

Tx. 

Building the Texas Water Data Hub ()

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Texas Water Development Board

Presentation for Water Use Workshop August 16, 2022

Project Background



2017

Aspen Institute
Dialogue Series
on Water Data

2018

TWDB hosts a workshop
for the Texas water data
community

2019

Communication,
outreach, and prep for
the project begins

2020

Project begins with a
focus on Human
Centered Design (HCD)



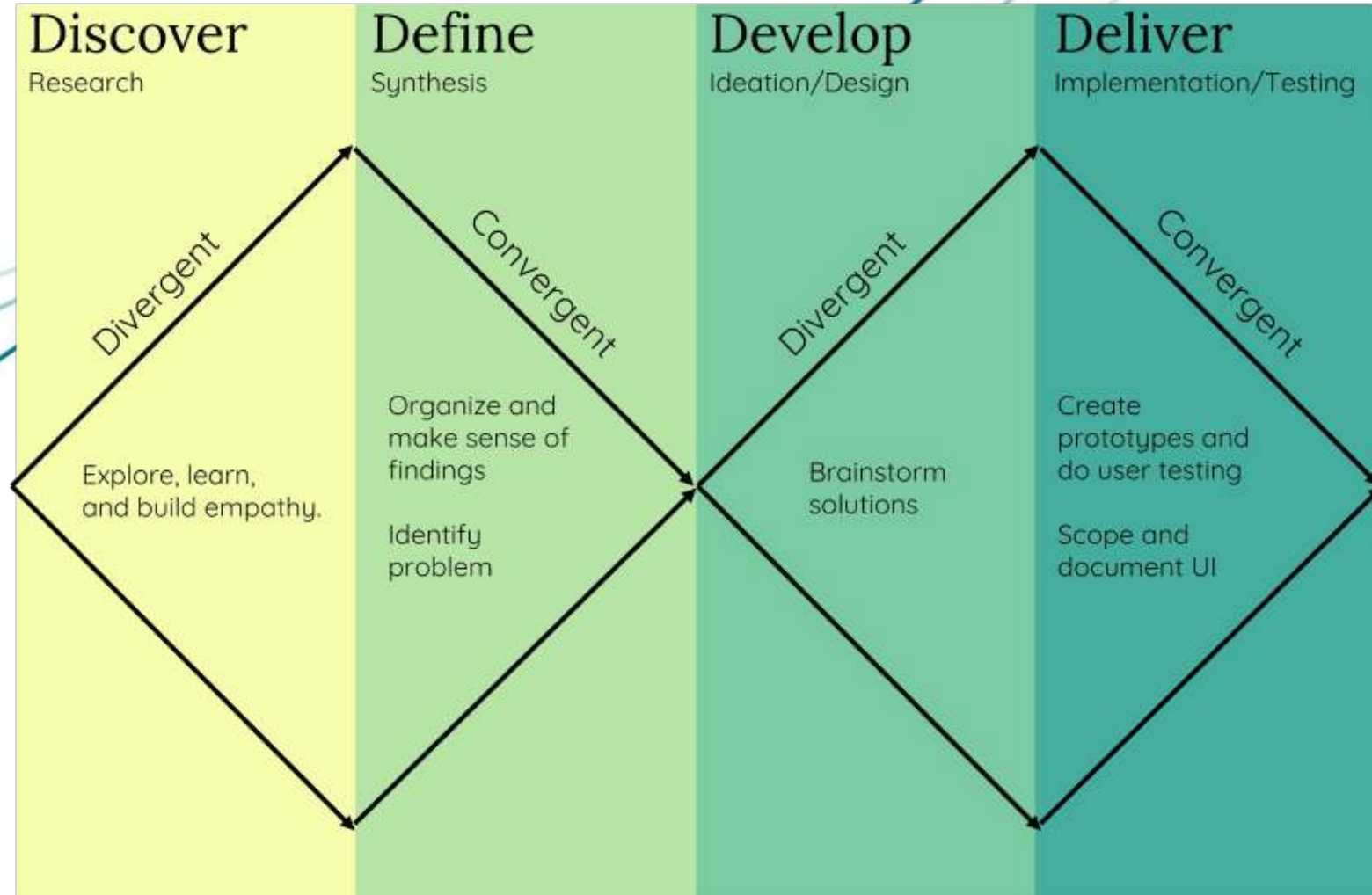
Create an intuitive system to
index, document, search and
access Texas water data.

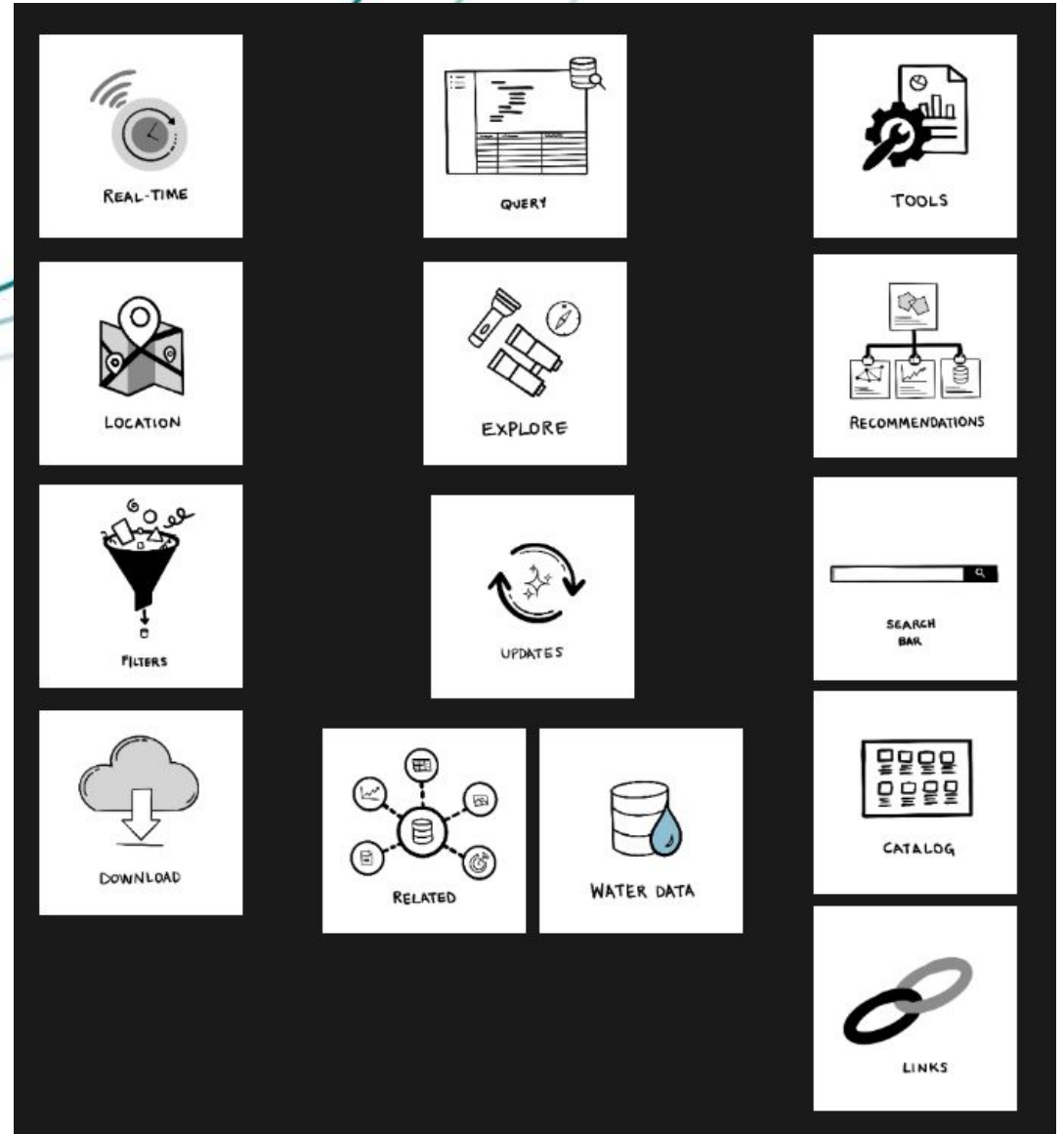
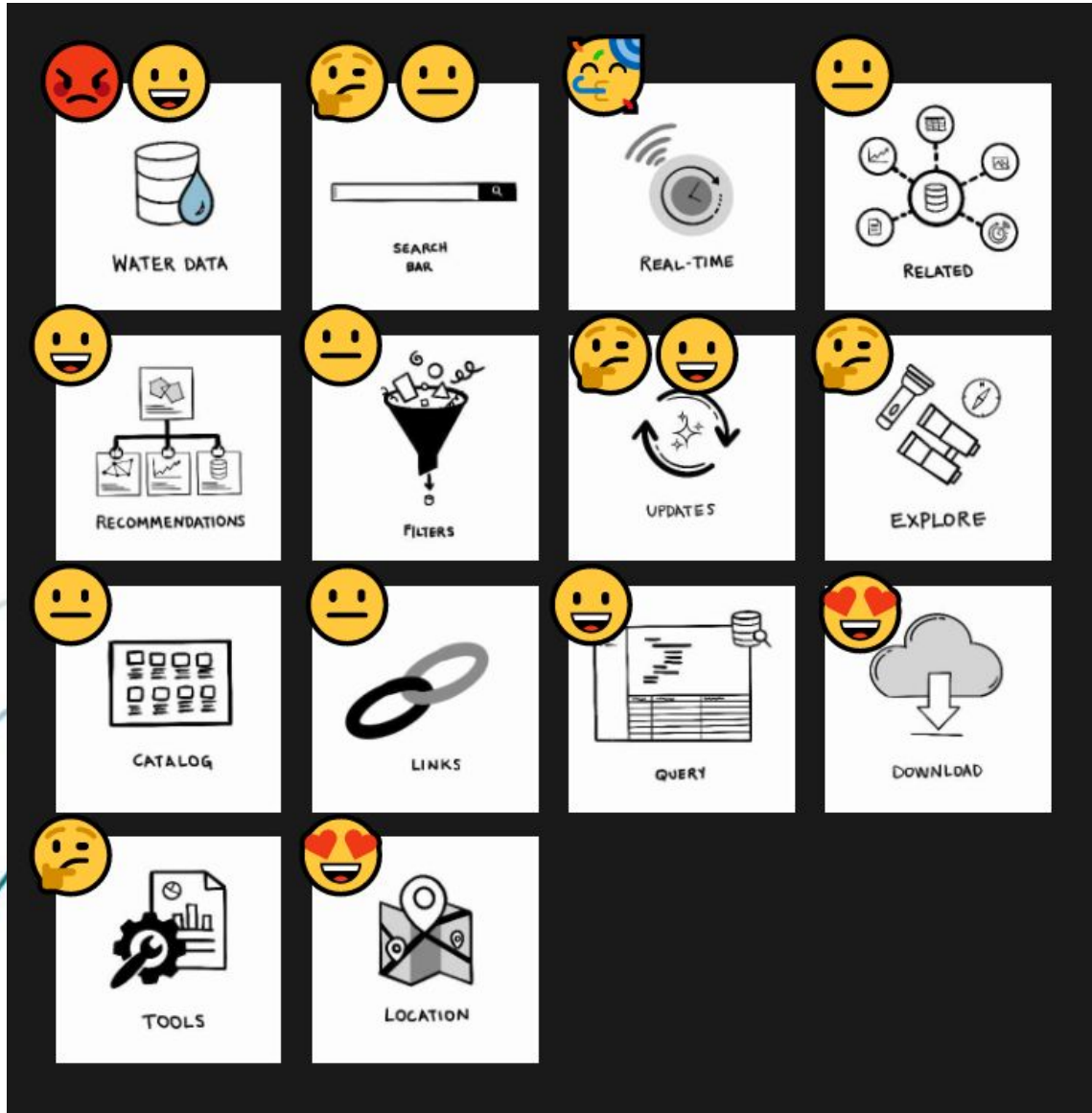
Human Centered Design (HCD)

- People-centered development
- Understand and solve the right problem
- Small and simple interventions



Our Process





“I have to talk to a guy...ask him for a [data] dump. It's not even on their website.”

-Mark (996)

“It's not just available on their website. We reach out to different people trying to hunt down, find the right person to get in contact with, and they email us the data.”

-Julie (43)

“If we didn't have those contacts we wouldn't have necessarily known that that information was available.”

-Gene (1936)

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-Gene (1936)

**Data access is dependent on
who you know**

“The other potential impediment to sharing is, it’s really important in my business to thoroughly document how that information has been collected.”

-Gene (1925)

“We’re trying to get the QA/QC completed and we’re probably 85% complete. At the point that we’re pretty confident the data is mostly complete, we’ll start serving that data out.”

-Sheila (1557)

“The data that I’ve collected has not been made public yet. I do want it to be, it just hasn’t matured in that way yet.”

-Duncan (774)

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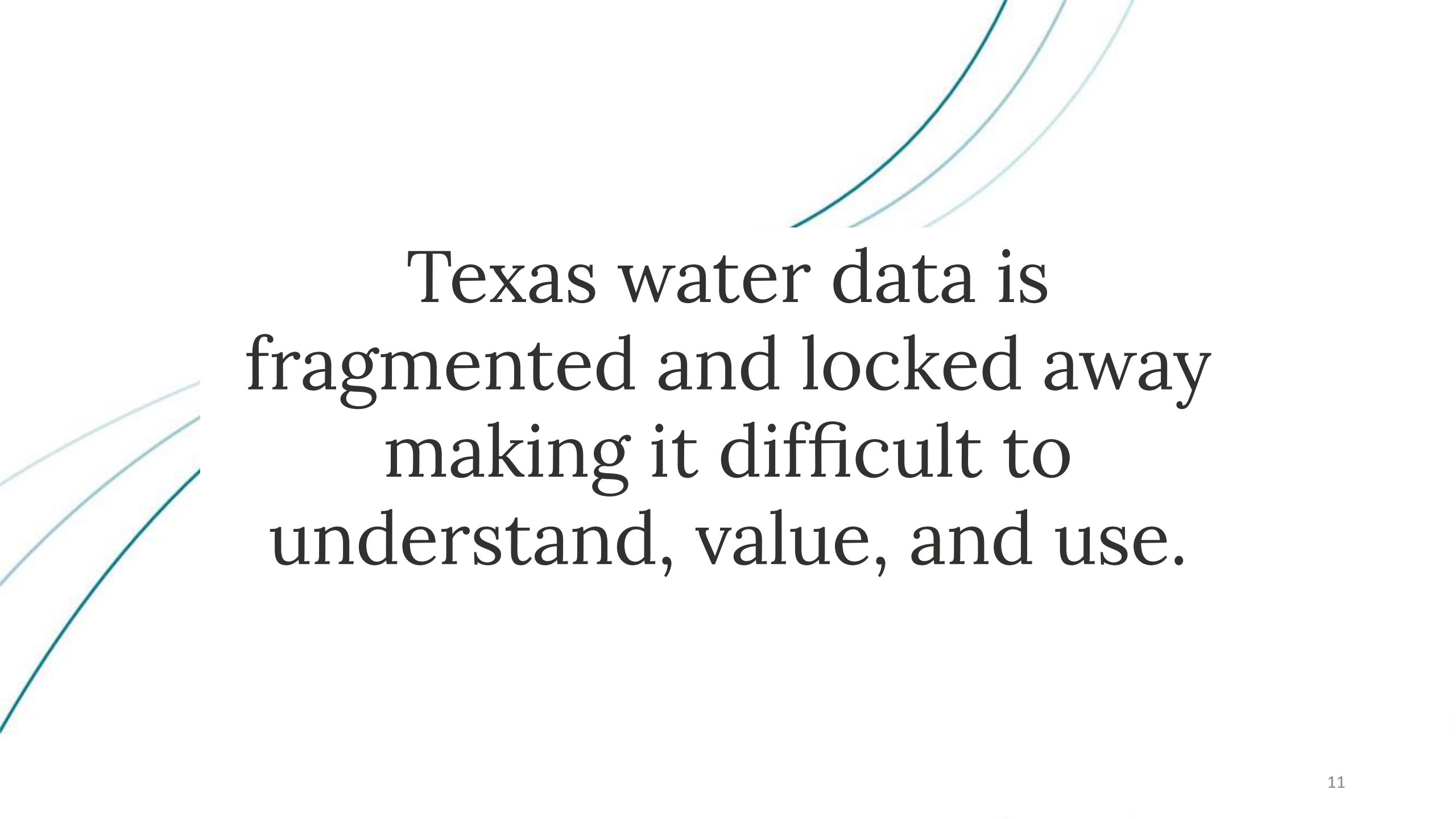
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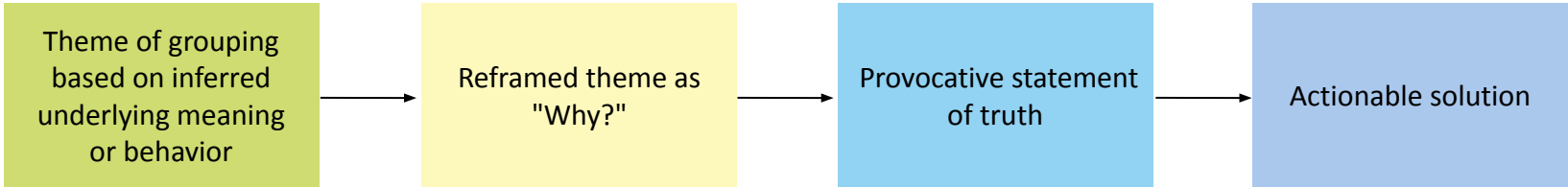
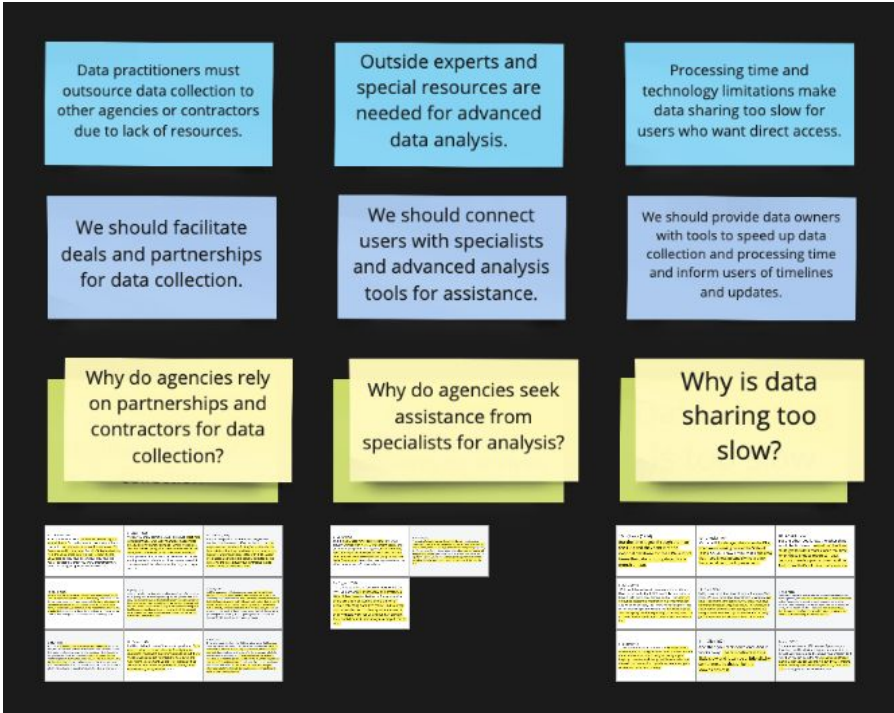
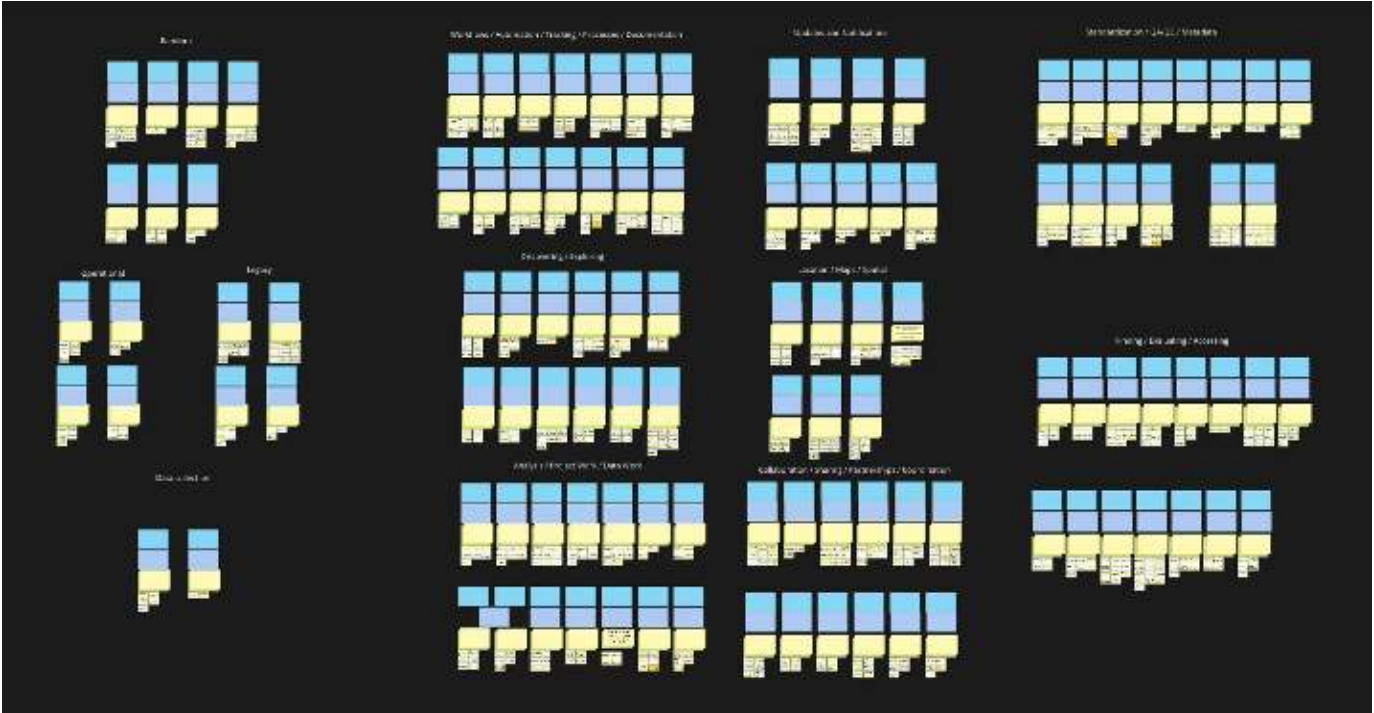
-Duncan (774)

**Successful data sharing
depends on trust between
producers and users.**



Texas water data is
fragmented and locked away
making it difficult to
understand, value, and use.

RESEARCH & SYNTHESIS | AFFINITY MAPPING



A water data hub should...



1. Provide a central location for data that reflects the entire landscape.
2. Establish automatic and easy ways to share data and updates.
3. Provide intuitive methods to efficiently search and download data.
4. Emphasize clear communication and documentation to build trust and understanding.
5. Assist data interoperability efforts through standards and curated datasets.

A water data hub should...

Emphasize clear communication and documentation to build trust and understanding.

Metadata ⓘ

Overview

Quality Information

Location Information

Additional Information

Keywords

Summary	
Expected Update	November 2022
Update Type	Manual
Update Frequency	Annual.
Quality Control Level	Comprehensive Review.
Data Contact	wras@tceq.texas.gov

Caveats and Usage

Water rights can have multiple diversion points, authorizations, and owners. The water use data provided in this dataset is associated to the entire water right, including all of the authorizations, and should not be disaggregated to individual diversion point or reservoir locations without an in-depth review of the water right and any associated documents.

Emphasize clear communication and documentation to build trust and understanding.

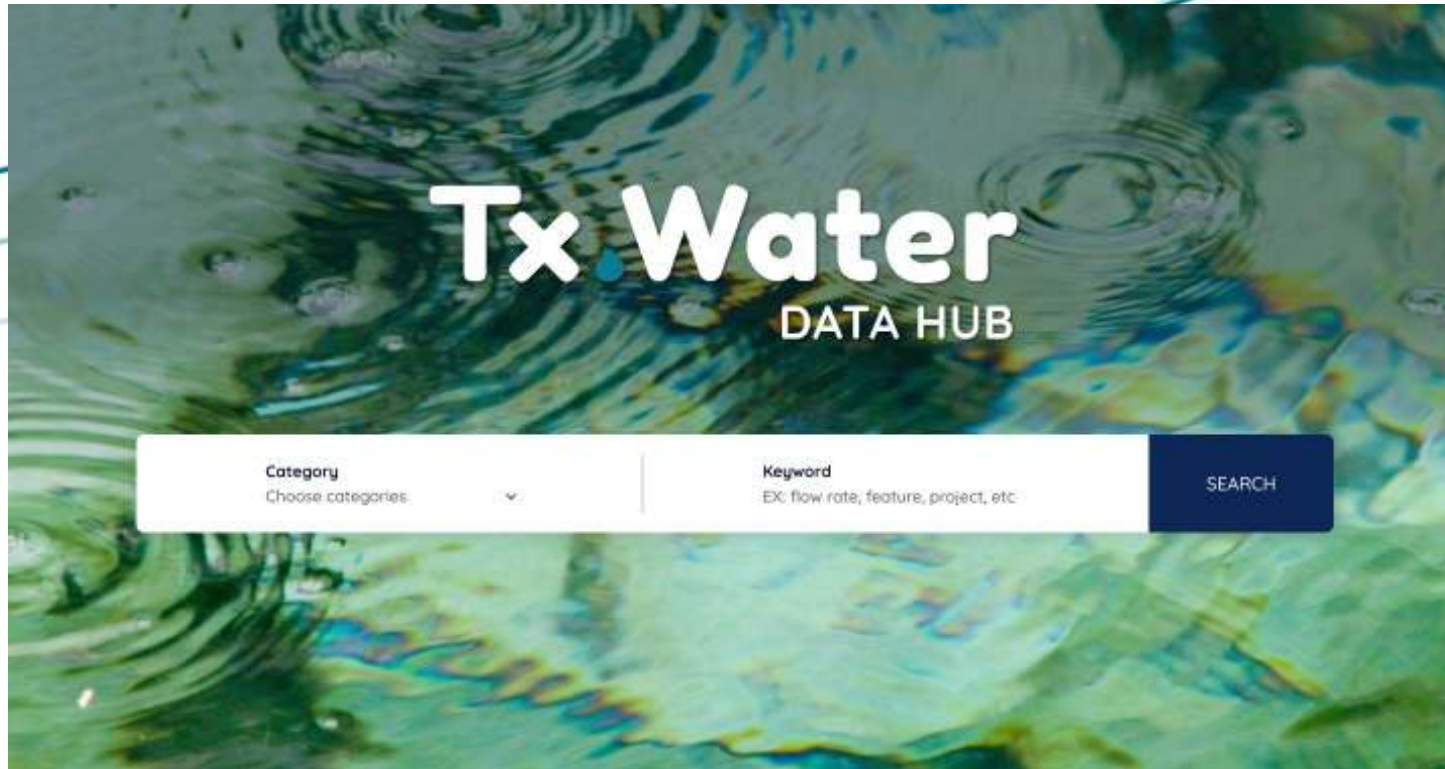
Standard CKAN provides a metadata first upload flow

The screenshot shows a CKAN dataset page for 'Surface Water Rights Authorization Locations'. The page has a top navigation bar with 'EDIT METADATA' and 'RESOURCES' tabs, and a 'VIEW DATASET' button. The main form includes fields for Title, URL, Organization, Visibility, Abstract, Program Area, Data Contact Email, and Caveats and Usage. The Title field contains 'Surface Water Rights Authorization Locations'. The URL field contains 'alpha.txwaterdatahub.org/dataset/surface-water-rights-authorization-locations'. The Organization dropdown is set to 'Texas Commission on Environmental Quality'. The Visibility dropdown is set to 'Public'. The Abstract field contains 'Location of Surface Water Right authorization points.' The Program Area field contains 'Water Rights Permitting and Availability Section'. The Data Contact Email field contains 'wras@tceq.texas.gov'. The Caveats and Usage field contains 'Water rights can have multiple diversion points, authorizations, and owners. The water rights authorization point data provided in this dataset is associated to the entire water right, and should not be disaggregated to individual owners without an in-depth review of the water right and any associated documents.'

Developing a data resource first upload flow as an open-source extension

The screenshot shows the 'Add Resource' flow in the Tx. Water Data Hub. The page has a top navigation bar with 'Tx.' logo, 'Data', 'Organizations', 'Applications', 'About', and 'LOGIN/REGISTER' button. The main content area is titled 'Organizations > Texas Water Development Board > Add Resource'. A progress bar at the top right shows six steps: 1. Add Resource, 2. Data Dictionary, 3. Spatial Information, 4. Description Information, 5. Quality + Update Information, and 6. Additional Information. The first step, 'What are resources?', is active. The page contains sections for 'What are resources?', 'What are collaborators and roles?', and 'Add Resource'. The 'Add Resource' section includes a Title field, an 'ADD COLLABORATOR' button, a Resource Type dropdown, and 'LINK' and 'UPLOAD' buttons. The 'NEXT' button is at the bottom right.

Thank you!



Keep an eye out for the beta version of the Hub later this year!

What to discuss more?

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