SWSI Update Dashboard

Preliminary Structure / Wireframes (ver. 1)

Prepared for CWCB *by* RS21

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About this Document

This document provides a first pass at a layout, structure, and overall information architecture for the SWSI Update dashboard. This document is intended to start a conversation about the general user progression through the site, and to begin to assess which elements are working and not working with regards to information presentation.

What these wireframes do:
- Communicate general features, structure, and site layout
- Establish preliminary user pathways
- Lay out general content structure
- Provide general basis for visualization design and data collection

What these wireframes do NOT do:
- Illustrate *all* possible features, options, or content
- Reflect final designs, styles, interactions, or data visualizations

***GENERIC WIREFRAME CONTENT ADAPTED FROM CWP AND EXISTING SWSI MATERIALS.*

Problem Statement

The State of Colorado faces multifaceted water challenges that will manifest in uncertain and uneven ways across the State's basins. These challenges include: a growing water supply gap, competing needs from agricultural and municipal users, critical environmental concerns, variable climatic conditions, inefficient regulatory processes, and limited funding.

BRTs are tasked with addressing these numerous challenges simultaneously. To do so, they need to understand the dynamics of water supply and demand in Colorado and the extent to which future conditions will impact systems at the basin- and state-levels. However, relevant datasets are siloed and are not standardized across the basins. As is, each basin would need to perform complex analyses in order to derive meaningful insights that strategically address water challenges concurrently. These data and communication hurdles inhibit conservation and planning efforts within basins and across the State.

Product Definition

The purpose of this interactive, data-driven website is to illuminate statewide water needs, interactions and impacts and promote an understanding of regional water challenges. Unlike existing reports, data warehouses, and GIS repositories, this product encourages knowledge transfer and data exploration across the State and helps BRTs to identify priority areas of concern within the water system, ultimately promoting the justification, development, and prioritization of long-term planning efforts within basins and across the State.

Target Audience

Primary: Basin Roundtables

Secondary: CWCB board, politicians, legislators, water managers, water providers, academics/researchers, general public, and the press/media

Product will help answer

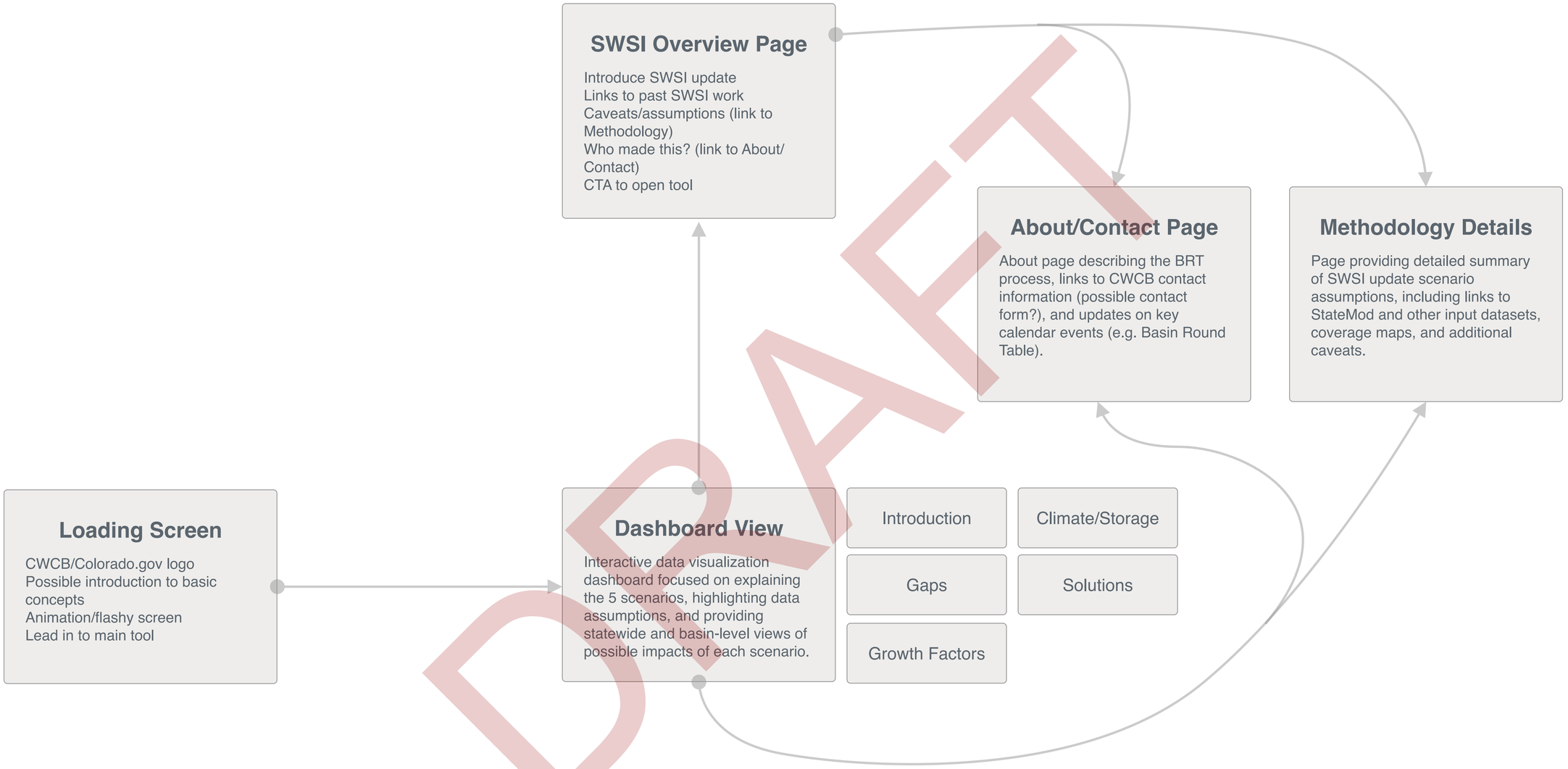
1) What is the water cycle? How does it impact water availability across the State (snow, storage, and peak demand)?

2) How does water management in Colorado work (prior appropriations, roundtable process, compacts, etc.)?

3) How do supply gaps change over time? How will they change under one scenario versus another? Variability story—we can predict a wide range of futures, but how will we address year-to-year variability in water availability? (reliability, variability, uncertainty)

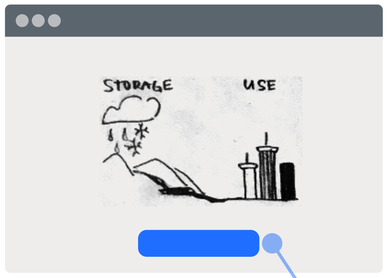
4) Where is conservation need greatest? How can resources be strategically leveraged to maximize impact?

5) How can individuals/organizations get involved?


SWSI Overview Page
Introduce SWSI update
Links to past SWSI work
Caveats/assumptions (link to Methodology)
Who made this? (link to About/ Contact)
CTA to open tool
About/Contact Page
About page describing the BRT process, links to CWCB contact information (possible contact form?), and updates on key calendar events (e.g. Basin Round Table).
Methodology Details
Page providing detailed summary of SWSI update scenario assumptions, including links to StateMod and other input datasets, coverage maps, and additional caveats.
Loading Screen
CWCB/Colorado.gov logo
Possible introduction to basic concepts
Animation/flashy screen
Lead in to main tool
Dashboard View
Interactive data visualization dashboard focused on explaining the 5 scenarios, highlighting data assumptions, and providing statewide and basin-level views of possible impacts of each scenario.
Introduction
Climate/Storage
Gaps
Solutions
Growth Factors

Denotes critical site interaction components.

Loading Screen



Loading animation.

Possiblility to use loading screen to highlight the gap between storage (precipitation) and use (urban M&SSI, Ag, etc.) in a simple animated graphic.

On page load

CONTINUE

Dashboard (default view)

Dynamic map

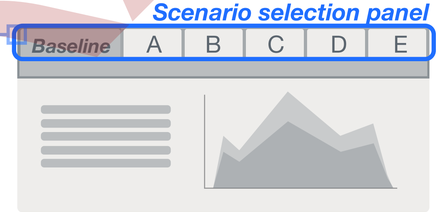
The map will allow for area selection and will display key data for each story.

Story panel

The story panel will provide details about different elements of the SWSI water narrative, including information about the state/basin overall, as well as an overview of the gaps, growth factors, climate/storage concerns, and potential solutions. This information will change depending on whether the viewer is focused on a specific basin or viewing the entire state.

Top Menu

Scenario selection panel



The scenario selection panel will provide an overview of each of the planning scenarios compared to baseline, and will allow users to get a deep understanding of the different scenario inputs and outputs.

About/Contact Us

Methodology

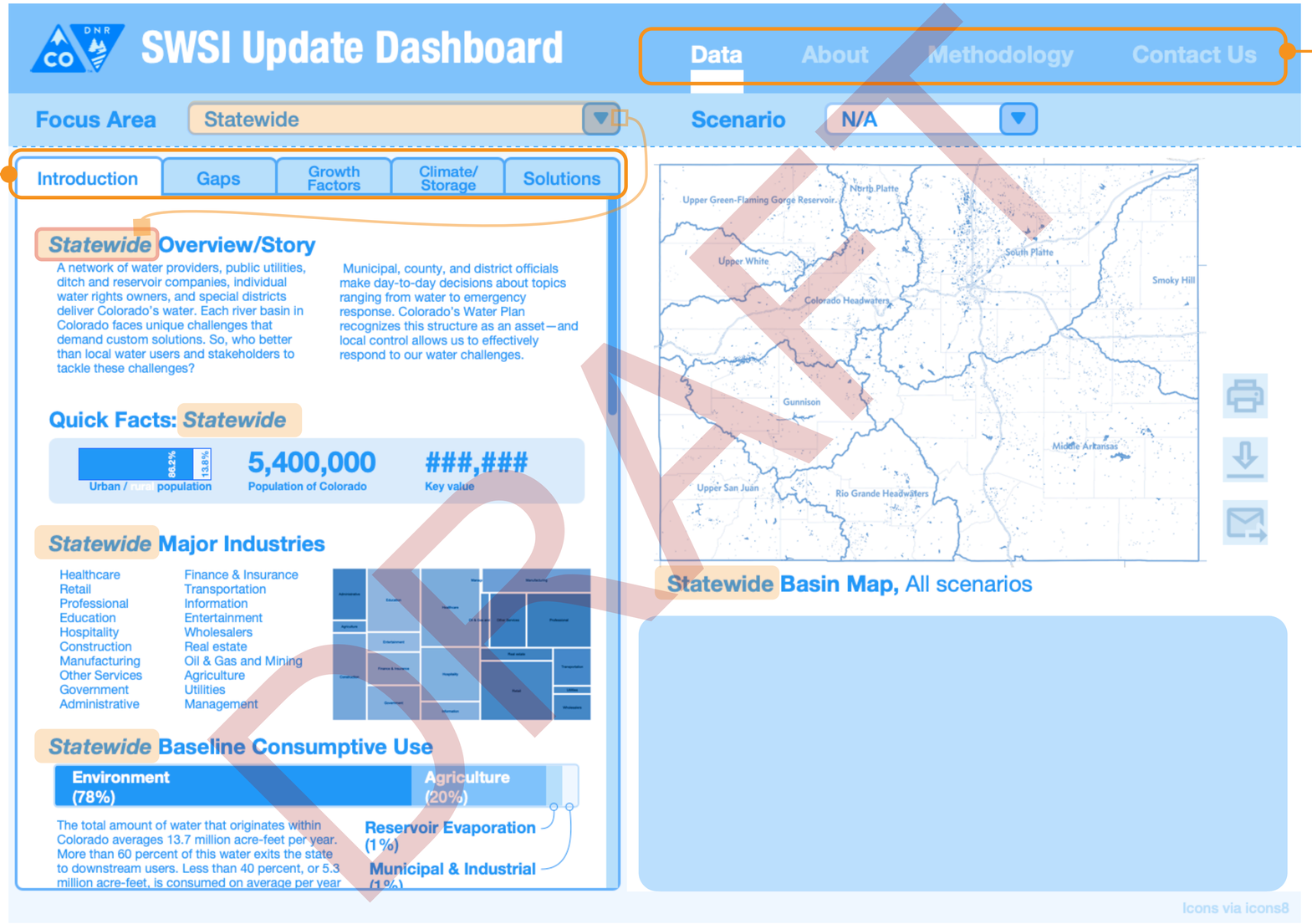
SWSI Overview Page

Provides general overview, links to key CWCB documents, and general information about the SWSI update process.

Story selection tabs

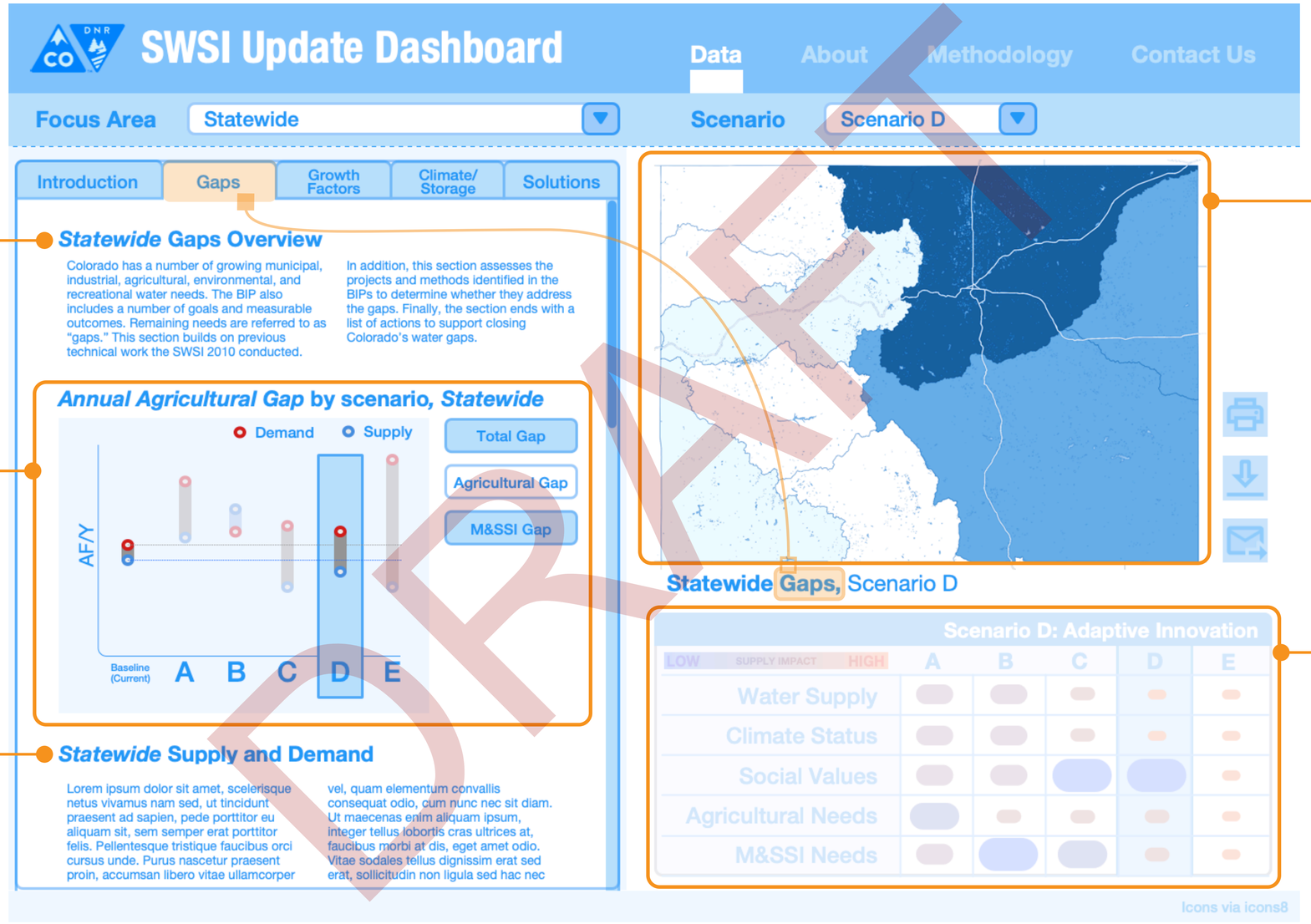
These tabs will allow users to click through the different curated stories. This panel can feature text content, quick facts, images, and "vignette" data visualizations, as data allows.

The spatial scale of the elements in the story panel will correlate to the level of resolution of the map view, allowing users to get a view of statewide conditions or to "drill down" to see basin-level stories.



Top menu

Allows for navigation to static reference pages, including information about the SWSI update in general, specific methodology documentation, and a contact page for CWCB.



Gaps story tab

Combines agricultural, M&SSI, and E&R gaps into one tab, allowing for flexibility in basins/areas where story-specific data are unavailable.

Gap chart

Present the gaps in terms of scarcity by comparing demand and supply explicitly across the different scenarios. Allows for toggle between total gap, agricultural gap, and M&SSI gap.

Flexible text areas

Flexibility to add or remove content as needed to provide context for each basin or spatial area.

Interactive map tied to selected story tab

For each tab, the map will update to display the most critical index/dataset. In cases where more than one dataset is critical, buttons/toggles will allow for users to swap between maps/

Scenario comparison and selection panel

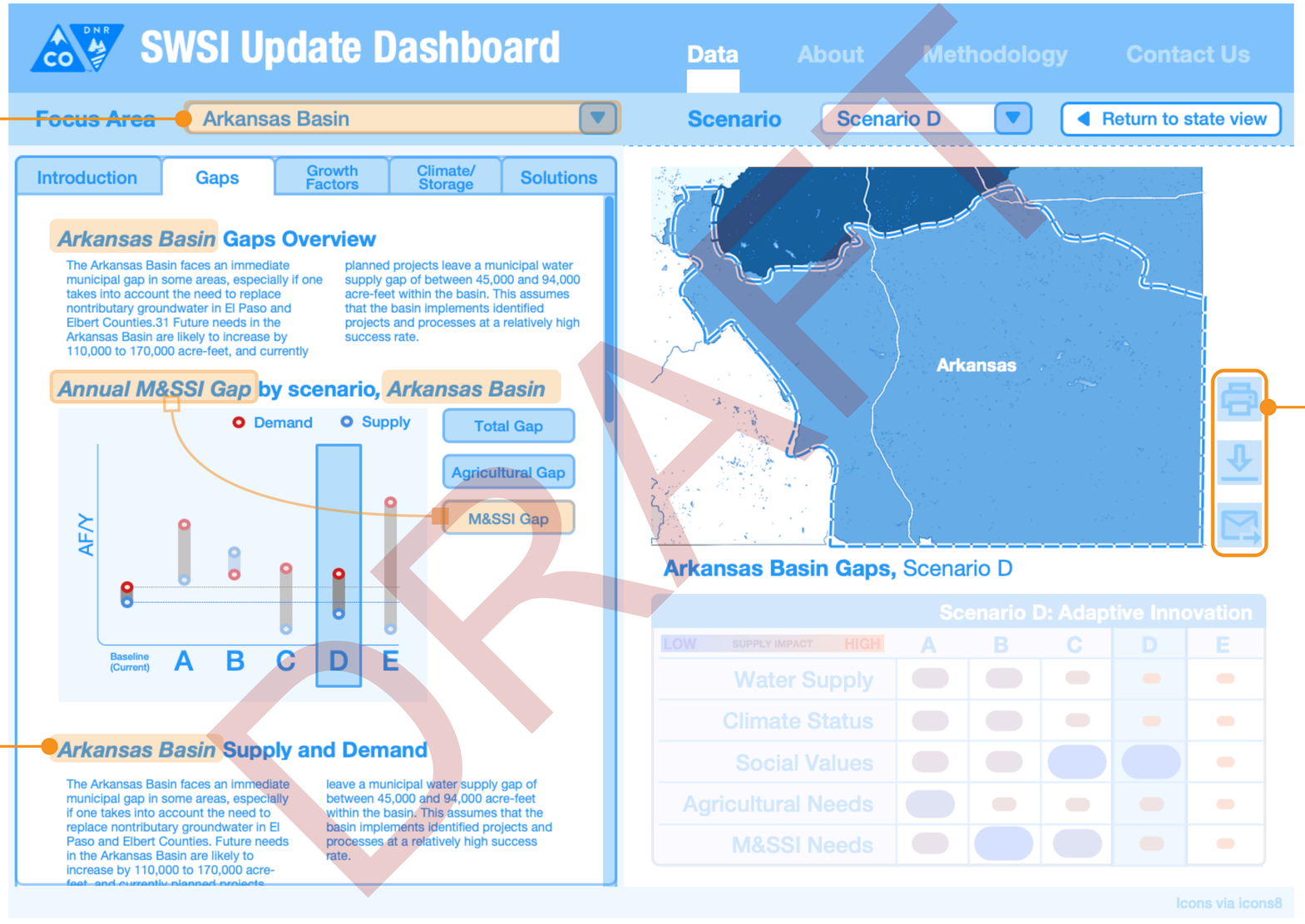
This tabbed panel will allow for a persistent, detailed view of the different scenarios and their basic assumptions. Selecting a scenario in this panel will update the live map elements and will alllow for quick comparison between scenarios.

Basin-level map selection

For focused, basin-level data review, users can select one specific basin to explore in more detail. This will update the map as well as the story tabs, allowing for the display of region-specific context, challenges, policy details, and solutions.

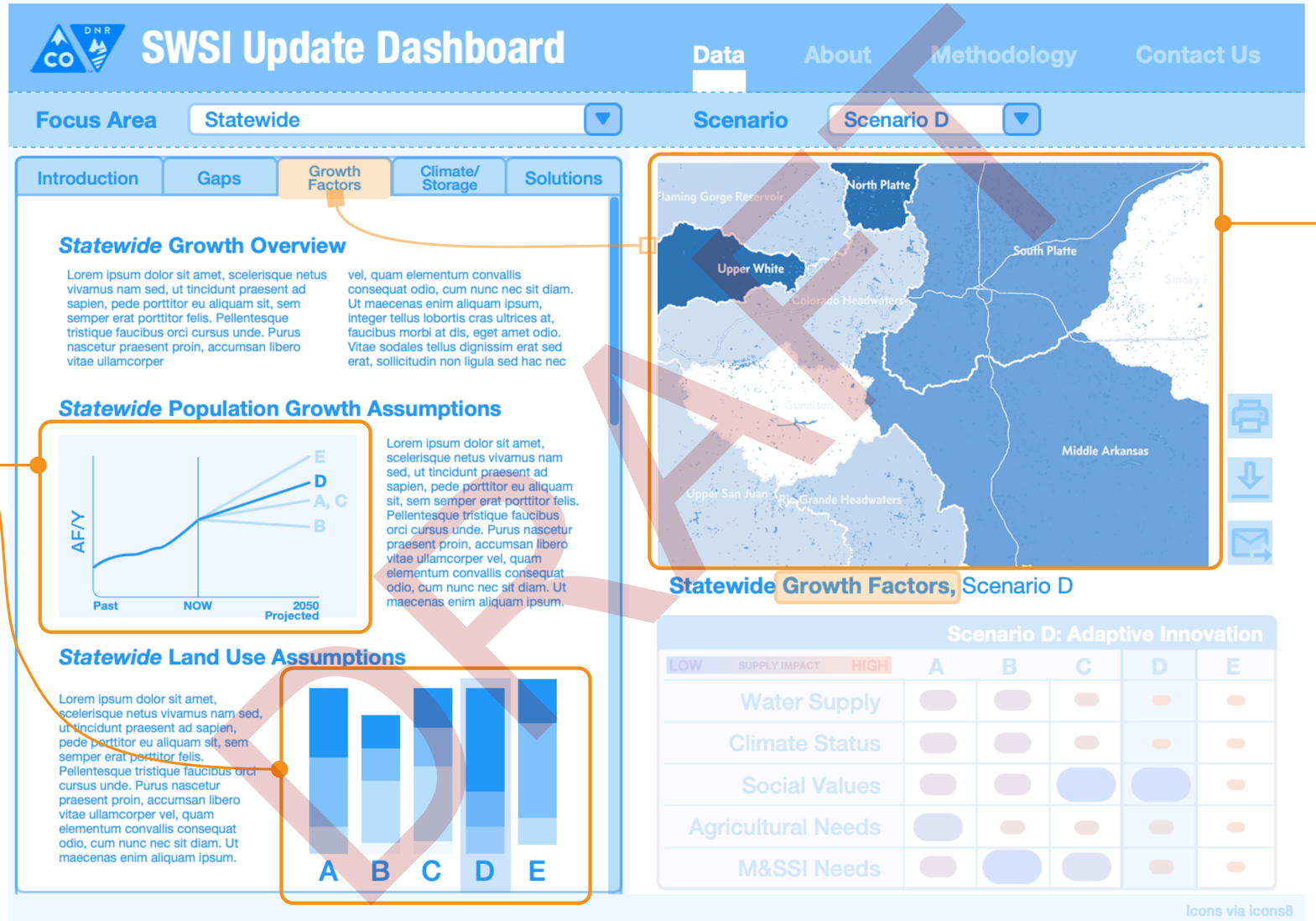
Basin-specific information

Based on spatial selection, story tab information will update to highlight relevant context.



Print/Save/Share

In order to allow for offline access, exporting findings to documents, and other basic BRT/ policymaker use cases, the dashboard will allow information to be exported in a variety of formats, including printed report download, image downloads, and direct email sharing.



Curated data visualizations

Data visualizations tailored to data availability and selected area. For cross-scenario visualizations, currently selected scenario will be highlighted, but others will remain visible for comparison.

Interactive map

Map updates according to selected story tab.