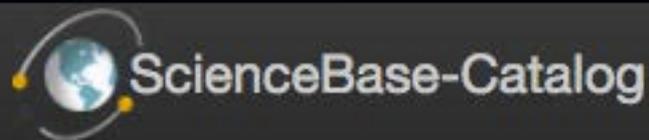




ScienceBase as a Platform for Data Release



If it's not
published,
it's not
science.

What you will need:

- **Data** (preferably in common, open formats)
- **Metadata** for each dataset to be released in XML format. (FGDC CSDGM* or ISO**).
- Data and metadata must be **reviewed and approved for release** through the Information Product Data System (IPDS).
 - (refer to: <http://www.usgs.gov/usgs-manual/im/IM-OSQI-2015-03.html>)

Resources

Data Management Website: <http://www.usgs.gov/datamanagement>

Guidance for Checking Metadata with Data:

<http://www.usgs.gov/datamanagement/documents/CheckingMetadataWithData.pdf>



*Federal Geographic Data Committee Content Standard for Digital Geospatial Metadata

**International Organization for Standardization

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Preparing for a Data Release

Organize data and choose file formats

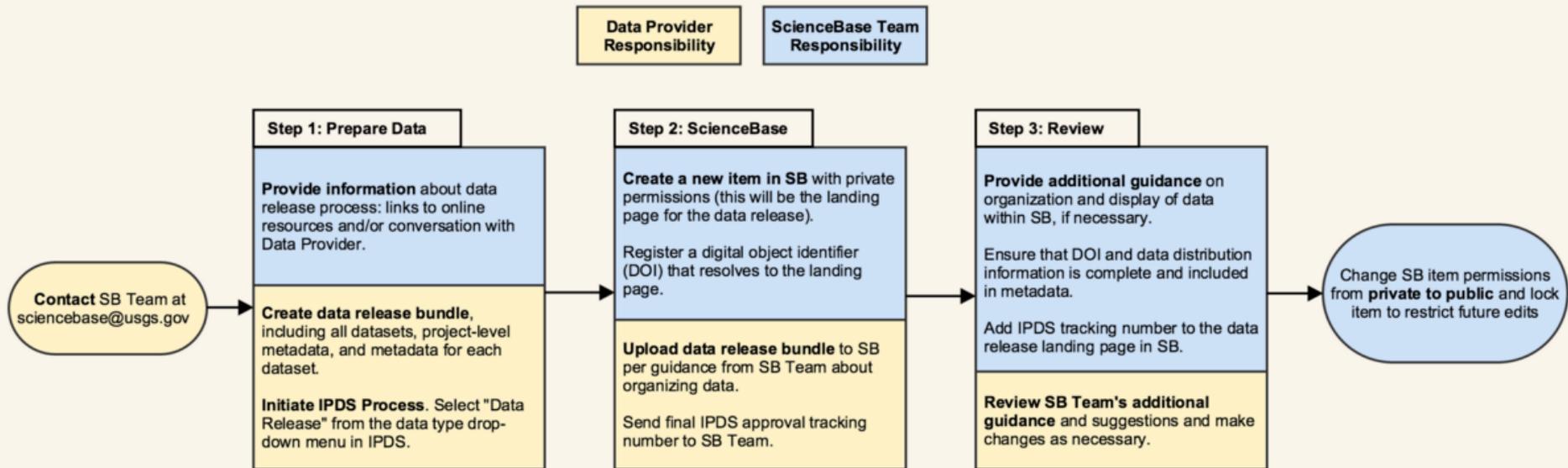
- Which organizational presentation makes the most sense? Try to anticipate downstream use, or common needs of possible users.
- Each individual dataset or structured collection of data files within a data release should have a unique metadata record.
- A metadata record that describes the entire data release is also recommended in most cases.

The ScienceBase Team is Here to Help

- The ScienceBase Team can:
 - Assist in creating a data release landing page and obtain a resolvable DOI to the URL
 - Provide recommendations for how to work through the steps in the process
 - Ensure the data release meets the requirements within ScienceBase
 - Arrange to send metadata to the USGS Science Data Catalog, if desired
- Please contact sciencebase@usgs.gov

The Workflow

Data Release Through ScienceBase (SB): Workflow



For more information: <https://www.sciencebase.gov/about/content/data-release>

Step 1: Prepare Data

- Contact the ScienceBase team at sciencebase@usgs.gov
- Be prepared to provide:
 - Title, Authors (including initials and author order), Abstract
 - IPDS IP number for the data release
 - Type of data, file size, number of datasets
- The team helps create a landing page and issue a DOI.
 - Page will have controlled permission settings and won't be public while the data release is in progress

Step 2: ScienceBase

- Determine the best structure for your data

Single Dataset
One ScienceBase Page

This screenshot shows a single ScienceBase page for the dataset 'Historical methyl mercury in San Francisco Bay'. The page layout includes a title bar with navigation options, a 'Dates' section with publication, start, and end dates, a 'Citation' section with a full academic reference, a 'Summary' section with a brief description of the study, a 'Map' section with a geographical map, and several other sections: 'Communities', 'Associated Items', 'Tags', 'Contacts', 'Provenance', 'Audit History', and 'Permissions'. The 'Attached Files' section at the bottom shows a table of files with columns for file name, date, size, and download options.

Multiple Datasets
One Top Level Page and Multiple Child Items

This screenshot shows a ScienceBase page for the dataset '2013 Raw Ground Penetrating Radar Data on Alaska's Glaciers'. The main page features a title bar, 'Dates', 'Citation', 'Summary', 'Map', 'Spatial Services', 'Communities', 'Associated Items', 'Tags', 'Contacts', 'Provenance', 'Audit History', and 'Attached Files' sections. A 'Child Items' section is highlighted with a blue arrow, pointing to a stack of seven smaller thumbnail pages. Each thumbnail represents a specific glacier dataset, such as 'Raw Ground Penetrating Radar Data, Eureka Glacier, Alaska, 2013' and 'Raw Ground Penetrating Radar Data, Wolverine Glacier, Alaska, 2013'. The thumbnails show the same layout as the main page but are smaller and partially overlapping.

Step 2: ScienceBase

- Upload your metadata to ScienceBase to populate the necessary information for your item(s).
- If there are multiple datasets:
 - One metadata record describing the entire data release, to be uploaded to the top-level landing page
 - Metadata records for all individual datasets, to be uploaded to separate child items



Historical methyl mercury in San Francisco Bay

Metadata:

- [Identification Information](#)
- [Data Quality Information](#)
- [Usage and Access Information](#)
- [Distribution Information](#)
- [Metadata Reference Information](#)

Identification Information:

Citation:

Citation Information:

Originator: Steven E. Schwezbach
Originator: Joshua T. Ackerman
Originator: Colina A. Engler-Smith
Originator: Michael L. Chessa
Originator: Adia L. Yee
Originator: Alan C. Heyvaert
Originator: David P. Krabbenhoft
Originator: Tracy V. D. Bus
Originator: John Y. Taklewa
Publication Date: 2015

Title:
Historical methyl mercury in San Francisco Bay

Geospatial Data Presentation Form: Tabular Output Data

Publication Information:

Publication Place: Sacramento, CA
Publisher: U.S. Geological Survey

Online Linkage: <http://dx.doi.org/10.5066/71P5XK2>

Description:

Abstract:

San Francisco Bay, California is considered a mercury-impacted watershed. Elevated concentrations of mercury in water, sediment as well as fish and estuarine birds. Sources of mercury to the watershed include associated mercury from mercury mining, mercury losses from gold and platinum activities and aerial deposition of mercury from global and regional emissions to air, and the direct discharge associated with the urbanization and industrialization of the estuary. We assessed historical tree bioaccumulation by measuring mercury concentrations in needles of the endangered California Redwood (Sequoia sempervirens) in forests of the endangered California Redwood (Sequoia sempervirens) forests. We developed a structural equation model to assess historical mercury bioaccumulation in trees to sources of mercury, and estimated the toxicology mercury exposure to fish from known correlations between feather and blood mercury content

Create a Landing Page for a Single Table, with Metadata

If it's not
published,
it's not
science.

Create Child Items & Upload Geospatial Data

If it's not
published,
it's not
science.

ScienceBase Geospatial Web Services

Shapefile



ScienceBase generates:
Web Map Service (WMS)
Web Feature Service (WFS)

GeoTIFF

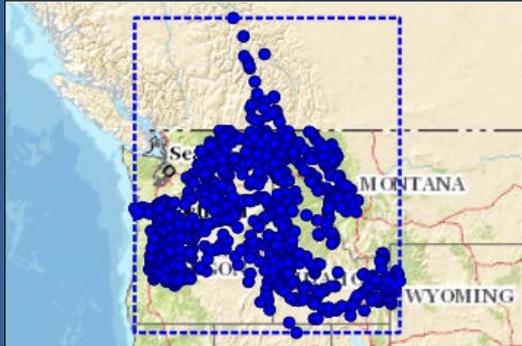


ScienceBase generates:
Web Map Service (WMS)
Web Coverage Service (WCS)

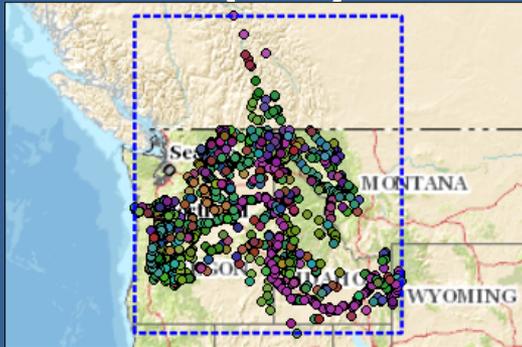
<https://www.sciencebase.gov/about/content/sciencebase-geospatial-services>

ScienceBase Geospatial Web Services

Shapefile



Service Definition (SD)



GeoTIFF



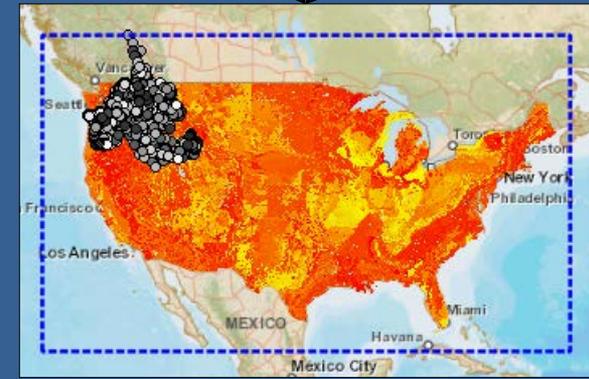
SD



Shapefile & GeoTIFF



SD



<https://www.sciencebase.gov/about/content/sciencebase-geospatial-services>

ScienceBase Geospatial Web Services

Digital Representation of Oil and Natural Gas Pad Scars in Southwest Wyoming-2012 Update

Go to ▾

View ▾

Dates

Publication Date : 2015

Time Period : 2012

Summary

The recent proliferation of oil and natural gas energy development in the Greater Green River Basin of southwest Wyoming has accentuated the need to understand wildlife responses to this development. The location and extent of surface disturbance that is created by oil and natural gas well pad scars are key pieces of information used to assess the effects of energy infrastructure on wildlife populations and habitat. A digital database of oil and natural gas pad scars had previously been generated from 1-meter (m) National Agriculture Imagery Program imagery (NAIP) acquired in 2009 for a 7.7-million hectare (ha) (19,026,700 acres) region of southwest Wyoming (Garman and McBeth, 2014). Scars included the pad area where wellheads, pumps, and storage facilities reside and the surrounding area that was scraped and denuded of vegetation during the establishment of the pad. Scars containing tanks, compressors, the storage of oil and gas related equipment, and produced-water ponds were also collected on occasion.

This map displays data from U.S. Geological Survey Data Series report 934 (available at <http://dx.doi.org/10.3133/ds934>). This Data Series report updates the digital database for the five counties of southwest Wyoming (Carbon, Lincoln, Sublette, Sweetwater and Uinta Counties) and for a limited portion of Fremont County within the Wyoming Landscape Conservation Initiative (WLCI) study area using 2012 1-m NAIP imagery and

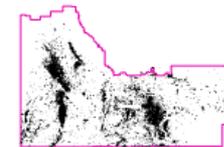
⌵ ... show more ... ⌵

Contacts

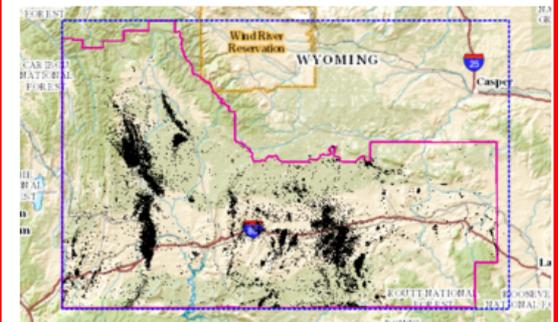
Point of Contact : U.S. Geological Survey

Distributor : U.S. Geological Survey

Metadata Contact : Steven L Garman



Map »



Spatial Services

ArcGIS REST Service :

<https://www.sciencebase.gov/arcg>



ArcGIS WMS Service :

<https://www.sciencebase.gov/arcg>



ArcGIS WFS Service :

<https://www.sciencebase.gov/arcg>



ScienceBase Geospatial Web Services

ArcGIS REST Service Example

Wyoming Landscape Conservation Initiative

Conserving world-class wildlife resources. Facilitating responsible development.

[WLCI Home](#) [Interactive Maps Home](#) [Calendar](#) [Projects](#) [Tools & Resources](#) [Reports & Documents](#) [Meetings](#) [About Us](#)

Digital Representation of Oil and Natural Gas Pad Scars in Southwest Wyoming-2012 Update

This map displays data from U.S. Geological Survey Data Series 934 (Garman and McBeth, 2015). A digital database of oil and natural gas pad scars has previously been generated for a 7.7-million hectare (19,026,700 acres) region of southwest Wyoming (Garman and McBeth, 2014). Data Series 934 updates the digital database for the five counties of southwest Wyoming (Carbon, Lincoln, Sublette, Sweetwater and Uinta Counties) and for a limited portion of Fremont County within the WLCI study area using 2012 1-m NAIP imagery and 2012 oil and natural gas well permit information (Blewick and Wilson, 2014). Data Series 934 adds pad scars created since 2009, and updates attributes of all pad scars using the 2012 well permit information. The new database contains 17,404 pad scars of which 15,532 are attributed as oil and natural gas well pads.

Blewick, L.R.H., and Wilson, A.B., 2014, Energy map of southwestern Wyoming, Part B—Oil and gas, oil shale, uranium, and solar: U.S. Geological Survey Data Series 843, 20 p., 4 pls., <http://dx.doi.org/10.3133/ds843>.

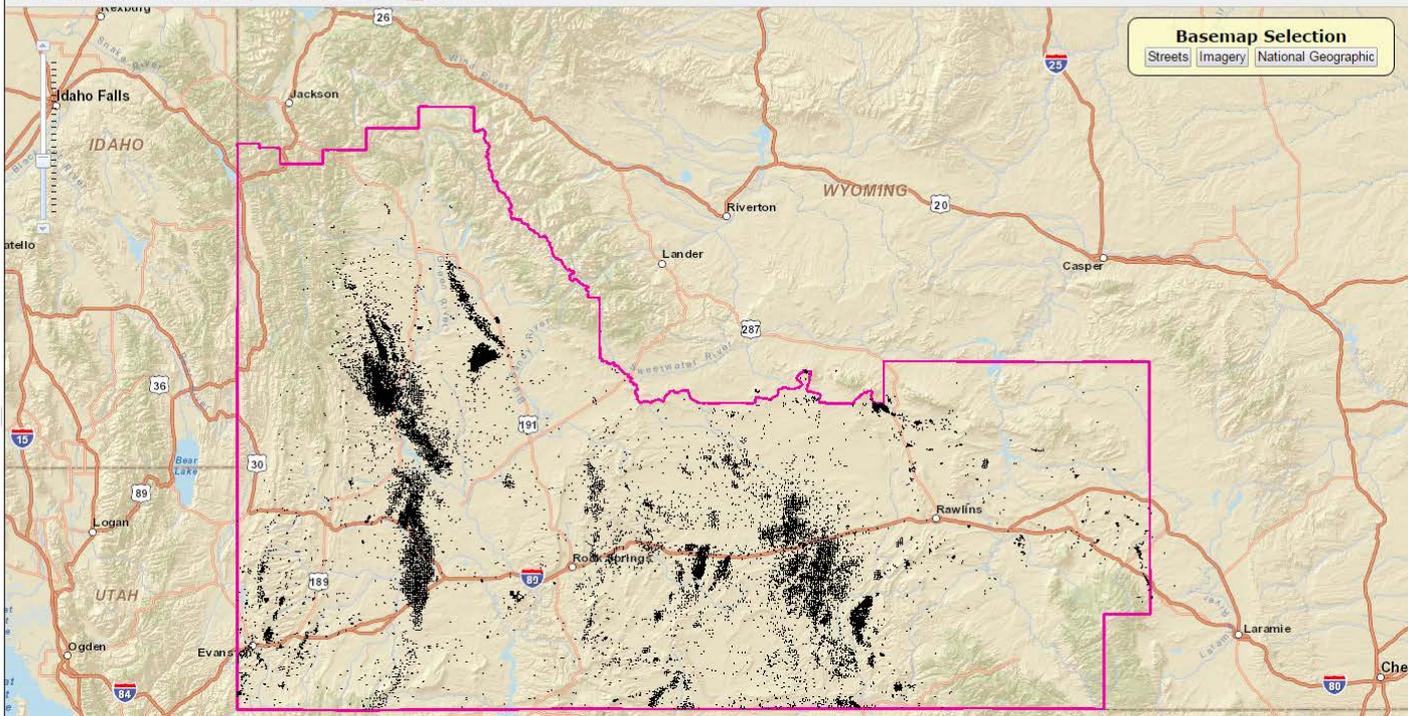
Garman, S.L., and McBeth, J.L., 2015, Digital representation of oil and natural gas well pad scars in southwest Wyoming—2012 update [abs.]: U.S. Geological Survey Data Series 934, <http://dx.doi.org/10.3133/ds934>.

Garman, S.L., and McBeth, J.L., 2014, Digital representation of oil and natural gas well pad scars in southwest Wyoming: U.S. Geological Survey Data Series 800, 7 p., <http://dx.doi.org/10.3133/ds800>.

FGDC Metadata(Pad Scars) Sciencebase Item Entry

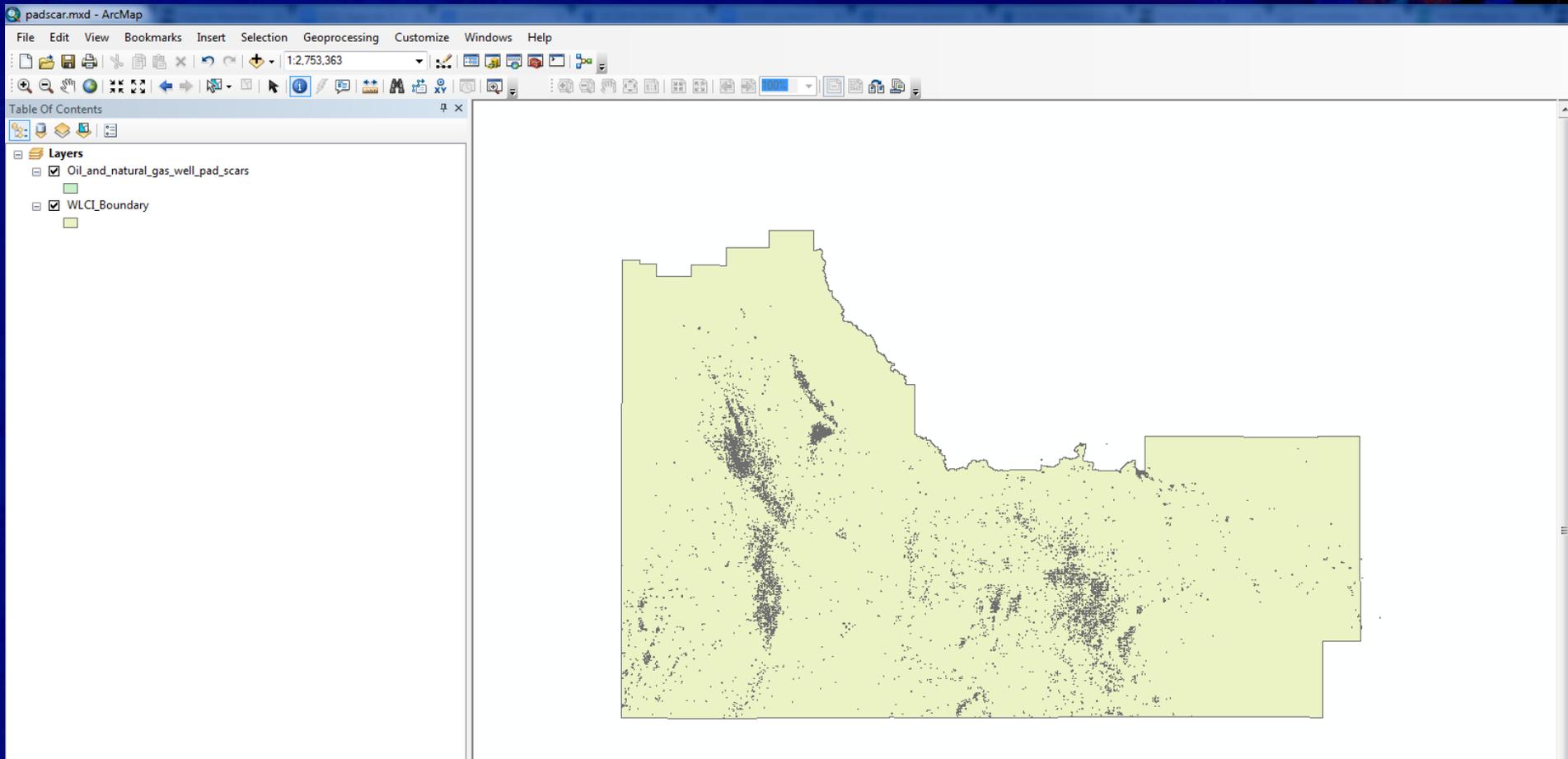
- Oil and natural gas well pad scars
- Oil and gas well pads
- Possible oil and gas well pads (lack documented well points in the vicinity)
- Produced water ponds from oil and gas extraction
- Storage tanks, compressors and storage of oil and gas-related equipment
- WLCI Boundary

Full Extent Prev Extent Next Extent Measure



ScienceBase Geospatial Web Services

Web Feature Service Example



Step 3: Review



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ScienceBase

Home

Using ScienceBase

The ScienceBase Catalog

FAQs

About

Documentation Wiki

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Data Release Checklist

The ScienceBase Team will check that:

- Metadata records pass validation by the [metadata parser tool](#).
- In the metadata:
 - The DOI is in the online link field (citation section of the metadata) and the network resource field (distribution section of the metadata). DOI is entered as the full URL (e.g. <http://dx.doi.org/10.5066/xxxxxxx>)
 - ScienceBase is listed as the distributor (see [FAQs](#) for content)
 - The distribution section includes the distribution liability statement (see [FAQs](#) for content)
- The citation format is correct (see [FAQs](#) for format and examples), and citations on all child items are match.
- You have provided the ScienceBase team with the IPDS number (it will be entered into the landing page in the "Additional Information" section).
- Data are in common, non-proprietary formats (exceptions may apply).
- All datasets have corresponding metadata records. Metadata records should be uploaded as separate files (not zipped with the data) so that users can view the metadata (the clickable "View" option shows up on the right side of uploaded metadata files).
- Structure: data and corresponding metadata files are uploaded to child items nested one level below the landing page (no empty container folders). If there is only one dataset component in the data release (e.g. a single CSV table), this can be uploaded directly to the landing page. Each child item should have only one metadata record, because the SDC can harvest only one metadata record from an item.
- Uploaded files have meaningful filenames and titles. If there are links in the "Related External Resources" section, the links also have meaningful titles.
- Names in the contact section have a format of first name, middle initial, last name. If a name doesn't have the correct format, you can edit it in the edit form. The edit form has an autocomplete feature that suggests names from the ScienceBase directory.
- If there are in-text citations (e.g. Jones, 2015) in the summary section, there are corresponding full citations at the end of the summary.
- If you would like to reference and link to an associated publication, add the full citation to the summary section. It is also possible to add publication DOIs as links in the "Related External Resources" section (links should include a title).

<https://www.sciencebase.gov/about/content/data-release-checklist>



Completing your Data Release

- You can now:

- Cite your data in your publication

- Cite your publication in your ScienceBase data release

- Send your metadata record for inclusion in the USGS Science Data Catalog

<http://data.usgs.gov/datacatalog/sciencedatacatalog@usgs.gov>

Abstract Article **References** Supporting Information Cited By

View Full Article with Supporting Information (HTML) | Enhanced Article (HTML) | Get PDF (2487K) | Find It @ USGS

References

Aldridge, C.L., Nielsen, S.E., Beyer, H.L., Boyce, M.S., Connelly, J.W., Knick, S.T. & Schroeder, M.A. (2008) Range-wide patterns of greater sage-grouse persistence. *Diversity and Distributions*, **14**, 983–994.
[Abstract](#) | [Article](#) | [PDF\(1373K\)](#) | [References](#) | [Web of Science® Times Cited: 42](#)
[Find It @ USGS](#)

Coates, P.S., Casazza, M.L., Ricca, M.A., Brussee, B.E., Blomberg, E.J., Gustafson, K.B. et al. (2015) Data from: Integrating spatially explicit indices of abundance and habitat quality: an applied example for greater sage-grouse management. *ScienceBase Repository*, <http://dx.doi.org/10.5066/7F5D8PW8>.

Connelly, J.W., Knick, S.T., Schroeder, M.A. & Stiver, S.J. (2004) Conservation assessment of greater sage-grouse and sagebrush habitats. Unpublished Report, Western Association of Fish and Wildlife Agencies; Cheyenne, Wyoming. http://sagemap.wr.usgs.gov/docs/Greater_Sage-grouse_Conservation_Assessment_060404.pdf.

De Reu, J., Bourgeois, J., Bats, M., Zwertvaegher, A., Gelorini, V., De Smedt, P. et al. (2013) Application of the topographic position index to heterogeneous landscapes. *Geomorphology*, **186**, 39–49.
[CrossRef](#) | [Web of Science® Times Cited: 11](#) | [ADS](#)

Summary

Spatial reconnaissance of fluvial microcystins (MC) concentrations and select water-quality parameters, including nutrients and periphyton biomass, in 75 Wadeable streams in the Piedmont region of the southeastern USA during 2014. Data set includes only those data specifically discussed in the associated journal article:

Loftin, K.A., Clark, J.M., Journey, C.A., Kolpin, D.W., Van Metre, P.C., and Bradley, P.M., 2016, Spatial and temporal variation in microcystins occurrence in Wadeable streams in the southeastern USA: *Environmental Toxicology & Chemistry*, <http://dx.doi.org/10.1002/etc.3391>.

USGS
United States Geological Survey

U.S. Geological Survey Science Data Catalog

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USGS Groundwater Data for the Nation
National Water Information System (NWIS)

Data Source: Water National Spatial Data Infrastructure Node
Water Data Water Parameters

Single Date: Interval: End Date: 12/31/2014

The USGS compiles water quality water resources data collected approximately 13 million sites in all 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa and the Commonwealth of the Northern Mariana Islands.

Your source for open data within USGS

Frequently Accessed USGS Data

Currently Highlighted USGS Data

The National Map Data

Earthquake Research Program

Biodiversity Information Science Data Service

South Florida Hydrology

The USGS Science Data Catalog provides

Additional Considerations

- Granting access to private ScienceBase items
- Conducting anonymous, external journal reviews using ScienceBase

Permissions 

Readable By: (INHERITED)

- USER:mlangseth@usgs.gov

Writable By: (INHERITED)

- USER:mlangseth@usgs.gov

Item Actions

Manage Item
Lock
Edit
View Audit History
View Metrics
Manage Permissions
Manage Anonymous Access Links

Thank You

Please email the ScienceBase Data Release Team with questions or comments

- sciencebase@usgs.gov

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published,
it's not
science.