

Sediment Chemistry Data Ingestion

Brian Wlodawski

Background

- This report was created to allow users to successfully merge raw chemical concentration data from excel with a pre-existing sediment chemistry database (<http://apps/chemistry/sediment/>).
- The Sediment Chemistry Ingestion (upload) process was built in-house by MERI and allows for the upload of data to the Sediment Chemistry Database.

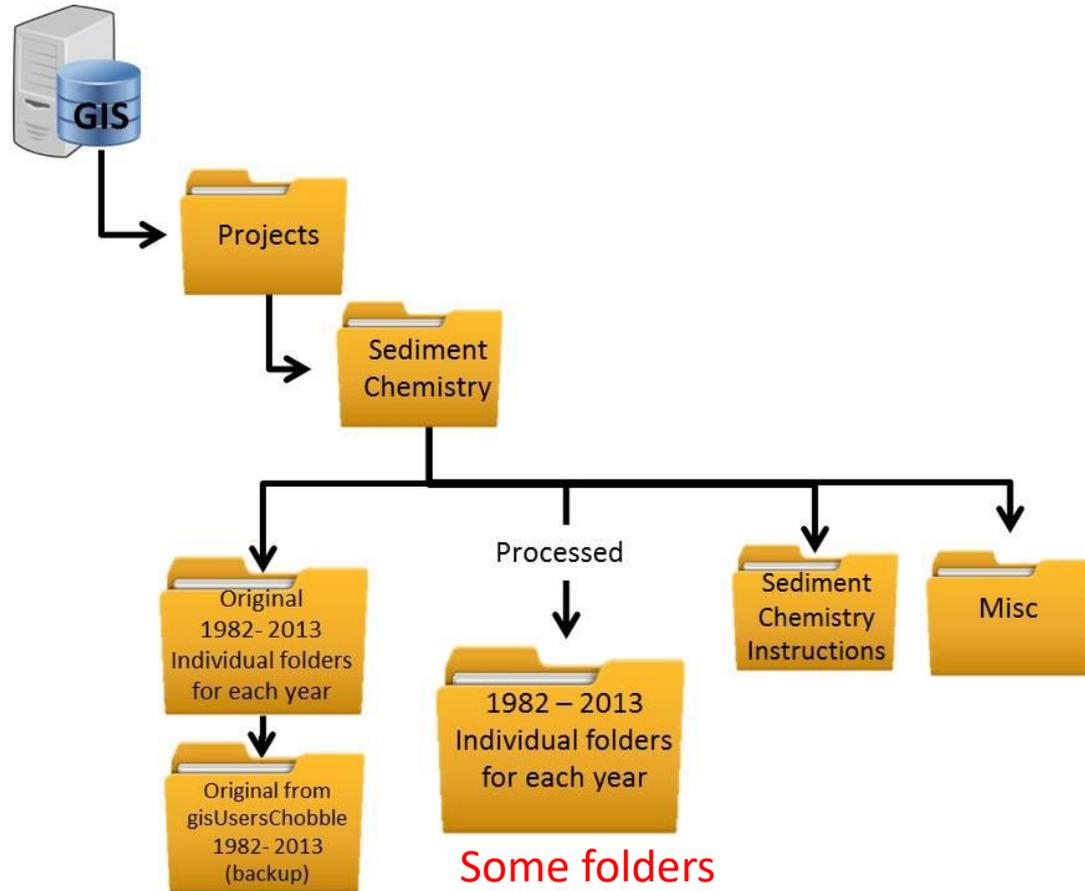
Data Formatting

- Original data tables from reports will need to be transformed to fit a pre-existing [data template](#). (Copy this template into your own workspace. **DO NOT MODIFY THE TEMPLATE.**)
- Round to two (2) decimal places

Chemical Name	Site 1 (Low-High)	Site 2 (Low-High)	Site 3 (Low-High)	Concentration Units	Depth Units	Report Name	Date	Year	Site
Name	Data	Data	Data	units	units	Report Name	Sampling Date	Report Year	Site
Name	Data	Data	Data	units	units	Report Name	Sampling Date	Report Year	Site
Name	Data	Data	Data	units	units	Report Name	Sampling Date	Report Year	Site

Data Formatting (2)

- Formatted data must be saved as a .CSV file, and stored on the GIS Server under Sediment Chemistry. File names must comply with the [MERI SOP](#) data standards.
- Place a copy of the original data file you received in the “[Original](#)” Folder. The Original folder is also arranged by year of sampling date.
- [\\GIS\projects\Sediment Chemistry](#)
- A visual file structure is located here: [File Structure](#).
- Only the database administrator can move files to the server for ingestion!



Some folders may have .mdb, and georeferenced maps as well

Ingestion Process

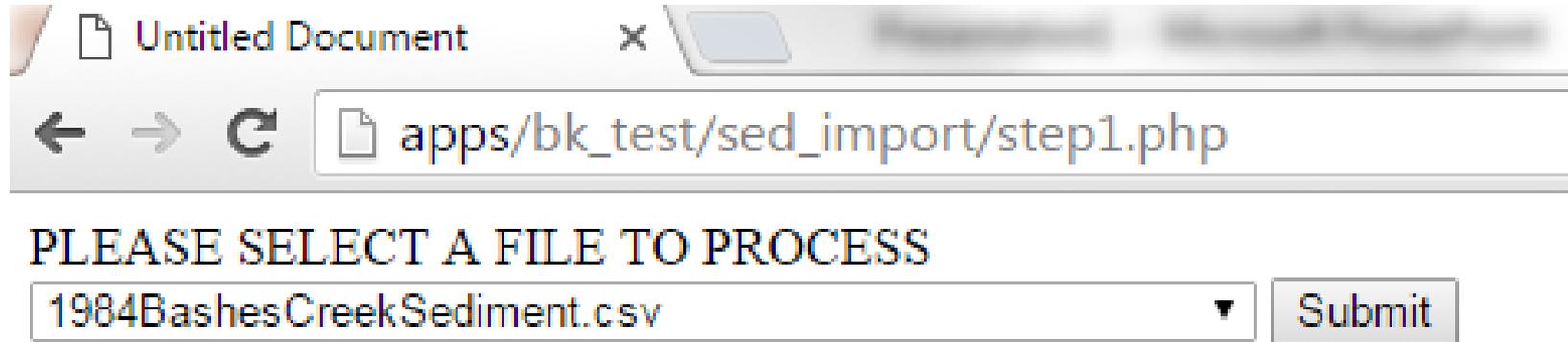
- Navigate to http://apps/bk_test/sed_import/
 - User: bk_import
 - Password: brian



The screenshot shows a web browser window with the address bar containing the URL `apps/bk_test/sed_import/`. Below the address bar, there is a login form with three input fields: a text field containing the username `bk_import`, a password field containing masked characters (dots), and a button labeled `Submit`.

- Click “submit” followed by “Proceed to STEP 1”

Selecting a file



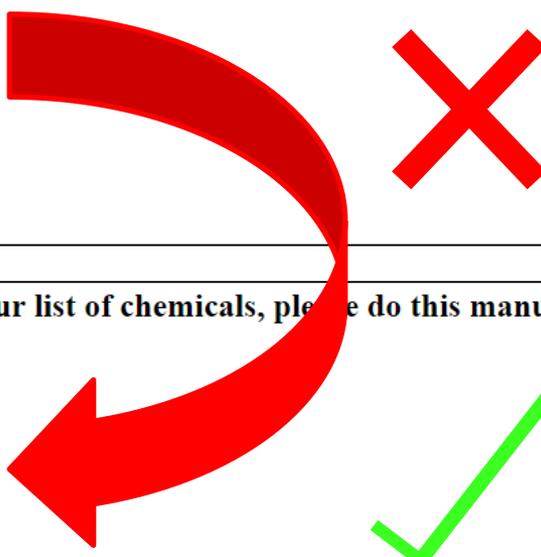
- Select file to process from the dropdown menu, if a permissions error appears ask the Database administrator to give permissions to the file you are working on

Choosing Chemical names

- Choose the chemical column name, this should be the column labeled “chemical Name.” All chemical names must match the chemical naming convention in the database.
- The ingestion software may say the chemical abbreviations do not match the records in the database. Simply manually match the abbreviations to their corresponding name in the database. (e.g. Fe = Iron).

The following rows did not match our list of chemicals, please do this manually

Cd -----	1,1-Dichloroethane	▼
Cr -----	1,1-Dichloroethane	▼
Cu -----	1,1-Dichloroethane	▼
Fe -----	1,1-Dichloroethane	▼
Hg -----	1,1-Dichloroethane	▼
Mn -----	1,1-Dichloroethane	▼
Ni -----	1,1-Dichloroethane	▼
Pb -----	1,1-Dichloroethane	▼
Zn -----	1,1-Dichloroethane	▼



The following rows did not match our list of chemicals, please do this manually

Cd -----	Cadmium	▼
Cr -----	Chromium	▼
Cu -----	Copper	▼
Fe -----	Iron	▼
Hg -----	Mercury	▼
Mn -----	Manganese	▼
Ni -----	Nickel	▼
Pb -----	Lead	▼
Zn -----	Zinc	▼



Attributes for individual samples

- UNCHECK ALL COLUMNS THAT DO NOT CONTAIN SAMPLES.

- Add the depth of sample in the DEPTH HIGH/LOW columns, and the GPS coordinate in **decimal degrees** for each sample.

- The concentration data is hidden in the attribute screen but will appear in the database.

Select the columns that contain measurements and fill out their attributes

Use	Column Name	Sample Name	Depth Low	Depth High	LNG (-74..)	LAT (40..)	REL ID
<input type="checkbox"/>	Chemical Name	Chemical Name	0	0	0	0	0
<input checked="" type="checkbox"/>	Dep 1 - DPC_R1	Dep 1 - DPC_R1	0	10	-74.03417413	40.84173589	1
<input checked="" type="checkbox"/>	Dep 3 - DPC_L1	Dep 3 - DPC_L1	0	0	0	0	2
<input checked="" type="checkbox"/>	Dep 4 - DPC_L2	Dep 4 - DPC_L2	0	0	0	0	3
<input checked="" type="checkbox"/>	Dep 5 - DPC_L3	Dep 5 - DPC_L3	0	0	0	0	4
<input checked="" type="checkbox"/>	Dep 6 - DPC_L4	Dep 6 - DPC_L4	0	0	0	0	5
<input checked="" type="checkbox"/>	Dep 7 - DPC_L5	Dep 7 - DPC_L5	0	0	0	0	6
<input checked="" type="checkbox"/>	Dep 8 - DPC_L6	Dep 8 - DPC_L6	0	0	0	0	7
<input checked="" type="checkbox"/>	Dep 9 - DPC_L7	Dep 9 - DPC_L7	0	0	0	0	8
<input checked="" type="checkbox"/>	Dep 10 - DPC_L8	Dep 10 - DPC_L8	0	0	0	0	9
<input checked="" type="checkbox"/>	Dep 11 - DPC_L9	Dep 11 - DPC_L9	0	0	0	0	10
<input checked="" type="checkbox"/>	Dep 12 - DPC_R2	Dep 12 - DPC_R2	0	0	0	0	11
<input checked="" type="checkbox"/>	Dep 13 - DPC_R3	Dep 13 - DPC_R3	0	0	0	0	12
<input checked="" type="checkbox"/>	Dep 14 - DPC_R4	Dep 14 - DPC_R4	0	0	0	0	13
<input type="checkbox"/>	Concentration Units	Concentration Units	0	0	0	0	14
<input type="checkbox"/>	Depth Units	Depth Units	0	0	0	0	15
<input type="checkbox"/>	Report Name	Report Name	0	0	0	0	16
<input type="checkbox"/>	Date	Date	0	0	0	0	17
<input type="checkbox"/>	Year	Year	0	0	0	0	18
<input type="checkbox"/>	Site	Site	0	0	0	0	19

Proceed to next step >>>

Fill Out DEPTH HIGH/LOW and coordinates in the sample rows only

Uncheck rows that do not contain samples

Attributes for each Study site

- Select the study site, study, and date of study. Check that the concentration and units match your data and verify the test method with the person who analyzed the sample.

Assign study Globals

Site:

Study:

Date: Month: / Day: / Year:

Measurement:

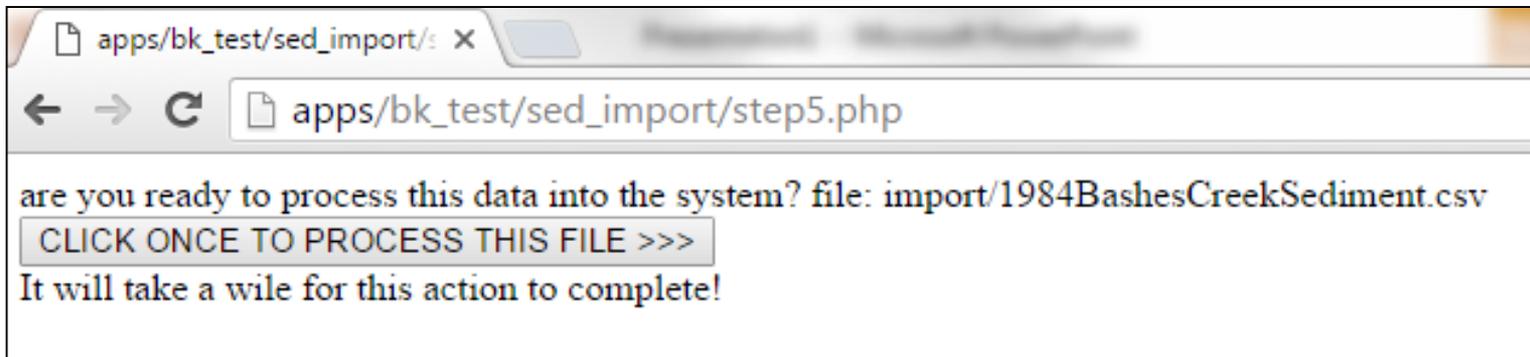
Concentration Units:

Criteria:

- Click “Proceed to next step >>>”

File processing and posting

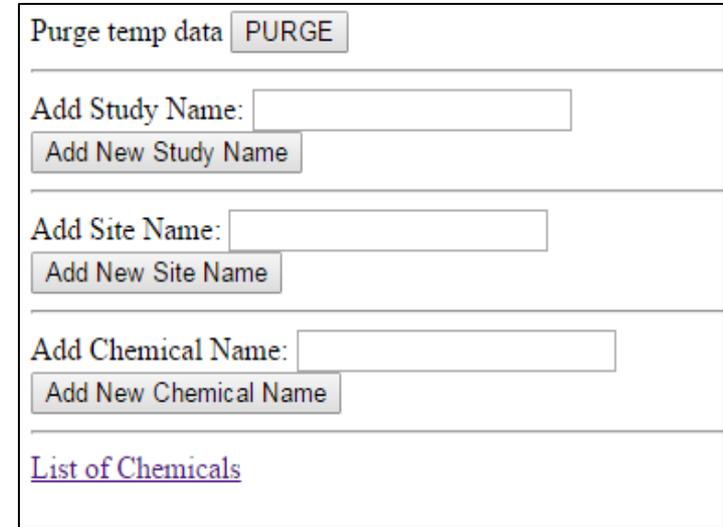
- The last screen should prompt you to “click once to process this file”



- There is a cache issue with the sediment database, and the new entries will not appear until the Database Administrator clears the cache on the server.

Ingestion Tools

- Tools here are for adding site names, chemical names, and study names. (See Figure 4) These entries will then appear in the dropdown menus of the ingestion process. You may have to refresh the page for them to appear in the dropdown menu.
- There is also a Purge Temp Data feature. If file ingestion is started and not finished, when the ingestion of that file is started again there may be some redundant data. This data must be cleared using the purge tool before proceeding to avoid extraneous entries in the database.



Purge temp data

Add Study Name:

Add Site Name:

Add Chemical Name:

[List of Chemicals](#)



Purge temp data

