NOAA, interactive tool updated daily)

1. Go to this website: <https://www.ncdc.noaa.gov/cag/county/mapping>

2. Change the settings to the following:

- a. State: New Mexico
- b. Parameter: Precipitation
- c. Year: 1995, 2000, 2005, 2010, 2015
- d. Month: December
- e. Time Scale: 12-Month

County Mapping

Choose from the options below and click "Plot" to create a map. Selected [Precipitation Maps](#) are available for download.

State: Please note, Data not available for some counties.

Parameter:

Year:

Month:

Time Scale:

3. Click "Plot" to access your data. Find your county and the precipitation value column in inches. Copy and paste the values from each year into the Precipitation column on your spreadsheet.

COUNTY	VALUE	RANK 126 YEARS	ANOMALY	1901-2000 MEAN
Bernalillo County, NM	16.74"	121	4.73"	12.01"
Catron County, NM	19.35"	108	3.49"	15.86"
Chaves County, NM	19.61"	113	5.73"	13.88"
Cibola County, NM	16.58"	111	3.49"	13.09"
Colfax County, NM	22.81"	124	5.87"	16.94"
Curry County, NM	28.40"	124	11.48"	16.92"
De Baca County, NM	23.21"	123	9.07"	14.14"
Dona Ana County, NM	12.82"	113	3.16"	9.66"

ADDING YOUR DATA TO CODAP

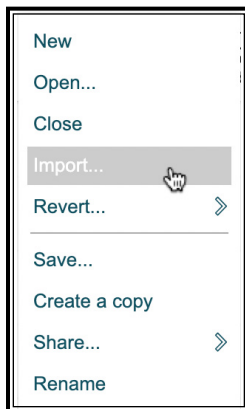
1. Save your data spreadsheet as a comma delimited (.csv) file.

2. Go to this website: <https://codap.concord.org/>

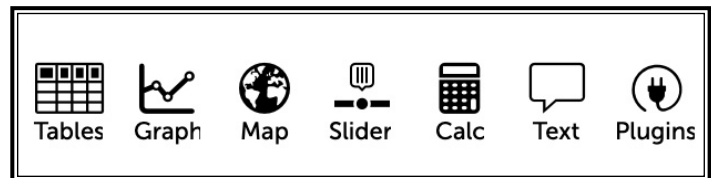
3. Click "Launch CODAP" in the upper right corner, and then click "Create New Document."



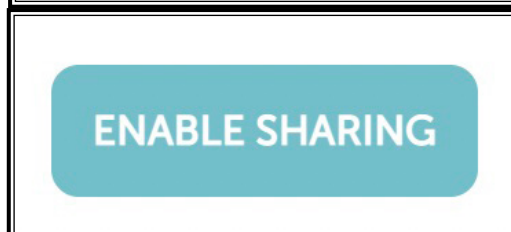
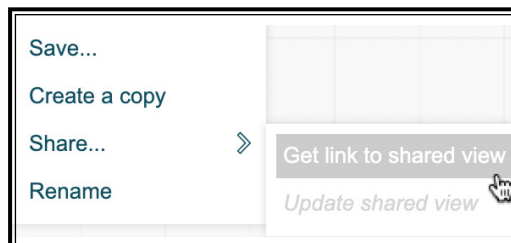
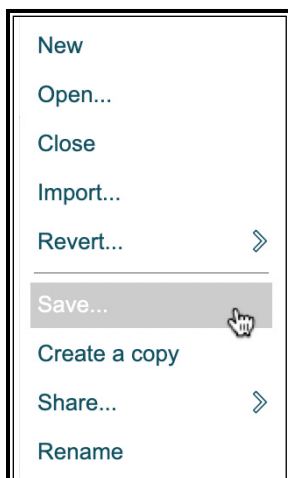
4. Use the menu in the top left corner and click "Import," then select your .csv file. Your data table will appear, and you can format it as needed.



5. As needed, add additional tables, graphs, maps, sliders, a calculator, or text using the menu bar at the top. If you are uncertain about what to add or whether to add additional features, [watch the video](#).



6. Save your file to Google Drive (recommended) or a local file. To share your CODAP page, click "Share," "Get link to shared view," and "Enable Sharing." A link will be generated that you can share, or use the embed code to embed into a website.



MAKING YOUR OWN DATASET VIDEO TRANSCRIPT

Brought to you by the Asombro Institute for Science Education.
[background music]

This video will show you how to download local water use data, prepare the data using Excel, and create your own data set page in CODAP.

To prepare an Excel spreadsheet for your data, your first column should be years: every five years from 1995 to 2015. Then you should have the water use categories: residential, agricultural, livestock, commercial, industrial and mining, and power. You'll also need precipitation in inches and human population.

To download data on water use in your county, go to the New Mexico Office of the State Engineer Water Use Technical Reports and Data website. You can find the link in the description below. Scroll down and you'll see data by county for different years. Start by clicking on 2015 data by county. Select your county from the list. We'll show you Doña Ana County as an example.

You're looking for total withdrawals or "TW" for each water use category. Copy these values directly into your spreadsheet: agricultural, livestock, commercial, and power. To calculate residential water use, you'll add domestic plus the public water supply. Industrial and mining will also be added together. You'll follow the same steps for 2010, 2005, 2000, and 1995. Some of the older reports may look a little different, so make sure you're always using the total withdrawals or "TW" column.

Once you've added the water use data from all five years to your spreadsheet, you'll find annual precipitation data from your county. You can find this using NOAA's climate at a glance tool using the link in the video description.

You'll also add human population data from your county, which can be found from the U.S. Census Bureau.

Make sure your columns are labeled appropriately with units!

To import your data into the Common Online Data Analysis Platform, or CODAP, you'll need to save your spreadsheet as a comma-delimited or dot-CSV file. Click "Save As," and under file format select comma-delimited. Then you can import the file directly into CODAP.

Go to codap.concord.org and click "Try CODAP." Click "Create New Document" and to import your data, select "Import" and select your CSV file or drag it and drop it. You'll see your data table appear, and now you can edit it. Drag out your columns wide enough so you can see them. Click to change the title of your data table to "Water Use by Categories and Other Variables."

Create a text box by clicking "Text." We added a description of what an acre-foot is.

Make a blank graph that students can manipulate. To find a data trend, click "Graph." Drag your empty graph to where you want it and resize it. Drag year to the x-axis and leave the y-axis blank so students can drag different variables to it. Change the title of the graph to "Water Use."

To save your data set, click "Save," and you have the option to save it to a Google Drive, which we recommend, or a local file. Now you're ready to share your CODAP page so students can access it. Click "Share." Get a link to shared view and enable sharing. It'll give you three options to share your page. You can share it via a link, or if you have a website for your class, you can embed it into a webpage using the embed code.

For any questions, the help button in the top right corner has many resources available to you, or you can contact us at Asombro for help.

Good luck creating your own data sets!

[background music]