

Project Data Management on ESS-DIVE

Madison Burrus

Computer Systems Engineer













Objectives



- Introduce new project data management features
- Learn how to set up project data management features
 - Plus a live demo of creating teams and sharing datasets
- Feedback Session: tell us what your project needs!

This session is designed for data managers and ESS Project Pls

What is your primary role in your research group?

Field Scientist/Data Collector

Lab Scientist/Data Analyzer

Data Manager

Data User

Р



How are you hoping to manage your project's data on ESS-DIVE?

Top





NEW Project Data Management Features





Dataset Sharing

Collaborate on a single dataset

Data Portals

Create a collection of datasets

External Linking

Link to other repos and data systems

NEW Suite of Project features

Enables dataset sharing across a project



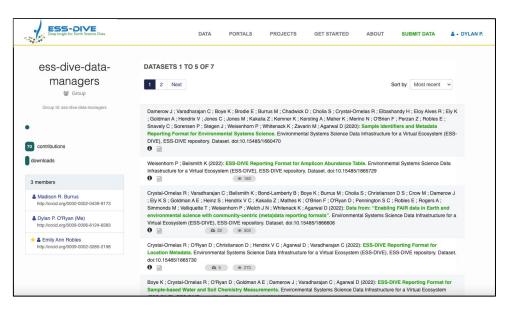
Motivation: why use the new project features?

The project data management features make it easy to share access to datasets across a project

Project's can now create **teams** and then **share datasets** with teams

Sharing a dataset with a team grants all team members access that dataset

As more datasets are shared with a team, this creates a central location to manage access project datasets across groups of people

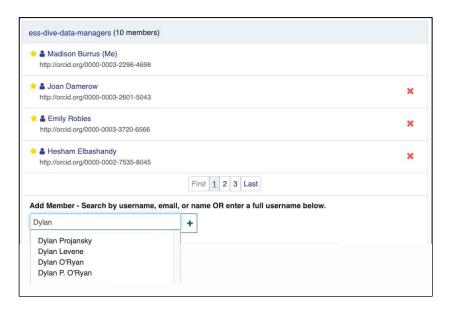




Manage team members

Only PIs and data managers can create teams and manage who is in a group

- PIs must approve who can be data managers for their project
- Pls/data managers can add or remove team members at any time
- Change who can access all datasets in a team profile simply by changing the team members



Example of adding someone to a team

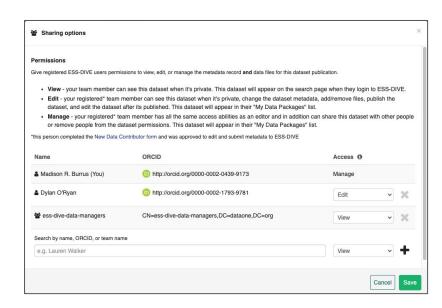


Manage team access to datasets

With PIs managing team members, data contributors can simply share their datasets with a team

- Share datasets with a team by looking up the team name
- You can add or remove teams/people from the sharing options at any time

The idea is to share datasets with teams as a default and then manage those team members over time as project members change



Example of a dataset shared with one team and one individual

Overview of NEW Project Management Features

When used in tandem, the following 5 new project management features support sharing across a project. **Each project must first setup these features** before they can start using them:

- 1. ESS-DIVE's Project List: Controlled list of projects approved to store data
- 2. Project Data Manager Role: Someone approved by their PI to create teams
- 3. My Projects page: A place to access teams and other project information
- **4. Teams**: A group of ESS-DIVE users that is managed by project data managers
- 5. Share with teams: Any data contributor can share their datasets with teams



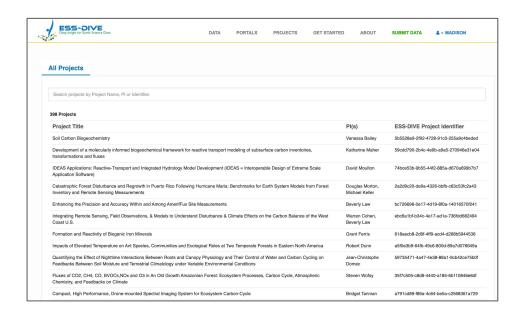
ESS-DIVE's Project List

A searchable list of projects **approved to publish data** on ESS-DIVE

- This list does away with inconsistent project titles and provides a controlled list of unique project identifiers
- Ensures your dataset citations are consistent within ESS-DIVE

As a first step, make sure your project information is present and correct

Pls will need to email ESS-DIVE to update project information or add a project.



https://data.ess-dive.lbl.gov/projects



Project Data Managers

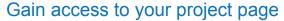
A project data manager is a role in ESS-DIVE that enables you to access your projects and teams.



Become a project data manager









Create teams for your project

How to Become a Project Data Manager



Pls and Co-Pls:

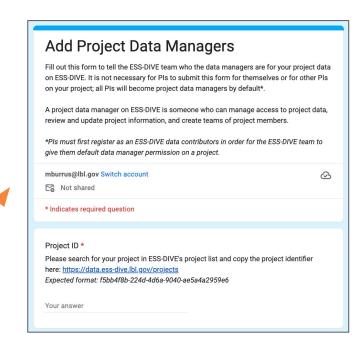
Automatically project data managers

- First register as a data contributor
- If you can't access your project(s) once you are registered, contact ESS-DIVE

All other project members:

PI permission required

- Register as a data contributor
- Ask your PI to fill out the <u>Add Project</u> <u>Manager form</u> to grant you approval



If you are on multiple projects, each project PI will need to approve you individually





ESS-DIVE Deep Insight for Earth Science Data	DATA	PORTALS	PROJECTS	GET STARTED	ABOUT	SUBMIT DATA	♣ - MADISON R.		
All Projects									
Search projects by Project Name, PI or Identifi	fier.								
399 Projects									
Project Title	PI(s)	PI(s)		ESS-DIVE Project Identifier					
Investigating Bedrock Groundwater Recharge Dynamics in Mountainous Watersheds					Payton Gardner		33c950db-dd75-4120-bbf0-ddc7f0aa5d6d		
Soil Carbon Biogeochemistry	Vanessa Bailey	Vanessa Bailey		5b5528e9-2f92-4728-91c0-255a9c4beded					
Formation and Reactivity of Biogenic Iron Minerals					Grant Ferris		618aecb8-2d9f-4ff9-acd4-d268b5944536		
Long-Term Sequestration of Uranium in Iron-Rich Sediment					Craig Criddle		22948a0a-94fd-41ac-b89f-9a21fce3815f		
Connecting AmeriFlux to the Globe, Extending the Partnership with the Global Flux Network, FLUXNET					Dennis Baldocchi		7da40405-04f1-4da4-a7c7-fd04ea9dfdba		
Measurements and Modeling Of CO2 Concentration and Isotopes to Improve Process-Level Understanding of Arctic and Boreal Carbon Cycling					Ralph Keeling		bee89174-ad4d-4098-b5e1-0fa4f26e218a		
Scaling from Flux Towers to Ecosystem Models: Regional Constraints on Carbon Cycle Processes from Atmospheric Carbonyl Sulfide					John Campbell		2f73306d-9a4e-46b2-a1a9-c1f4f461b24c		
Climate Change Impacts at the Temperate-Bo	n Peter Reich	Peter Reich		50493429-e8ad-4112-babb-5971908a02d8					
Next-Generation Ecosystem Experiments (NGEE) Tropics				Jeffrey Chambe			a441fe85-5ac3-41b1-bbe5-46df92682609		





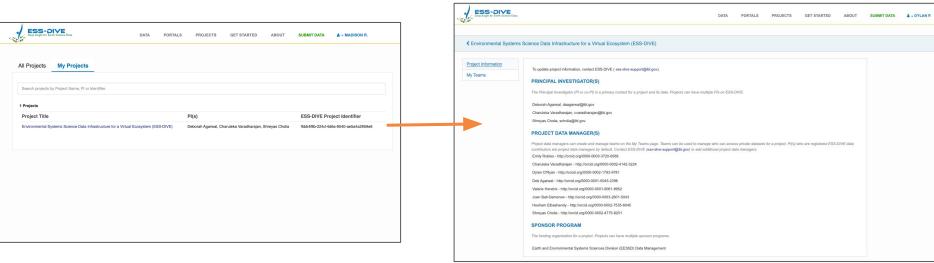
The "My Projects" tab will appear on the projects page.

This tab is only visible to project managers.

ESS-DIVE Deep lasight for Earth Science Data	DATA	PORTALS	PROJECTS	GET STARTED	ABOUT	SUBMIT DATA	♣ ~ MADISON R.	
All Projects My Projects								
Search projects by Project Name, PI or Identifier.								
399 Projects								
Project Title				PI(s)		ESS-DIVE I	ESS-DIVE Project Identifier	
Investigating Bedrock Groundwater Recharge Dynamics in Mountaine	Payton Gardner		33c950db-dd7	33c950db-dd75-4120-bbf0-ddc7f0aa5d6d				
Soil Carbon Biogeochemistry				Vanessa Bailey		5b5528e9-2f9	5b5528e9-2f92-4728-91c0-255a9c4beded	
Formation and Reactivity of Biogenic Iron Minerals	Grant Ferris		618aecb8-2d9f-4ff9-acd4-d268b5944536					
Long-Term Sequestration of Uranium in Iron-Rich Sediment	Craig Criddle		22948a0a-94fd-41ac-b89f-9a21fce3815f					
Connecting AmeriFlux to the Globe, Extending the Partnership with the	Dennis Baldocchi		7da40405-04f1-4da4-a7c7-fd04ea9dfdba					
Measurements and Modeling Of CO2 Concentration and Isotopes to Improve Process-Level Understanding of Arctic and Boreal Carbon Cycling				Ralph Keeling		bee89174-ad4d-4098-b5e1-0fa4f26e218a		
Scaling from Flux Towers to Ecosystem Models: Regional Constraints Carbonyl Sulfide	s on Carb	on Cycle Processe	s from Atmospheric	John Campbell		2f73306d-9a4	e-46b2-a1a9-c1f4f461b24c	
Climate Change Impacts at the Temperate-Boreal Ecotone: Interaction	ns Betwe	en Warming and Pr	recipitation	Peter Reich		50493429-e8a	ad-4112-babb-5971908a02d8	
Next-Generation Ecosystem Experiments (NGEE) Tropics				Jeffrey Chambers		a441fe85-5ac3-41b1-bbe5-46df92682609		
Incorporating Rhizosphere Interactions and Soil Physical Properties into a Soil Carbon Degradation Model through Experimenting Across Ecotypes				Aimee Classen		02fd3523-c84f	02fd3523-c84f-4275-9662-30099cec3079	



My Projects page



Quickly check if which projects you are assigned project data manager to

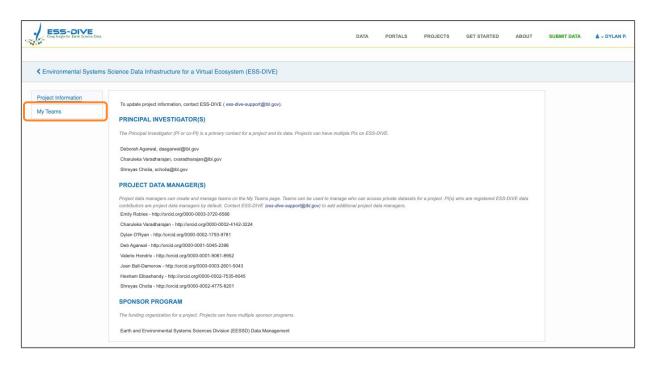
Quickly check who else has project data manager access to your project

Project Information page



View your project pages

Project Information page



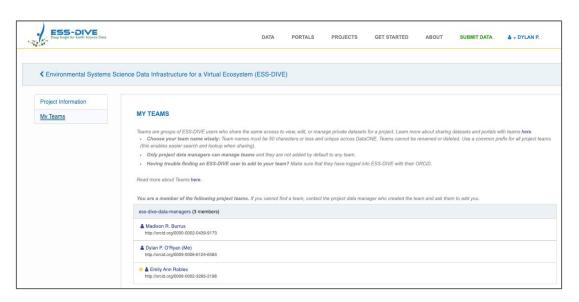


My Teams

The My Teams page lists teams you are a member of within a project

- View teams you are a member of
- Create teams for your project
- Manage team members

Projects can have multiple teams



Project managers won't see a project team here unless they are added to that team



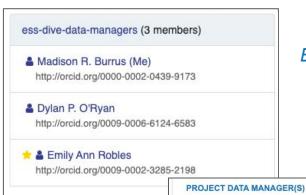
My Teams

The My Teams page lists teams you are a member of within a project

- View teams you are a member of
- Create teams for your project
- Manage team members

Projects can have multiple teams

Consider adding project data managers to every team within a project



Example of a team

Project data managers are not a team and do not behave like a team

Project data managers can create and manage teams on the My Teams page. Teams can b contributors are project data managers by default. Contact ESS-DIVE (ess-dive-support@lb

Emily Robles - http://orcid.org/0000-0003-3720-6566

Charuleka Varadharajan - http://orcid.org/0000-0002-4142-3224

Dylan O'Ryan - http://orcid.org/0000-0002-1793-9781

Deb Agarwal - http://orcid.org/0000-0001-5045-2396

Valerie Hendrix - http://orcid.org/0000-0001-9061-8952

Joan Ball-Damerow - http://orcid.org/0000-0003-2601-5043

Hesham Elbashandy - http://orcid.org/0000-0002-7535-8045

Shreyas Cholia - http://orcid.org/0000-0002-4775-8201



Teams

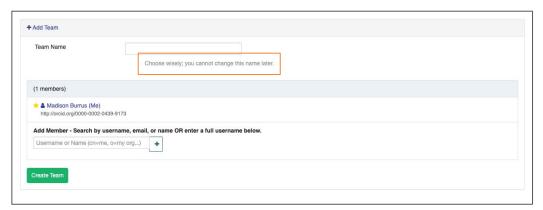
Teams are groups of ESS-DIVE users

 i.e. someone who has logged into ESS-DIVE with their ORCID

While you can manage team members at any time, teams cannot be renamed or deleted

When creating a team it's important to first consider who you want to be on the team and what the team is for

This is why ESS-DIVE recommends using our test service, **Sandbox**, to play around with teams first



Project data managers can add anyone who has logged into ESS-DIVE to a team

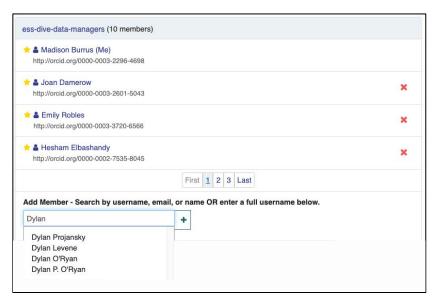


Creating teams

When creating a team it's important to first consider who you want to be on the team and what the team is for

What can teams be used for?

- Data managers who need to manage project dataset permissions and publication
- Collaborators who need to edit the same datasets together
- Reviewers who need to view private datasets



Teams cannot be deleted or renamed

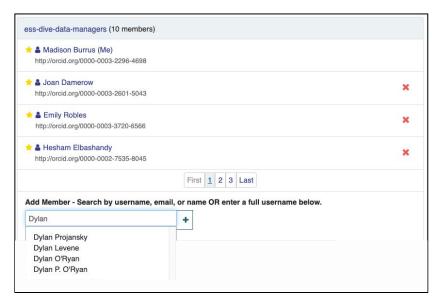


Team Names

When creating a team it's important to first consider who you want to be on the team and what the team is for

ESS-DIVE's recommendations for naming teams:

- Use common prefix for all teams in your project
- Use the intended purpose or access level* as suffix
- Have a team just for project data managers



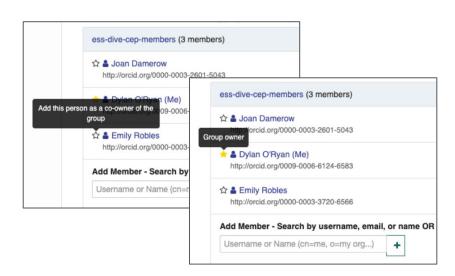
Teams cannot be deleted or renamed



Teams Owners

A team co-owner can add and remove team members over time

- The project manager who created the team is the only team owner at first
- Add one co-owners after creating a team by starring their name





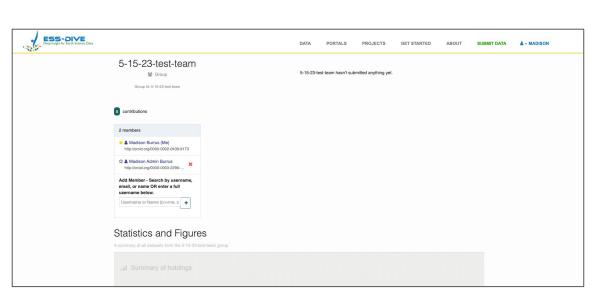
Sharing datasets with teams

Datasets are not shared with any project teams by default

Projects will need to **manually share** all project datasets with
teams

Pls and project data managers should work with your data contributors

Team permissions are simple and don't assume how projects want to share their data



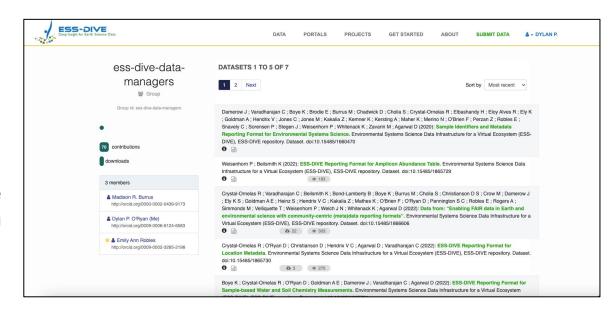
Example of a test team on Sandbox



Sharing datasets with teams

Data contributors should start sharing with data managers at the time they submit a new dataset

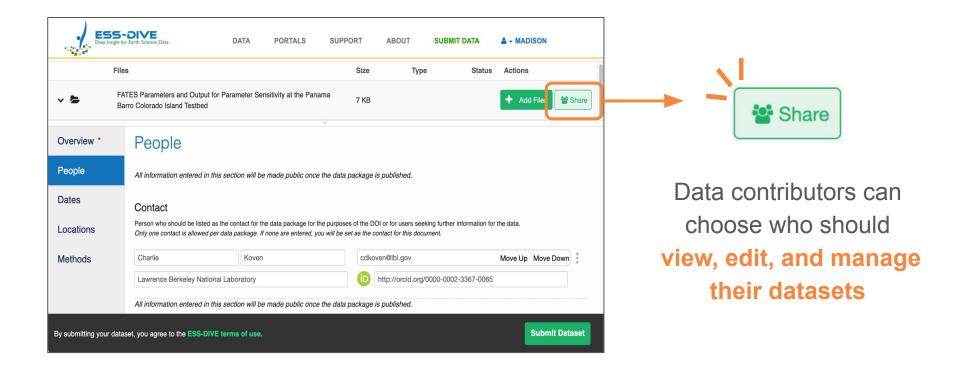
Data managers will then be able to access shared datasets from the team profile right away



Consider sharing manage access with data managers to allow data managers to independently update data permissions in the future



Sharing datasets with teams







Viewer

Editor

Manager

view private datasets

- **view** private datasets
- edit metadata
- add/remove files
- publish datasets

- **view** private datasets
- edit metadata
- add/remove files
- publish datasets
- share datasets with others



Why share datasets with teams?

- Collaborate with team members and co-authors
- Provide Pls and data managers access to project datasets
 - Manually share project datasets to view all public <u>and private datasets</u> together

Benefits of sharing with teams:

- Easy to share with a consistent group, instead of one person at a time
- Update team members over time, instead of individual dataset permissions
 - As people enter or leave a project, manage the team members who can access project datasets

ESS-DIVE

Recap: Project Setup Workflow

- 1. Check the **Project List** to ensure your project information is accurate
 - a. Pls: Contact ESS-DIVE if information in out of date
- **2.** Register as a data contributor
 - a. Pls: Check that you were automatically assigned as a project manager
- 3. Pls: Fill out Add Project Data Manager form
 - a. Everyone else: Ask your PI(s) to fill out the Add Project Data Manager form
- 4. Visit your **project page** and verify project information
- **5.** Create **teams** for your project
- **6. Share** your datasets with your project teams

Overview of Roles on ESS-DIVE





ESS-DIVE User

Someone who logged into ESS-DIVE using their ORCID.



Data Contributor

An ESS-DIVE user who was approved by ESS-DIVE to upload data; they can create, edit, and publish datasets.



NEW: Project Data Manager

A data contributor approved by a project PI to create and manage teams for that project.



NEW: Team

A group of ESS-DIVE users who share access permissions to datasets and data portals.









How-To Set up Project Management

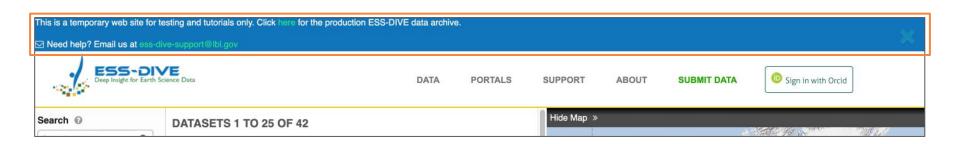


Practice using ESS-DIVE **Sandbox**

Sandbox is a test system where you can practice using any ESS-DIVE feature.

Data on Sandbox is **NOT** preserved in ESS-DIVE.

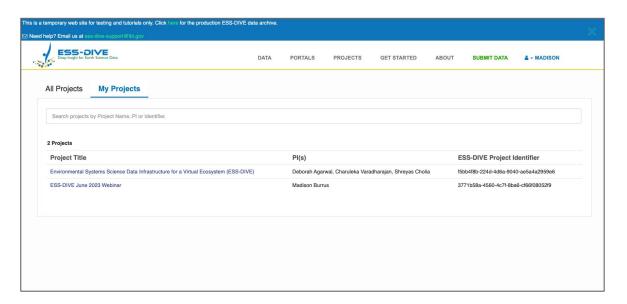
https://data-sandbox.ess-dive.lbl.gov





This webinar uses a fake project on Sandbox

Practice creating teams with project titled "ESS-DIVE June 2023 Webinar"





Practice after webinar

If you would like to try creating teams on the demo project, please login to Sandbox and we'll add you right after the webinar

Create an ORCiD https://orcid.org/register

Sign in to Sandbox https://data-sandbox.ess-d ive.lbl.gov



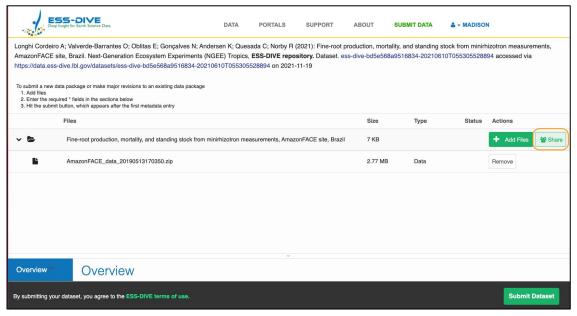
Summary of creating teams

- 1. Select the My Teams page
- Click the "+ Add Team" button at the bottom of the page
- 3. Carefully choose a team name Reminder: teams cannot be deleted or renamed later
- **4.** Search for **team members** by name or ORCID to add them

- 5. Select "Create Team"
- 6. A green pop-up message will appear, click the View it Now link to visit the team profile and ensure your team was successfully created
- 7. Return to your My Teams page
- 8. Add at least one co-owner

Summary of sharing datasets





- Submit new or open existing dataset
 - *new datasets cannot be shared until after initial submission
- 2. Select the "Edit" button then the "Share" button
- **3.** Grant permission to one team and one individual
- 4. Click Save
- 5. Click Submit Dataset



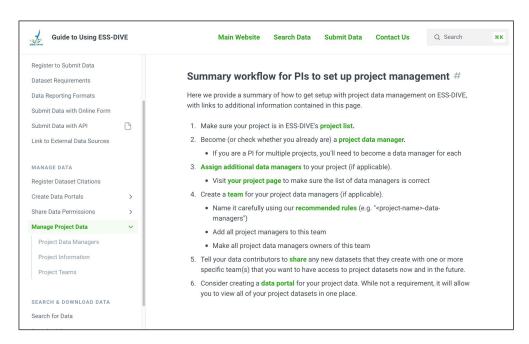
Review the project management set up steps

You can review these steps at any time in our documentation

Manage Project Data

https://docs.ess-dive.lbl.gov/manage-dat a/manage-project-data

Please keep in mind that we highly recommend trying these features out on **Sandbox** first!





What's Next?

What can we do now that we have teams?

- Project data managers can create teams and encourage data contributors to start sharing datasets and portals with teams
- Data contributors can share their datasets with their project teams

Eventually, your teams will have access to a list of datasets.

Project managers can update team members over time as people enter or leave a project



Feedback Session: What do you think?



Connect With Our Team!

To get help:

ess-dive.lbl.gov ess-dive-support@lbl.gov

docs.ess-dive.lbl.gov

To stay updated:

ess-dive-community@lbl.gov

@essdive

https://bit.ly/essdiveMailingList



Acknowledgements

Advisory Groups: ESS-DIVE Archive Partnership Board, ESS Cyberinfrastructure Working Groups Funding: EESSD Data Management