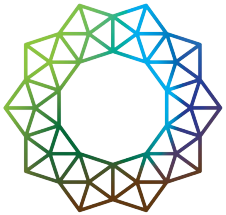


BADM [Biological, Ancillary, Disturbance, & Metadata]

Overview with emphasis on flux-met metadata

2023 Data Tech Workshop
May 11th, 2023
Berkeley/online

Agenda

BADM Basics

Where to find BADM

How to Submit BADM

BADM for flux-met data

Resources

Agenda

BADM Basics

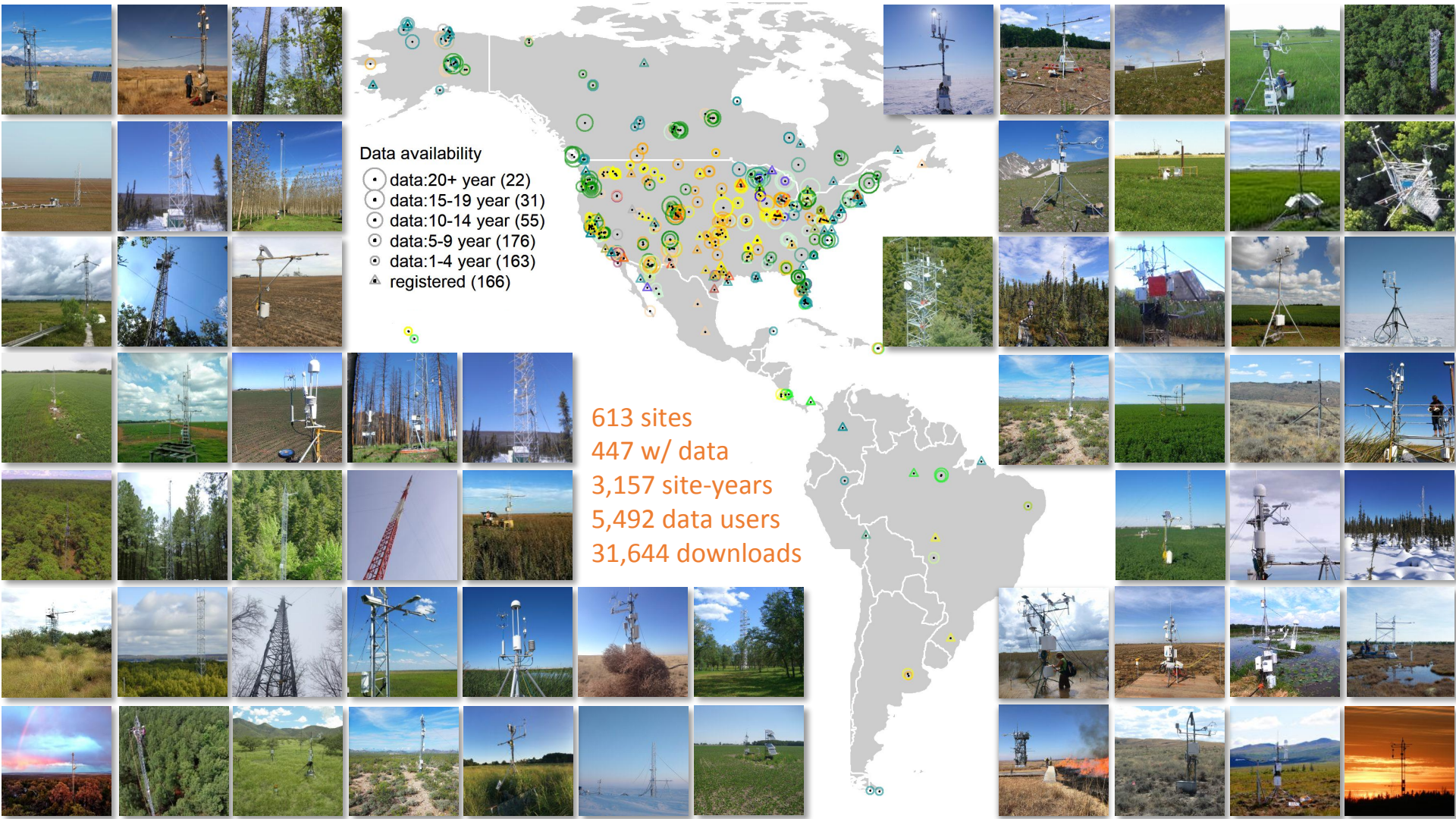
Where to find BADM

How to Submit BADM

BADM for flux-met data

Resources

Image credit: Rachel Hollograss

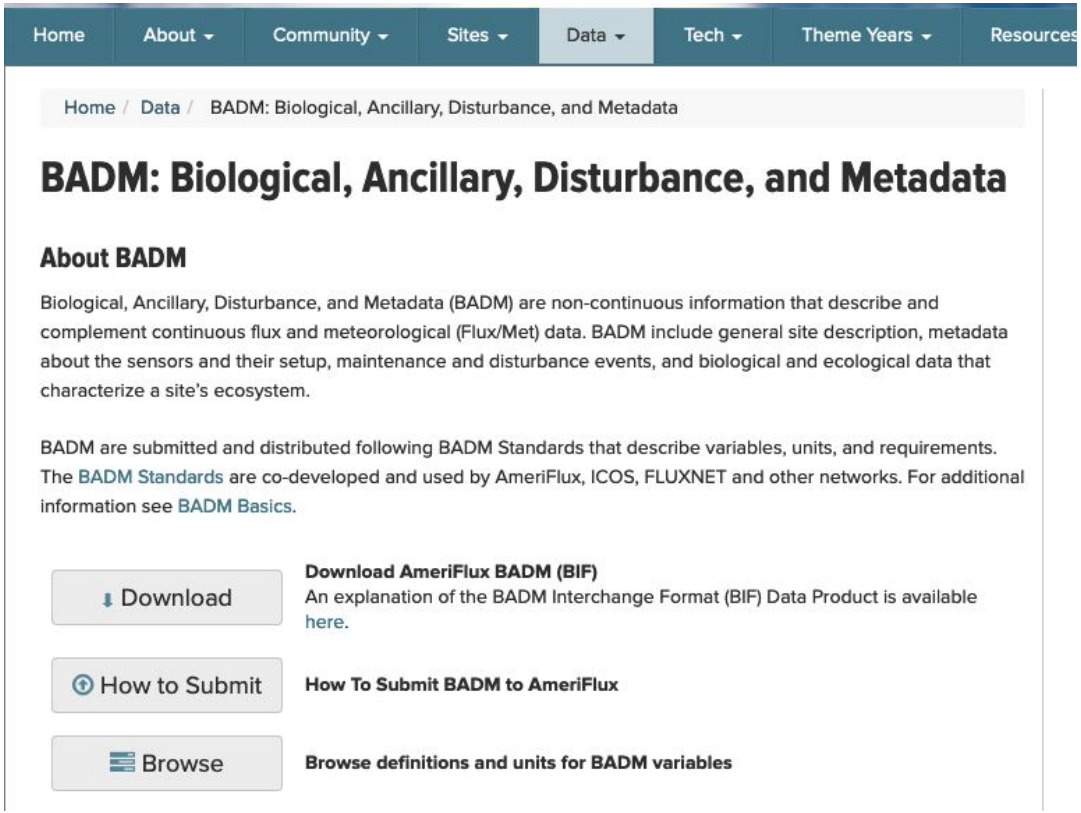

Data availability
data:20+ year (22)
data:15-19 year (31)
data:10-14 year (55)
data:5-9 year (176)
data:1-4 year (163)
registered (166)
613 sites
447 w/ data
3,157 site-years
5,492 data users
31,644 downloads

BADM provides context

Standardized format for AmeriFlux, Fluxnet, ICOS, etc.

Contextual data for sites

- Interpret Flux/Met data
- Ecosystem characteristics
- Disturbances
- Intermittent measurements



https://ameriflux.lbl.gov/data/badm/

1 Examples of BADM: Site General Info

AMERIFLUX

Home | About | Community | Sites | Data | Tech | Theme Years | Resources

Home / Sites / Siteinfo / BR-Npw

Quick Sites: Recents Favorites

BR-Npw: Northern Pantanal Wetland

Overview | Windroses | DOI | Data Use Log | Image Gallery | MODIS | Publications | BADM

Tower_team:

- **PI:** George Vourlitis georgev@csusm.edu - California State University, San Marcos
- **PI:** Higo Dalmagro higojdalmagro@gmail.com - Universidade de Cuiabá
- **PI:** José de S. Nogueira nogueira@ufmt.br - Universidade Federal de Mato Grosso
- **PI:** Mark Johnson mark.johnson@ubc.ca - University of British Columbia
- **PI:** Paulo Arruda paulo.zanella@gmail.com - Universidade Federal de Mato Grosso

Lat, Long: -16.4980, -56.4120

Elevation(m): 120

Network Affiliations: AmeriFlux

Vegetation IGBP: WSA (Woody Savannas: Lands with herbaceous and other understory systems, and with forest canopy cover between 30-60%. The forest cover height exceeds 2 meters.)

Climate Koeppen: Aw (Tropical savanna)

Mean Annual Temp (°C): 24.9

Mean Annual Precip. (mm): 1486

Flux Species Measured: CO2, CH4, H, H2O

Years Data Collected: 2013 - 2017

Years Data Available: 2013 - 2017 DOIs to use for Citation of Data

Description: The site is located in the northern Pantanal in central South America. The site is subject to seasonal flooding with distinct wet seasons (November to ...
See More

URL: —

Research Topics: Carbon fluxes, wetland processes

Publications: Brazilian National Institute for Science and Technology in Wetlands (INCT-INAU), Federal University of Mato Grosso (UFMT - PGFA and PGAT), University of Cuiabá (UNIC) and SESC-Pantanal.

Site Photo More Site Images

Image Credit: Higo Dalmagro
Copyright preference: As long as credit is given

Site Publication More Site Publications

2 Examples of BADM: DOI

AmeriFlux BR-Npw Northern Pantanal Wetland

Dataset Creator(s)	
Name	George Vourlitis
Email	georgev@csusm.edu
Affiliation	California State University, San Marcos
Name	Higo Dalmagro
Email	higojdalmagro@gmail.com
Affiliation	Universidade de Cuiabá
Name	José de S. Nogueira
Email	nogueira@ufmt.br
Affiliation	Universidade Federal de Mato Grosso
Name	Mark Johnson
Email	mark.johnson@ubc.ca
Affiliation	University of British Columbia
Name	Paulo Arruda
Email	paulo.zanella@gmail.com
Affiliation	Universidade Federal de Mato Grosso

Dataset Description

This is the AmeriFlux version of the carbon flux data for the site BR-Npw Northern Pantanal Wetland. Site Description - The site is located in the northern Pantanal in central South America. The site is subject to seasonal flooding with distinct wet seasons (November to April) and dry seasons (May to October).

Dataset Information	
Originating Research Organization(s)	California State University, San Marcos Universidade de Cuiabá Universidade Federal de Mato Grosso University of British Columbia
Country	Brazil
Sponsor Organization(s)	CNPq INCT-INAU

USEFUL LINKS

- People
- Opportunities
- Image Gallery
- Events
- Logos & Acknowledgments
- Tech Blog
- Data Blog
- Safety
- Research Highlights
- Publications
- AmeriFlux Flyers

3 Examples of BADM: Many more...

Root Depth
Soil Characterization

BADM organization: Types, Groups & Variables

Browse BADM Standards

https://ameriflux.lbl.gov/data/badm/badm-standards/

BADM Standards define the variables, units, and requirements for BADM. BADM are organized into a hierarchy: types, groups, subgroups (optional), and variables. See BADM Basics for more details.

Browse BADM Variables by Group

Click a BADM group below (organized by types) to view details for the group. A customizable CSV file can be generated on the group page for BADM submission to AmeriFlux. BADM Standards in MS Excel files can be downloaded here. Some BADM types (e.g., Biomass, CNKP, Fluxes) are scheduled for update. Contact ameriflux-support@lbl.gov, if you are looking for BADM groups not included on this page.

Site General Info

- COUNTRY (Geographic Country)
- URL_AMERIFLUX (AmeriFlux URL)
- HEADER (Site ID, Site Name, Submission details)
- TEAM_MEMBER (Team Membership)
- TEAM_CONTACT
- SHIPPING_ADDRESS
- NETWORK (Network Affiliations)
- FLUX_MEASUREMENTS
- STATE (Geographic State)
- SITE_DESC (Site Description)
- RESEARCH_TOPIC
- SITE_FUNDING
- LOCATION (Geographic Location)
- IGBP (International Geosphere-Biosphere Programme)
- LAND_OWNERSHIP
- URL (Site Website)
- REFERENCE_PAPER (References)
- ACKNOWLEDGEMENT
- UTC_OFFSET

Instrument

- INST (Instrument Information)
- INSTPAIR (Instrument Pairing Information)

BADM Type →

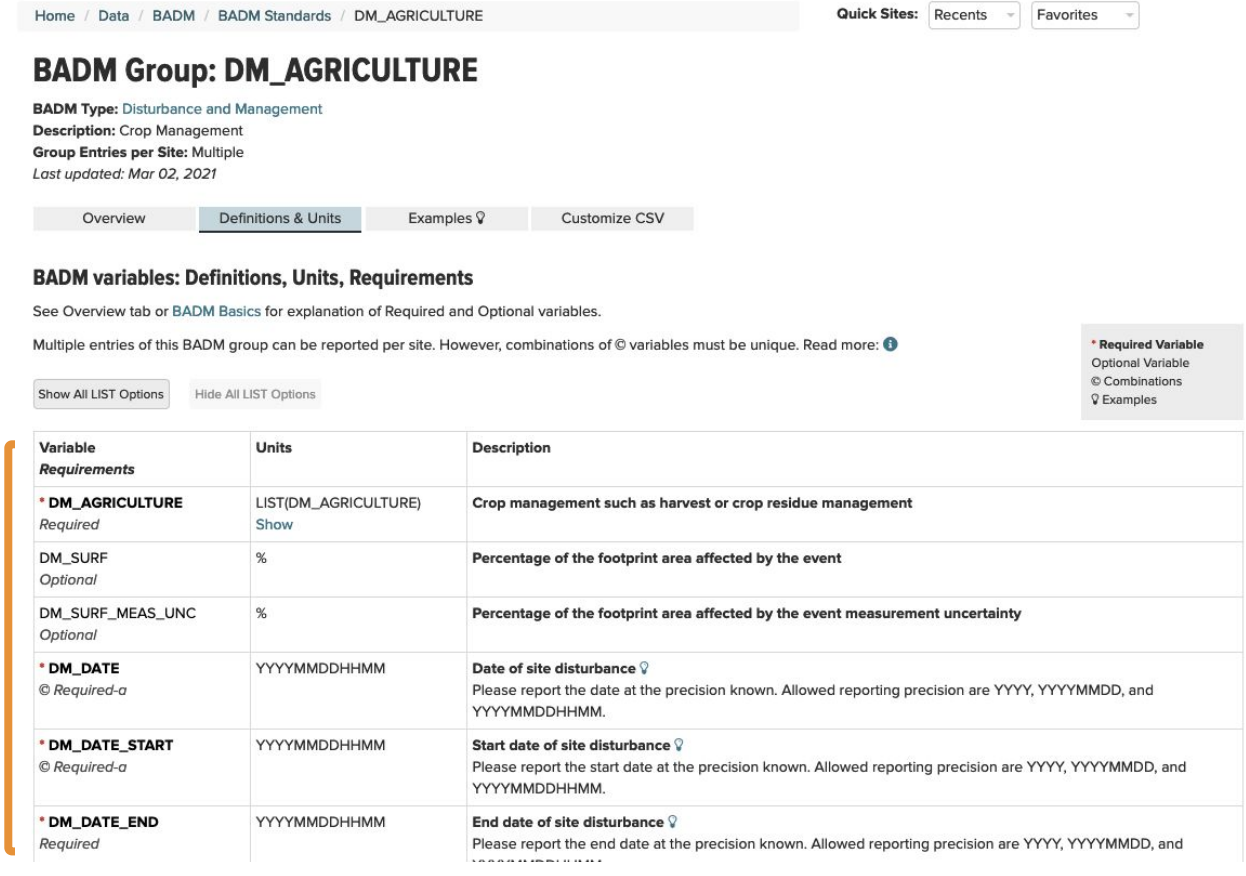
Disturbance and Management

- DM_AGRICULTURE (Crop Management)
- DM_ENCROACH (Encroachment)
- DM_EXT_WEATHER (Extreme Weather)
- DM_FERT_M (Mineral Fertilization)
- DM_FERT_O (Organic Fertilization)
- DM_FIRE (Fire)
- DM_FORESTRY (Forestry Management)
- DM_GRAZE (Grazing)
- DM_INS_PATH (Insect, Pathogen, Disease)
- DM_PESTICIDE (Pesticide Application)
- DM_PLANTING (Planting)
- DM_TILL (Tillage)
- DM_WATER (Water Management)
- DM_GENERAL (General Disturbance)

BADM Groups

BADM organization: Types, Groups & Variables

https://ameriflux.lbl.gov/data/badm/badm-standards/DM_AGRICULTURE



Home / Data / BADM / BADM Standards / DM_AGRICULTURE

Quick Sites: Recents Favorites

BADM Group: DM_AGRICULTURE

BADM Type: Disturbance and Management
Description: Crop Management
Group Entries per Site: Multiple
Last updated: Mar 02, 2021

Overview | Definitions & Units | Examples | Customize CSV

BADM variables: Definitions, Units, Requirements

See Overview tab or BADM Basics for explanation of Required and Optional variables.

Multiple entries of this BADM group can be reported per site. However, combinations of © variables must be unique. Read more:

Show All LIST Options | Hide All LIST Options

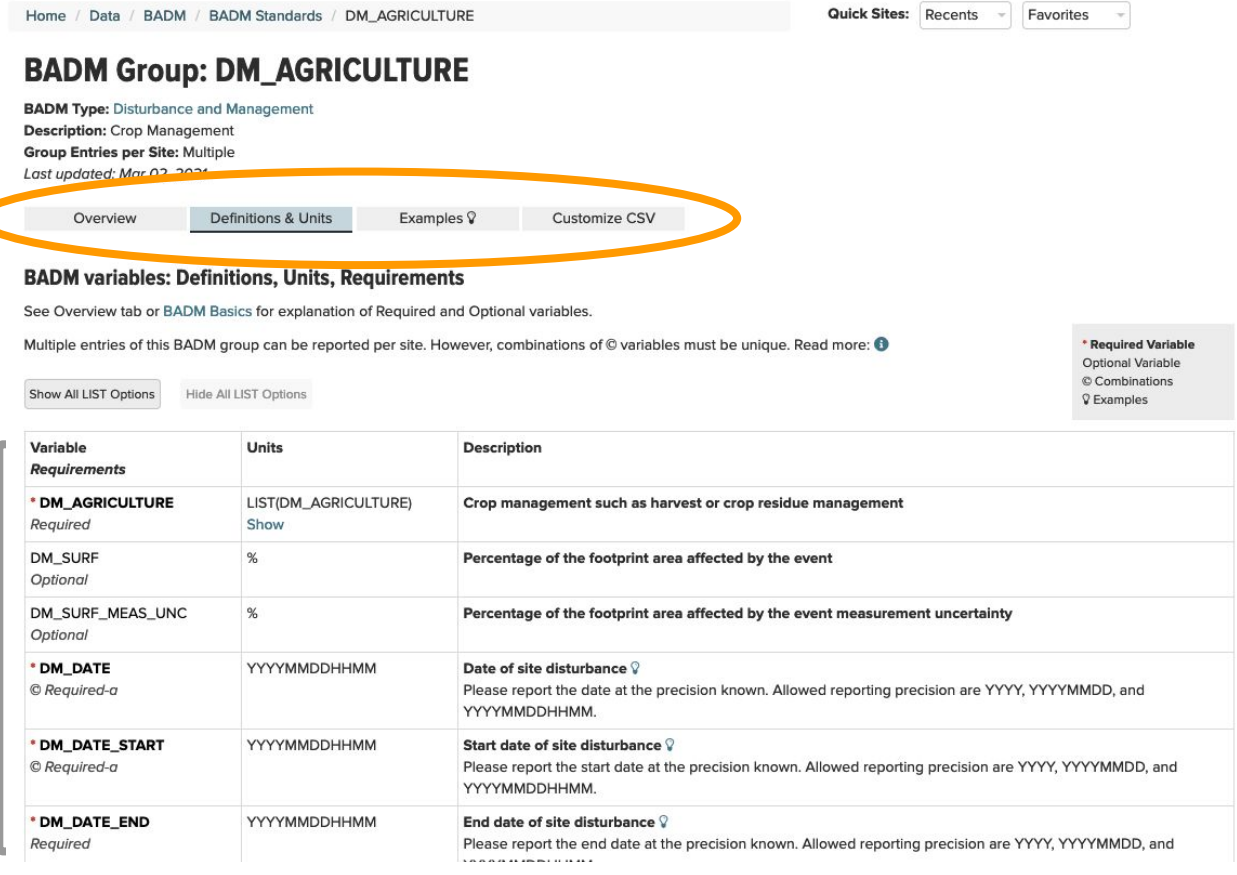
* Required Variable
Optional Variable
© Combinations
Examples

BADM Variables

Variable *Requirements*	Units	Description
* **DM_AGRICULTURE** *Required*	LIST(DM_AGRICULTURE) Show	**Crop management such as harvest or crop residue management**
DM_SURF *Optional*	%	**Percentage of the footprint area affected by the event**
DM_SURF_MEAS_UNC *Optional*	%	**Percentage of the footprint area affected by the event measurement uncertainty**
* **DM_DATE** © *Required-a*	YYYYMMDDHHMM	**Date of site disturbance** Please report the date at the precision known. Allowed reporting precision are YYYY, YYYYMMDD, and YYYYMMDDHHMM.
* **DM_DATE_START** © *Required-a*	YYYYMMDDHHMM	**Start date of site disturbance** Please report the start date at the precision known. Allowed reporting precision are YYYY, YYYYMMDD, and YYYYMMDDHHMM.
* **DM_DATE_END** *Required*	YYYYMMDDHHMM	**End date of site disturbance** Please report the end date at the precision known. Allowed reporting precision are YYYY, YYYYMMDD, and

BADM organization: Types, Groups & Variables

https://ameriflux.lbl.gov/data/badm/badm-standards/DM_AGRICULTURE



Home / Data / BADM / BADM Standards / DM_AGRICULTURE

Quick Sites: Recents Favorites

BADM Group: DM_AGRICULTURE

BADM Type: Disturbance and Management
Description: Crop Management
Group Entries per Site: Multiple
Last updated: Mar 02, 2021

Overview | Definitions & Units | Examples | Customize CSV

BADM variables: Definitions, Units, Requirements

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* Required Variable
Optional Variable
© Combinations
Examples

BADM Variables

Variable *Requirements*	Units	Description
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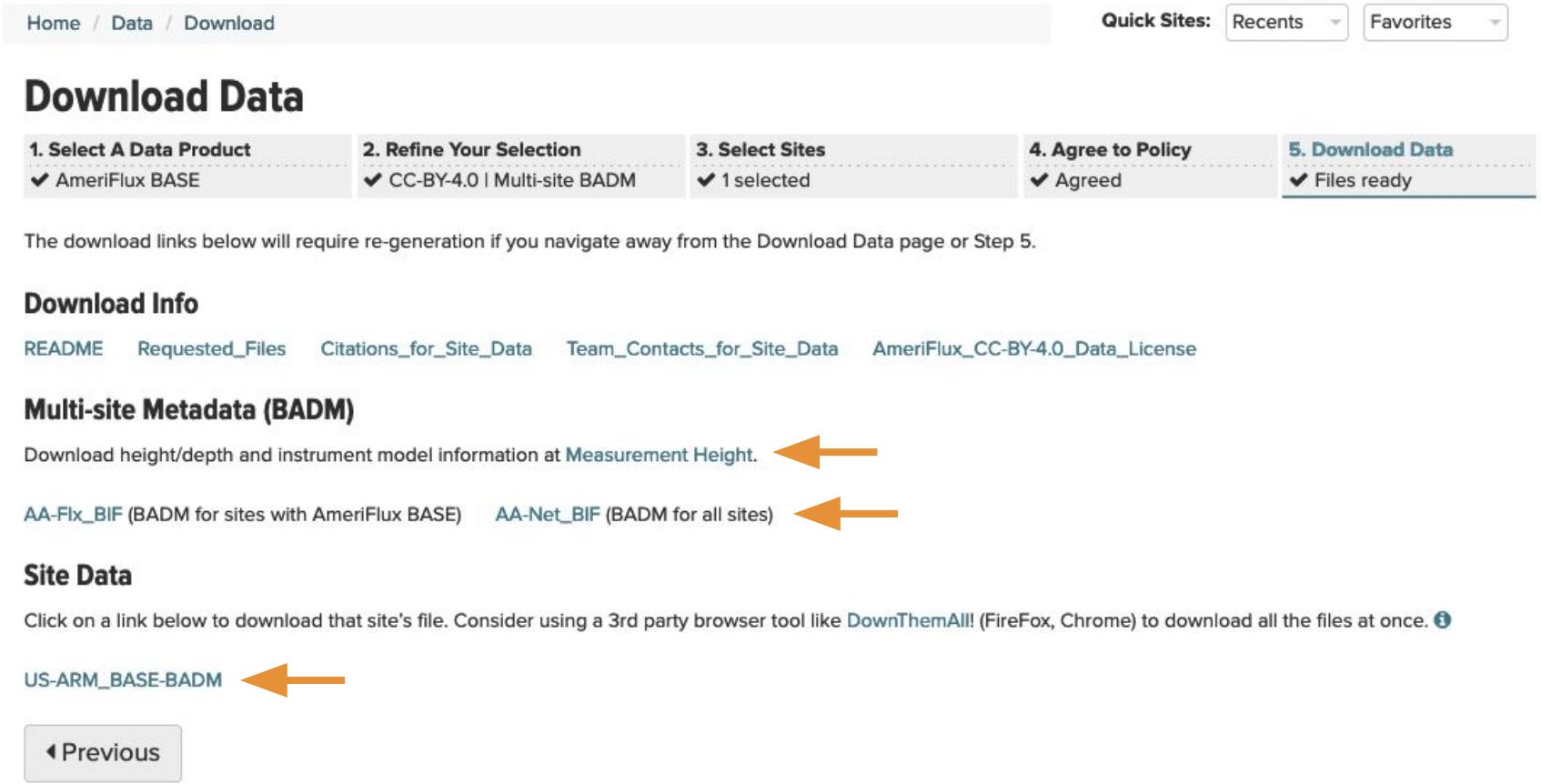
* **DM_DATE_END** *Required*	YYYYMMDDHHMM	**End date of site disturbance** Please report the end date at the precision known. Allowed reporting precision are YYYY, YYYYMMDD, and

Where to find BADM: with downloaded data

https://ameriflux.lbl.gov/data/download-data/



Where to find BADM: BIF xlsx files (from Download Data)

https://ameriflux.lbl.gov/data/aboutdata/badm-data-product/

AMF_<SITE_ID>_BIF_YYYYMMDD.xlsx

AMF	This represents the publishing network, in this case, AmeriFlux.
<SITE_ID>	For site-specific information, the Site ID will be that of a specific site. We use a site ID of AA-xxx to identify files containing data from multiple sets. The two site IDs in use are: **AA-Flx:** Data in this file is aggregated across all sites with flux data. **AA-Net:** Data in this file is aggregated across all sites in the network.
BIF	Indicates that the information is listed in BIF (short for BADM Interchange Format) format that enables the BADM data to be read programmatically. The BIF format consists of 5 columns: site ID, group ID, variable group name, variable name, and data value. A variable group is a set of variables that are reported together (e.g. a variable value, the date it was collected, and the method used to collect it). Sites may report multiple instances of the same variable group associated with different measurements collected over time, plant species, soil depths, collection methods, etc. The group ID uniquely identifies the data belonging to the same instance of a reported variable group. The variable names and data value provide the details of the reported data within a variable group.
YYYYMMDD	Indicates the date on which the BADM information was made available. If the BADM is part of a zip file, any changes to the BADM file do not increment the version of the zip file.

Where to find BADM: BIF xlsx files (from Download Data)

AMF_AA-Net_BIF_CCBY4_20230331.xlsx

	A	B	C	D	E
1	SITE_ID	GROUP_ID	VARIABLE_GROUP	VARIABLE	DATAVALUE
2	AR-TF1	27001056	GRP_COUNTRY	COUNTRY	Argentina
3	AR-TF1	87122	GRP_DOI	DOI	10.17190/AMF/1543389
4	AR-TF1	87122	GRP_DOI	DOI_CITATION	Lars Kutzbach (2021), AmeriFlux BASE AR-TF1 Rio Moat bog, Ver. 2-5, AmeriFlux AMP, (Dataset). https://doi.org/10.17190/AMF/1543389
5	AR-TF1	87122	GRP_DOI	DOI_DATAPRODUCT	AmeriFlux
6	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_DATAPRODUCT	AmeriFlux
7	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_NAME	Lars Kutzbach
8	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_ROLE	Author
9	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_EMAIL	lars.kutzbach@uni-hamburg.de
10	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_INSTITUTION	Universität Hamburg
11	AR-TF1	86919	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION	Universität Hamburg
12	AR-TF1	86919	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION_ROLE	Originator
13	AR-TF1	86918	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION	DFG
14	AR-TF1	86918	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION_ROLE	Sponsor
15	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
16	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	CO2
17	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
18	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
19	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
20	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
21	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	H
22	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
23	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
24	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
25	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
26	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	H2O
27	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
28	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
29	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
30	AR-TF1	23001056	GRP_HEADER	SITE_NAME	Rio Moat bog

Where to find BADM: BIF xlsx files (from Download Data)

Use GROUP_ID to find related variables

	A	B	C	D	E
1	SITE_ID	GROUP_ID	VARIABLE_GROUP	VARIABLE	DATAVALUE
2	AR-TF1	27001056	GRP_COUNTRY	COUNTRY	Argentina
3	AR-TF1	87122	GRP_DOI	DOI	10.17190/AMF/1543389
4	AR-TF1	87122	GRP_DOI	DOI_CITATION	Lars Kutzbach (2021), AmeriFlux BASE AR-TF1 Rio Moat bog, Ver. 2-5, AmeriFlux AMP, (Dataset). https://doi.org/10.17190/AMF/1543389
5	AR-TF1	87122	GRP_DOI	DOI_DATAPRODUCT	AmeriFlux
6	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_DATAPRODUCT	AmeriFlux
7	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_NAME	Lars Kutzbach
8	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_ROLE	Author
9	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_EMAIL	lars.kutzbach@uni-hamburg.de
10	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_INSTITUTION	Universität Hamburg
11	AR-TF1	86919	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION	Universität Hamburg
12	AR-TF1	86919	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION_ROLE	Originator
13	AR-TF1	86918	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION	DFG
14	AR-TF1	86918	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION_ROLE	Sponsor
15	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
16	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	CO2
17	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
18	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
19	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
20	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
21	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	H
22	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
23	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
24	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
25	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
26	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	H2O
27	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
28	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
29	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
30	AR-TF1	23001056	GRP_HEADER	SITE_NAME	Rio Moat bog

Where to find BADM: BIF xlsx files (from Download Data)

Browse BADM Standards https://ameriflux.lbl.gov/data/badm/badm-standards/

	A	B	C	D	E
1	SITE_ID	GROUP_ID	VARIABLE_GROUP	VARIABLE	DATAVALUE
2	AR-TF1	27001056	GRP_COUNTRY	COUNTRY	Argentina
3	AR-TF1	87122	GRP_DOI	DOI	10.17190/AMF/1543389
4	AR-TF1	87122	GRP_DOI	DOI_CITATION	Lars Kutzbach (2021), AmeriFlux BASE AR-TF1 Rio Moat bog, Ver. 2-5, AmeriFlux AMP, (Dataset). https://doi.org/10.17190/AMF/1543389
5	AR-TF1	87122	GRP_DOI	DOI_DATAPRODUCT	AmeriFlux
6	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_DATAPRODUCT	AmeriFlux
7	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_NAME	Lars Kutzbach
8	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_ROLE	Author
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10	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_INSTITUTION	Universität Hamburg
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13	AR-TF1	86918	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION	DFG
14	AR-TF1	86918	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION_ROLE	Sponsor
15	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
16	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	CO2
17	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
18	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
19	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
20	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
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22	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
23	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
24	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
25	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
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29	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
30	AR-TF1	23001056	GRP_HEADER	SITE_NAME	Rio Moat bog

Where to find BADM: BIF xlsx files (from Download Data)

SITE_ID

DATA

	A	B	C	D	E
1	SITE_ID	GROUP_ID	VARIABLE_GROUP	VARIABLE	DATAVALUE
2	AR-TF1	27001056	GRP_COUNTRY	COUNTRY	Argentina
3	AR-TF1	87122	GRP_DOI	DOI	10.17190/AMF/1543389
4	AR-TF1	87122	GRP_DOI	DOI_CITATION	Lars Kutzbach (2021), AmeriFlux BASE AR-TF1 Rio Moat bog, Ver. 2-5, AmeriFlux AMP, (Dataset). https://doi.org/10.17190/AMF/1543389
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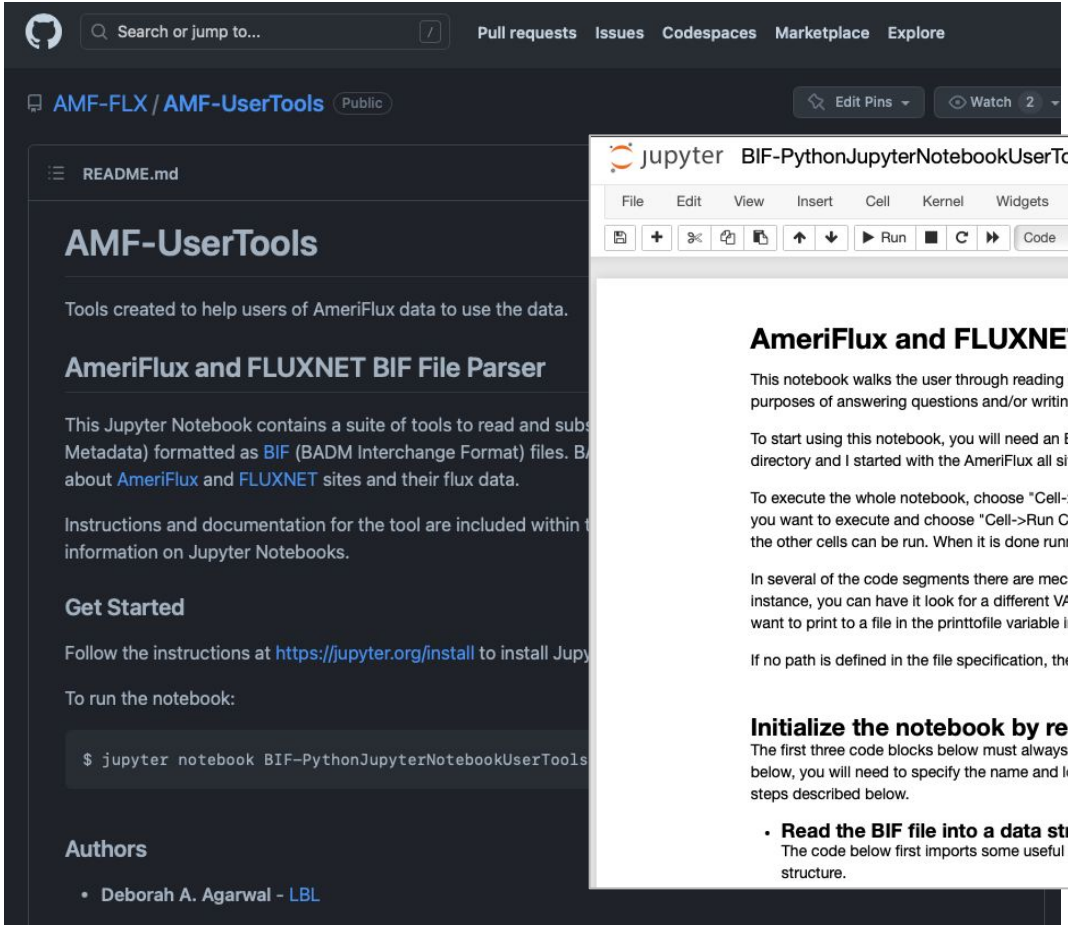
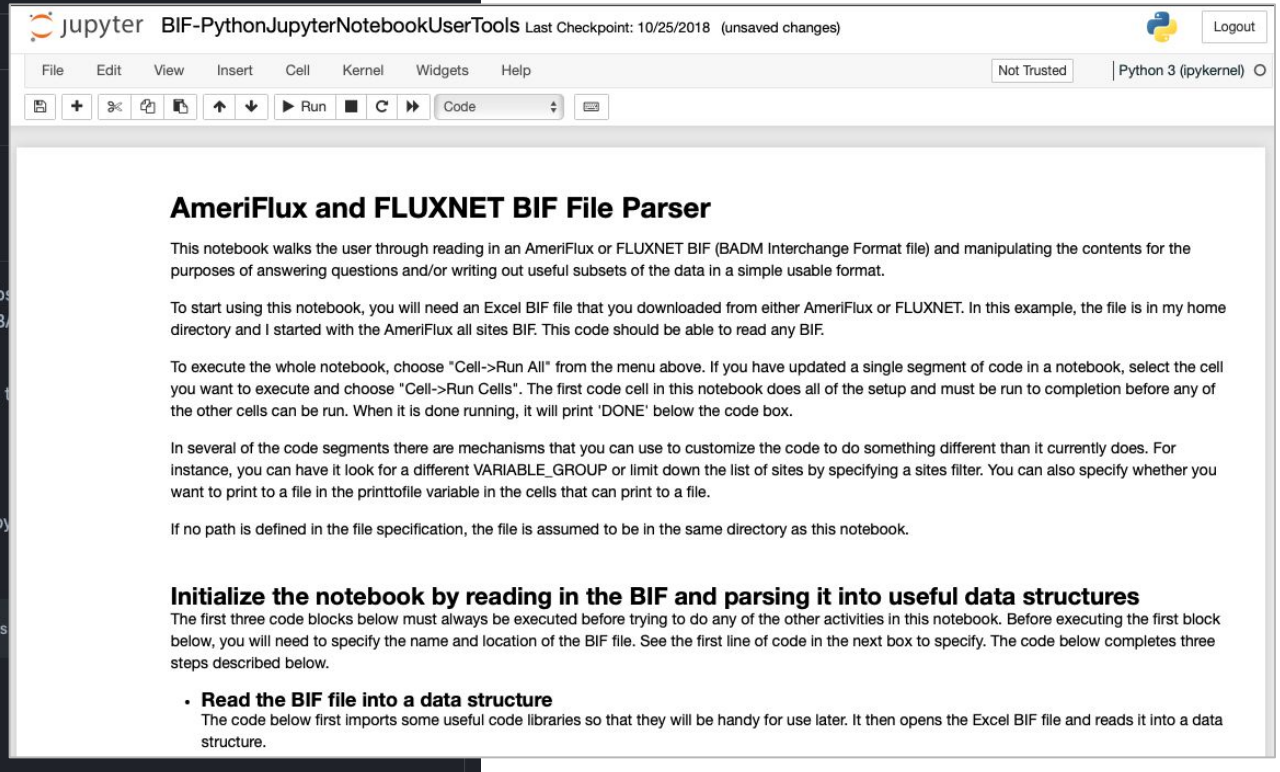
6	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_DATAPRODUCT	AmeriFlux
7	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_NAME	Lars Kutzbach
8	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_ROLE	Author
9	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_EMAIL	lars.kutzbach@uni-hamburg.de
10	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_INSTITUTION	Universität Hamburg
11	AR-TF1	86919	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION	Universität Hamburg
12	AR-TF1	86919	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION_ROLE	Originator
13	AR-TF1	86918	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION	DFG
14	AR-TF1	86918	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION_ROLE	Sponsor
15	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
16	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	CO2
17	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
18	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
19	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
20	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
21	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	H
22	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
23	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
24	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
25	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
26	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	H2O
27	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
28	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
29	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
30	AR-TF1	23001056	GRP_HEADER	SITE_NAME	Rio Moat bog

BIF xlsx file parser on GitHub

https://github.com/AMF-FLX/AMF-UserTools





Where to find BADM: Measurement Height

Home / Data / Measurement Height

https://ameriflux.lbl.gov/data/measurement-height/

Measurement Height

Measurement Height contains height/depth and instrument model information for AmeriFlux BASE data products.* This information is updated approximately once a month, in conjunction with new BASE releases.

Measurement Height is a temporary data product being offered while the AmeriFlux BADM infrastructure is upgraded. The downloaded csv file contains information provided directly by site teams, or from historical records. Site teams can update their Measurement Height information using the Variable Information tool.

Download AmeriFlux BASE Measurement Height

Safari users: *To download the file, control-click / right click the Download button, choose "Download As" or "Save Link As", and specify a destination.*

Measurement Height contains the following information:

Item	Description
Site_ID	Site identifier.
Variable	Variable name of the data included in the BASE file.
Start_Date	Date when the information first applies. No value means the information begi of the site's full data record.
Height	Distance from the ground surface in meters. Positive values are heights, and values are depths.
Instrument_Model	Instrument model used to collect the data variable. These values are from the BADM Instrument list for instrument model types. See LIST(Vocabulary) tab in Instrument Template for explanations.
Instrument_Model2	A second instrument model used to collect the data variable. This information available for flux variables that are calculated from a gas analyzer and sonic a These values are from the predefined BADM Instrument list for instrument mo See LIST (Vocabulary) tab in the BADM Instrument Template for explanations.
Comment	Additional information provided by the site team or parsed from historical info
BASE_Version	The most recent **AmeriFlux BASE data product*** version number for which th applies.

https://ameriflux.lbl.gov/data/download-data/

Multi-site Metadata (BADM)

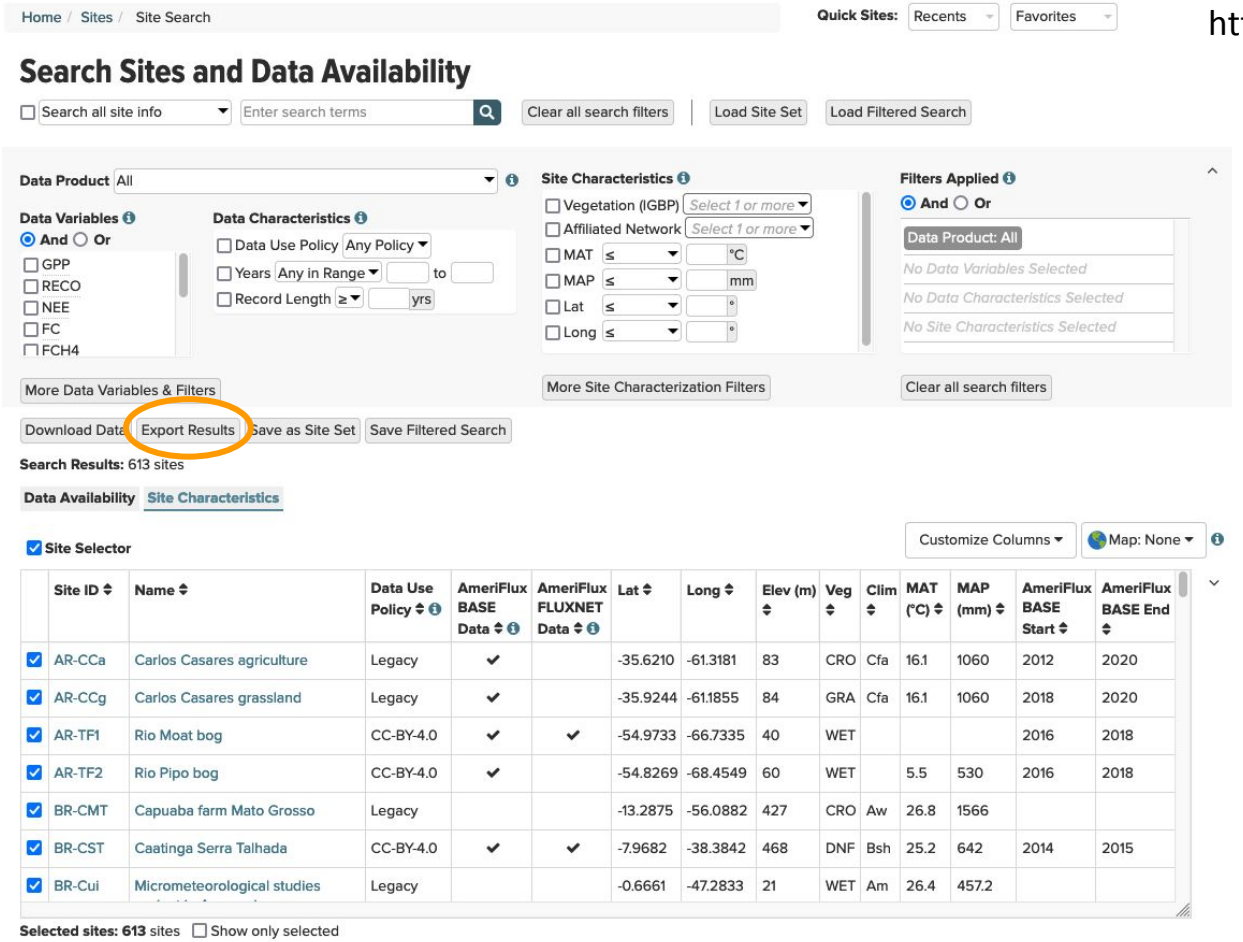
Download height/depth and instrument model information at Measurement Height.

BASE_MeasurementHeight_20230331

Site_ID	Variable	Start_Date	Height	Instrument_Model	Instrument_Model2	Comment	BASE_Version
AR-TF1	CO2		2.33	GA_CP-LI-COR LI-7200			2-5
AR-TF1	FC		2.33	SA-Gill Windmaster Pro	GA_CP-LI-COR LI-7200		2-5
AR-TF1	FC_SSITC_TEST		2.33	SA-Gill Windmaster Pro			2-5
AR-TF1	H		2.33	SA-Gill Windmaster Pro			2-5
AR-TF1	H_SSITC_TEST		2.33	SA-Gill Windmaster Pro			2-5
AR-TF1	LE		2.33	GA_CP-LI-COR LI-7200	SA-Gill Windmaster Pro		2-5
AR-TF1	LE_SSITC_TEST		2.33	SA-Gill Windmaster Pro			2-5
AR-TF1	PA		2.33	GA_CP-LI-COR LI-7200			2-5
AR-TF1	PPFD_IN		2	RAD-PAR Quantum			2-5
AR-TF1	RH		2	RH-Capac			2-5
AR-TF1	SW_IN		2	RAD-Pyrrad-SW+LW			2-5
AR-TF1	TA		2	RH-Capac			2-5
AR-TF1	USTAR		2.33	SA-Gill Windmaster Pro			2-5
AR-TF1	WD		2.33	SA-Gill Windmaster Pro			2-5
AR-TF1	WS		2.33	SA-Gill Windmaster Pro			2-5

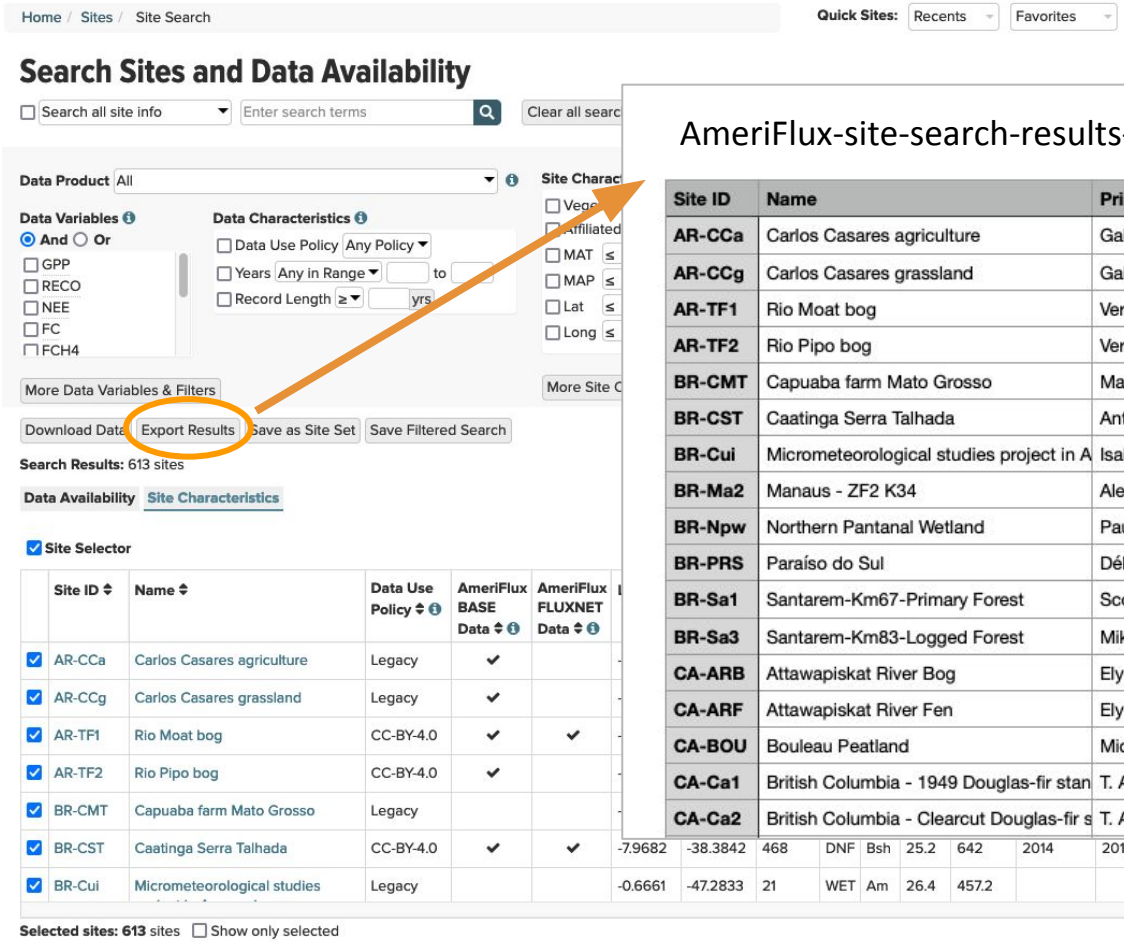
Where to find BADM: Site Search and Data Availability

https://ameriflux.lbl.gov/sites/site-search/



Where to find BADM: Site Search and Data Availability

https://ameriflux.lbl.gov/sites/site-search/



AmeriFlux-site-search-results-202305041327.tsv (tab-delimited)

Site ID	Name	Principal Investigator	Data Use Policy	AmeriFlux BASE Data
AR-CCa	Carlos Casares agriculture	Gabriela Posse (posse.gabriela@gmail.com)	Legacy	Yes
AR-CCg	Carlos Casares grassland	Gabriela Posse (posse.gabriela@gmail.com)	Legacy	Yes
AR-TF1	Rio Moat bog	Veronica Pancotto (pancotto@cadic-conicet.gob.ar)	CC-BY-4.0	Yes
AR-TF2	Rio Pipo bog	Veronica Pancotto (pancotto@cadic-conicet.gob.ar)	CC-BY-4.0	Yes
BR-CMT	Capuaba farm Mato Grosso	Mark Johnson (mark.johnson@ubc.ca)	Legacy	No
BR-CST	Caatinga Serra Talhada	Antonio Antonino (acdantonino@gmail.com)	CC-BY-4.0	Yes
BR-Cui	Micrometeorological studies project in A	Isabel Vitorino (vitorino@ufpa.br)	Legacy	No
BR-Ma2	Manaus - ZF2 K34	Alessandro Araujo (alessandro.araujo@gmail.com)	Legacy	No
BR-Npw	Northern Pantanal Wetland	Paulo Arruda (paulo.zanella@gmail.com)	CC-BY-4.0	Yes
BR-PRS	Paraíso do Sul	Débora Roberti (debora@ufsm.br)	Legacy	No
BR-Sa1	Santarem-Km67-Primary Forest	Scott Saleska (saleska@email.arizona.edu)	CC-BY-4.0	Yes
BR-Sa3	Santarem-Km83-Logged Forest	Mike Goulden (mgoulden@uci.edu)	Legacy	Yes
CA-ARB	Attawapiskat River Bog	Elyn Humphreys (elynhumphreys@cunet.carleton.ca)	CC-BY-4.0	Yes
CA-ARF	Attawapiskat River Fen	Elyn Humphreys (elynhumphreys@cunet.carleton.ca)	CC-BY-4.0	Yes
CA-BOU	Bouleau Peatland	Michelle Garneau (garneau.michelle@uqam.ca)	CC-BY-4.0	No
CA-Ca1	British Columbia - 1949 Douglas-fir stan	T. Andrew Black (andrew.black@ubc.ca)	CC-BY-4.0	Yes
CA-Ca2	British Columbia - Clearcut Douglas-fir s	T. Andrew Black (andrew.black@ubc.ca)	CC-BY-4.0	Yes

Where to find BADM: Site Sets

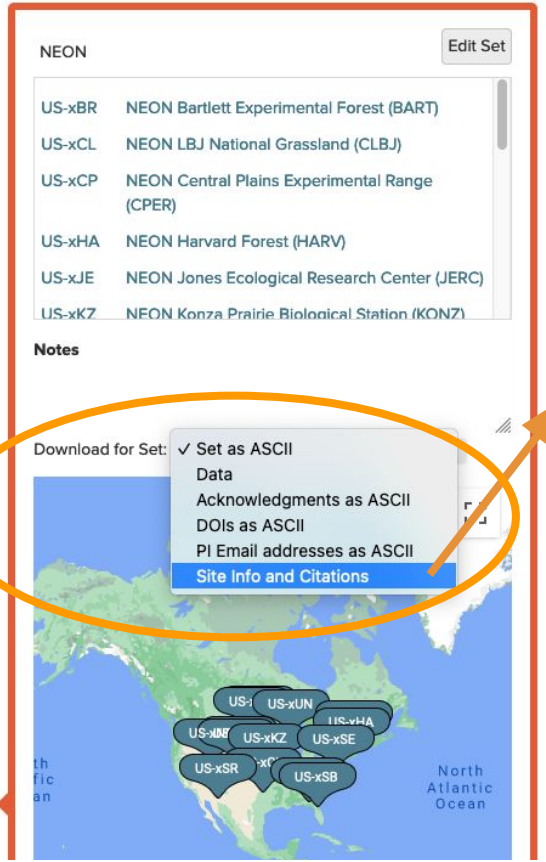
Home / Sites / Site Sets

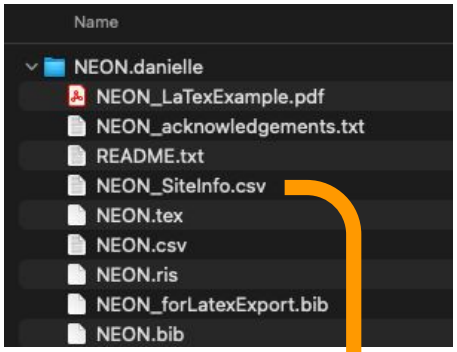
https://ameriflux.lbl.gov/sites/site-sets/

Site Sets List

+ Add Set | Edit List

ID	Favorite	Name	Number of Sites
1	○	All_sites_nov4	556
2	○	AndySukyer_TimA_Nebraska	5
3	○	AnkurDesai_Wisconsin	7
4	○	BenRunkle_ArkansasRice	4
5	○	BillMunger_HarvardForest	2
6	○	Bohr	5
7	○	BrentEwers_Wyoming	3
8	○	ChrisGough_Michigan	2
9	○	DavidCook_RoserM_Illinois	3
10	○	DeanAnderson_KatherineMP_Rockies	3
11	○	dschulze-wood-harvest-set	9
12	○	FLUXNET	2
13	○	FLUXNET-Canada	44
14	○	FLUXNET-test	3
15	○	Howland	3
16	○	LBA	2
17	○	Litvak	8
18	○	mst_test	9
19	◉	NEON	14
20	○	new set	3



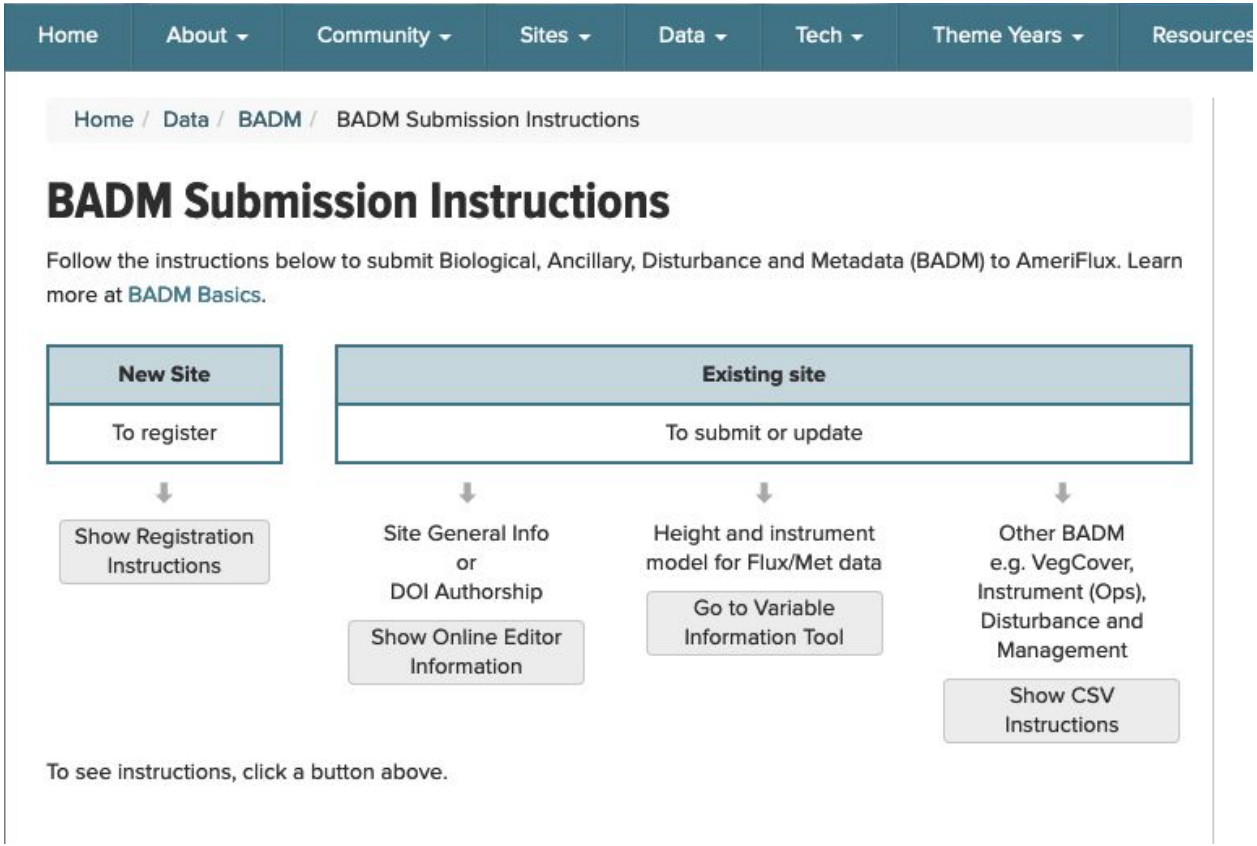


NEON_SiteInfo

Site ID	IGBP	Latitude	Longitude	Climate	Period	Reference
US-xBR	DBF	44.0639	-71.2873	Dfb	2017-2022	-
US-xCL	GRA	33.4012	-97.5700	Cfa	2017-2022	-
US-xCP	GRA	40.8155	-104.7456	Bsk	2016-2022	-
US-xHA	DBF	42.5369	-72.1727	Dfb	2017-2022	-
US-xJE	ENF	31.1948	-84.4686	Cfa	2017-2022	-
US-xKZ	GRA	39.1008	-96.5631	Cfa	2017-2022	-
US-xNG	GRA	46.7697	-100.9154	Dfb	2017-2022	-
US-xNQ	OSH	40.1776	-112.4524	Dfb	2017-2022	-
US-xNW	ENF	40.0543	-105.5824	Dfc	2017-2022	-
US-xSB	ENF	29.6893	-81.9934	Cfa	2017-2022	-
US-xSE	DBF	38.8901	-76.5600	Cfa	2017-2022	-
US-xSR	OSH	31.9107	-110.8355	Bsk	2017-2022	-
US-xUN	MF	46.2339	-89.5373	Dfb	2017-2022	-
US-xWD	GRA	47.1282	-99.2414	Dfb	2017-2022	-

How to submit BADM to AmeriFlux

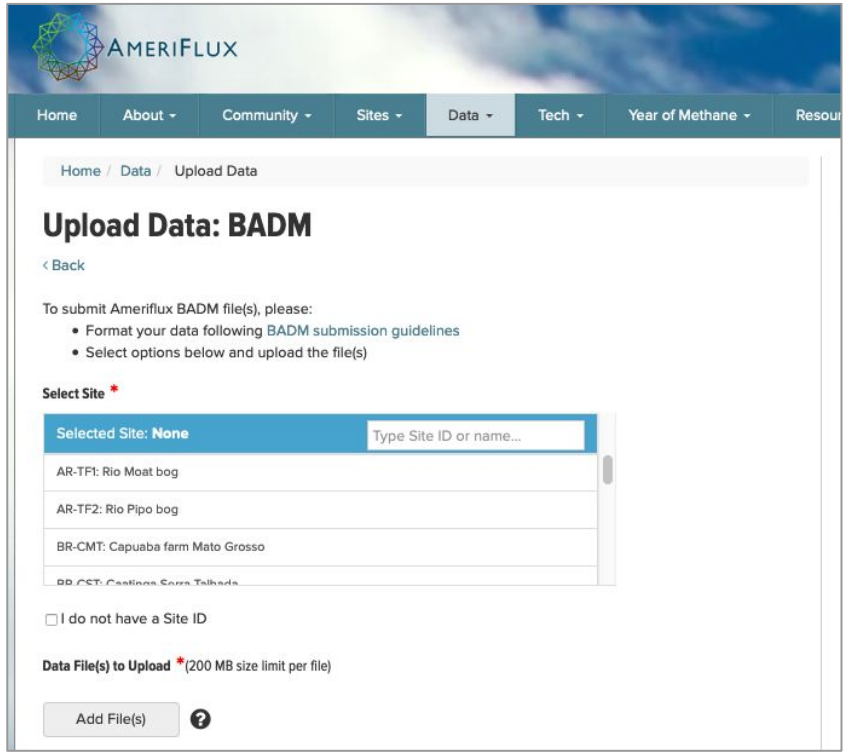
https://ameriflux.lbl.gov/data/badm/badm-submission-instructions/



Submitting BADM: Excel templates for site registration

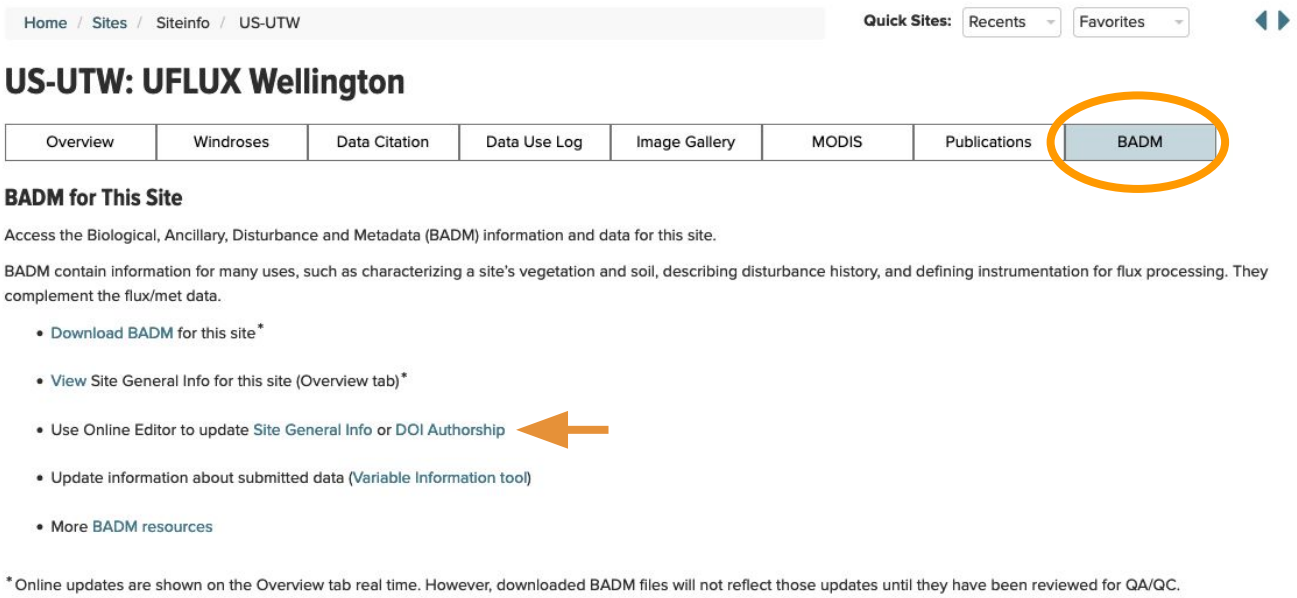
	Variable	Description	Units
2	SITE_ID	Six character site identifier. MANDATORY if site is already registered	CC-Xxx
3	SITE_NAME	Site name	free text
4	SUBMISSION_CONTACT_NAME	Name of person who submitted this template	free text
5	SUBMISSION_CONTACT_EMAIL	E-mail address of the person who submitted this template	free text
6	SUBMISSION_DATE	Date this submission was last edited/modified.	YYYYMMDD
7	TEAM_MEMBER_NAME	Site tower team member name (First Last/Family).	free text
8	TEAM_MEMBER_ROLE	Site tower team member role	LIST(TEAM_ROLE)
9	TEAM_MEMBER_EMAIL	Site tower team member email	free text
10	TEAM_MEMBER_INSTITUTION	Site tower team member institution (required for PI only)	free text
11	TEAM_MEMBER_ADDRESS	Site tower team member address (not required)	free text
12	SHIPPING_ADDRESS	Site tower shipping address	free text
13	NETWORK	Network affiliation(s) of the site.	LIST(NETWORK)
14	FLUX_MEASUREMENTS_METHOD	Method used to measure the flux variables	LIST(FLUX_METHOD)
15	FLUX_MEASUREMENTS_VARIABLE	Flux variable measured	LIST(FLUX_VARIABLE)
16	FLUX_MEASUREMENTS_DATE_START	Date when data collection for the reported flux variable/method started.	YYYYMMDD
17	FLUX_MEASUREMENTS_DATE_END	Date when data collection for the reported flux variable/method ended	YYYYMMDD
18	FLUX_MEASUREMENTS_OPERATIONS	Operational status of flux measurements.	LIST(FLUX_OPERATIONS)
19	FLUX_MEASUREMENTS_COMMENT	Flux measurements comments	free text
20	STATE	State or province	LIST(STATE_PROVINCE)
21	SITE_DESC	Short description of the site characteristics and history	free text
22	RESEARCH_TOPIC	Site research topics	free text
23	SITE_FUNDING	Site funding agencies/institutions (one column only)	free text
24	LOCATION_LAT	Latitude of the site.	decimal deg ref WGS84
25	LOCATION_LONG	Longitude of the site	decimal deg ref WGS84
26	LOCATION_ELEV	Elevation of the site above sea level	m
27	LOCATION_DATE_START	Begin date of the location information	YYYYMMDD
28	LOCATION_COMMENT	Location information comments	free text
29	IGBP	Vegetation type based on the IGBP definition.	LIST(IGBP)

Site_General_Info | LIST(VOCABULARY) | Explanations



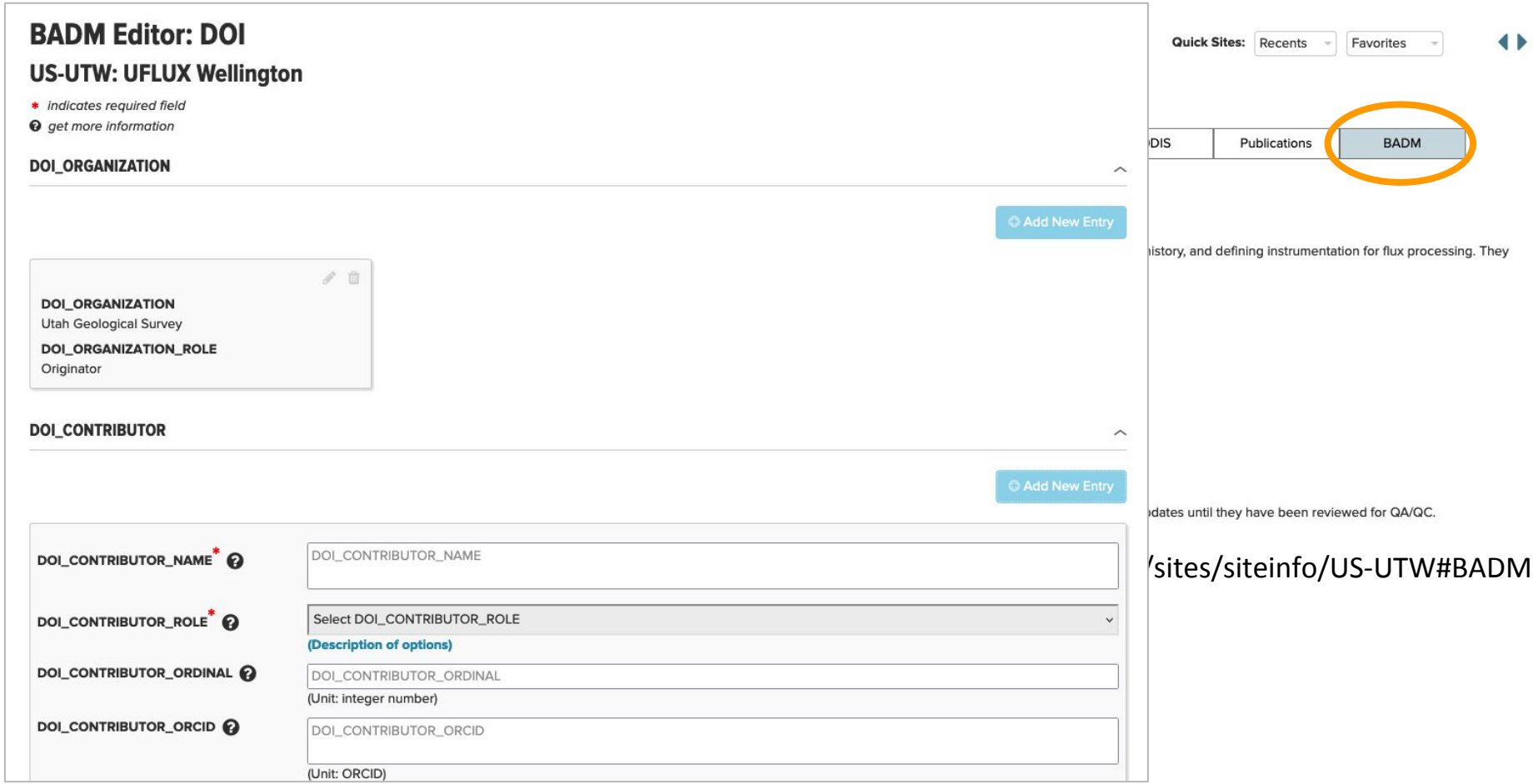
https://ameriflux.lbl.gov/data/upload-data/ > Choose BADM

Submitting BADM: Online editor for Site General Info + DOI

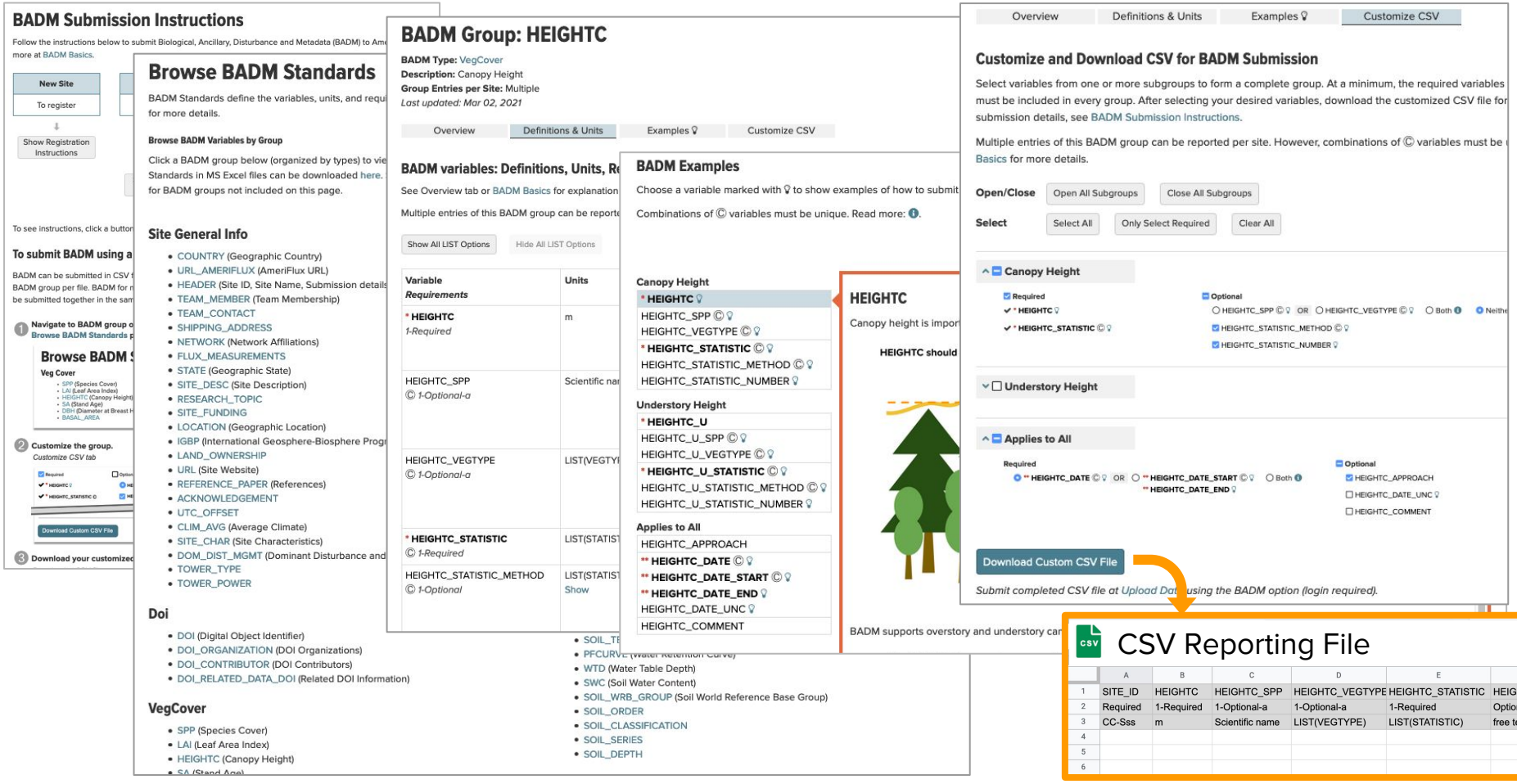


https://ameriflux.lbl.gov/sites/siteinfo/US-UTW#BADM

Submitting BADM: Online editor for Site General Info + DOI

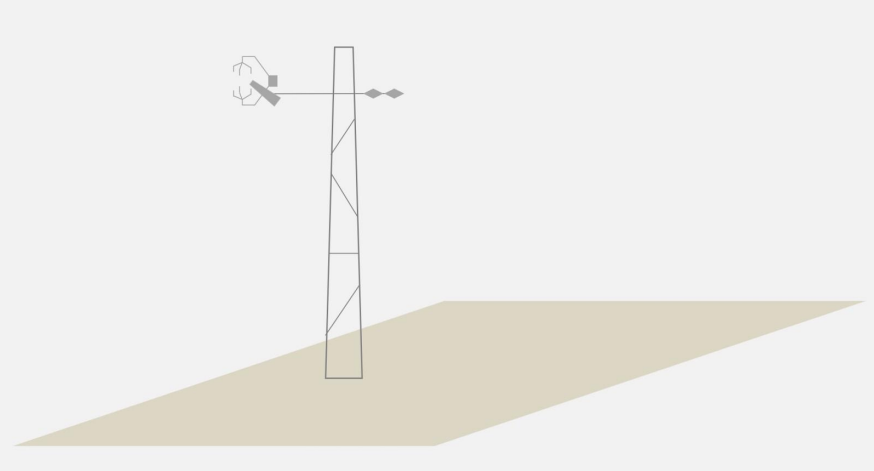


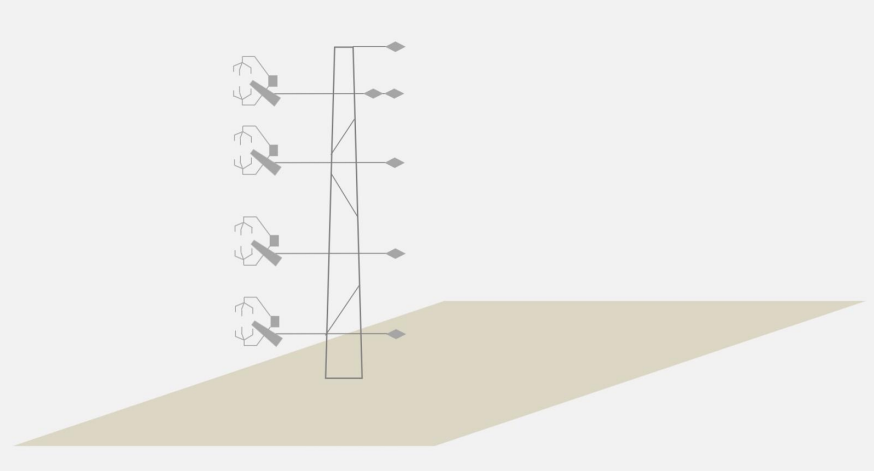
Submitting BADM: CSV customized files



BADM for flux-met data

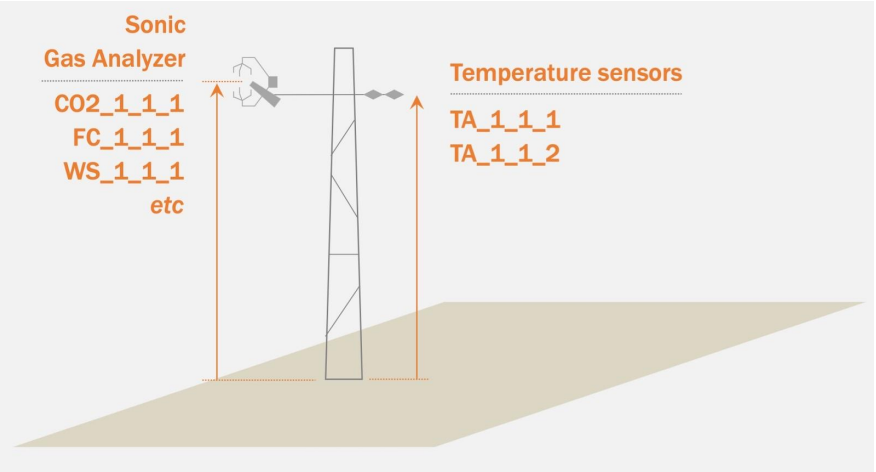
All sites are different!





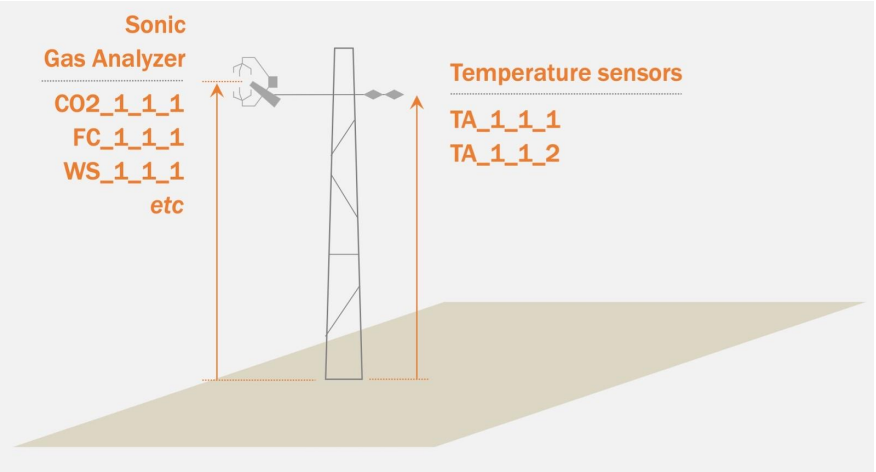
BADM for flux-met data

All sites are different! Metadata are critical for understanding Ameriflux BASE



BADM for flux-met data

All sites are different! Metadata are critical for understanding AmeriFlux BASE



Site General Information

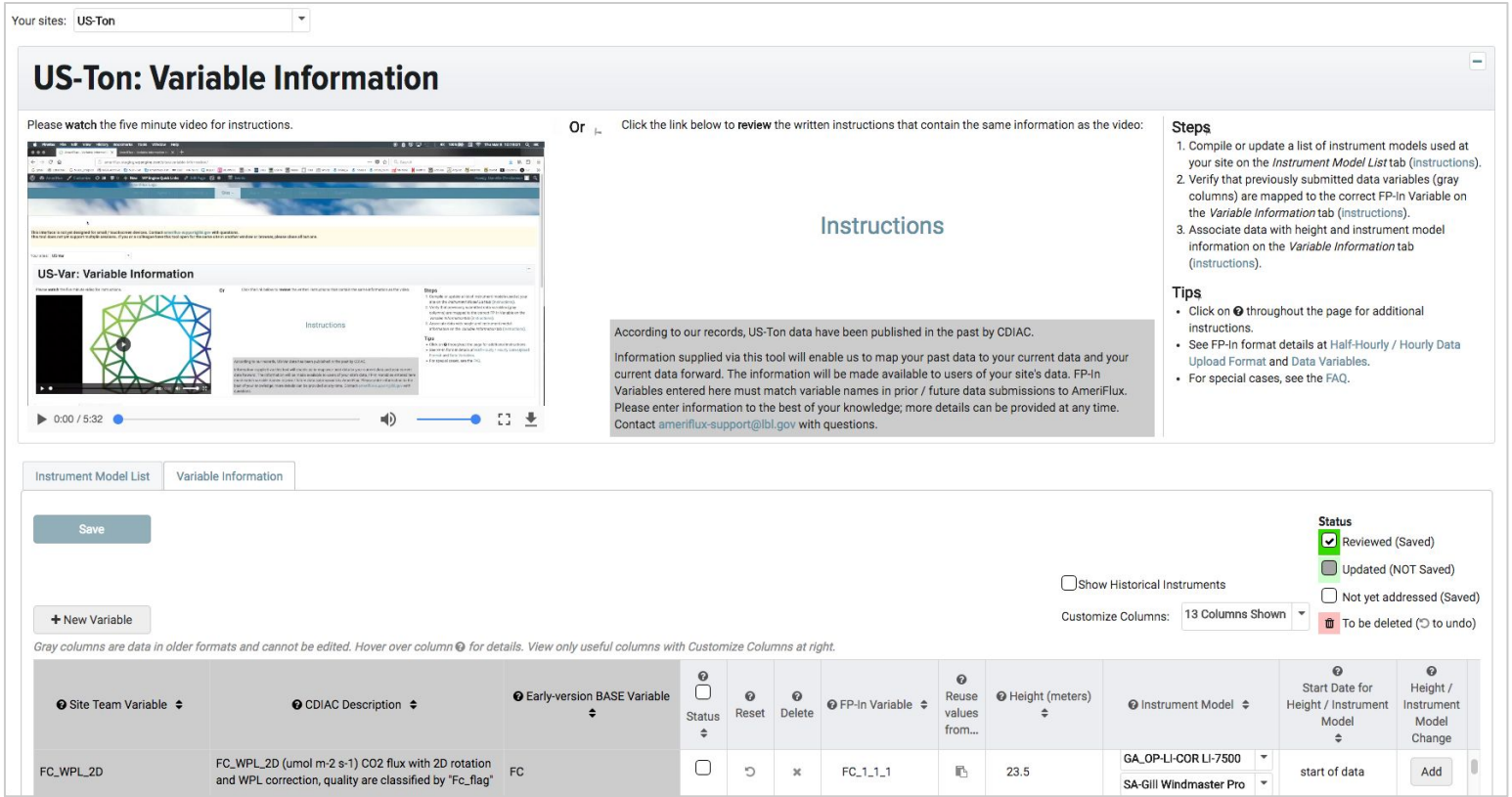
Variable Information (aka Measurement Height)

Variable Aggregation

Variable Information: Height and Sensor Info

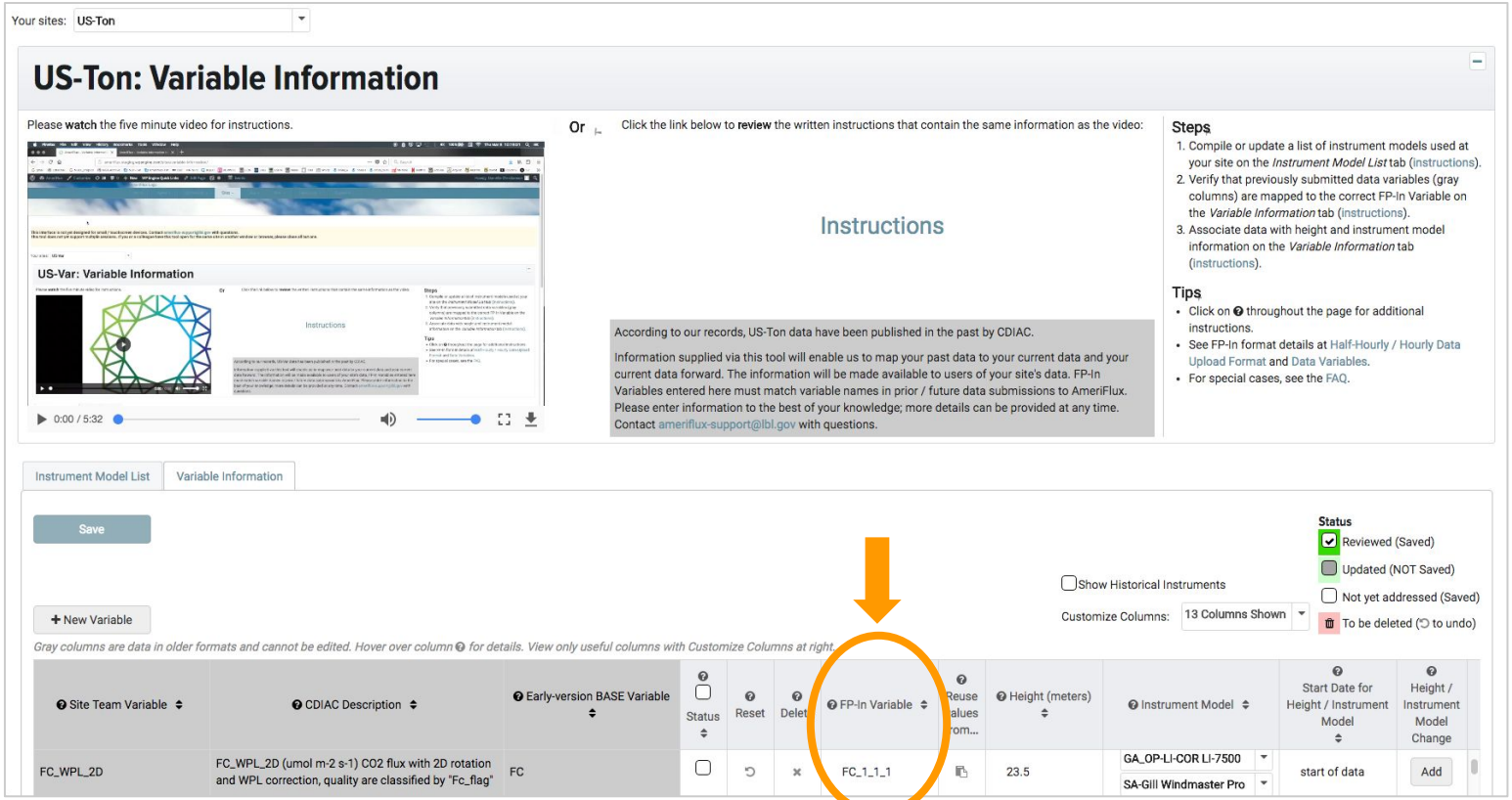
Online tool: https://ameriflux.lbl.gov/sites/variable-information/

AmeriFlux account and site team membership required.



Submitting Variable Information

Goal: One-to-one match between **Submitted Variable Names** and **FP-In column** on tool



Submitting Variable Information

Goal: One-to-one match between **Submitted Variable Names** and **FP-In column** on tool

Option 1. Use link in email to view online Format QA/QC report

AmeriFlux QAQC-3065 Format Results - ACTION REQUIRED CC-sss data uploaded on Sep 04, 2019 Inbox ×

Dear Danielle Christianson,

Thank you for uploading data for CC-sss on Sep 04, 2019.

Format QA/QC results

CC-sss_HR_200001011000_200001012000_bad29.csv:

- **FAIL | Replacement file required.**
- Read details in this report: https://ameriflux.lbl.gov/qaqc-report/?site_id=CC-sss&report_id=63097

CC-sss_HR_200001011000_200001012000_scinot.csv:

- **FAIL | Replacement file required.**
- Read details in this report: https://ameriflux.lbl.gov/qaqc-report/?site_id=CC-sss&report_id=63096

Format QA/QC assesses the compliance of your data submission with AmeriFlux FP-In format (https://ameriflux.lbl.gov/half-hourly-hourly-data-upload-format/. If needed, you can re-upload your data at https://ameriflux.lbl.gov/data/upload-data/ and/or reply to this email to discuss with us.

View the status of all your uploaded files at https://ameriflux.lbl.gov/qaqc-reports-data-team/.

If all files passed Format QA/QC and there are no pending issues for your site, Data QA/QC will be run. You can track communications on this Format QA/QC report at QAQC-3065 using your AmeriFlux account ID and password to login.

Sincerely,
AMP Data Team

Submitting Variable Information

Goal: One-to-one match between **Submitted Variable Names** and **FP-In column** on tool

Option 1. Use link in email to view online Format QA/QC report

AmeriFlux QAQC-3065 F

Dear Danielle Christianson,

Thank you for uploading data for C

Format QA/QC results

CC-sss_HR_200001011000_2000

- **FAIL | Replacement file re**
- Read details in this report:

CC-sss_HR_200001011000_2000

- **FAIL | Replacement file re**
- Read details in this report:

Format QA/QC assesses the compli
can re-upload your data at https://ar

View the status of all your uploaded

If all files passed Format QA/QC an
QAQC-3065 using your AmeriFlux

Sincerely,
AMP Data Team

QA/QC Report: Format

This report details results of the AmeriFlux QA/QC data processing pipeline.
For more information, see How to Read This Report, QA/QC Results Definitions,

PASS **Ready for Data QAQC**
No further action needed by the site team.

Uploaded File Report US-PFa_HR_201801010000_201901010000.csv

Site ID: US-PFa
Site contact: Ankur Desai

Uploader: Ankur Desai
Upload date: 2018-Jul-16 11:44
Uploaded filename: US-PFa_HR_201801010000_201901010000-20180

Format QA/QC report summary:
All format QA/QC tests attempted. No issues were encountered. AMP will

Test	Results	Ad
All Format QA/QC tests passed.	✔ PASS	

Variable names found in the file:
TIMESTAMP_START, TIMESTAMP_END, CO2_1_1_1, CO2_1_2_1, CO2
CH4_1_1_1, CH4_1_2_1, CH4_1_3_1, FC_1_1_1, FC_1_2_1, FC_1_3_1
SCH4_1_1_1, H, H_1_1_1, H_1_2_1, H_1_3_1, LE, LE_1_1_1, LE_1_2_
SLE_1_2_1, SLE_1_3_1, WD_1_1_1, WD_1_2_1, WD_1_3_1, WD_F_1_
USTAR_1_1_1, USTAR_1_2_1, USTAR_1_3_1, USTAR_F_1_3_1, PA_1_
VPD_F_1_3_1, SWC_1_1_1, PPFD_IN_1_1_1, P, NEE, NEE_F, NEE_1_

Processing code version: 0.4.19
Processing log file: http://ameriflux-data.lbl.gov/QAQCLogs/QAQC_repo

QA/QC Report: Format

This report details results of the AmeriFlux QA/QC data processing pipeline.
For more information, see How to Read This Report, QA/QC Results Definitions, FAQ, and Upload Format Instructions

WARNING **Review all warnings**
If autocorrected file is OK, no action is needed by the site team. If corrections are needed, upload a replacement file.

Autocorrected File Report US-MOz_HH_200501010000_200601010000.csv Report ID: 26775

Site ID: US-MOz
Site contact: Jeffrey Wood

Uploader: AMP Data Team (original file uploaded by Format QAQC Pipeline)
Upload date: 2018-Aug-15 17:27
Uploaded filename: US-MOz_HH_200501010000_200601010000-2018081517272600.csv

Format QA/QC report summary:
All format QA/QC tests attempted. Issues were encountered. AMP attempted to automatically correct the issues. Please review the warnings below. If autocorrected file is OK, no action is needed by the site team. If corrections are needed, upload a replacement file.

Test	Results	Additional Information
AMP made these autocorrections.	? WARNING	• Filename components fixed: ts-start (start time); ts-end (end time)
Any Variables suspected gap-fill?	? WARNING	These variables are suspected to be gap-filled because they have no missing values: P_1_1_1
Any Variables with ALL Data Missing?	? WARNING	These variables have all data missing: **FC_1_1_1, LE_1_1_1, H_1_1_1**. Previously uploaded data with the same time period will be overwritten.

Variable names found in the file:
TIMESTAMP_START, TIMESTAMP_END, P_1_1_1, PPFD_IN_1_1_1, PPFD_OUT_1_1_1, SW_IN_1_1_1, SW_OUT_1_1_1, LW_IN_1_1_1, LW_OUT_1_1_1, NETRAD_1_1_1, TA_1_1_1, RH_1_1_1, CO2_1_1_1, H2O_1_1_1, WS_1_1_1, WD_1_1_1, USTAR_1_1_1, TS_1_1_1, SWC_1_1_1, G_1_1_1, PA_1_1_1, FC_1_1_1, SC_1_1_1, LE_1_1_1, SLE_1_1_1, H_1_1_1, SH_1_1_1, NEE, NEE_F

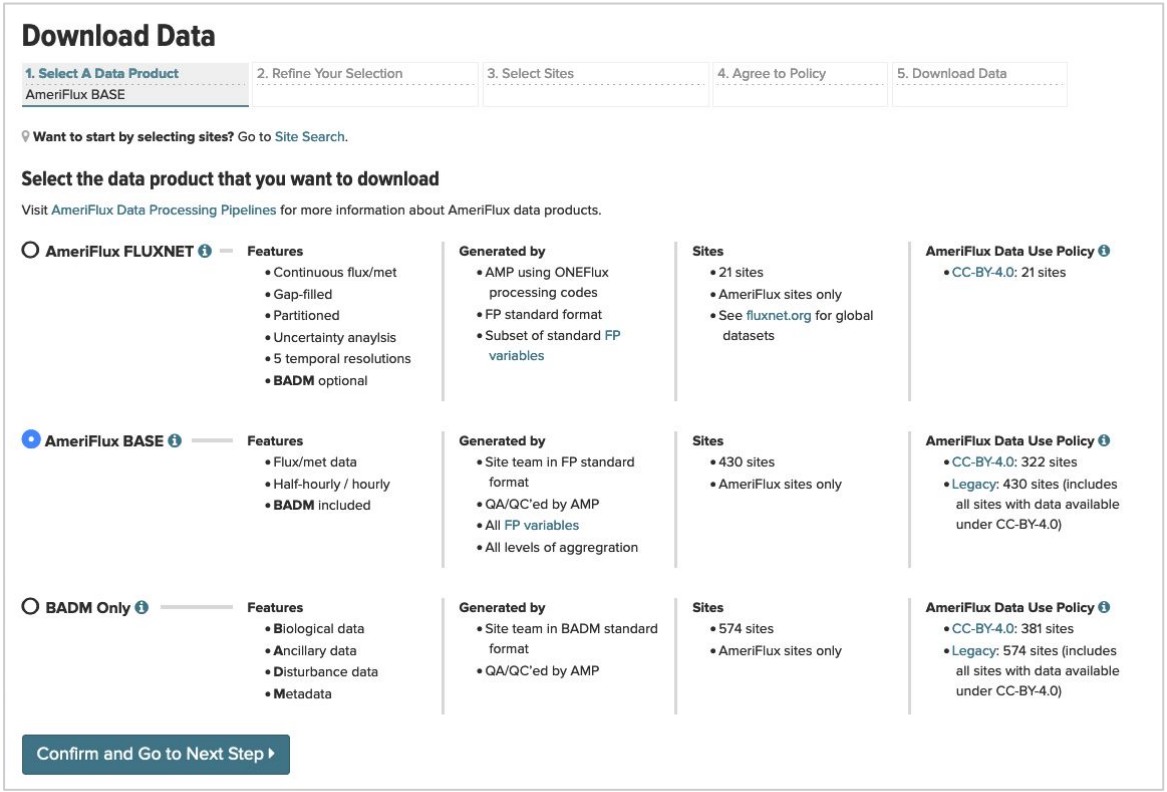
Processing code version: 0.4.23

Submitting Variable Information

Goal: One-to-one match between **Submitted Variable Names** and **FP-In column** on tool

Option 2. Download your BASE data product & remove any _PI qualifiers in the variable names

https://ameriflux.lbl.gov/data/download-data/

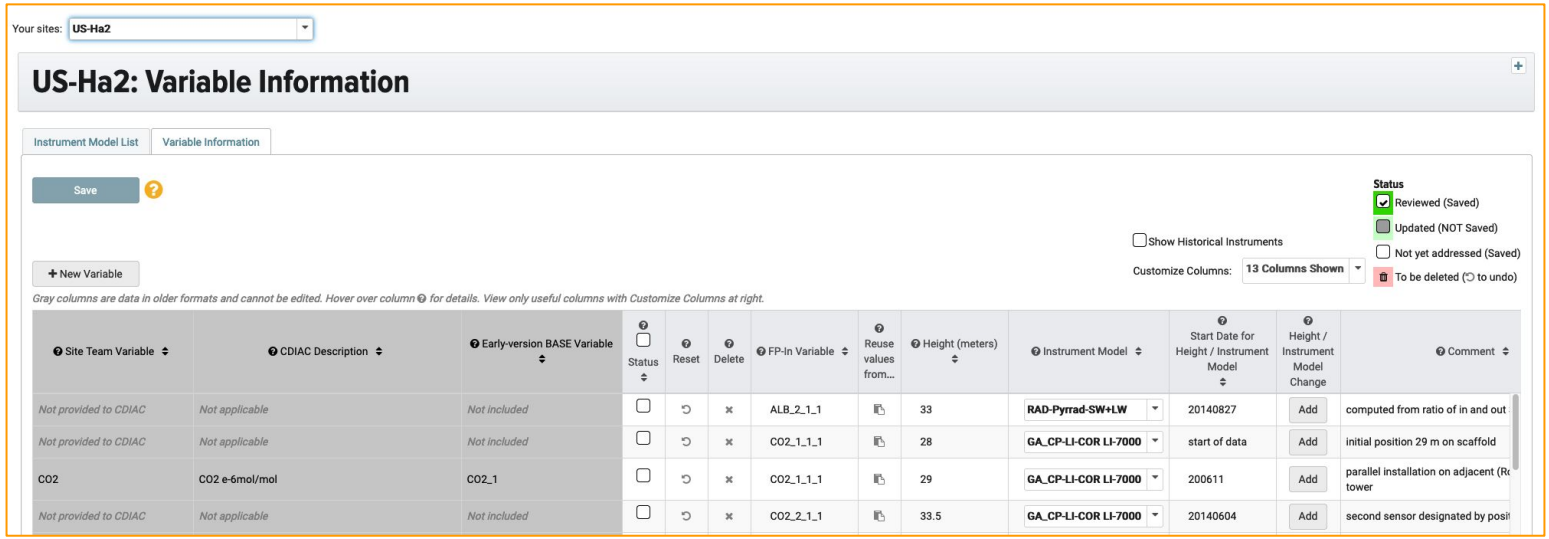


Submitting Variable Information

Goal: One-to-one match between **Submitted Variable Names** and **FP-In column** on tool

The tool has a couple flavors based on whether the site's data was published prior to 2016.

- Sites with "historical" data:
  - Have pre-populated info based on AMP's best guess and historical metadata
  - Can map current FP Variables to their older variable names



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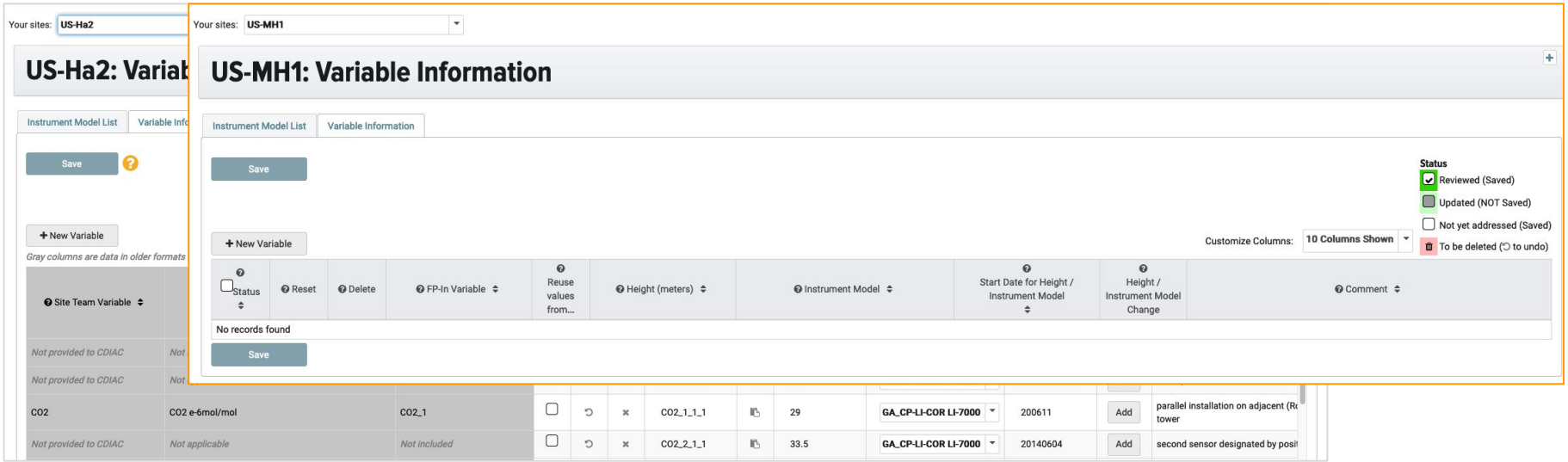
- Sites without historical data get a clean slate.



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- Sites without historical data get a clean slate.

Find details in the webinar:

Ready your site for ONEFlux processing

https://www.youtube.com/watch?v=kF1p8BQvxfA

Variable Aggregation

AMP needs to know which variables are representative and/or should be aggregated for ONEFlux.

Submitting Variable Aggregation BADM

1. AMP will contact you requesting submission via email

Submitting Variable Aggregation BADM

1. AMP will contact you requesting submission via email
2. AMP provides a pre-filled csv file (based on Variable Information and BADM database)

AMF_Variable_Aggregation_BADM

File Edit View Insert Format Data Tools Extensions Help Last edit was seconds ago

100% $ % .0 .00 123 Arial 10

A1 SITE_ID

	A	B	C	D	E	F	G
1	SITE_ID	AMF_VAR_AGG_VARNAME	AMF_VAR_AGG_MEMBERS	AMF_VAR_AGG_STATISTIC	AMF_VAR_AGG_DATE	AMF_VAR_AGG_COMMENT	
2	XX-yyy	Variable Code	list separated by semicolons	LIST(AGG_STATISTIC)	YYYYMMDDHHMM	Free text	
3	Required	Required	Required	Required	Optional	Optional	
4	US-OWC	CO2	CO2	Single observation			
5	US-OWC	FC	FC	Single observation			
6	US-OWC	H	H	Single observation			
7	US-OWC	LE	LE	Single observation			
8	US-OWC	SC	CO2	Single observation			
9	US-OWC	WS	WS	Single observation			
10	US-OWC	USTAR	USTAR	Single observation			
11	US-OWC	TA	TA	Single observation			
12	US-OWC	RH	RH	Single observation			
13	US-OWC	PA	PA	Single observation			
14	US-OWC	SW_IN	SW_IN	Single observation			
15	US-OWC	SW_OUT	SW_OUT	Single observation			
16	US-OWC	PPFD_IN	PPFD_IN	Single observation			
17	US-OWC	NETRAD	NETRAD	Single observation			
18	US-OWC	P	P	Single observation			
19	US-OWC	WD	WD	Single observation			
20	US-OWC	TS_1	TS_PI_1	Single observation			
21	US-OWC	TS_2	TS_PI_2	Single observation			

Submitting Variable Aggregation BADM

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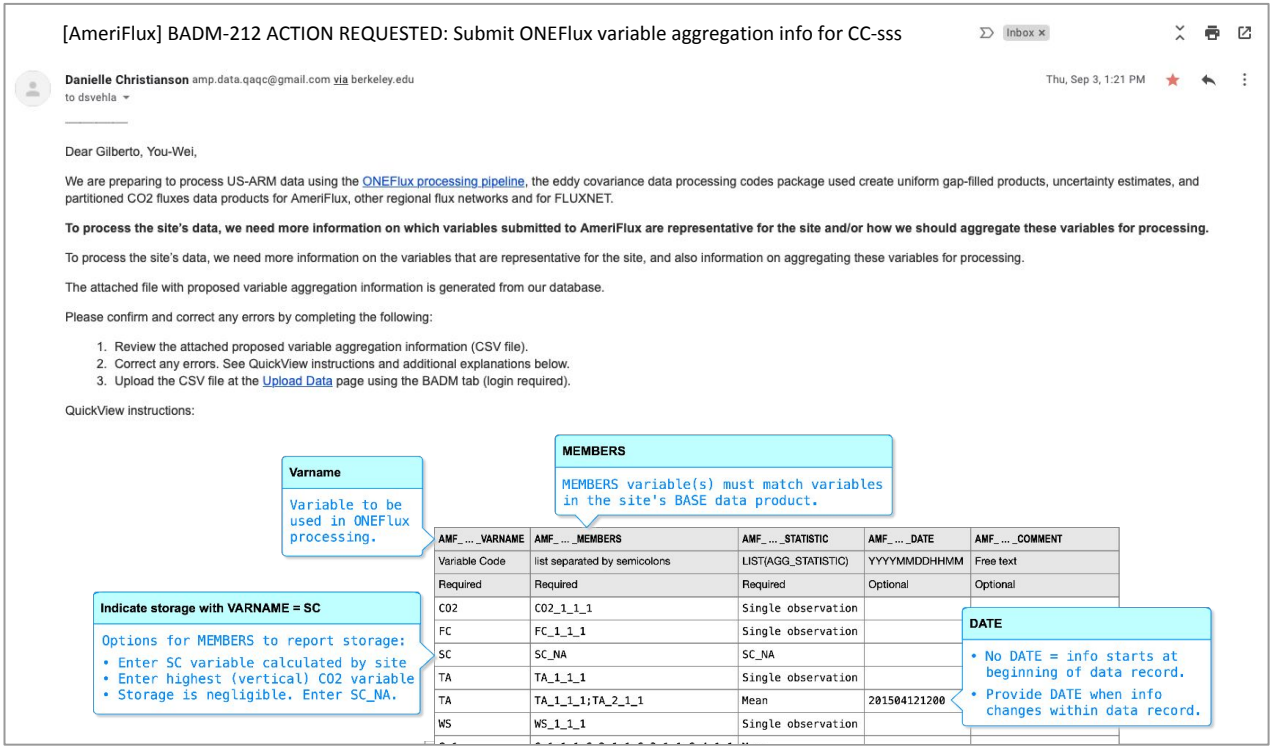
2. AMP provides a pre-filled csv file (based on Variable Information and BADM database)
3. AMP provides instructions in the email



[AmeriFlux] BADM-212 ACTION REQUESTED: Submit ONEFlux variable aggregation info for CC-sss

Inbox ×

Danielle Christianson amp.data.qaqc@gmail.com via berkeley.edu
to dsvehla

Thu, Sep 3, 1:21 PM

Dear Gilberto, You-Wei,

We are preparing to process US-ARM data using the ONEFlux processing pipeline, the eddy covariance data processing codes package used create uniform gap-filled products, uncertainty estimates, and partitioned CO2 fluxes data products for AmeriFlux, other regional flux networks and for FLUXNET.

To process the site's data, we need more information on which variables submitted to AmeriFlux are representative for the site and/or how we should aggregate these variables for processing.

To process the site's data, we need more information on the variables that are representative for the site, and also information on aggregating these variables for processing.

The attached file with proposed variable aggregation information is generated from our database.

Please confirm and correct any errors by completing the following:

1. Review the attached proposed variable aggregation information (CSV file).
2. Correct any errors. See QuickView instructions and additional explanations below.
3. Upload the CSV file at the Upload Data page using the BADM tab (login required).

QuickView instructions:

Varname
Variable to be used in ONEFlux processing.

MEMBERS
MEMBERS variable(s) must match variables in the site's BASE data product.

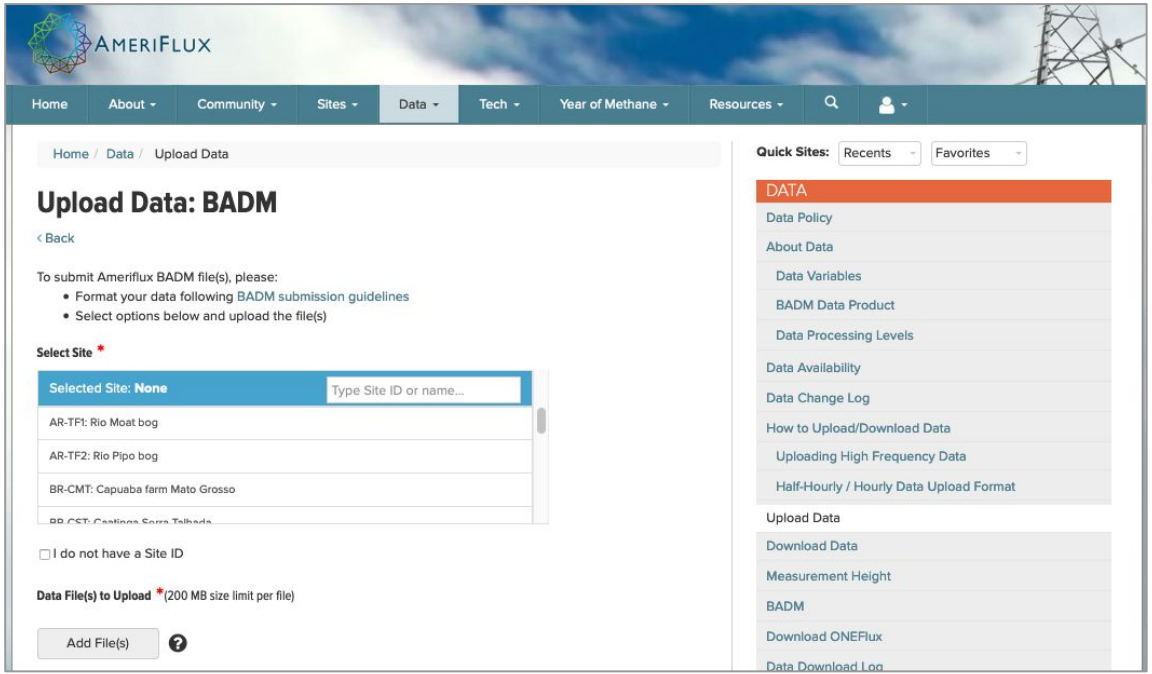
AMF_..._VARNAME	AMF_..._MEMBERS	AMF_..._STATISTIC	AMF_..._DATE	AMF_..._COMMENT
Variable Code	list separated by semicolons	LIST(AGG_STATISTIC)	YYYYMMDDHHMM	Free text
Required	Required	Required	Optional	Optional
CO2	CO2_1_1_1	Single observation		
FC	FC_1_1_1	Single observation		
SC	SC_NA	SC_NA		
TA	TA_1_1_1	Single observation		
TA	TA_1_1_1;TA_2_1_1	Mean	201504121200	
WS	WS_1_1_1	Single observation		

Indicate storage with VARNAME = SC
Options for MEMBERS to report storage:
- Enter SC variable calculated by site
- Enter highest (vertical) CO2 variable
- Storage is negligible. Enter SC_NA.

DATE
- No DATE = info starts at beginning of data record.
- Provide DATE when info changes within data record.

Submitting Variable Aggregation BADM

1. AMP will contact you requesting submission via email
2. AMP provides a pre-filled csv file (based on Variable Information and BADM database)
3. AMP provides instructions in the email
4. Site Teams review, update if needed, and upload the csv file



https://ameriflux.lbl.gov/data/upload-data/ > Choose BADM

Resources

BADM Webpage: https://ameriflux.lbl.gov/data/badm/

BADM Standards: https://ameriflux.lbl.gov/data/badm/badm-standards/

BIF format description: https://ameriflux.lbl.gov/data/aboutdata/badm-data-product/

BIF File parser: https://github.com/AMF-FLX/AMF-UserTools

Measurement Height: https://ameriflux.lbl.gov/data/measurement-height/

Variable Information Tool: https://ameriflux.lbl.gov/sites/variable-information/

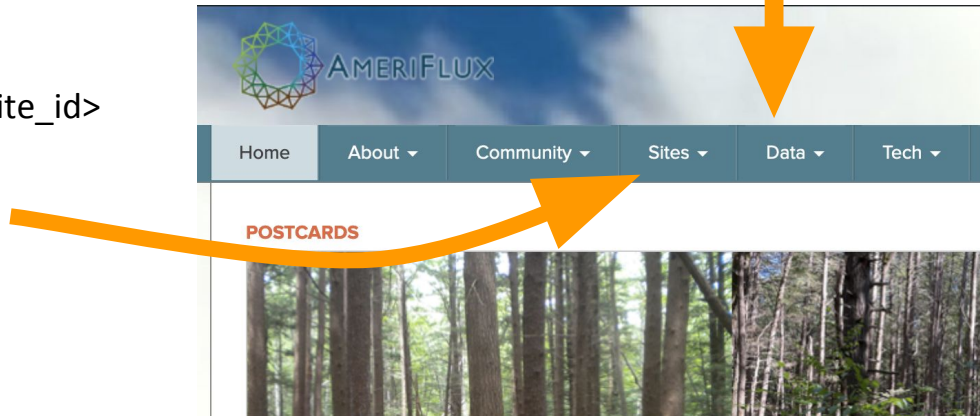
Variable Information webinar: https://www.youtube.com/watch?v=kF1p8BQvxfA

Download Data: https://ameriflux.lbl.gov/data/download-data/

Site Info Page: https://ameriflux.lbl.gov/sites/siteinfo/<site_id>

Site Search: https://ameriflux.lbl.gov/sites/site-search/

Site Sets: https://ameriflux.lbl.gov/sites/site-sets/



Questions?

Contact: ameriflux-support@lbl.gov

Extra slides

Review Variable Aggregation csv file

AMF_ ... _VARNAME	AMF_ ... _MEMBERS	AMF_ ... _STATISTIC	AMF_ ... _DATE	AMF_ ... _COMMENT
Variable Code	list separated by semicolons	LIST(AGG_STATISTIC)	YYYYMMDDHHMM	Free text
Required	Required	Required	Optional	Optional
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TA	TA_1_1_1;TA_2_1_1	Mean	201504121200	
WS	WS_1_1_1	Single observation		
G_1	G_1_1_1;G_2_1_1;G_3_1_1;G_4_1_1	Mean		
SWC_1	SWC_1_1_1;SWC_2_1_1;SWC_2_1_2	Mean		AMP: No depth info; please double check

Review Variable Aggregation csv file

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STATISTIC Options

- Single observation
- Mean
- SC_NA (use only with SC_NA in MEMBERS)

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- Mean
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Reporting carbon storage (VARNAME = SC)

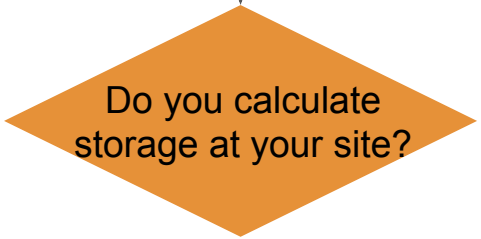
Storage is important

OR

Storage is negligible

Reporting carbon storage (VARNAME = SC)

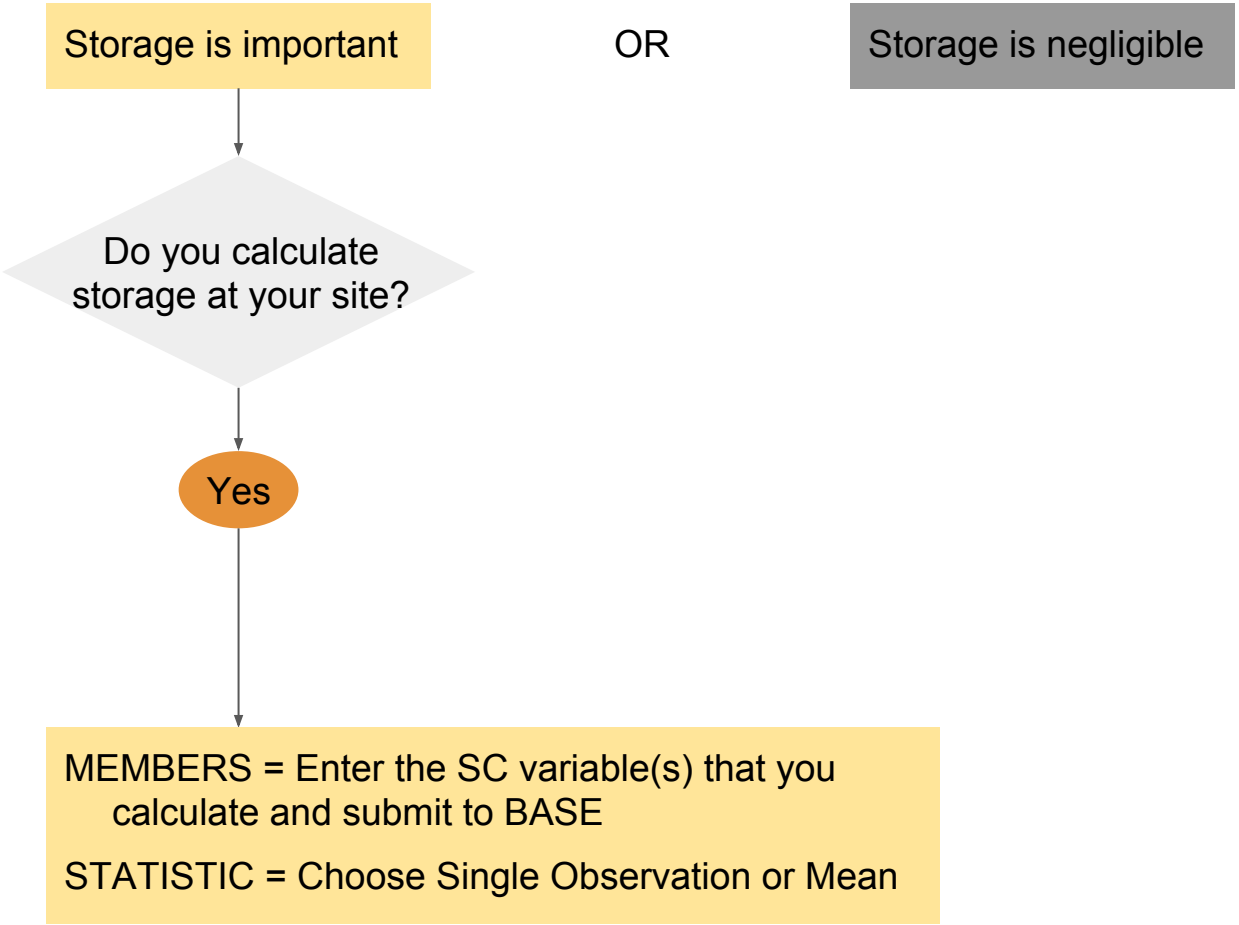
Storage is important



OR

Storage is negligible

Reporting carbon storage (VARNAME = SC)



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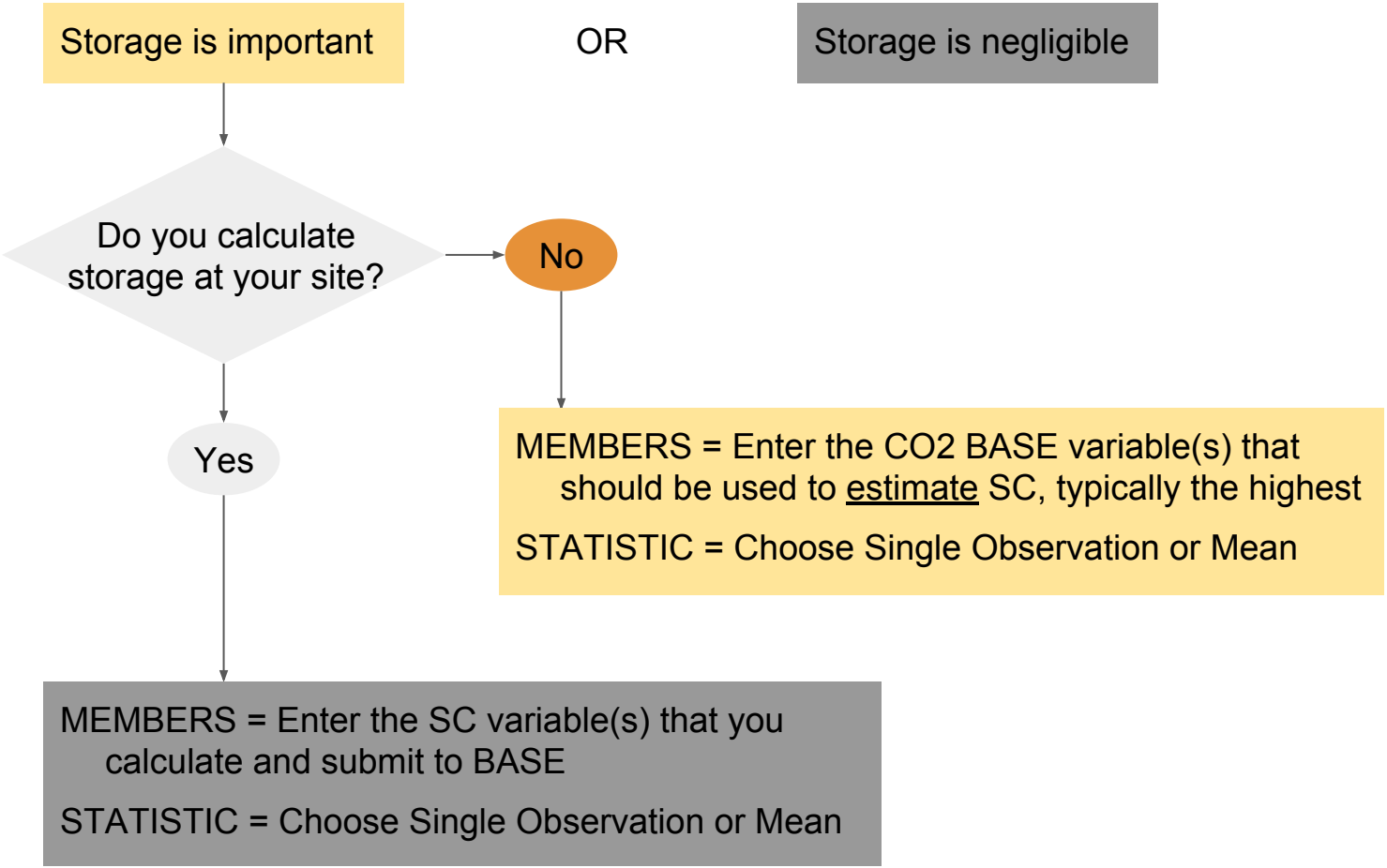

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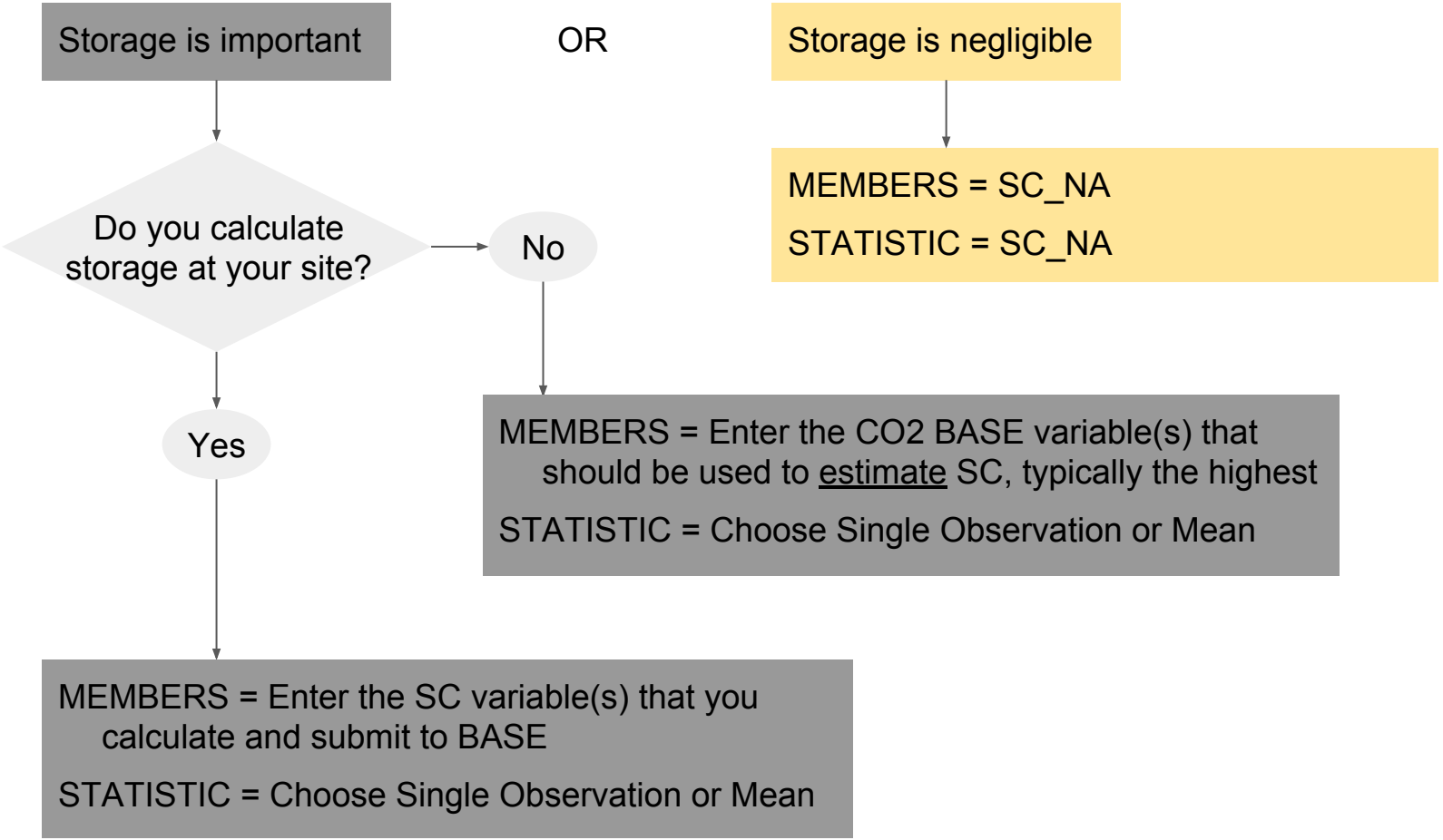

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