

Exercise 5 Narrative: Data Basin Overview (30 minutes)

Goals:

- Tour Data Basin and gain an understanding of some of its features, including how to import, discover, organize and interact with data.
- Understand the difference between public and private groups, maps and data and how to create each.
- Understand how to import services from ScienceBase for use in Data Basin
- Perform hands on exercises where you will create groups and galleries, import, search and organize data, and create a map.
- Tour Region 8's gateway hosted by Data Basin

Navigating Data Basin

Data Basin is a science-based mapping and analysis platform that provides access to spatial data, mapping and analysis tools, and the ability to collaborate with others. You can access Data Basin from www.databasin.org.

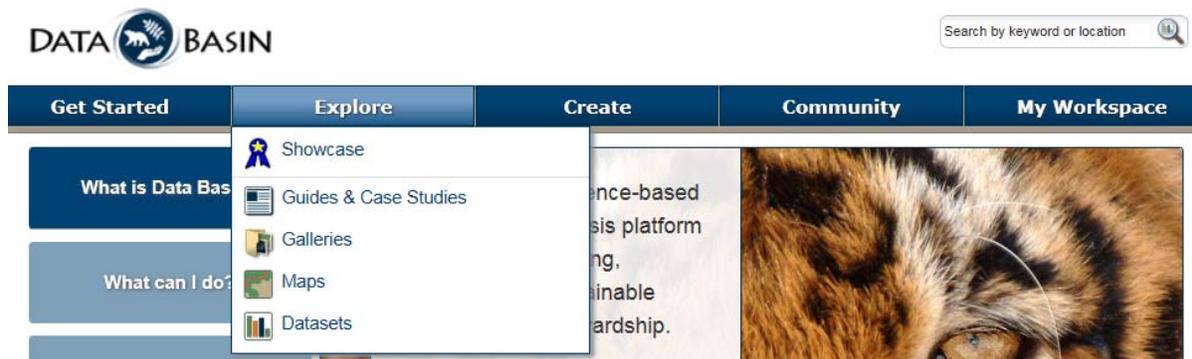
Creating a Data Basin account with the USGS sign up option and always signing in with the USGS option using your Active Directory credentials, will enable you to access proprietary or sensitive data hosted in ScienceBase (see Exercise 1). Accounts are free to set up and allows you to use Data Basin tools for organizing, mapping, analyzing, and collaborating with spatial data.

- 1 GB of data storage
- Automatically granted right to upload data (DOI employees only)
- Download datasets
- Create maps, galleries, groups, etc. and interact with other Data Basin members
- Automatic access to subscription analysis tools for FWS employees

Getting Started – take tours, view videos or webinars, access help or a glossary, perform searches, etc.

The screenshot shows the Data Basin website interface. At the top left is the logo "DATA BASIN" with a circular icon containing a globe and a hand. To the right is a search bar with the text "Search by keyword or location" and a magnifying glass icon. Below the logo and search bar is a navigation menu with five tabs: "Get Started", "Explore", "Create", "Community", and "My Workspace". The "Get Started" tab is active, displaying a list of links: "Data Basin is a science-based mapping and analysis platform that supports learning, research, and sustainable environmental stewardship. More about Data Basin...", "Take a Tour", "View Videos & Webinars", "Browse the Showcase", "Search Geographies or Keywords", "Explore a Sample Map", and "Become a Member". Below these links is a "Help" section with "Support Services" and "Glossary". The main content area features a large banner with a tiger's face on the right and a map of the United States on the left. The banner text reads: "Data Basin is a science-based mapping and analysis platform that supports learning, research, and sustainable environmental stewardship." Below the banner is a "Get started quickly with Data Basin" section with a prominent "Take a Tour" button. At the bottom, there is a "Base Studies..." section and a "Explore Data Basin Mapping Tools" section with the text "With the Data Basin full-screen mapping tools, you can:" and a small landscape image.

Explore – where you can explore Datasets, Maps, Galleries, or Guides & Case Studies



- **Datasets** - Datasets are member-uploaded spatial information, typically created using a Geographic Information System (GIS). They can be visualized and analyzed using mapping tools in Data Basin, and downloaded for use in desktop GIS software. Datasets include shapefiles, ArcGRID files, ESRI File Geodatabases, and NetCDF files. Most datasets can be overlaid, styled, analyzed, and downloaded.
- **Maps** - Maps are member-created dynamic web maps of spatial information, including datasets, drawings, and basemaps. They can be used to easily combine information and tell a story about a place or topic. Maps can be exported to a variety of formats.
- **Galleries** - Galleries are created by members to easily showcase and share spatial information as a cohesive collection. They are very useful for creating a digital atlas, for organizing a set of related datasets and maps, or providing a diverse collection of resources on a particular topic.
- **Guides & Case Studies** - Data Basin Guides & Case Studies are summaries and interpretations of research methods, models, and scientific results. Guides & Case Studies are written by Conservation Biology Institute staff, invited guests, and engaged Data Basin members. Guides and Case Studies are intended to provide example of how key conservation datasets, maps, galleries, and supporting information are being put to use to improve well-being for people, wildlife, and landscapes.
- **Showcase** – recommended Data Basin items

Search – Every Data Basin page has a search field in the upper right corner, or you can select **Search Geographies** or **Keyword** under **Getting Started**.

Data Basin is a science-based mapping and analysis platform that supports learning, research, and sustainable environmental stewardship. [More about Data Basin...](#)

Take a Tour

View Videos & Webinars

Browse the Showcase

Search Geographies or Keywords

Explore a Sample Map

Become a Member

? Help

Support Services

Glossary



Get started quickly with Data Basin [Take a Tour](#)

Explore Data Basin Mapping Tools

With the Data Basin full-screen mapping tools, you can:

- View and analyze geospatial conservation



- 2 Main ways to search
 - o Keyword
 - o Geography
- Filter

DATA BASIN | SEARCH

Search [more options](#)

- Type in a keyword (forests), a place name (Oregon), or a phrase (protected areas) above
- Use the map on the right to search only in your area of interest (*limited to datasets & maps*)
- Surround phrases in the search string with double quotes to find results that include words in the same order
- Make your search more specific by using "AND", "OR", and "NOT" (all caps) to separate keywords or phrases

Only show results that overlap this area

[Search](#)

Showing 1 - 18 of 129 Items; Page 1 of 8

FILTER: [Datasets \(91\)](#) [Maps \(9\)](#) [Galleries \(1\)](#) [Guides & Case Studies \(2\)](#) [Members \(26\)](#) [Groups \(0\)](#)

Sort by: [Relevance](#) Display: [Grid](#) [List](#)



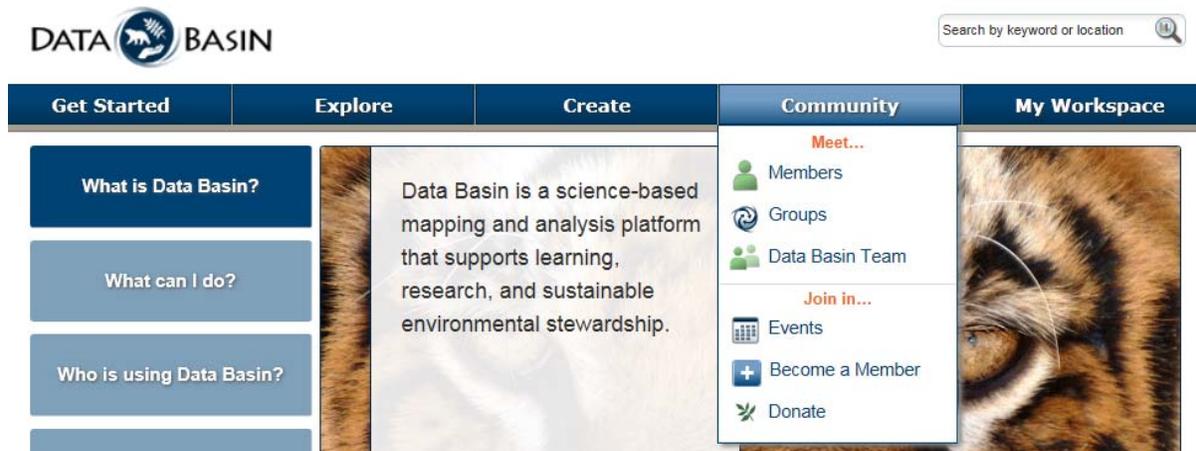
Desert Tortoise TCA Habitat Linkages, DRECP

Brian Croft, US Fish and Wildlife Service, San Bernardino, CA - 909-382-2677 John M. Taylor, US Fish and Wildlife Service, Palm Springs, CA - 760-322-2070 Ken Corey, US Fish and Wildlife Service, ...

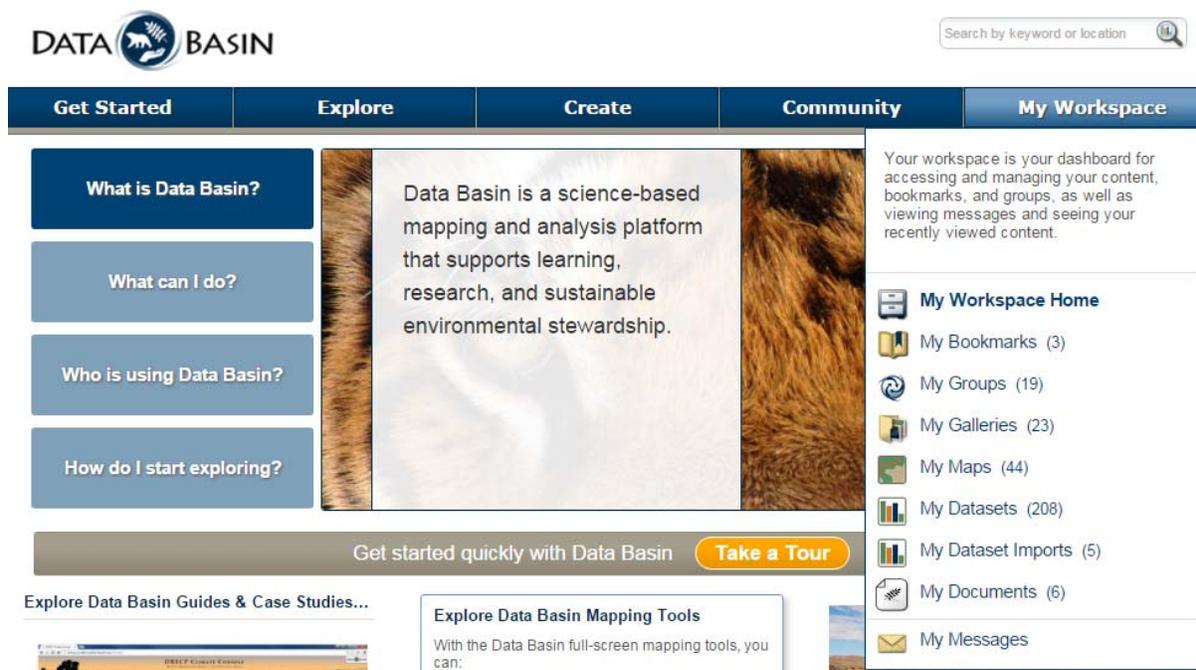
The purpose of this layer is to depict information relevant to the conservation of the desert tortoise (*Gopherus agassizii*) under the Desert Renewable Energy Conservation Plan (DRECP). Its extent includes all desert tortoise conservation areas (TCAs) identified in the US Fish and Wildlife ...

[Dataset](#) [Recommended Dataset](#)

Community - a place to find other members of Data Basin, or groups that you want to join (or create one for your use)



My Workspace – where you can manage your bookmarks, groups, galleries, maps, datasets, documents, and where you can send and receive messages from other Data Basin users.



Create - where you can import a dataset, or create a group, gallery, or map



- **Create a group** – groups help facilitate collaboration on specific topics, geographic areas, or projects by making it easier to share or organize spatial data, maps and supporting information. This is especially useful for project teams that span different agencies, organizations or locations. Groups also help to control access to private items, such as sensitive or proprietary data, or data and maps that are under review. If you are hosting secure data in ScienceBase and you want to make it available to a particular group, follow this workflow (See Exercise 6):
 - Create a group in ScienceBase and assign members.
 - Give your group READ access to your secure data, and give the Data Basin admin account WRITE access.
 - Request that the same group be created in DataBasin. Once created, membership between the 2 groups is automatically synchronized.
 - Once you import your secure data to Data Basin it will only be accessible to members of that group who have signed in to Data Basin using the USGS sign in option and their Active Directory credentials.

My Groups

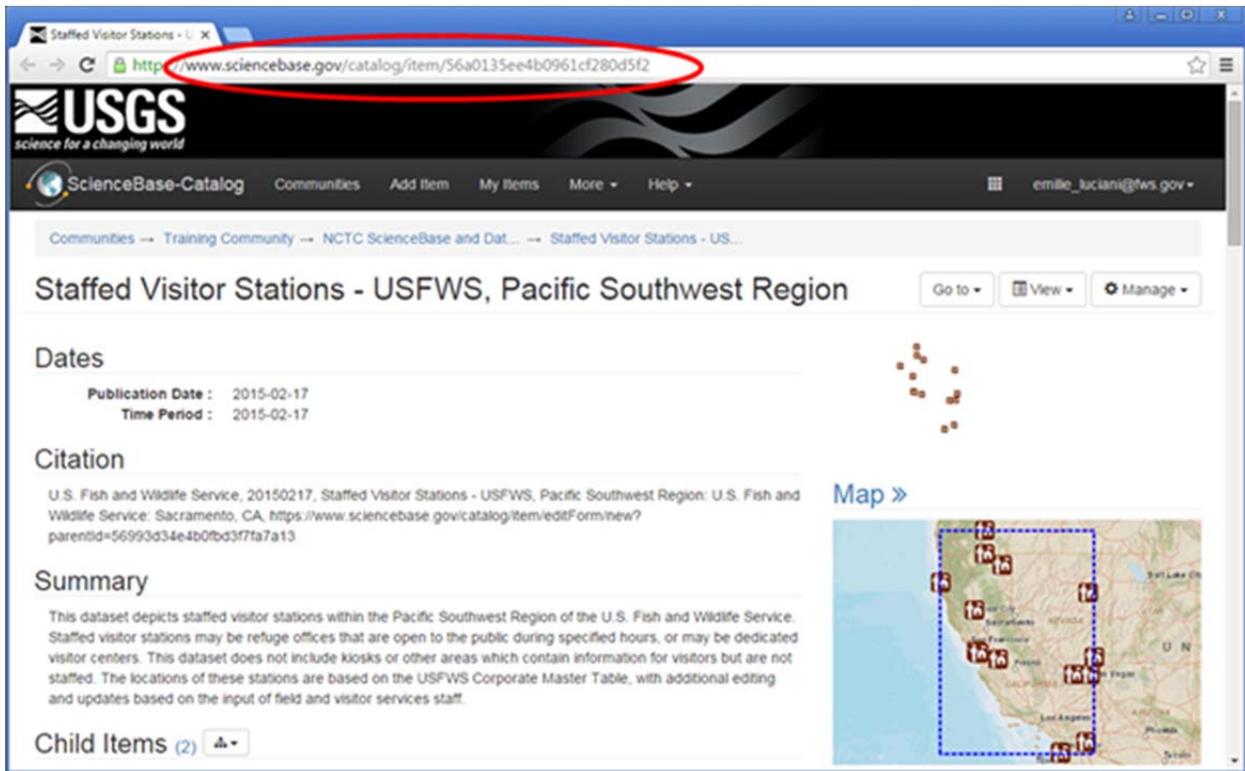
Showing 1 - 18 of 19 Items; Page 1 of 2



NOTE: Groups (or “realms” as they are called in ScienceBase) for Fish and Wildlife Service (USFWS) and National Park Service (USNPS) have already been created and are available for your use in both ScienceBase and Data Basin. Depending on which organization you belong to (FWS or NPS) you automatically become a member of that group the first time you sign in to ScienceBase. Follow this workflow for using these groups to limit access to your secure data:

1. In ScienceBase, give one of the groups listed above READ access to your secure data, and give the Data Basin admin account WRITE access.
2. Import your secure data into Data Basin (see below).
3. Whenever any member of that group signs in to Data Basin using the USGS sign in option and their Active Directory credentials, then that data will be accessible to them.

- **Import a dataset** – Data Basin is not a Federal repository and shouldn't be used to host your data. However, you can host your data (including secure or sensitive data) on ScienceBase and import it for use in Data Basin. Note: All DOI users are automatically granted import privileges to Data Basin. However, you must create your Data Basin account with the USGS sign up option (on the Sign Up page), using your Active Directory username and password. In addition, each time you login to Data Basin, you must sign in using the USGS sign in option using your Active Directory username and password.
 - **ArcGIS Map Services Hosted on ScienceBase** – Use the url from the ScienceBase item that you want to import.



Then, on the **Import a Dataset** page, import using the **Import from Another Catalog** option.

Import a Dataset

Contact us if you have any questions about preparing or importing a dataset into Data Basin or check out our advanced processing and uploading support.

- Import ArcGIS Layer Package, NetCDF File, or Spreadsheet with Spatial Coordinates
- Import a Map Service
- Import from Another Catalog

Type: ScienceBase Example: https://www.sciencebase.gov/catalog/item/5062fed4b0972cf1b46457

- You can import an item from ScienceBase (other catalogs may be supported in the future). Tips for Importing from ScienceBase.

⚠ Metadata cannot be changed in Data Basin; this item must be well-described in the source catalog (title, description, and tags are required).

- The item must reference a valid map service.
- Custom styling, analysis, and other capabilities may be available in the future for map services hosted by ScienceBase.

I agree to the Data Basin Terms of Use

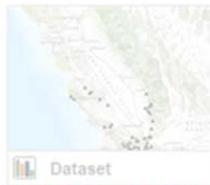
SUBMIT

Secure ArcGIS Map Services Hosted on ScienceBase (See Exercise 6)

- Publish an ArcGIS Service Definition to ScienceBase but DO NOT make it publicly accessible. ScienceBase will not automatically create an ArcGIS Map Service in this case.
- Assign WRITE and READ access to either individuals or groups in ScienceBase.
- Give the Data Basin service account WRITE access to the item in ScienceBase . This allows the Data Basin server to periodically check the item for updates as well as to synchronize members between groups.
- Request that your item be published as a secure map service from ScienceBase staff.
- Once notified that your service has been published use the url from that ScienceBase item to import it using the **Import from Another Catalog** option into Data Basin.



⚠ SENSITIVE DATA - Nest Locations of the California Condor [NOT AUTHORIZED]



⚠ SENSITIVE DATA - Roosting Locations of the California Condor [NOT AUTHORIZED]



California Condor Nesting Habitat- Ecological Niche Model



California Condor Foraging Ecological Niche Model

- **Create a gallery** – galleries help to showcase, organize and share spatial information as a cohesive collection and to organize or publish a set of related datasets and maps.
 - Title
 - Public or Private
 - Description
 - Tags
 - External Resources
 - Thumbnail
 - Credits

Title

Gallery is:

Public: gallery is visible to all users

Private: gallery is visible only to authorized users

Description:

Describe the main objectives of this gallery, and summarize the type of information that would be contained within it.

B I |           

Gallery Credits

List the data providers or organizations that contributed to the contents of this gallery.

B I |     

Tags:

(separate with commas)

 My Tags | All Tags

External Resources

External resources are resources that are served by other data warehouses. Currently, Data Basin supports including ScienceBase resources. When adding ScienceBase resources, the category name will appear as a browsable folder on the gallery page. When the user clicks on the folder, the given search URL will be processed, and the results shown. To add a ScienceBase resource, you will need a full search URL (ex. <https://www.sciencebase.gov/catalog/items?q=marine>).

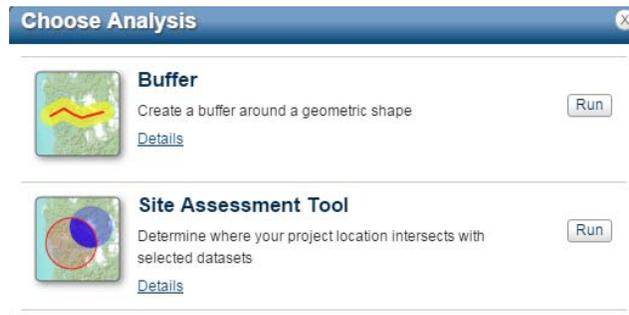
Gallery Thumbnail:

Upload an image that helps express the theme of this gallery. If you do not upload an image, one will be drawn automatically from one of the datasets or maps within this gallery.

No file chosen

- **Create a map** - dynamic web maps of spatial information, including datasets, drawings, and basemaps. They can be used to easily combine information and tell a story about a place or topic. Maps can be exported to a variety of formats.
 - Save or Export your map
 - Zoom, navigate, locate
 - Identify, measure, swipe and select

- o Analysis tools - by subscription only. FWS employees get automatic access to these tools.



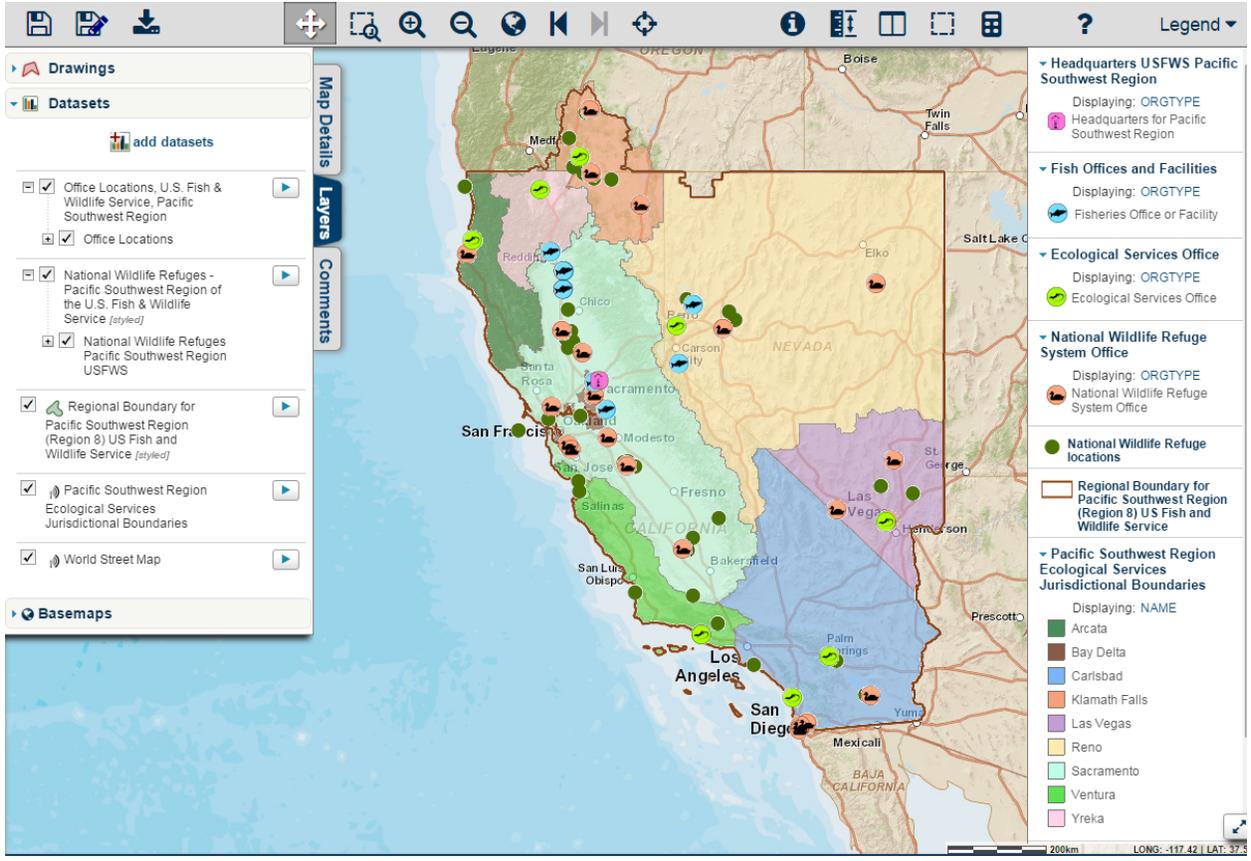
Site Assessment Report

Created by: Emilie Luciani on February 16, 2016

Results:

Analysis Area	1 polygon	9,516,084 ac
Greater Sage-Grouse Management Zones	3 polygons within analysis area	9,516,084 ac within analysis area
<i>Name (unique values)</i>		
Wyoming Basins Management Zones	1 polygon	3,346,180 ac
Snake River Plain Management Zone	1 polygon	1,688,319 ac
Great Plains Management Zone	1 polygon	4,481,585 ac
Greater Sage-Grouse Priority Areas for Conservation	5 polygons within analysis area	546,034 ac within analysis area
<i>ID_Name (unique values)</i>		
133-Wyoming Basin-MZ2	1 polygon	12,790 ac
129-Wyoming Basin-MZ2	1 polygon	18,586 ac
108-Yellowstone Watershed-MZ1	1 polygon	150,488 ac
128-Wyoming Basin-MZ2	1 polygon	22,779 ac
127-Wyoming Basin-MZ2	1 polygon	341,391 ac
Greater Sage Grouse Current Range	10 polygons within analysis area	3,483,702 ac within analysis area
<i>SPP_Name (unique values)</i>		
Greater Sage-Grouse	10 polygons	3,483,702 ac
Greater Sage-Grouse Populations	5 polygons within analysis area	7,455,898 ac within analysis area
<i>POPULATION (unique values)</i>		
Belt Mountains	1 polygon	1,604,304 ac
Wyoming Basin	2 polygons	1,491,552 ac
Yellowstone Watershed	2 polygons	4,360,042 ac

- o Legend, overview map and scale bar
- o Add datasets, drawings or change basemaps
- o Adjust transparency, style and filter
- o Add drawings or comments



U.S. Fish and Wildlife Service, Pacific Southwest Region Web Mapping Gateway hosted on Data Basin - <http://psw.databasin.org/>

The screenshot shows the homepage of the U.S. Fish and Wildlife Service, Pacific Southwest Region Web Mapping Gateway. The header includes the U.S. Fish & Wildlife Service logo, the text "U.S. Fish & Wildlife Service", and "Web Mapping Gateway Pacific Southwest Region". A search bar is located in the top right corner. Below the header is a navigation menu with four tabs: "Get Started", "Browse", "Create", and "My Workspace". The main content area features a large banner with an eagle in flight and the text "About the Portal". Below this are several interactive elements: a "First Time FWS Users Click Here" button, a "Watch Two-Minute FWS Video" button, a "Search This Portal" section with a search bar and a "Quick Start Map" section with a map of the Pacific Southwest Region. A "Get started quickly with the Pacific Southwest Region Gateway" banner includes "Take a Tour" and "Watch How-To Videos" buttons. The "Browse Data by Topic" section displays five categories: "Species of Interest", "Base Data To Improve Your Mapping", "Ecological Service (ES) Offices and Other Fisheries/Wildlife Programs", "National Wildlife Refuge System Pacific Southwest Region", and "Landscapes and Climate". The footer contains a grid of links for "PACIFIC SOUTHWEST REGION", "ABOUT DATA BASIN", "TERMS OF USE", "CONTACT DATA BASIN", "U.S. FISH AND WILDLIFE SERVICE HOME PAGE", "DEPARTMENT OF THE INTERIOR", "USA.GOV", "ABOUT THE U.S. FISH AND WILDLIFE SERVICE", "ACCESSIBILITY", "PRIVACY", "NOTICES", "DISCLAIMER", and "FOIA".

- Designed to showcase spatial information for particular geographies, topics, projects and administrative offices and provide a framework that supports integration across various activities within FWS.
- Ability to search, discover, use or share existing maps or create your own custom maps. Additionally, analytical tools, including buffering and site assessments are available for internal use by FWS staff for completing geographic analyses.

- Data Stewards in FWS can use the Data Basin application along with USGS ScienceBase to catalogue and steward their data, then provide transparent access and use of geographic information that meets federal standards.
- Most of the FWS data being discovered and used in the Data Basin portal is hosted and accessed directly from the federal USGS ScienceBase repository.
- A data “bridge” has been developed to facilitate sensitive or draft data access between Data Basin and the federal ScienceBase data repository.