

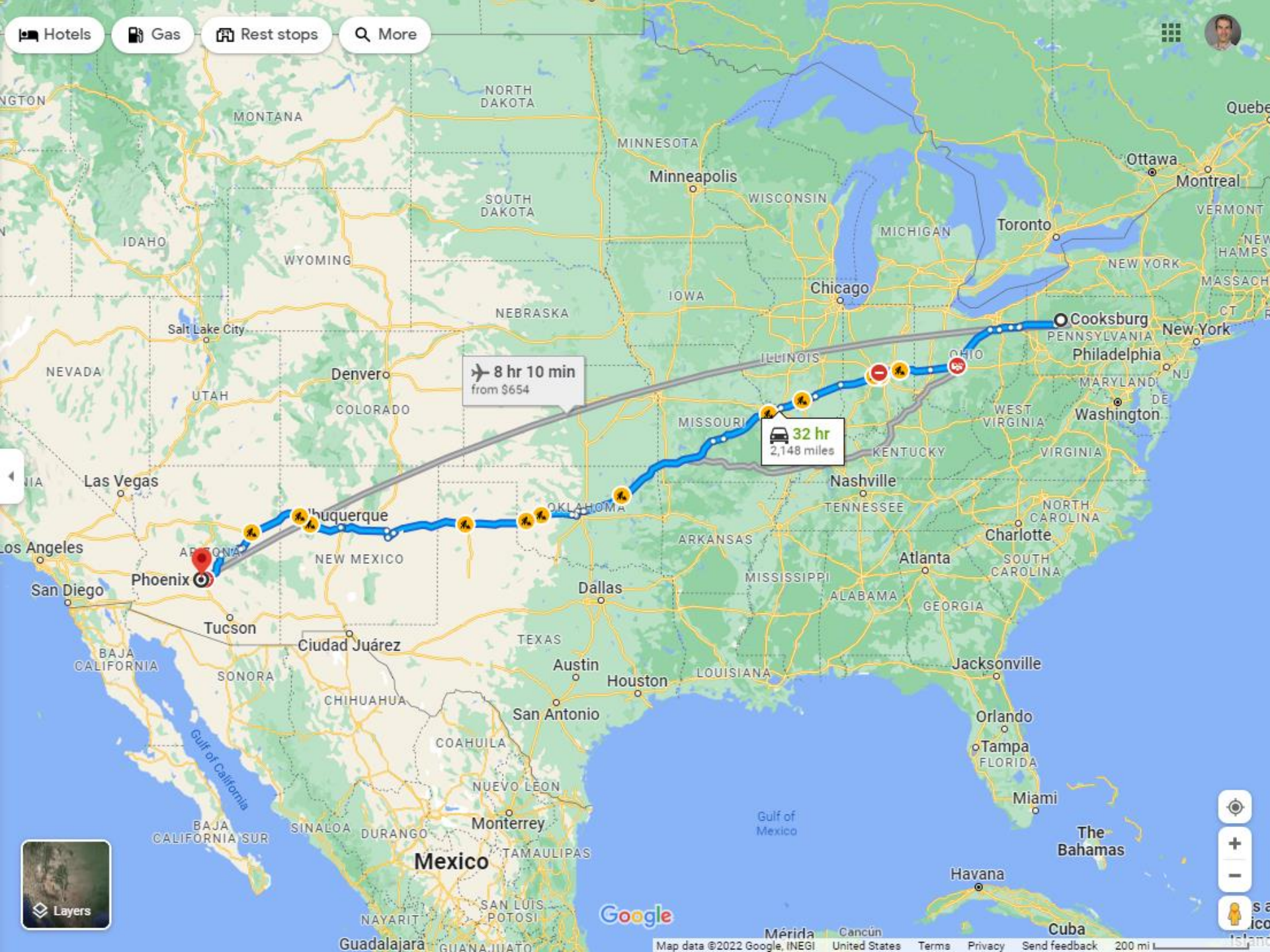
THE VALUE OF PUBLISHED DATA

May 31, 2022

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Monitoring & Assessment Coordinator








✈ 8 hr 10 min
from \$654

🚗 32 hr
2,148 miles



An aerial photograph of a river winding through a dry, hilly landscape. The river's water is a murky, greenish-brown color. The surrounding terrain is covered with sparse, dry vegetation, including small trees and shrubs. A semi-transparent dark grey rectangular box is overlaid on the center of the image, containing white text.

“What water quality data is there for the Verde River?”

A black and white photograph of a river flowing through a wooded area. The river is in the foreground, with a large, smooth rock on the left bank. The water is dark and reflects light, creating a shimmering effect. The background is filled with bare trees and a rocky hillside. The overall scene is serene and natural.

PART 1

The Value of the Water Quality Portal

Assessments From Months to Minutes

Old Way



External Data

1. Gather
(3 months)



AZDEQ Database

2. Format
(6 months)



3. Assess
(4 months)



ID	Name	Water Type	Size	Units	Status
AZ1007102-000A_00	NEW RIVER - NWIR - 9 - MG - MG - 1007102	STREAM	231	Miles	Active
AZ1000001-000_00	Cox Gulch, Run Headwaters to THREE R CANYON	STREAM	3.3	Miles	Active
AZ1000001-000A_00	Little Colorado West Fork, Run Headwaters to GOVERNMENT SPG	STREAM	9.075	Miles	Active
AZ1000001A-1200_00	Saguaro Lake	LAKE FRESHWATER	1002	Acres	Active
AZ1000001A-000_00	FISH CREEK/OVER SALT RIVER BASIN - FISH - 9 - BR - BR - 1000001A	STREAM	136	Miles	Active

4. Send to ATTAINS

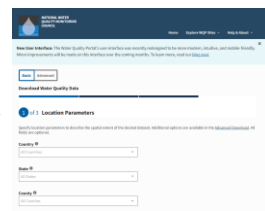
Time = 13 months

New Way



Various Databases

1. Gather
(7 minutes)



Portal

2. Format
(0 minutes)



3. Assess
(5 minutes)

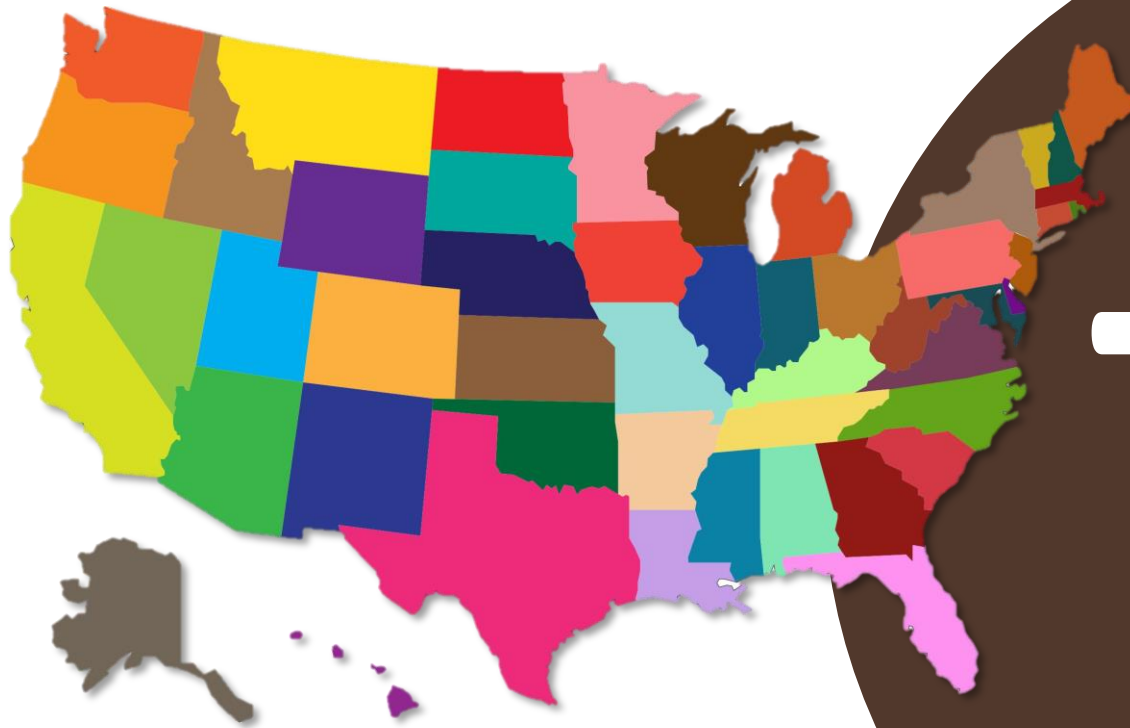


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4. Send to ATTAINS

Time = 12 minutes!

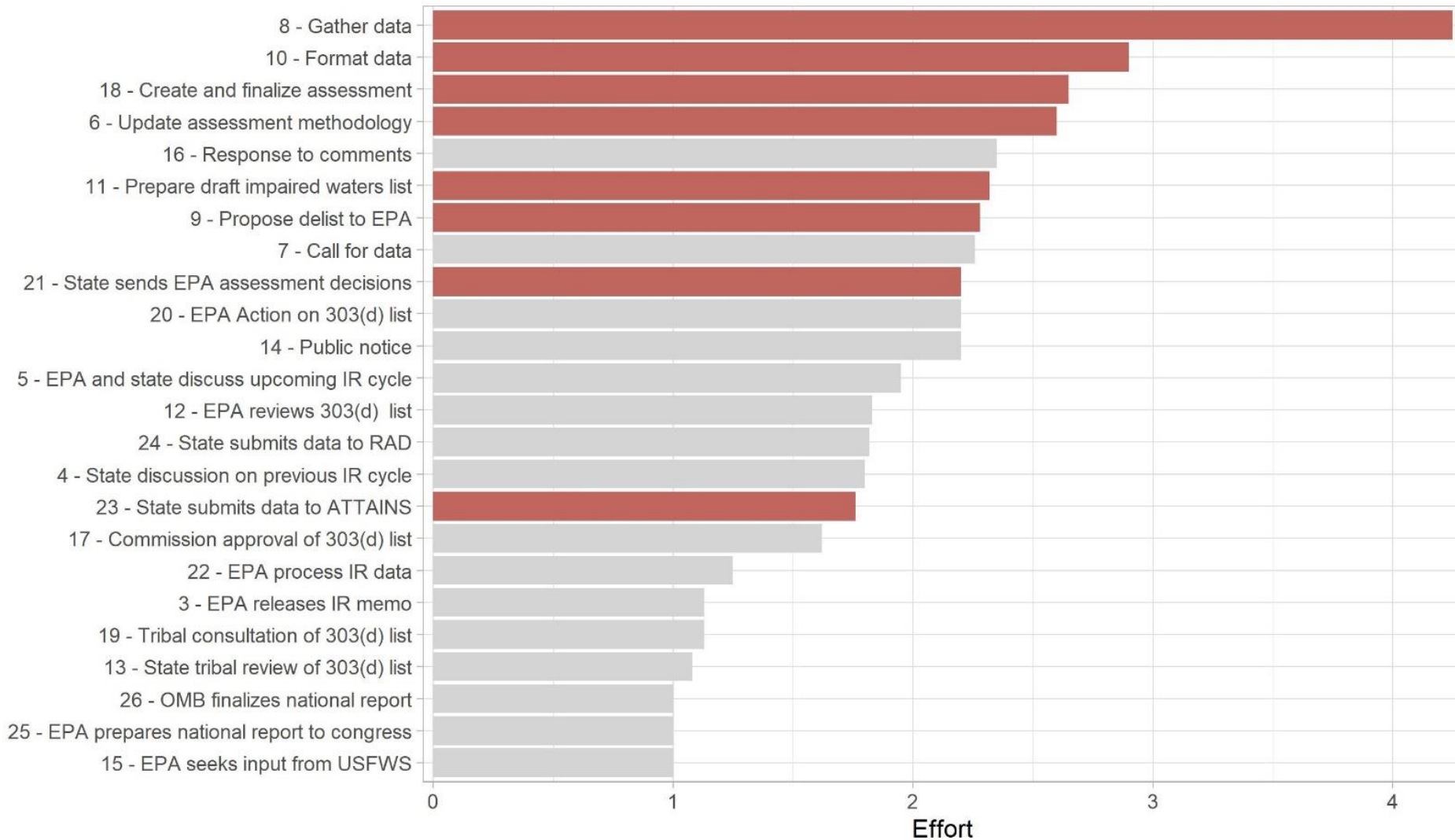
States Who Submitted Their 2020 Assessment On Time



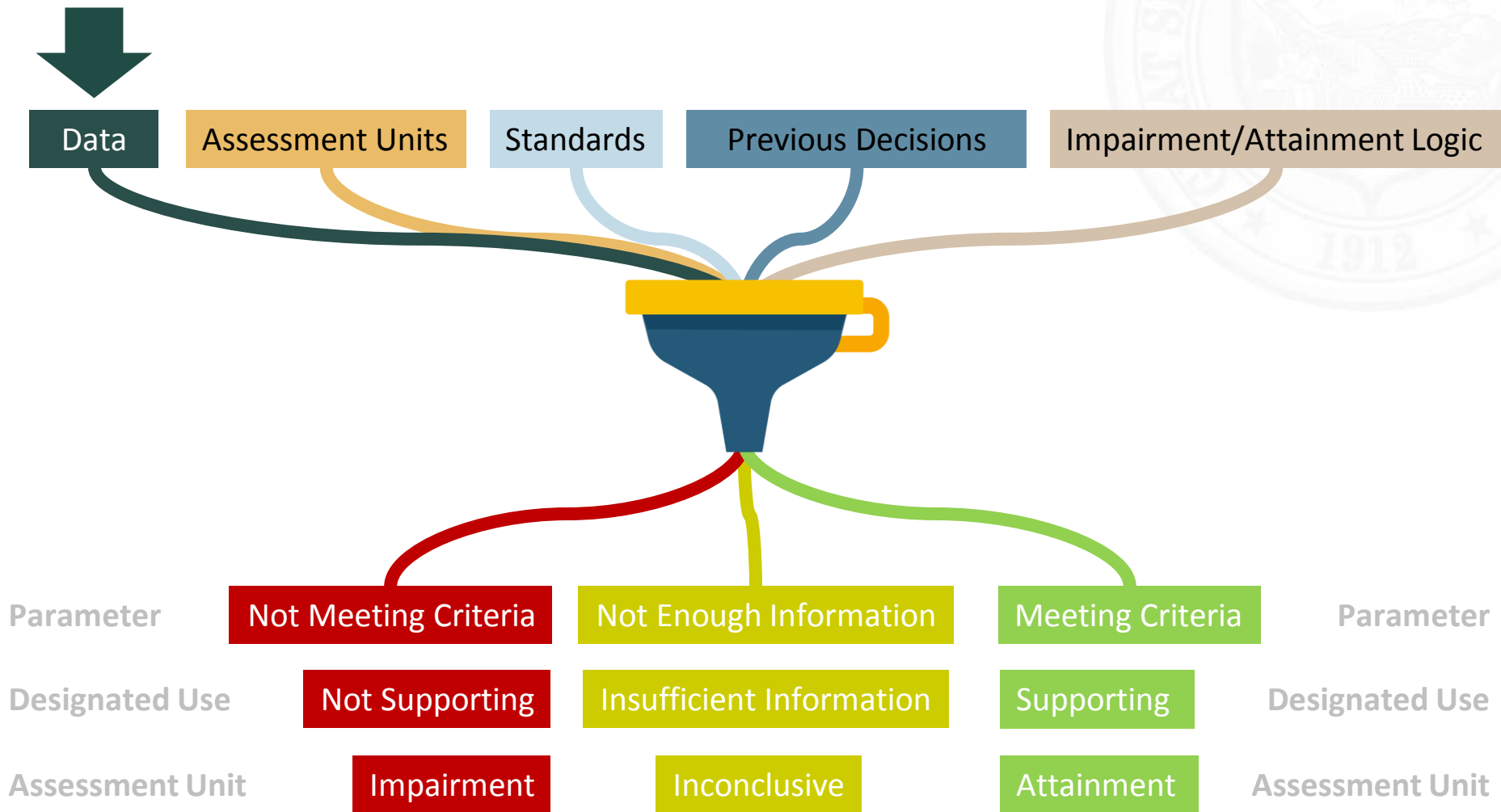
Source: 2020 ECOS Fall Meeting

7%

Technical vs. Administrative



Inconclusives



Select Waterbody

14070006-1130, 15010001-00

Select Active Datagap

- Active Datagap
- Active Other Purpose
- Inactive Datagap

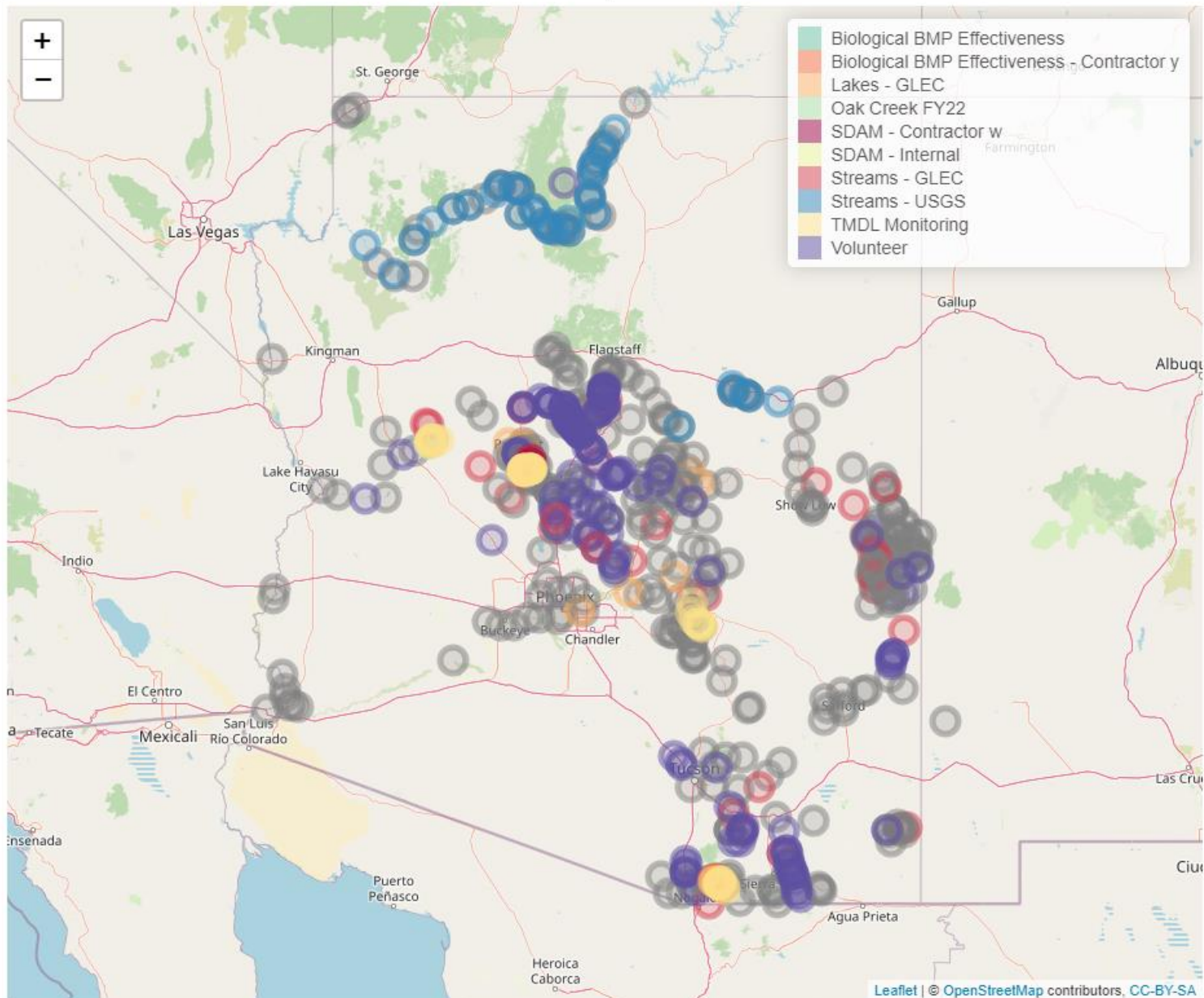
The 'Datagaps' Page is broken down into three sections.

- Itemized Datagaps - Shows **all** inconclusive assessment information at the use level.
- Datagap Summary - Shows what parameters are needed to make a decision.
- Map - Shows where each datagap is located.

"Active" sites are datagaps that ADEQ is currently sampling.

Core parameters and exceedances in the 'Not' column are shaded to help the user see if a 'Insufficient information' decision is due to an exceedance or a missing core parameter.

Itemized Table Datagap Summary Datagap MAP **Project MAP**



Select Waterbody

14070006-1130, 15010001-00

Select Active Datagap

- Active Datagap
- Active Other Purpose
- Inactive Datagap

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Itemized Table Datagap Summary Datagap MAP Project MAP



DatagapSite	DatagapNeeds
All	All
MGSYD009.13	(Total ESCHERICHIA COLI - 1 - Any)
MGTRK004.42	(Total BORON - 1 - done, APR-JUN, done, OCT-DEC),(Total COPPER - 1 - done, APR-JUN, done, OCT-DEC),(Total LEAD - 1 - done, APR-JUN, done, OCT-DEC),(Total MANGANESE - 1 - done, APR-JUN, done, OCT-DEC),(Total PH - 1 - done, APR-JUN, done, OCT-DEC),(Total MERCURY - 1 - done, APR-JUN, done, OCT-DEC)

- Biological BMP Effectiveness
- Biological BMP Effectiveness - Contractor y
- Lakes - GLEC
- Oak Creek FY22
- SDAM - Contractor w
- SDAM - Internal Farmington
- Streams - GLEC
- Streams - USGS
- TMDL Monitoring
- Volunt



Explore Arizona's Assessment Dashboard at

https://azdeq.shinyapps.io/assessment_dashboard_2024_Prod

- Gathering and formatting data takes **minutes not months**
 - One Full Time Employee / 2000 hrs/yr
- No manual **public data requests** (500 hrs/yr)
- **Timely submission** of the CWA assessment
- Dashboard saved **\$400,000** in lab costs.
- **Reduced inconclusives** by over 100 waters!



- In terms of **time** and **money** the portal saves Arizona
 - **2,500** hours per year!
 - **\$200,000** per year!



A black and white photograph of a river flowing through a wooded area. The river is in the foreground, with a large, smooth rock on the left bank. The water is dark and has some white foam or rapids. The background is filled with trees, some of which are bare, suggesting a cooler season. The overall scene is a natural, somewhat somber landscape.

PART 2

Maximizing Value of the Rest of the CWA

Value Gradient

Deaths / Illnesses
from HABS



Standards



Safe to Swim?



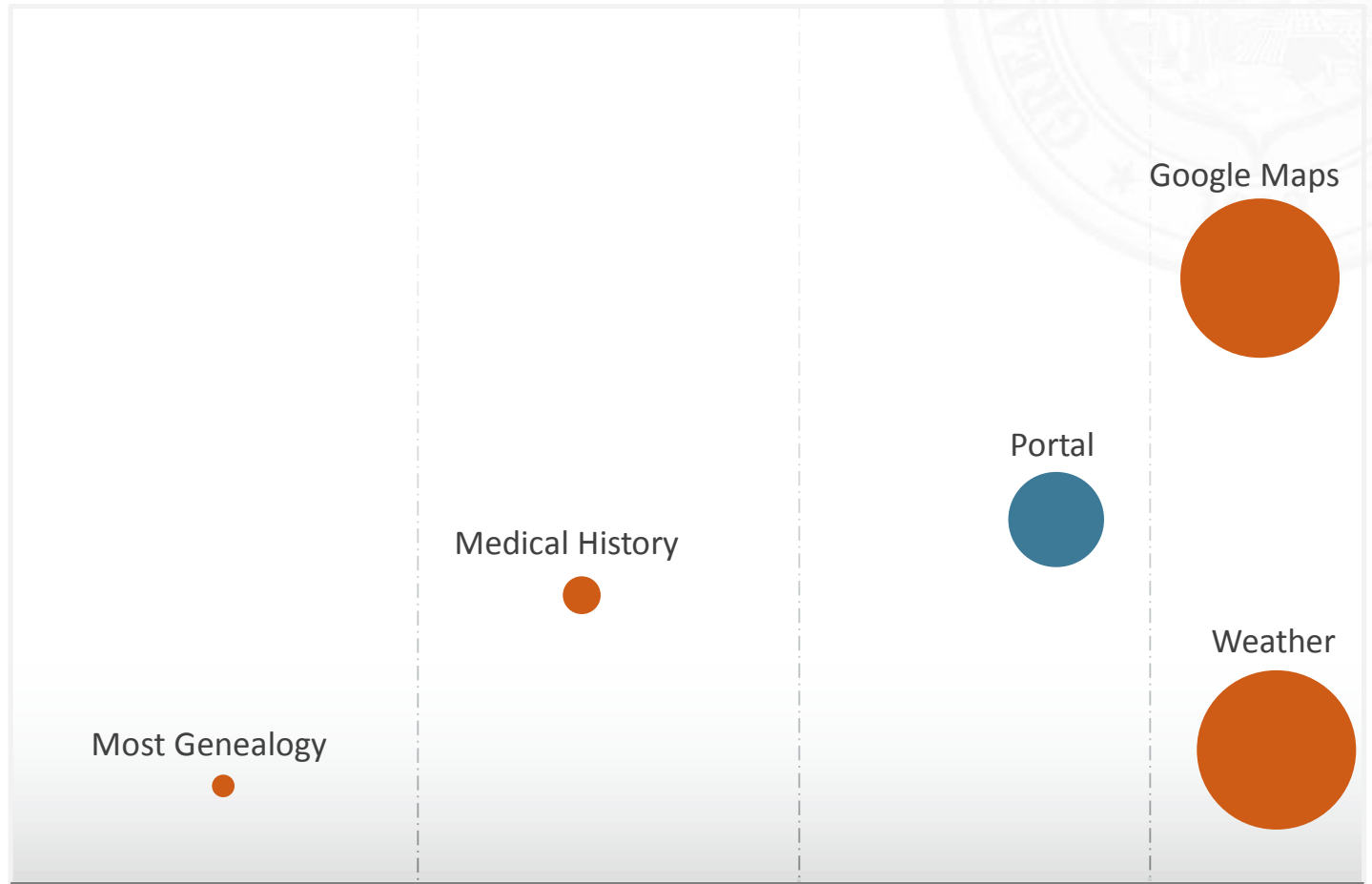
How's My Waterway



ATTAINS



● Less Valuable ● More Valuable



Not Discoverable

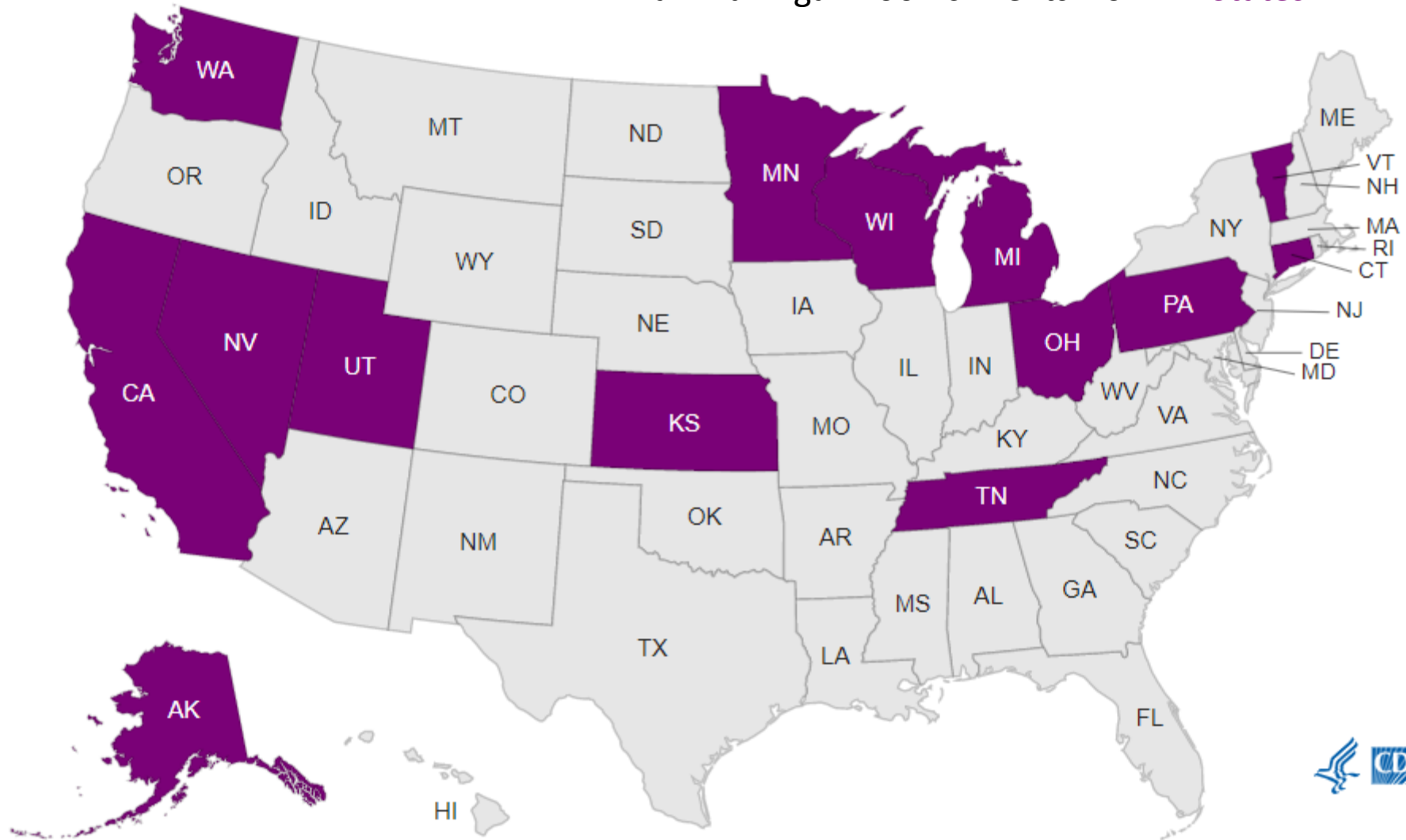
Discoverable

Searchable

Useful

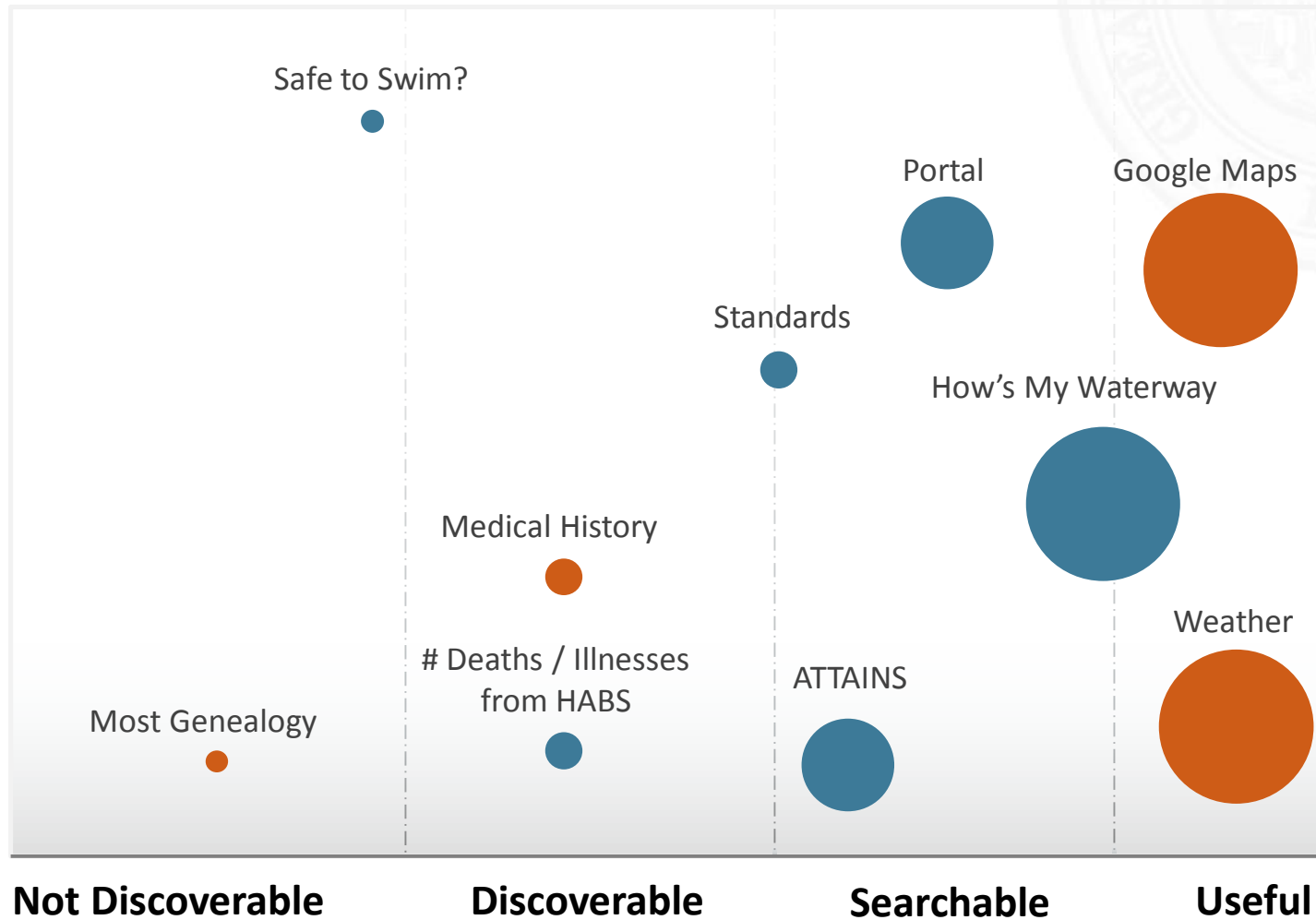
2019 Reported HABS and Illnesses

242 Harmful Algal Blooms Events from **14 States**



Value Gradient

● Less Valuable ● More Valuable





Jason Jones
jdj@azdeq.gov

Arizona' Assessment Dashboard
https://azdeq.shinyapps.io/assessment_dashboard_2024_Prod/