

Standard Energy Efficiency Data Platform™



U.S. DEPARTMENT OF
ENERGY

Energy Efficiency &
Renewable Energy



SEED PLATFORM™ 2.4.0

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November 5, 2018

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Standard Use Cases

Use Case to Cover

- **Energy Benchmarking**
 - Commercial Buildings

Outcomes

- **Annual Disclosure Report**
 - By Tax Parcel ID
- **List of Building Violations**
 - By Tax Parcel ID
- **Annual Report of Building Stock Performance**
 - By energy (Portfolio Manager data)

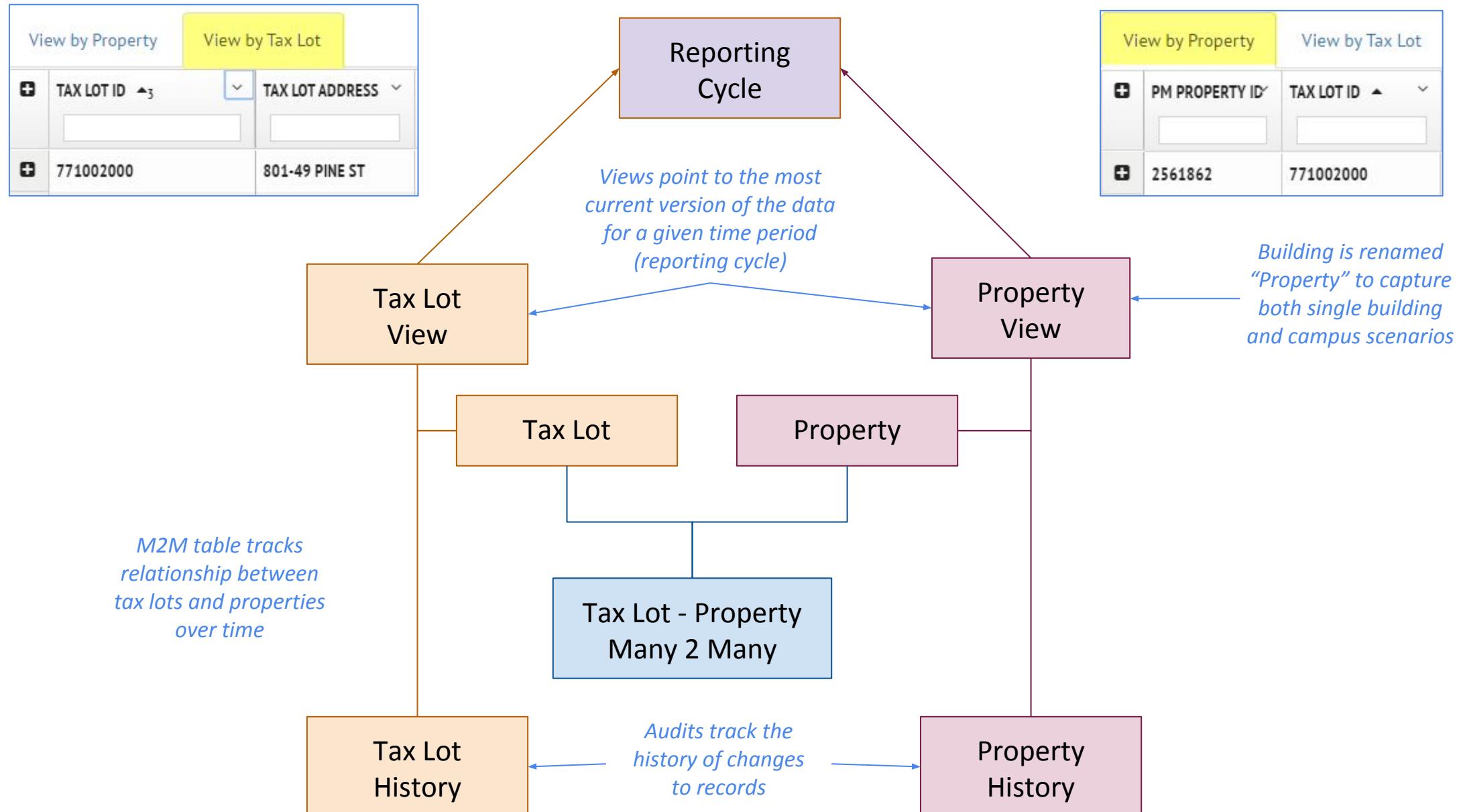
Standard Use Cases

Tasks to achieve outcomes:

- **Import data from different sources**
 - Tax assessor lists
 - Costar Data
 - Portfolio Manager Data
- **Match data from different sources**
- **Handle data with different types of relationships**
 - Tax Assessor data defined by Lot/Parcel
 - vs
 - CoStar or Portfolio Manager data defined by buildings
 - **Maintain data based on compliance year**

Data Model Schematic

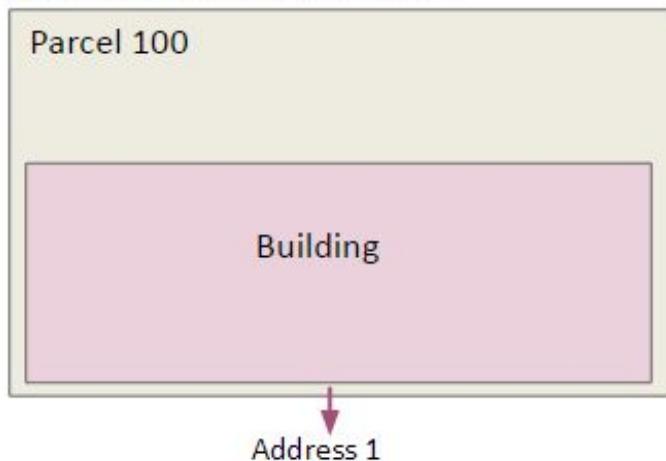
- View different states in time
- Many to many relationship between Tax Lot data and Building/Portfolio Manager data
- Viewing Tax Lot and Property data combined / rolled up



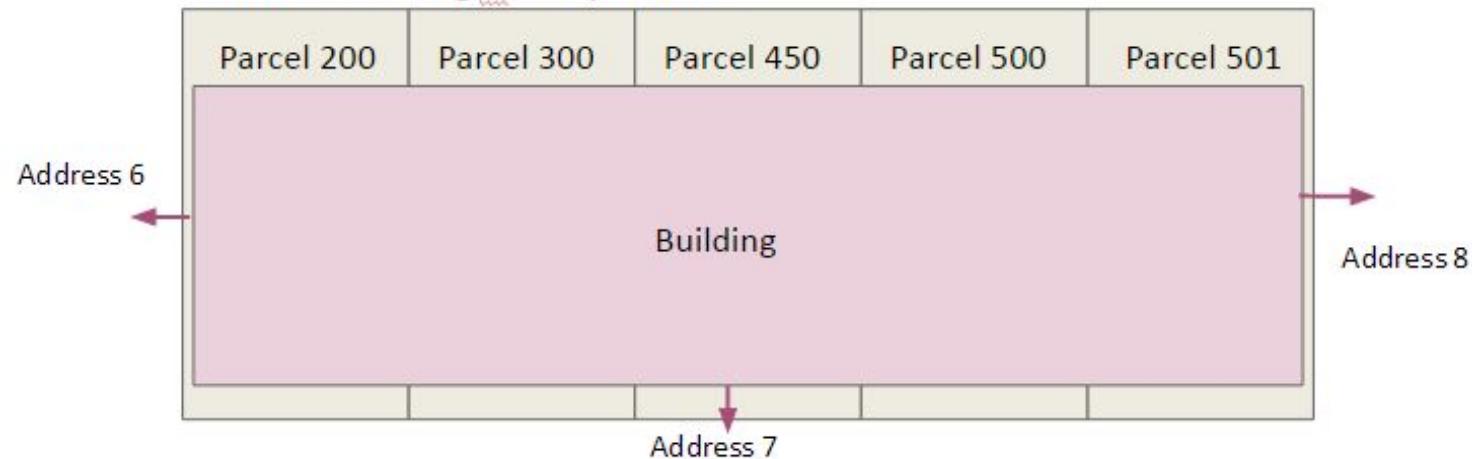
Physical reality of the data

The relationship of Buildings to Parcels/Tax Lots can be complicated

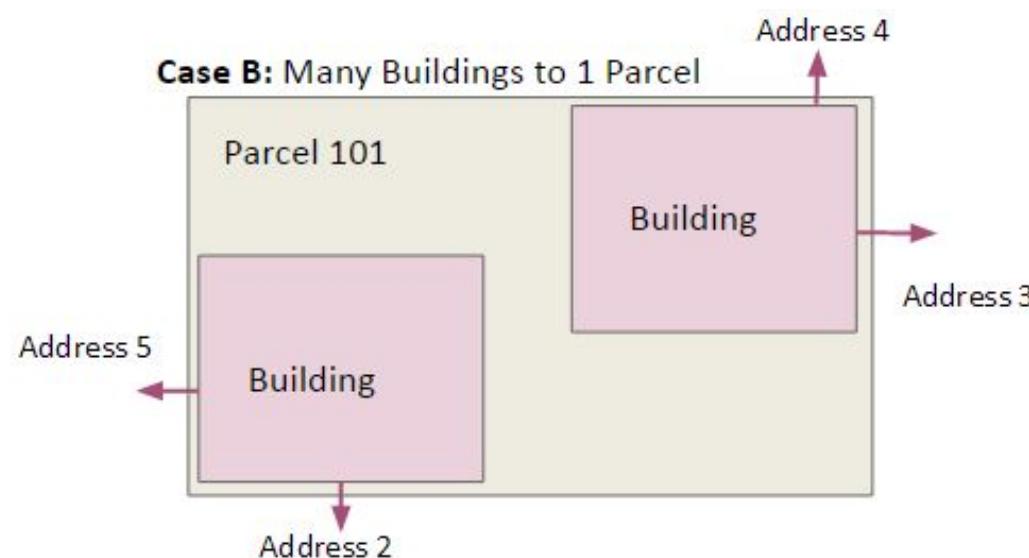
Case A: 1 Building to 1 Parcel



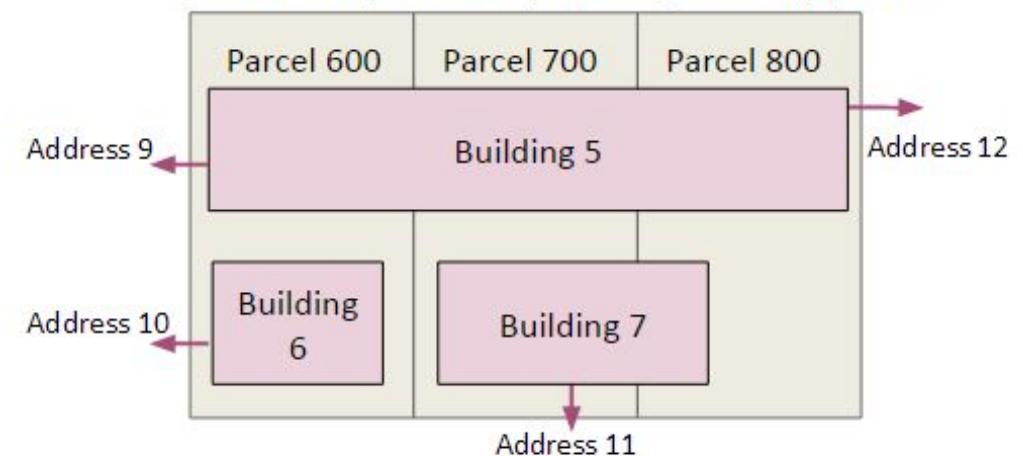
Case C: 1 Building to many Parcels



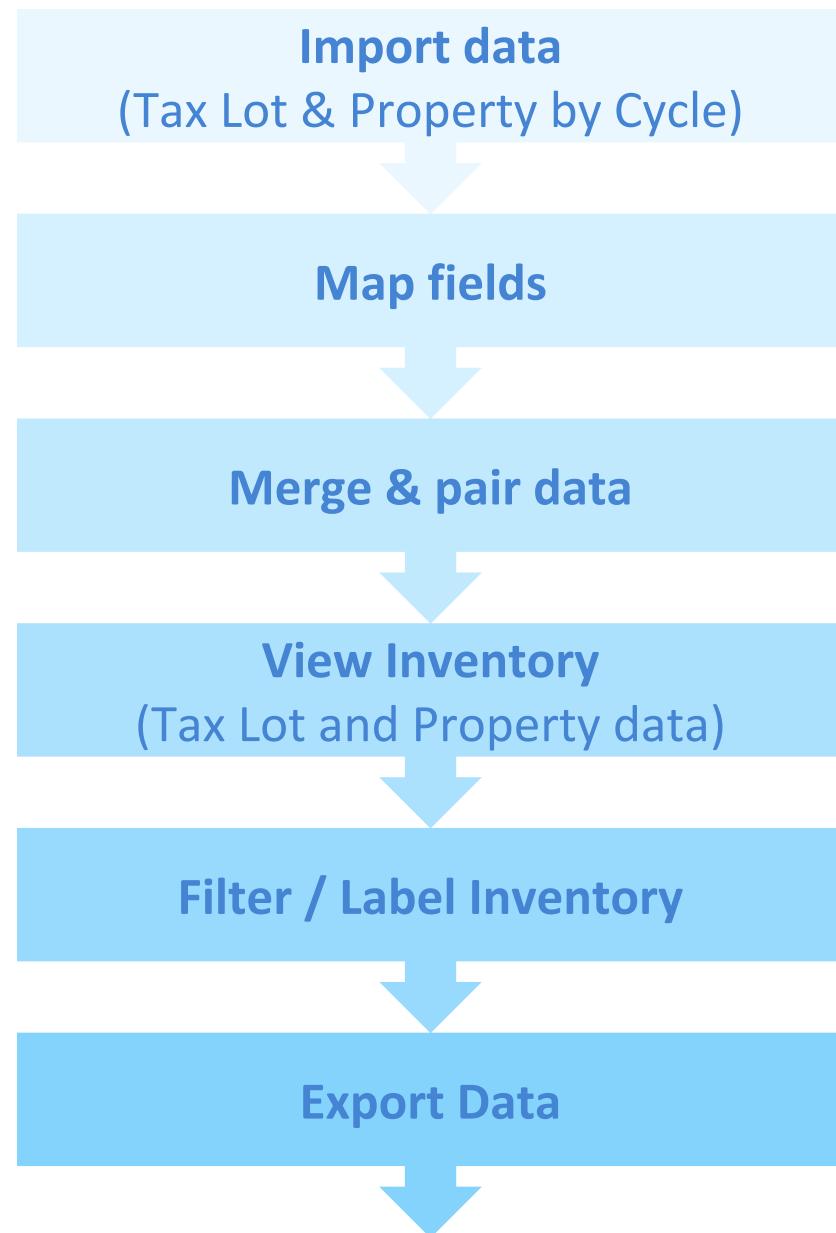
Case B: Many Buildings to 1 Parcel



Case D: Campus -- many buildings to many parcels



SEED Workflow



Home Page

You can open the Navigation Side Bar to view different program areas



LBNL 302



Inventory

Data

Contact

You can also navigate using the tabs at the top.

Getting Started

The DOE developed the Standard Energy Efficiency Data (SEED) Platform™ as a free software tool that provides a standardized format for collecting, storing and analyzing building energy performance information about large portfolios. Upload your buildings list to get started.

Upload your buildings list

Getting Started Guide

Click this button to download a copy of the guide you are currently viewing (!)



Upload your data

Get started using SEED Platform™ by uploading your buildings list (city tax assessor data) and then your EPA Portfolio Manager data. Make sure these files are each in .csv, .xls, .xlsx, or .xml format. The SEED Platform will help you map and validate your data in the process of loading.

Download Sample Data

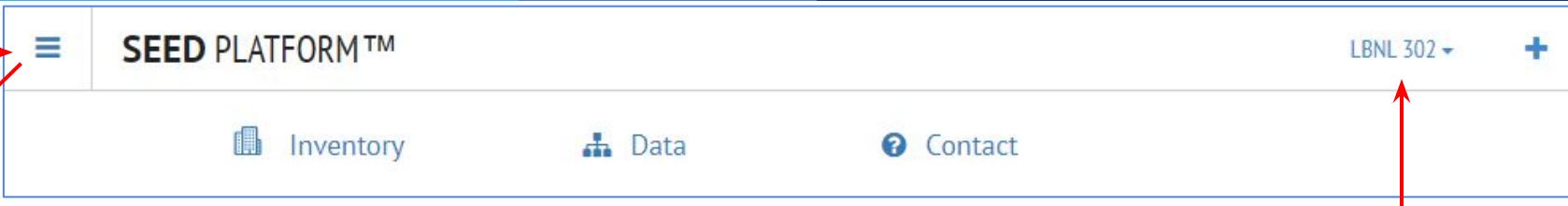
You can download a sample data set (seed-sample-data.zip) which contains two files:

- **Covered-buildings-sample.csv**
(tax assessor building list)
- **Portfolio-manager-sample.csv**
(custom report data from ENERGY STAR Portfolio Manager)

Folders	Name
[seed-sample-data.zip]	covered-buildings-sample.csv
seed-sample-data	portfolio-manager-sample.csv

Navigation

Click to Expand and Contract
the Navigation Side Bar



contracted expanded

Organization

	ROBIN LBNL 302
	INVENTORY
	DATA 0
	ORGANIZATIONS 1
	API DOCUMENTATION
	CONTACT
	ABOUT
	LOGOUT

User Account Name: Click to view information about the account

Inventory: Click to view of the Tax Lot / Parcel and Property / Building data, by Cycle / Time Period

Data: Click to import data into SEED that will become records in the Inventory

Organizations: Click to view the organizations associated with the user account

API Documentation: Click to view the Swagger API documentation

Contact: Click to view SEED contact info, including a link to user documentation and the User and Developer Forums, and a link to the Github code repository

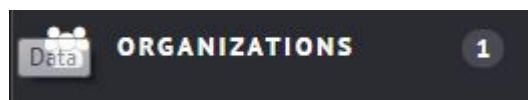
About: Click to view information about SEED development and funding

Log out: Click to log out of the program

Create Cycle in Organizations (before uploading data)

At least one cycle must be defined before importing data.

To define a new cycle, go to the Organizations navigation bar to see the organizations that you manage and belong to.



Click on the Organization that you want to make a cycle for

This screenshot shows the 'Organizations' section of the SEED Platform. At the top, it says 'SEED PLATFORM™' and 'LBNL 302'. Below that is a heading 'Organizations I Manage' with a user icon. Underneath is a table with one row for 'LBNL 302', labeled 'Sub-Organizations'. Below this is another heading 'Organizations I Belong To' with a user icon. A table follows, showing 'LBNL 302' in the 'ORGANIZATION NAME' column, with 'owner' in 'YOUR ROLE' and 'Robin LBNL 302' in 'ORGANIZATION OWNER(S)'.

The program will open up a view of that Organization.

This screenshot shows the 'LBNL 302' organization view. At the top, it says 'SEED PLATFORM™' and 'LBNL 302'. Below that is a back arrow and the text 'Organizations'. A navigation bar below has tabs: Settings, Sharing, Column Settings, Column Mappings, Data Quality, Cycles (which is highlighted in blue), Labels, Sub-Organizations, and Members. The 'Members' tab is selected, showing a table with columns 'MEMBER NAME', 'MEMBER EMAIL', and 'MEMBER ROLE'. It lists 'member name' and 'member email' under 'MEMBER NAME', and 'member role' under 'MEMBER ROLE'. At the bottom right, there's a link 'Invite a new member'. A red arrow points from the text 'Click on the "Cycles" link to view and edit existing cycles, and define new cycles' to the 'Cycles' tab in the navigation bar.

Click on the "Cycles" link to view and edit existing cycles, and define new cycles

View, Edit and Create Cycles

The screenshot shows the SEED Platform interface for 'LBNL 302'. The top navigation bar includes 'SEED PLATFORM™', a dropdown for 'LBNL 302', and a '+' button. Below the navigation is a secondary menu with links: 'Organizations', 'LBNL 302', 'Settings', 'Sharing', 'Column Settings', 'Column Mappings', 'Data Quality', 'Cycles' (which is highlighted in blue), 'Labels', 'Sub-Organizations', and 'Members'. A red arrow points from the text 'Click on Cycles link to view the Cycles page' to the 'Cycles' link in the top navigation.

To make a new **Cycle**, enter the **Cycle name**, **From date** and **To date**, then click **Create Cycle**

The screenshot shows the 'Cycles' page for 'LBNL 302'. It features a form to 'Create new cycle' with fields for 'Cycle Name', 'From date', and 'To date', followed by a 'Create Cycle' button. Below this is a table titled 'Existing Cycles' with columns 'NAME', 'FROM DATE', and 'TO DATE'. A new row is being added: '2017 Compliance Cycle' in the NAME column, '01-01-2017' in the FROM DATE column, and '12-31-2017' in the TO DATE column. A red arrow points from the text 'There is a default Cycle provided by the program called 2017 Calendar Year' to the '2017 Compliance Cycle' entry. Another red arrow points from the text 'The new Cycle is added to the Existing Cycles list' to the same entry. A third red arrow points from the text 'Click Edit to change the default Cycle name if desired' to the 'edit' button next to the '2017 Compliance Cycle' entry.

NAME	FROM DATE	TO DATE
2017 Compliance Cycle	01-01-2017	12-31-2017

There is a default Cycle provided by the program called **2017 Calendar Year**

The new **Cycle** is added to the **Existing Cycles** list

Click **Edit** to change the default **Cycle** name if desired

Existing Cycles		
NAME	FROM DATE	TO DATE
2017 Calendar Year	01-01-2017	12-31-2018
2018 Compliance Cycle	01-01-2017	12-31-2017

Existing Cycles		
NAME	FROM DATE	TO DATE
2017 Compliance Cycle	01-01-2017	12-31-2017
2018 Compliance Cycle	01-01-2017	12-31-2017

Uploading Data - There are many ways to start

OR click the "+" icon at the and
then select "Data Set"

The screenshot shows the SEED Platform homepage. On the left is a dark sidebar with icons and labels: ROBIN LBNL 302, INVENTORY (with 0), DATA (with 0), ORGANIZATIONS (with 1), API DOCUMENTATION, CONTACT, ABOUT, and LOGOUT. The main header says "SEED PLATFORM™". Below the header are three buttons: Inventory, Data, and Contact. A red arrow points from the text "Click the Data navigation button to see existing Data Sets or create a new one" to the "DATA" button. Another red arrow points from the text "OR click the "+" icon at the and then select "Data Set"" to the "+" icon in the top right corner of the header. The central content area features a city skyline background with the text "Getting Started" and a description of the platform's purpose. At the bottom, there are two buttons: "Upload your buildings list" (blue) and "Getting Started Guide" (yellow). A red arrow points from the text "click the blue button labeled "Upload your buildings list"" to the "Upload your buildings list" button.

Click the Data navigation button to see existing Data Sets or create a new one

OR click the "+" icon at the and then select "Data Set"

OR
click the blue button labeled "Upload your buildings list"

Create a New Data Set

Clicking the Data Navigation option will open the Data Sets view, to display existing Data Sets and create new Data Sets

The diagram illustrates the steps to create a new data set:

- A screenshot of a navigation bar labeled "DATA" with a red "0" badge is shown. A red arrow points from this bar to a larger screenshot of a "Data Sets" view.
- The "Data Sets" view shows a header "0 Data Sets" with icons for file counts and last changes. Below is a table with columns: DATA SET NAME, # OF FILES, LAST CHANGED, CHANGED BY, and ACTIONS. A red arrow points from the "Create new data set" link in the ACTIONS column to a "Create a New Data Set" dialog box.
- The "Create a New Data Set" dialog box contains the text "Create a New Data Set." A red arrow points from the "Data Set Name" label to a text input field containing "2018 Benchmarking Compliance".
- A red arrow points from the "Create Data Set" button to the button itself.
- A red arrow points from the "Dismiss" button to the button itself.

Annotations in red text provide instructions:

- "Give the new data set a name" points to the "Data Set Name" input field.
- "Click the Create Data Set button" points to the blue "Create Data Set" button.
- "Click the Create new data set link to open this dialog box" points to the "Create new data set" link in the main interface.

Add a file to the data set

Select the data file type, either

Upload a Spreadsheet
(CSV, XLS, XLSX)
to import

- Tax / Parcel lists
- Building lists

Upload Portfolio Manager Data
(CSV, XLS, XLSX)
to import

- Custom Report files generated from Portfolio Manager

Import Portfolio Manager Data to

- Log in to your Portfolio Manager account and import the custom report template directly into SEED

Upload BuildingSync Data

- This option allows importing a BuildingSync (XML format) file, such as produced by Asset Score.

Upload your data.

Time Period

2016 Compliance
Manage available cycles.

Upload a Spreadsheet

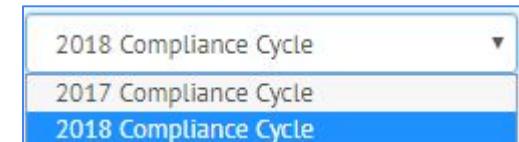
Upload Portfolio Manager Data

Import Portfolio Manager Data

Upload BuildingSync Data

File types supported: .csv, .xls, .xlsx, and .xml.

Note: only the first sheet of multi-sheet Excel files will be imported.



Select a **Cycle** (time period) to associate with the data

Click “**Manage available cycles**” to go to the Cycle definition page

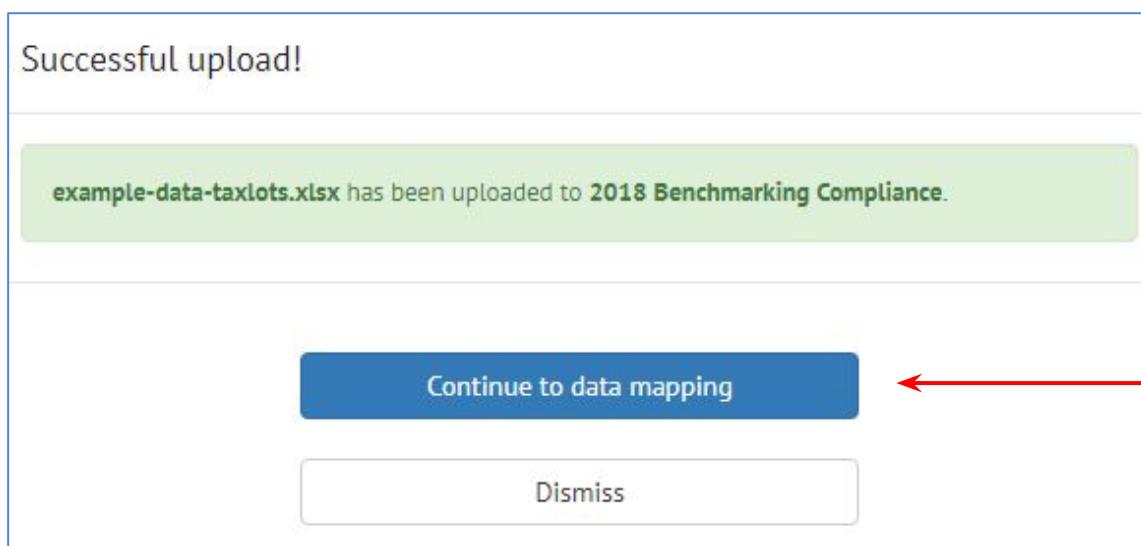
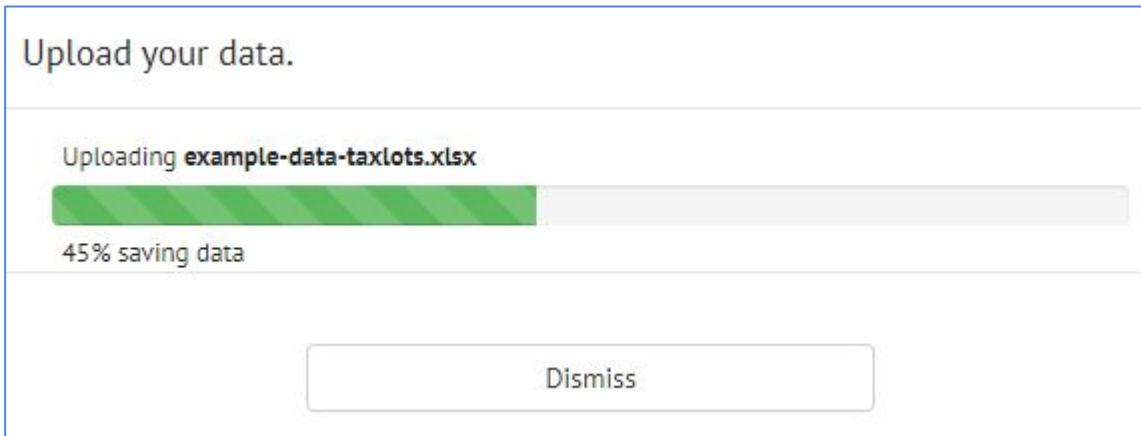
A browser window will open to select a file to upload

In this example, a **Tax Lot / Parcel** data file is uploaded

example-data-taxlots.xlsx

Upload Data

During the data upload, SEED reports the progress and the success of the upload



When the data upload is complete, click the
“Continue to data mapping” button

After you click the “Continue to data mapping”
button, you may see a spinning circle if the data
file is large

Mapping Fields

Matching Fields:

SEED matches records between files (such as Tax Lot and Building lists and ENERGY STAR Portfolio Manager data) based on the matching fields so it is **very important** to map your data's fields to at least one of these SEED fields.

Pick a field that is common between the files you plan to merge and pair to each other

Directions for mapping data are at the top of the Mapping page in the STEP 1 tab.

The Matching fields are

- **Jurisdiction Tax Lot ID**
(Tax Lot table)
- **PM Property ID** (Portfolio Manager ID)
(Property table)
- **Custom ID**
(Property and/or Tax Lot table)
- **Address Line 1**
(Property and/or Tax Lot table)
- **UBID** (Unique Building ID)
(Property table)

◀ 2017 Compliance

Data Mapping and Validation (1 - example-data-taxlots-...)

STEP 1: Map Your Data

STEP 2: Review Your Data Mappings

BEDES

Collapse Tabs

MAPPING YOUR DATA TO SEED

It is necessary to map your field names to SEED field names. You can select from the list that appears as you start to type, which is based on the Building Energy Data Exchange Specification (BEDES), or you can type in your own name, as well as typing in the field name from the original datafile.

In addition, you need to specify where the field should be associated with Tax Lot data or Property data. This will affect how the data is matched and merged, as well as how it is displayed in the Inventory view.

Field names for matching: The following fields are used by SEED to match records: **Jurisdiction Tax Lot ID**,

PM Property ID, **Custom ID 1**, **Address Line 1**, and **UBID**. If there are fields in a datafile mapped to these names, the program will attempt to match on those same names in existing records.

For Portfolio Manager files, SEED has a default set of field names which can be used without extra user editing unless desired.

When you click the **Map Your Data** button, the program will show a grid with the new field names as the column headings and your data in the rows. In that view, you can still come back to the initial mapping screen and change the field mapping.

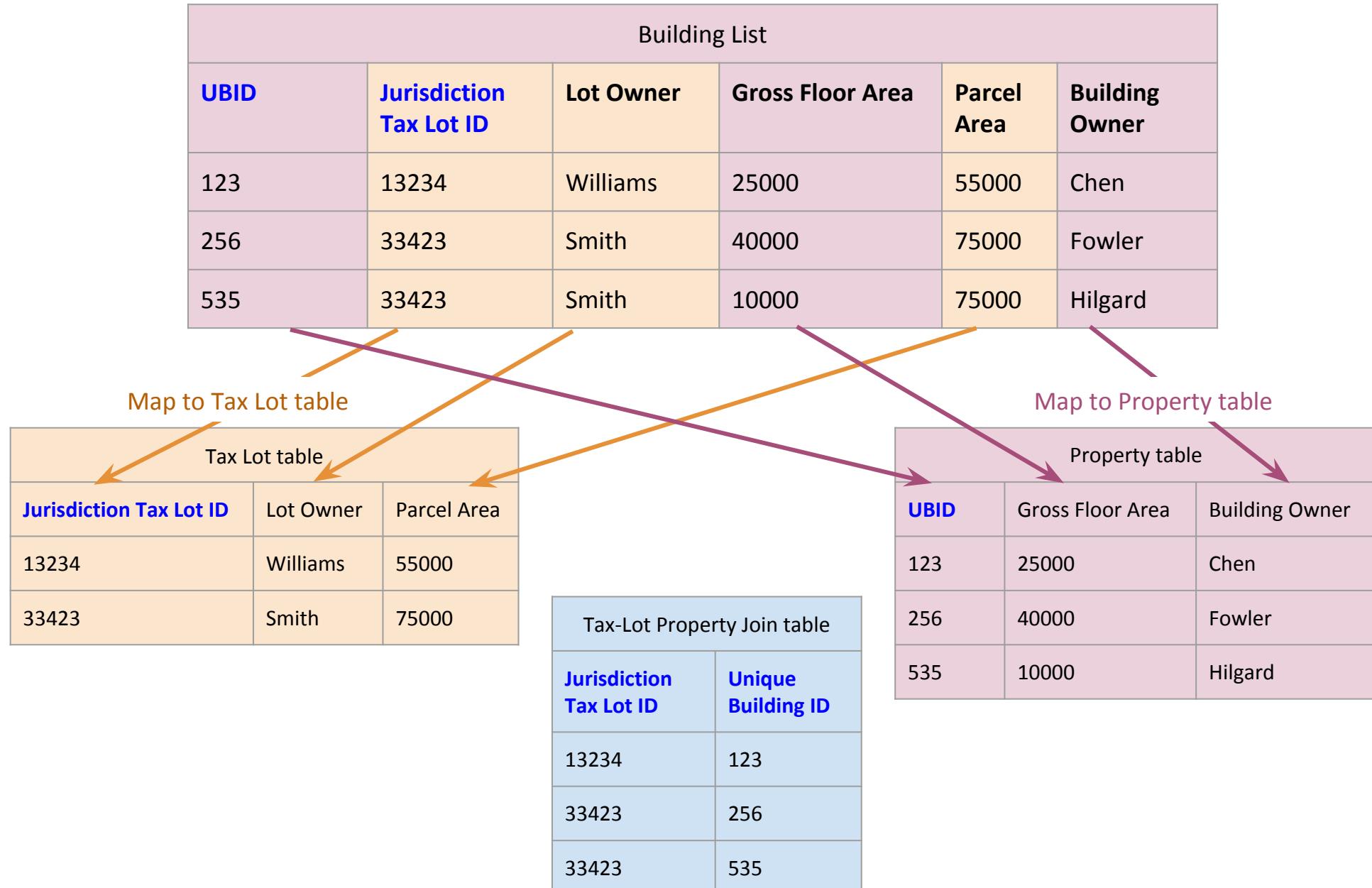
Duplicate -- if fields are marked as duplicates they need to be resolved to have different names.

The **Collapse Tabs** option is useful if you already know all the matching rules and need more room to view the mapped fields

Mapping Fields

The fields in a data file can be mapped

- All to the same table (either Tax Lot or Property)
- To different tables
 - In the example below, mapping to both tables defines the relationship between the Property and the Tax Lot data with **matching fields**.



Mapping Fields

The program will make a guess at an appropriate field name, which is not always correct or desired. The field names can get changed to another name if desired or you can click on this button to map all the SEED fields to the fields in the imported file

Start typing in the SEED field input to see a list of fields containing that word

SEED HEADER
jurisdiction
Jurisdiction Tax Lot Id
Jurisdiction Property Id

This data is all from the Tax Assessor so all the fields are mapped to the Tax Lot table

The screenshot shows a mapping interface with two main sections: 'SEED' on the left and 'example-data-taxlots.xlsx' on the right. The 'SEED' section contains a dropdown menu 'Set all fields to: Tax Lot'. The 'example-data-taxlots.xlsx' section has a header row with columns: INVENTORY TYPE, SEED HEADER, MEASUREMENT UNITS, DATA FILE HEADER, ROW 1, and ROW 2. Below this are several rows of data. Red arrows highlight specific mappings: one arrow points from the 'Jurisdiction' entry in the SEED dropdown to the 'Jurisdiction Tax Lot ID' field in the imported file; another arrow points from the 'Address' entry in the SEED dropdown to the 'Address Line 1' field in the imported file.

INVENTORY TYPE	SEED HEADER	MEASUREMENT UNITS	DATA FILE HEADER	ROW 1	ROW 2
Tax Lot ▾	Jurisdiction Tax Lot ID		Parcel Number	1552813	11160509
Tax Lot ▾	Address Line 1		Address	050 Willow Ave SE	2655 Welstone Ave NE
Tax Lot ▾	City		City	Rust	Rust
Tax Lot ▾	Number of Buildings		Number of Buildings	1	2
Tax Lot ▾	Taxable SF		Taxable SF	292029	390289
Tax Lot ▾	Tax Class		Tax Class	4	4
Tax Lot ▾	Parcel Owner		Parcel Owner	Howard Mills	Ron Willard
Tax Lot ▾	Notes		Notes	University Inn is on this parcel	Hilltop Condos, Hilltop

These fields were mapped to the reserved Matching field names to specify the fields the program will use to match records in files

- Parcel Number → Jurisdiction Tax Lot ID
- Address ⇒ Address Line 1

Matching

- In this case, the program will match two records if the data in either the **Jurisdiction Tax Lot ID** field **OR** the **Address Line 1** field are the same

Mapping Fields

Mapping buildings for example-data-taxlots.xlsx

100% Complete

Click **Map Your Data** when all the fields are mapped as desired

Map Your Data

Map SEED fields to imported file fields

SEED

example-data-taxlots.xlsx

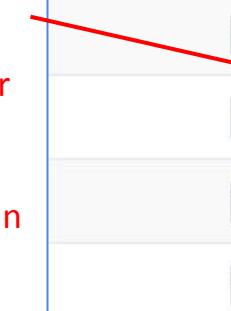
Set all fields to: Tax Lot ▾

Mapped Fields

INVENTORY TYPE	SEED HEADER	MEASUREMENT UNITS	DATA FILE HEADER	ROW 1	ROW 2
Tax Lot ▾	Jurisdiction Tax Lot ID		Parcel Number	1552813	11160509
Tax Lot ▾	Address Line 1		Address	050 Willow Ave SE	2655 Welstone Ave NE
Tax Lot ▾	City		City	Rust	Rust
Tax Lot ▾	Number of Buildings		Number of Buildings	1	2
Tax Lot ▾	Taxable SF		Taxable SF	292029	390289
Tax Lot ▾	Tax Class		Tax Class	4	4
Tax Lot ▾	Parcel Owner		Parcel Owner	Howard Mills	Ron Willard
Tax Lot ▾	Notes		Notes	University Inn is on this parcel	Hilltop Condos, Hilltop

Some of the non-matching field names are changed from the default program suggestions

For “Number of Buildings”, SEED suggested “Number Properties” but this was changed back to “Number of Buildings” for the final mapping (by just typing the complete field name in the SEED Header input box)



Map Your Data

Map Your Data

Field Mapping Review

[Map Your Data](#)

View the mapped fields populated with the data

Click **Save Mappings** if the mapping is correct

You can click
Back to Mapping if it is not correct

Click **Data Quality Results** to see data errors (see next page)

Back to Mapping Data Quality Results Save Mappings

It is possible to filter and sort the data by field in this view

SEED displays the number of records → 9 tax lots

Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	City (Tax Lot)	Notes	Parcel Owner	Tax Class	Taxable Sf	Number Of Buildings
1552813	050 Willow Ave SE	Rust	University Inn is on this parcel	Howard Mills	4	292029	1
11160509	2655 Welstone Ave NE	Rust	Hilltop Condos, Hilltop Retail, Hillt...	Ron Willard	4	390289	2
13334485	93029 Wellington Blvd	Rust	Lucky University on this parcel	University Trust	5	1234560	
23810533	94000 Wellington Blvd	Rust	Lucky University on this parcel	University Trust	2	5312	
24651456	11 Ninth Street	Rust	Lucky University on this parcel	University Trust	2	45135	5
33366125	525 Elm Street	Rust	Montessori school on this tax lot	Susan Anthony	3	954652	
33366148	530 Elm Street	Rust	Montessori school on this tax lot	Heidi Folk	1	154623	
33366555	521 Elm Street	Rust	Montessori school on this tax lot	Buildings LLC	9	15213	
55039309	39929 Ranch 99 Road	Rust		Ward Thatcher	7	331235	

Back to Mapping

Mapping – Review – Data Cleansing

From the Data Mapping screen, click Data Cleansing Results to see what the program discovered about the data

14 Data Quality Results



Data Quality Results

File Name: example-data-taxlots.xlsx

Date Uploaded: February 8th 2018, 7:26:40 PM -08:00

ADDRESS LINE 1	JURISDICTION TAX LOT ID	PM PROPERTY ID	CUSTOM ID	FIELD	ERROR MESSAGE
Address Line 1	Jurisdiction Tax Lot ID	PM Property ID	Custom ID	Field	Error Message
93029 Wellington Blvd	13334485	--	--	Number Of Buildings	Number Of Buildings is required and is None
94000 Wellington Blvd	23810533	--	--	Number Of Buildings	Number Of Buildings is required and is None
94000 Wellington Blvd	23810533	--	--	Taxable Sf	Taxable Sf [5312] < 10000
525 Elm Street	33366125	--	--	Number Of Buildings	Number Of Buildings is required and is None
530 Elm Street	33366148	--	--	Number Of Buildings	Number Of Buildings is required and is None
521 Elm Street	33366555	--	--	Number Of Buildings	Number Of Buildings is required and is None
39929 Ranch 99 Road	55039309	--	--	Number Of Buildings	Number Of Buildings is required and is None

Click Export to export the contents of the Data Cleansing screen to a CSV file

Export

Close

Click Close to return to the Data Mapping Screen

Data Cleansing Results.csv

Mapping – Confirm and Start Matching

Save Mappings

Confirm Save Mappings?

Did you review your mappings? It's a good idea to double check your mappings. Once SEED matches your properties and tax lots you cannot undo or edit these mappings.

Confirm mappings & start matching

Dismiss

You have one more chance to review the mapping

Click **Confirm mappings and start matching** if you are happy with the data mapping

SEED will check to see if any records match within the file (or across other files if they have already been imported)

Finding inventory matches.

Finding inventory matches for **example-data-taxlots.xlsx**

0% Complete

Dismiss

Program checks to see if any records match within the file based on the matching fields set in Mapping, such as Address or Tax Lot ID

The program checks for matching even if there is no data already loaded into the program to match to, in case there are matches within the file being imported

Matching - View Results / Add a File

Load More Data

- Total rows in the import file: 9
- New tax lots: 9

The program reports on what was done with the records. In this case, the program imported 9 records and created 9 new records in the Tax Lot table from those imported records

SEED could not locate any existing matches. Would you like to add another file?

Add another file

View my properties

Dismiss

Click **View my properties** to see the Inventory list

Click **Add another file** to upload another data file, such as ENERGY STAR Portfolio Manager data, which allows you to add more data to match to the records that were just created

Upload your data.

Time Period

2016 Compliance

Manage available cycles.

Upload a Spreadsheet

Upload Portfolio Manager Data

Import Portfolio Manager Data

Upload BuildingSync Data

Cycle: 2018 Compliance Cycle

View by Property

View by Tax Lot

9 tax lots

	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	City (Tax Lot)	Taxable Sf	Tax Class
+	24651456	11 Ninth Street	Rust	45135	2
✓	33366148	530 Elm Street	Rust	154623	1
✓	23810533	94000 Wellington Blvd	Rust	5312	2
✓	33366555	521 Elm Street	Rust	15213	9
✓	33366125	525 Elm Street	Rust	954652	3

After a data file has been mapped and matched, the records can be viewed in the Inventory list view.

In this example, **Tax Lot** data was imported, so the data can be viewed in the View by Tax Lot tab, for the appropriate **Cycle**

ENERGY STAR Portfolio Manager (ESPM) Data

Two paths for obtaining ENERGY STAR Portfolio Manager (ESPM) data

Option 1

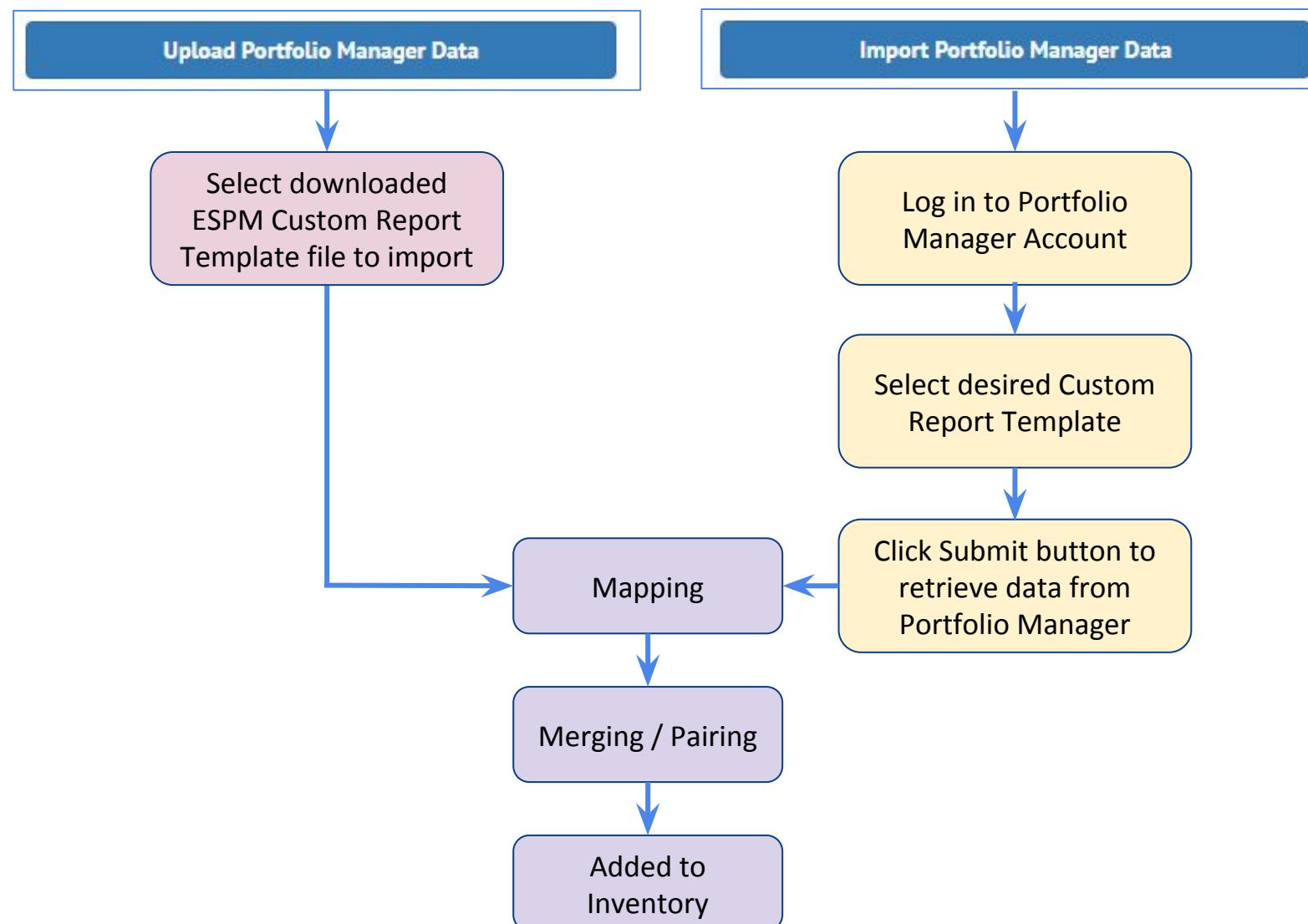
Upload Portfolio Manager Data

Upload an ESPM Custom Report Template that has been downloaded from ESPM as a CSV file "by hand"

Option 2

Import Portfolio Manager Data

Log directly into ESPM and import an ESPM Custom Report Template data directly into SEED without first downloading the CSV file.



ESPM Option 1: Upload Data from ESPM CSV files

This example shows how to upload Portfolio manager data from Custom Report Template CSV text files that have been downloaded from Portfolio Manager

Upload your data.

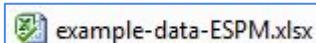
Time Period **2018 Compliance Cycle** [Manage available cycles.](#)

Upload a Spreadsheet

Upload Portfolio Manager Data

Import Portfolio Manager Data

Browse to the appropriate file to upload to SEED



Upload your data.

Uploading **example-data-properties.xlsx**

45% saving data

- Select the appropriate Cycle
- Click the **Upload Portfolio Manager Data** button to upload an ESPM Custom Report Template that has been exported from ESPM as a CSV file

Successful upload!

example-data-ESPM.xlsx has been uploaded to **2018 Benchmarking Compliance**.

Continue to data mapping

Dismiss

Click
Continue to data mapping
(See Mapping Portfolio Manager Data)

ESPM Option 2: Import Data Directly from ESPM

This example shows how to import Portfolio manager data from Custom Report Template directly by logging into a Portfolio Manager account from SEED

1 - Select the appropriate Cycle

Upload your data.

Time Period Manage available cycles.

2 - Click the Upload Portfolio Manager Data button to upload an ESPM Custom Report Template that has been exported from ESPM as a CSV file



3 - Enter Portfolio Manager Username and Password

Portfolio Manager Import

Portfolio Manager Username

Portfolio Manager Password

Report Template Name

4 - Click Get Report Templates button

Portfolio Manager Import

Portfolio Manager Username

Portfolio Manager Password

Report Template Name

Report Template Name (11)

Performance Highlights
Energy Performance
Emissions Performance
Water Performance
Fuel Performance
ENERGY STAR Certification Status
Partner of the Year Report
Sustainable Buildings Checklist Report
SEED City Test Report
SEED City Benchmarking Report
Waste Performance

5 - Select the desired Report Template

Portfolio Manager Import

Portfolio Manager Username

Portfolio Manager Password

Report Template Name (11)

6 - Click Submit to continue to data Mapping

Mapping Portfolio Manager Data

SEED field mapping for a Portfolio Manager file

Map all the fields to the Property Table except if there is a Tax Lot / Parcel ID -- map that to the Tax Lot table

UBID

- **Matching field - Property table**
- Use for a Unique Building ID, if that field is in the ESPM data

PM Property ID

- **Matching field - Property table**
- Map to Property ID in PM file

PM Parent Property ID

- Map to Parent Property ID in PM file to define the campus relationship

Address Line 1

- **Matching field - Property table**
 - If you want to match on Address, map to Address Line 1.
 - If you don't want to match on Address, use the ESPM field name of "Address 1"

Jurisdiction Tax Lot ID

- **Matching Field - Tax Lot table**
- If there is a Tax Lot ID field in the Portfolio Manager data that can be used to set up the relationship between Tax Lot and Property, map it to Jurisdiction Tax Lot ID
- Set the field to the Tax Lot table

Map SEED fields to imported file fields

SEED example-data-ESPM.xlsx

Mapped Fields Set all fields to: ▾

SEED HEADER	DATA FILE HEADER	INVENTORY TYPE	ROW 1
Ubid	Unique Building ID	Property ▾	1
Pm Property Id	Property ID	Property ▾	2264
Pm Parent Property Id	Parent Property ID	Property ▾	
Property Name	Property Name	Property ▾	University Inn
Address Line 1	Address 1	Property ▾	50 Willow Ave SE
Jurisdiction Tax Lot Id	Tax Lot ID	Tax Lot ▾	1552813
Property Type	Property Type	Property ▾	Hotel

Mapping Review - Portfolio Manager

Click Data Cleansing results button to view the errors or warnings.

Click Save Mappings if mapping is correct

[Back to Mapping](#)

16 ⚠ 2 ⚠ Data Quality Results

[Save Mappings](#)

[View by Property](#)

14 properties

PM Property ID	PM Parent Property ID	UBID	Address Line 1 (Property)	City (Property)	Associated Tax Lot ID	Property Name	Gross Floor Area	ENERGY STAR Score
1154623		4	2700 Welstone Ave NE	Rust	11160509	Hilltop Retail	23543	63
1311523	1311523	6	11 Ninth Street	Rust	24651456	Lucky University		
1311524	1311523	7	12 Ninth Street	Rust	24651456	Grange Hall	124523	77
1311525	1311523	11	20 Tenth Street	Rust	24651455	Biology Hall	421351	43
1311526	1311523	8	35 Tenth Street	Rust	24651456	Rowling Gym	1234	59
1311527	1311523	9	93029 Wellington Blvd	Rust	13334485;23810533	East Computing Hall	45324	34
1311528	1311523	12	93031 Wellington Blvd	Rust	13334485;23810533	International House	482215	
2264		1	50 Willow Ave SE	Rust	1552813	University Inn	12555	

Data Quality Results

File Name:

example-data-ESPM.xlsx

Date Uploaded:

February 9th 2018, 2:51:27 PM -08:00

	ADDRESS LINE 1	JURISDICTION TAX LOT ID	PM PROPERTY ID	CUSTOM ID	FIELD	ERROR MESSAGE
	Address Line 1	Jurisdiction Tax Lot ID	PM Property ID	Custom ID	Field	Error Message
	50 Willow Ave SE	--	2264	--	Site EUI	Site EUI [3.0] < 10.0
	2700 Welstone Ave NE	--	1154623	--	Site EUI	Site EUI [1202.0] > 1000.0
	2655 Welstone Ave NE	--	3020139	--	ENERGY STAR Score	ENERGY STAR Score [1] < 10

Confirm Mapping and Start Matching

Confirm Save Mappings?

Did you review your mappings? It's a good idea to double check your mappings. Once SEED matches your properties and tax lots you cannot undo or edit these mappings.

You have one more chance to review the mapping

Confirm mappings & start matching

Dismiss

Click **Confirm mappings and start matching** if you are happy with the data mapping

SEED will check to see if any records match (based on the Matching fields defined in Mapping) within the file (or across other files if they have already been imported)

Finding inventory matches.

Finding inventory matches for **example-data-properties.xlsx**

100% Complete

Matching Results for file **example-data-ESPM.xlsx**

- Total rows in the import file: 14
- New properties: 12
- New tax lots: 2
- Merged properties: 1
- Merged tax lots: 8
- Ignored tax lot duplicates within the import file: 8

Program checks to see if any records match within the file (such as Address Line 1 or Tax Lot ID)

In this example, using the Sample data, the **matching field** that is common between the two data files, Tax Lot data and the Portfolio Manager data is **Address Line 1**.

Add another file

View my properties

Dismiss

The program reports the results of the matching.

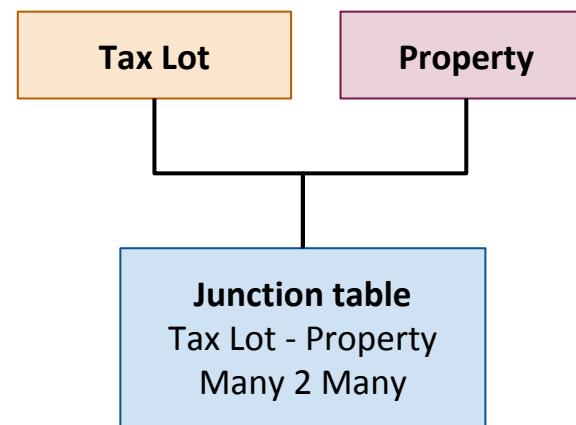
Add another file takes you back to the **Upload Your Data** dialog box.

View my properties takes you **Inventory List** view

Hand Pairing Tax Lot and Property records

Pairing records between Tax Lot and Property tables

- Records are “paired” between Tax Lot and Property tables in the Junction table based on matching fields



Viewing and changing the data pairing is in the Data Import view

A screenshot of a web-based application interface titled '2018 Compliance Year (2017 Data)'. The interface includes a header with 'Data Sets' and 'Add more data files'. Below is a table with the following columns: DATA FILES, DATE IMPORTED, # OF RECORDS, CYCLE, DATA MAPPING, and DATA PAIRING. A single row is shown for 'example-building-List.xlsx' with a date of '02/02/2018 04:38:06 PM', 11 records, and a cycle of '2018 Compliance Year (2017 Data)'. The 'DATA PAIRING' column contains a blue button labeled 'Data Pairing'. A red arrow points from the text 'Viewing and changing the data pairing is in the Data Import view' to this 'Data Pairing' button.

DATA FILES	DATE IMPORTED	# OF RECORDS	CYCLE	DATA MAPPING	DATA PAIRING
example-building-List.xlsx	02/02/2018 04:38:06 PM	11	2018 Compliance Year (2017 Data)	Data Mapping	Data Pairing

Hand Pairing Tax Lot and Property records

In the Data Sets view, for any imported file, click the Data Pairing button to view the automatic pairing or changing the pairing (pair or unpair records) by hand

Data Pairing

Select the Cycle for the desired data

View options

- Show All
- Show Paired
- Show Unpaired

Select table to view on the left hand side; the other table will display on the right hand side

Property

ADDRESS LINE 1 (PROPERTY)	PM PROPERTY ID	PAIRED
20 Tenth Street	1311525	1
2660 Welstone Ave NE	4828379	1
521 Elm Street	5233255	3
295444 Moser Lane	6798444	
2700 Welstone Ave NE	1154623	1
93029 Wellington Blvd	1311527	2
93031 Wellington Blvd	1311528	2
12 Ninth Street	1311524	
35 Tenth Street	1311526	1
11 Ninth Street	1311523	1
50 Willow Ave SE	2264	1
295302 Moser Lane	6798215	
2655 Welstone Ave NE	3020139	1

Showing 13 Properties (3 unpaired)

Tax Lot

ADDRESS LINE 1 (TAX LOT)	JURISDICTION TAX LOT ID
11 Ninth Street	24651456
35 Tenth Street	1311526
11 Ninth Street	1311523
530 Elm Street	33366148
521 Elm Street	5233255
94000 Wellington Blvd	23810533
93029 Wellington Blvd	1311527
93031 Wellington Blvd	1311528
521 Elm Street	33366555
521 Elm Street	5233255
525 Elm Street	33366125
521 Elm Street	5233255
050 Willow Ave SE	1552813
50 Willow Ave SE	2264
93029 Wellington Blvd	13334485
93029 Wellington Blvd	1311527
93031 Wellington Blvd	1311528
39929 Ranch 99 Road	55039309

Drag Property here to pair with this Tax Lot

Unpaired property records

Unpaired Tax Lot record

Tax Lot record

Property records paired to the Tax Lot record

Click Pairing Settings to select the fields to display for both tables

Uncheck this X to unpair the records

Hand Pairing Tax Lot and Property records

The Pairing Settings view allows you to select the fields from each table (Property and Tax Lot) to view in the Pairing screen

Check the fields to view for each table

Only the fields mapped to the specific table will be shown for each table

Pairing Settings

Column Order/Visibility

There are 55 property columns and 17 tax lot columns of data available to you. Select columns from the lists below to make them appear on the properties and tax lots of your Matching List table. Drag the rows to change the order in which they appear.

Properties

Column Name
Address Line 1 (Property)
PM Property ID
Custom ID 1 (Property)
PM Parent Property ID
Jurisdiction Property ID
UBID
Address Line 2 (Property)
City (Property)
State (Property)
Postal Code (Property)

Tax Lots

Column Name
Address Line 1 (Tax Lot)
Jurisdiction Tax Lot ID
Custom ID 1 (Tax Lot)
Address Line 2 (Tax Lot)
City (Tax Lot)

Main Screen - List Views

- Cycle: Select the Cycle data is associated with
- Tabs: View by Property and View by Tax Lot

SEED PLATFORM™

Organization LBNL 302 +

Select Actions to act on records

Select the Cycle

Properties

Properties List List Settings Reports

Actions ▾ Filter by label: Add a label AND OR EXCLUDE Clear Labels Clear Filters

Cycle: 2018 Compliance Cycle

Two tabs • Property • Tax Lots

List Settings Profile: Property List View

Number of Property records for this cycle 13 properties

View by Property View by Tax Lot

Controls the fields displayed in the tab

Click on + to see related records from the other tab

Click on i to go to Detailed record view

Toggle checkmark on and off to select records for Actions

This icon will link to Notes for the record

	PM Property ID	Jurisdiction Tax Lot ID	Address Line 1	Property Name	Property Type	Gross Floor Area	ENERGY STAR Score
+	1311527	13334485; 23810533	93029 Wellington Blvd	East Computing Hall	College/University	45324	34
+	1311523	24651456	11 Ninth Street	Lucky University	College/University		
+	1311526	24651456	35 Tenth Street	Rowling Gym	Fitness Center/Health ...	1234	59
+	2264	1552813	50 Willow Ave SE	University Inn	Hotel	12555	75
+	5233255	33366125; 33366148; ...	521 Elm Street	Montessori Day School	K-12 School	200000	55

Property & Tax Lots - List View

View by Property

“Collapsed” view shows all associated records from the tax lot table separated by semicolons

Cycle:	2018 Compliance Cycle							
		View by Property		View by Tax Lot				13 properties
		PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Property)	Address Line 1 (Tax Lot)	Property Type	ENERGY STAR Score	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	5233255	33366125; 33366148; ...	521 Elm Street	521 Elm Street; 525 El...	K-12 School	55	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		33366148		530 Elm Street			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		33366555		521 Elm Street			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		33366125		525 Elm Street			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	6798215		295302 Moser Lane		Library	88	

View by Tax Lot

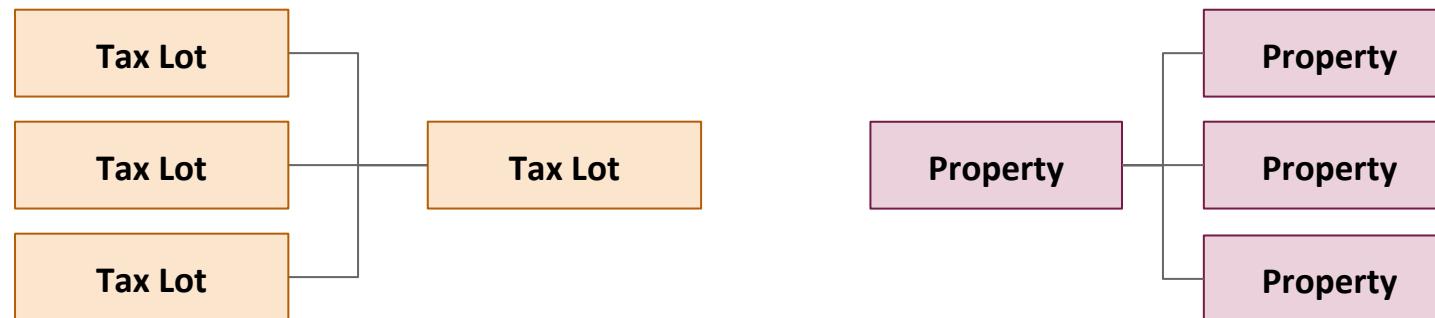
“Collapsed” view shows all associated records from the property table separated by semicolons

Cycle:	2018 Compliance Cycle							
		View by Property		View by Tax Lot				11 tax lots
		Jurisdiction Tax Lot ID	PM Property ID	Address Line 1 (Tax Lot)	Address Line 1 (Property)	Taxable Sf	Tax Class	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	24651455	1311525		20 Tenth Street			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	24651456	1311523; 1311524; 13...	11 Ninth Street	11 Ninth Street; 12 Ninth S...	45135	2	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		1311523		11 Ninth Street			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		1311526		35 Tenth Street			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		1311524		12 Ninth Street			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	33366125	5233255	525 Elm Street	521 Elm Street	954652	3	36
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	33366148	5233255	530 Elm Street	521 Elm Street	154623	1	

Hand Merging / Pairing Records

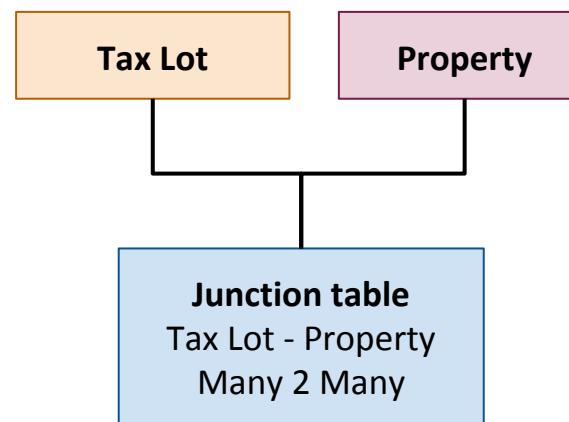
Merging (matching):

- Records are merged within the same table (Tax Lot or Property) based on matching fields



Pairing:

- Records are “paired” between Tax Lot and Property tables in the Junction table based on matching fields



Hand Merging Records

Merging

The hand merging functionality is in the **Inventory List** view

It is possible to merge two records together if the program didn't automatically merge them

The screenshot shows the 'Actions' dropdown menu open with the 'Merge Selected' option highlighted by a red arrow. Below the menu, two records are listed in a table:

	Address Line 1
<input checked="" type="checkbox"/> 1311523	11 Ninth Street
<input checked="" type="checkbox"/> 1311524	12 Ninth Street

Step 2:
Select the **Merge Selected** Action

Step 3:
Reorder the records if needed for final merge result

The dialog title is 'Merge Multiple Properties'. It shows a table titled 'Resulting Merge' with one row of data:

Address Line 1	City	ENERGY STAR Score	Gross Floor Area	Owner
12 Ninth Street	Rust	77	124523	Lucky University

A note below says: 'Records will be merged together from bottom to top, with the top record having the highest priority. Drag to reorder.'

Below is another table showing the original records:

Address Line 1	City	ENERGY STAR Score	Gross Floor Area	Owner
12 Ninth Street	Rust	77	124523	Lucky University
11 Ninth Street	Rust			Lucky University

At the bottom are 'Cancel' and 'Merge' buttons.

Step 1:
In Inventory List view
Select records to hand merge (by clicking on the checkmark to the left of the record)

Step 4:
You will now see only the one Master record in the Inventory List view

The screenshot shows the 'View by Property' tab selected. A single record is displayed in a yellow-highlighted row:

PM Property ID	Address Line 1
1311524	12 Ninth Street

The other records from the previous list are no longer visible.

Hand Un-Merging Records

Merged records can be viewed in the Inventory Detail view

It is possible to un-merge records (one at a time) in the **Inventory Detail** view

The screenshot shows the 'Property Detail' view for a property at 12 Ninth Street. The 'Labels' section shows 'Labels: > 50,000 SF College/University'. The 'Cycle' is listed as '2018 Compliance Cycle'. A red callout points to the 'Unmerge Last' button. The main table displays three columns: 'MASTER' (PM Property ID: 1311524, Address Line 1: 12 Ninth Street, Property Name: Grange Hall), 'EXAMPLE-DATA-ESPM.XLSX' (PM Property ID: 1311524, Address Line 1: 12 Ninth Street, Property Name: Grange Hall), and 'EXAMPLE-DATA-ESPM.XLSX' (PM Property ID: 1311523, Address Line 1: 11 Ninth Street, Property Name: Rust). A red callout points to the 'Detail Settings Profile: Property Detail Fields' dropdown. A modal dialog titled 'Unmerge Properties' asks 'Are you sure you want to unmerge these properties?' with 'Cancel' and 'Confirm' buttons. Red arrows point from the 'Confirm' button to the 'EXAMPLE-DATA-ESPM.XLSX' rows in the table, and from the table rows to the 'View by Property' grid below.

FIELD	MASTER	EXAMPLE-DATA-ESPM.XLSX	EXAMPLE-DATA-ESPM.XLSX
PM Property ID	1311524	1311524	1311523
Address Line 1	12 Ninth Street	12 Ninth Street	11 Ninth Street
Property Name	Grange Hall	Grange Hall	Lucky University
	Rust	Rust	Rust

View by Property		View by Tax Lot	
+	✓	PM Property ID	Address Line 1 ▲ ↴ Jurisdiction Tax Lot ID ↴
+	✓	1311523	11 Ninth Street 24651456
+	✓	1311524	12 Ninth Street 24651456

Data Quality: Run from Inventory List

Step 2: Click the Data Quality Check option in Actions

Step 1: Check the records to run the Data Quality check on

Properties

Properties List List Settings Reports

Data Quality Results

JURISDICTION TAX LOT ID	PM PROPERTY ID	CUSTOM ID	FIELD	ERROR MESSAGE
24651455	--	--	Address Line 1 (Tax Lot)	Address Line 1 (Tax Lot) is null
--	1154623	--	Site EUI	Site EUI [1202.0] > 1000.0
--	3020139	--	ENERGY STAR Score	ENERGY STAR Score [1] < 10
--	3020139	--	Gross Floor Area	Gross Floor Area [513852.0] > 50000.0
--	4828379	--	ENERGY STAR Score	ENERGY STAR Score is required and is None
--	4828379	--	Gross Floor Area	Gross Floor Area [55121.0] > 50000.0
--	4828379	--	Site EUI	Site EUI is required and is None
--	5233255	--	Gross Floor Area	Gross Floor Area [200000.0] > 50000.0
--	5233255	--	Site EUI	Site EUI [1358.0] > 1000.0
--	1311523	--	ENERGY STAR Score	ENERGY STAR Score is required and is None

Export Close

Labels are automatically added to the problem records. If those records are fixed and reimported, and the DQ check is rerun, the labels will be automatically removed if the program doesn't detect the data problem

The Data Quality Results can be exported to a CSV file

Actions Filter by label: Add a label

Cycle: 2018 Compliance Cycle

View by Property View by PM Property

DQ: Alert: No meters
DQ: ENERGY STAR Score < 10, > 100
DQ: Gross Floor Area < 50000
DQ: Site EUI < 10, > 1000

+ ✓ ⓘ 1311525 24651455 20 Tenth St

File Data Quality Check Results.csv

A	B	C	D	E	F	G
1 Table	Address Line 1	PM Property ID	Tax Lot ID	Field	Error Message	Severity
2 TaxLotState			24651455	Address Line 1 (Tax Lot)	Address Line 1 (Tax Lot) is null	error
3 PropertyState	2700 Welstone Ave NE	1154623		Site EUI	Site EUI [1202.0] > 1000.0	error
4 PropertyState	2655 Welstone Ave NE	3020139		ENERGY STAR Score	ENERGY STAR Score [1] < 10	error
5 PropertyState	2655 Welstone Ave NE	3020139		Gross Floor Area	Gross Floor Area [513852.0] > 50000.0	error
6 PropertyState	2660 Welstone Ave NE	4828379		ENERGY STAR Score	ENERGY STAR Score is required and is None	error
7 PropertyState	2660 Welstone Ave NE	4828379		Gross Floor Area	Gross Floor Area [55121.0] > 50000.0	error
8 PropertyState	2660 Welstone Ave NE	4828379		Site EUI	Site EUI is required and is None	error

List Grid Functionality

The grid used in the Inventory List view has many features
(explained in detail on the following pages)

- **Filter** -- enter filter criteria in the blank box under the column name
- **Sort** -- click in the middle of the column header to see the small up and down arrows to sort ascending and descending; alternatively select the right menu arrow in the column to see the Sort Ascending, Sort Descending and Remove Sort options
- **Select fields to view** -- click on the right menu arrow in an individual field to turn it on or off, or click on List Settings to see a list of columns to display or hide
- **Field order by dragging columns** -- click in the middle of a column header, hold the left mouse button down, and drag it right or left to place it the desired order
- **Pin columns** -- click on the right menu arrow in an individual column to see the Pin Left, Pin Right and Unpin options for that column
- **Resize columns** - click on the right hand side of the column header, hold the left mouse button down, and drag the column edge right and left to the desired width
- **Fixed column headers** -- the column headers are fixed, so scrolling down keeps the column headers visible.
- **Single page with all the data** -- All the records for a view are loaded at once -- there is no data view “pagination

Filter

Filter by Label shows only labels that are applied to records

DQ: Low or No ENERGY STAR Score
DQ: Low or No Site EUI

	PM Property ID	Address Line 1 (Property)	Site EUI	ENERGY STAR Score	Address Line 1 (Tax Lot)	Property Name
<input type="checkbox"/>	3020139	2655 Welstone Ave NE	652.3	1	2655 Welstone Ave NE	Hilltop Condos
<input type="checkbox"/>	1311527	93029 Wellington Blvd	45	34	93029 Wellington Blvd...	East Computing Hall

Can do AND, OR or EXCLUDE filters by label

Numeric fields can have expressions

Gross Floor Area
>=25000,<100000
51764
51843
59188
61650
64123
67425
68177
71068
73993

Text columns can be filtered

Address Line 1 (Property)
buchanan
30326 W Buchanan Lane
31553 S Buchanan Road
50518 SW Buchanan Lane
112019 S Buchanan Court
137291 SW Buchanan Highway
000023255 NW Buchanan Highway
000059001 NE Buchanan Way
0000224905 E Buchanan Loop

Enter values into the input boxes at the top of the field in order to filter the data by those values

The program will then only display the records with values based on the filter criteria

The filter feature supports multiple filters separated by commas.

Building Address	Building Floor Area
	>10000,<200000 ×
39929 Ranch 99 Road	23543
521 Elm Street	24523
93029 Wellington Blvd	45324
525 Elm Street	55121
050 Willow Ave SE	124523

Date strings can be either

- a year (2016)
- a year and a month (2016-05)
- a full date with no time (2016-05-31)

Text/Numeric Case-Insensitive Contains	abc 5
Text/Numeric Exact Match	"" "abc" = 5
Text/Numeric Not Exact Match	!= "" != "abc" != 5
Numeric Range	> 5 >= 5 < 5 <= 5
Text/Numeric Combination	123, street
Date Equality	2016 2016-05 2016-05-31 = 2016 = 2016-05
Date Inequality	!= 2015 != 2016-10-01
Date Range	>= 2016 < 2016-05
Date Combination	2016, >= 2016-10-01 >= 2015, < 2017

Filter

Most of the lists in SEED (Mapping, Matching, Inventory) allow you to sort and filter on the data in the columns by entering the filter values in the input box below the field (column name)

SEED supports filtering using “expressions” for both text and numeric data

- “” double quotes for null (empty) string
- !”” for non-null (non-empty) string
- Enter a value to show all records that contain that value:
typing **condo** will show results for **CONDO** and **COMMERCIAL CONDO**
- Enter a value surrounded by double quotes (“”) for an exact match (including case):
typing “**CONDO**” will show results for only uppercase **CONDO**
- Operators: =, !=, <, <=, >, >=
 - **>100** is greater than 100
 - **!0** is not equal to 0
- Multiple expressions should be separated by commas.
■ **>1984,<1990** is greater than 1984 and less than 1990

Use Description
CONDO
CONDO
COMMERCIAL CONDO
COMMERCIAL CONDO
CONDO

Use Description
"CONDO"
CONDO
CONDO
CONDO
CONDO

ENERGY STAR Score	Site EUI
>=50,<=75	>20
75	51.5
59	74.4
61	78.9
75	78.9
50	88.1
71	91.2

Add as many filters as needed, in this case the filter is show only records with ENERGY STAR Score data between 50 and 75, and with a Site EUI greater than 20

Filter Using Labels

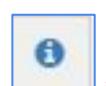
Multiple labels can be applied to the filter box and filter operators (AND, OR, and EXCLUDE) can be applied to the filter

- Filter Operators
 - AND == When filtering on multiple labels, displays records that have all the labels selected in the Filter by Label box
 - OR == When filtering on multiple labels, displays records that have at least one of the labels selected in the Filter by Label box
 - EXCLUDE == Displays all records that DO NOT have the label or labels in the Filter by Label box

Actions ▾ Filter by label: DQ: Low or No ENERGY STAR Score × Add a label AND OR EXCLUDE Clear Labels Clear Filters

Cycle: 2018 Compliance Cycle ▾ List Settings Profile: Property List View

View by Property		View by Tax Lot						4 properties	
	PM Property ID	Address Line 1 (Property)	Site EUI	ENERGY STAR Score	Use Description	Address Line 1 (Tax Lot)	Property Name		
	1311523	11 Ninth Street		1	College/University	11 Ninth Street	Lucky University		
	3020139	2655 Welstone Ave NE	652.3		Multifamily Housing	2655 Welstone Ave NE	Hilltop Condos		
	4828379	2660 Welstone Ave NE			Office	2655 Welstone Ave NE	Hilltop Offices		
	1311528	93031 Wellington Blvd			Residence	93029 Wellington Blvd...	International House		



Clicking on the “information” icon displays the Detail view which shows all the labels associated with that record.

Property : 93031 Wellington Blvd

Add/Remove Labels Labels: DQ: Low or No ENERGY STAR Score

FIELD	MASTER
PM Property ID	1311528
Address Line 1 (Property)	93031 Wellington Blvd
Use Description	Residence
ENERGY STAR Score	

Filter Using Labels: AND / OR

Filter Operator == **AND**: Shows records that have all of the labels in the Filter by Label box

In this case, it shows the one record that has both no value for ENERGY STAR Score and Use Description set to College/University

The screenshot shows the 'Actions' dropdown, 'Filter by label' bar containing 'DQ: Low or No ENERGY STAR Score' and 'College/University', an 'Add a label' button, and filter buttons for 'AND', 'OR', 'EXCLUDE', 'Clear Labels', and 'Clear Filters'. Below these are 'Cycle' and 'List Settings Profile' dropdowns. The main area displays a table with columns: PM Property ID, Address Line 1 (Property), Site EUI, ENERGY STAR Score, Use Description, Address Line 1 (Tax Lot), and Property Name. A single row is visible for 'Lucky University' with PM Property ID 1311523, Address Line 1 11 Ninth Street, Site EUI blank, ENERGY STAR Score blank, Use Description College/University, Address Line 1 11 Ninth Street, and Property Name Lucky University. Red arrows point from the 'DQ: Low or No ENERGY STAR Score' and 'College/University' labels in the filter bar to the corresponding blank fields in the table row.

PM Property ID	Address Line 1 (Property)	Site EUI	ENERGY STAR Score	Use Description	Address Line 1 (Tax Lot)	Property Name
1311523	11 Ninth Street			College/University	11 Ninth Street	Lucky University

Filter Operator == **OR**: Shows records that have at least one of the labels in the Filter by Label box

In this case, it shows the 2 records that have Use Description set to College/University and the 4 records that have low or no ENERGY STAR Score, including the 1 record that fits both criteria

The screenshot shows the same interface elements as the previous one, but with a different filter configuration. The 'Filter by label' bar now includes 'DQ: Low or No ENERGY STAR Score' (highlighted in blue), 'College/University' (highlighted in blue), and 'Add a label'. The 'OR' button is highlighted in blue. The table below shows 5 properties. Red arrows point from the 'DQ: Low or No ENERGY STAR Score' and 'College/University' labels in the filter bar to the corresponding columns in the table rows. The table rows are as follows:

PM Property ID	Address Line 1 (Property)	Site EUI	ENERGY STAR Score	Use Description	Address Line 1 (Tax Lot)	Property Name
1311527	93029 Wellington Blvd	45	34	College/University	93029 Wellington Blvd...	East Computing Hall
1311523	11 Ninth Street			College/University	11 Ninth Street	Lucky University
3020139	2655 Welstone Ave NE	652.3	1	Multifamily Housing	2655 Welstone Ave NE	Hilltop Condos
4828379	2660 Welstone Ave NE			Office	2655 Welstone Ave NE	Hilltop Offices
1311528	93031 Wellington Blvd			Residence	93029 Wellington Blvd...	International House

Filter Using Labels: EXCLUDE

Filter Operator == EXCLUDE: Shows records that have **NONE** of the labels in the Filter by Label box

The screenshot shows a table of property data with various filters applied at the top. Red annotations provide context for the EXCLUDE filter:

- A red arrow points from the text "ENERGY STAR Score is valid" to the first row, which has a yellow background. This row represents a property with a valid ENERGY STAR score but is excluded because it is labeled as a "College/University".
- A red arrow points from the text "Use Description is not College/University" to the second row, which also has a yellow background. This row represents a property with a valid ENERGY STAR score but is excluded because its use description is not "College/University".
- A red arrow points from the "EXCLUDE" button in the filter bar to the filter bar itself, which lists "DQ: Low or No ENERGY STAR Score" and "College/University".

Filter by label: DQ: Low or No ENERGY STAR Score × College/University × Add a label **EXCLUDE**

Cycle: 2018 Compliance Cycle **List Settings Profile:** Property List View

View by Property **View by Tax Lot** **7 properties**

	PM Property ID	Address Line 1 (Property)	Site EUI	ENERGY STAR Score	Use Description	Address Line 1 (Tax Lot)	Property Name
+ ✓ ⓘ	1311526	35 Tenth Street	72	59	Fitness Center/Health ...	11 Ninth Street	Rowling Gym
+ ✓ ⓘ	2264	50 Willow Ave SE	125	75	Hotel	050 Willow Ave SE	University Inn
+ ✓ ⓘ	5233255	521 Elm Street	1358	55	K-12 School	521 Elm Street; 525 EL...	Montessori Day School
+ ✓ ⓘ	1311525	20 Tenth Street	84	43	Laboratory	11 Ninth Street	Biology Hall
✓ ⓘ	6798215	295302 Moser Lane	942	88	Library		City Library
+ ✓ ⓘ	1311524	12 Ninth Street	219	77	Performing Arts	11 Ninth Street	Grange Hall
+ ✓ ⓘ	1154623	2700 Welstone Ave NE	1202	63	Retail	2655 Welstone Ave NE	Hilltop Retail

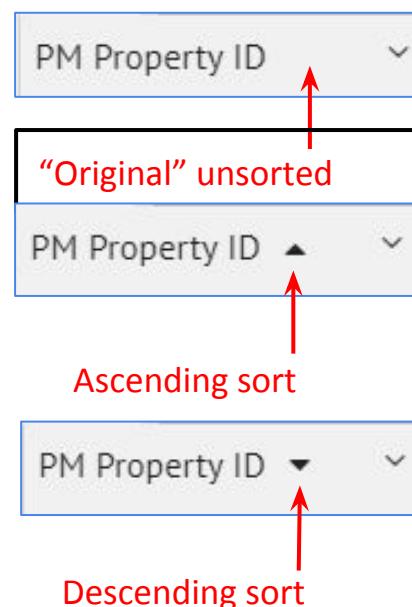
Sort

You can sort in two different ways

- Up/down arrow
- Column menu on right

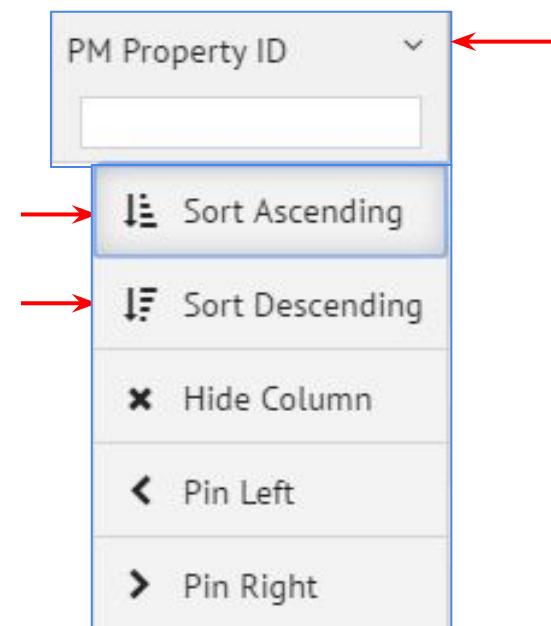
If you click to the right of the field name, you can toggle between

- Ascending
- Descending
- “original” unsorted



The down arrow to the right of the field shows a menu of sort options, including Remove sort

Using this Sort option allows hierarchical sorting

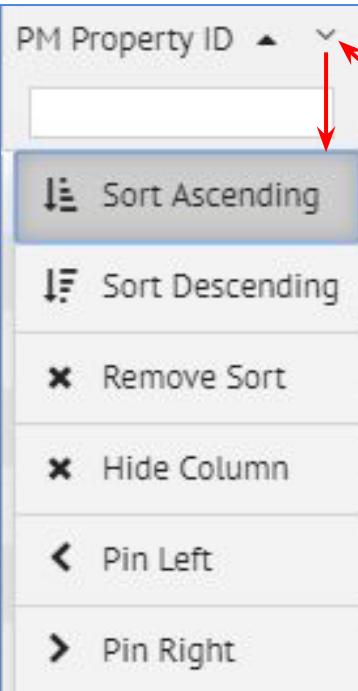


Pin Columns

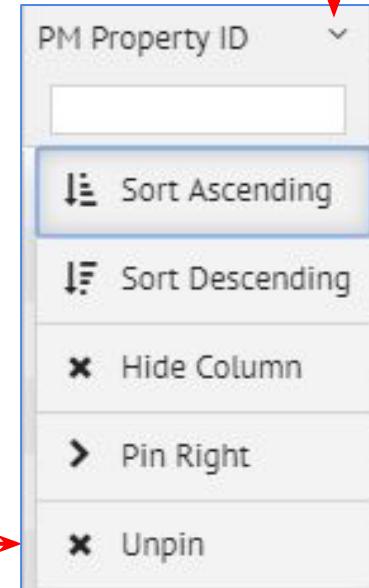
Pinning columns left and right

- Individual columns can be pinned either to the right or the left
- Multiple columns can be pinned

The down arrow to the right of the field name shows a menu of sort options, including **Hide Column**



If a column is already pinned, click on the field right hand pulldown to select the **Unpin** option



Properties

Column Order/Visibility

Add Shared Properties

Include in your Properties List all properties

There are 83 columns of data available to you. Select columns from the List below to make them rows to change the order in which they appear in view.

	Column Name
<input checked="" type="checkbox"/>	PM Property ID
<input checked="" type="checkbox"/>	Jurisdiction Tax Lot ID tax lot
<input checked="" type="checkbox"/>	Address Line 1 (Property)

List Settings also has feature to pin columns to the right side

Save List Settings

List Settings, where fields are selected for display, can be saved by “name”, which enables the creation of combinations of fields that are useful to view for specific data review cases.

There are a few different options for doing this.

- **List View / Actions option**

There is now an option in the Actions pulldown list to “**Only Show Populated Columns**”. This is good way to get started when creating a specifically named List Setting

- **List Settings pages**

In all the List Setting views (for both List and Detail view), there is a new option called “List Settings Profile” which allows the currently highlighted fields to be saved to a name, which then appears in a pulldown list in both the List Settings view as well as the Inventory List views.

It is possible to save separate (and multiple) list settings to names for each of these cases:

- View by Property List View
- View by Property Detail View
- View by Tax Lot List View
- View by Tax Lot Detail View

Saved List Settings Profiles are available across Cycles, but can also be made for specific cycles (by naming them appropriately)

The following pages illustrate the way that these options work.

List View - Only Show Populated Columns

List View / Actions option

The “Only Show Populated Columns” option in the Inventory List / Actions pulldown is a good way to get started when defining saved List Settings.

Select the “Only Show Populated Columns” in either the View by Property or View by Tax Lot tabs

Create Settings Profile

Profile Name	Property Default List View
<input type="button" value="Cancel"/> <input type="button" value="Create Profile"/>	

Only Show Populated Columns

This will reset your visible columns and column order to only columns that contain data. Are you sure you want to continue?

<input type="button" value="Cancel"/> <input type="button" value="Start"/>
--

Only Show Populated Columns

Found 20 populated columns

<input type="button" value="Refresh"/>
--

Cycle:	2016 Compliance	List Settings Profile:	Property Default List View
		View by Property	View by Tax Lot
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Address Line 1	Campus
		<input type="text"/>	<input type="text"/>
		Analysis State	City
		<input type="text"/>	<input type="text"/>
		Not Started	false
		Rust	
		11 Ninth Street	
		Not Started	false
		Rust	
		12 Ninth Street	

Properties

<input type="button" value="Properties List"/> <input type="button" value="List Setting"/>	
<input type="button" value="Actions"/>	<input type="button" value="Filter by label: Add a label"/>
<input type="button" value="Merge Selected"/> <input type="button" value="Delete Selected"/> <input type="button" value="Export Selected"/> <input type="button" value="Add/Remove Labels"/> <input type="button" value="Data Quality Check"/>	
<input type="button" value="Only Show Populated Columns"/>	
<input type="button" value="Energy Star Score"/> <input type="button" value="Site EUI"/>	

A dialog box appears asking for a name for this new **Settings Profile**. Type in any name that is appropriate. You will be able to refine the fields and change the name later in the List Settings view if needed. Click the **Create Profile** button to save this set of fields under the **Profile Name**

This causes a dialog box to appears which warns that the columns displayed will be reset. Click the **Start** button to continue or the **Cancel** button to return to the List view without starting the action.

When the program has finished determining the populated columns, the number of columns found is displayed.

Click the Refresh button to refresh the browser and see the new fields

These fields are now what is displayed in the List View with the name entered for the **List Settings Profile**.

It will still probably be necessary to refine the fields to be displayed in **List Settings**, but this is a good way to start the process

List View - List Settings

- Displays all possible fields for both Tax Lot and Property
- Tax Lot and Property List Settings can be different
- Tags fields that are in table NOT being viewed
- Changes made here are reflected in the View by Tax Lot tab, and vice versa
- Field display and order are on one screen
- Changes are saved to a List Settings Profile (see next page)

Enter values to search the list of fields →

Shows which fields are pinned left →

Can set more fields to be pinned left →

Properties List Settings

Properties List List Settings Profile: Property List View    

Tax Lots List Settings

Tax Lots List List Settings Profile: Tax Lot Detail Fields    

Add Shared Tax Lots Include in your Tax Lot List all tax lots shared with you.

There are 74 columns of data available to you. Select columns from the list below to make them appear in your Tax Lot List table. Drag the rows to change the order in which they appear. Pin the rows for them to be left-pinned in the list view.

	Column Name
✓	Jurisdiction Tax Lot ID
✓	PM Property ID (Property) property
✓	Address Line 1
✓	Use Description (Property) property
✓	Property Name (Property) property
✓	City
✓	Parcel Owner
✓	Taxable SF
✓	Tax Class
✓	Notes
✓	Year Ending (Property) property

Tags fields that are in the **Property** table when in Tax Lot settings, and vice versa

List Settings Profiles

- List Settings pages**

In all the List Setting views (for both List and Detail view), there is a new option called “List Settings Profile” which allows the currently highlighted fields to be saved to a name, which then appears in a pulldown list in both the List Settings view as well as the Inventory List views.

The screenshot shows the "Properties List Settings" page. At the top, there are tabs for "Properties List", "List Settings" (which is highlighted in yellow), and "Reports". Below the tabs, a section titled "Column Order/Visibility" has a "List Settings Profile:" dropdown set to "Property Default List View". To the right of this dropdown are four buttons: "Rename" (green checkmark), "New" (blue pencil), "Delete" (red X), and "Save" (green checkmark). The main area displays a list of columns with checkboxes. Red arrows point to specific elements: one arrow points to the "List Settings" tab in the top navigation; another arrow points to the "New" button; a third arrow points to the "Delete" button; and two arrows point to the checkboxes for "Address Line 1" and "Analysis State" in the list below.

To edit an existing List Settings Profile, or to make a new one, click the List Settings link on either the Properties or Tax Lot List View

Properties List Settings

Properties List List Settings Reports

List Settings Profile: Property Default List View

Rename New

Save Delete

Column Order/Visibility

Add Shared Properties

Include in your Properties List all properties shared with you.

There are 1,018 columns of data available to you.

Select columns from the list below to make them appear in your Property List table. Drag the rows to change the order in which they appear. Pin the rows for them to be left-pinned in the list view.

	Column Name
<input checked="" type="checkbox"/>	Address Line 1
<input checked="" type="checkbox"/>	Analysis State
<input checked="" type="checkbox"/>	Campus

Check new fields you want to add to the List Settings Profile
Uncheck fields you want to remove from the List Settings Profile

Click **Save** to save the changes to the current **List Setting Profile**

Click **New** to save the newly selected fields to a new **List Settings Profile**

List View – List Settings – Reorder Columns

<input checked="" type="checkbox"/>	Column Name
<input checked="" type="checkbox"/>	PM Property ID
<input checked="" type="checkbox"/>	Jurisdiction Tax Lot ID tax lot
<input checked="" type="checkbox"/>	Address Line 1 (Property)
<input checked="" type="checkbox"/>	Property Name
<input checked="" type="checkbox"/>	Gross Floor Area
<input checked="" type="checkbox"/>	ENERGY STAR Score
<input checked="" type="checkbox"/>	City (Property)

Click and hold down the left mouse button, and drag the Column Names around to change the order

<input checked="" type="checkbox"/>	Column Name
	address
<input checked="" type="checkbox"/>	Address Line 1 (Property)
<input checked="" type="checkbox"/>	Address Line 2 (Property)
<input checked="" type="checkbox"/>	Owner Address
<input checked="" type="checkbox"/>	Address Line 2 (Tax Lot) tax lot
<input checked="" type="checkbox"/>	Address Line 1 (Tax Lot) tax lot

Type into the input box to filter the list of fields

Adding a checkmark to an unchecked field adds it to the end of the checked fields. It can then be dragged to the desired position

<input checked="" type="checkbox"/>	Column Name
<input checked="" type="checkbox"/>	Site EUI
<input checked="" type="checkbox"/>	Property Type
<input checked="" type="checkbox"/>	Year Ending
<input checked="" type="checkbox"/>	Custom ID 1
<input checked="" type="checkbox"/>	Address Line 1 (Tax Lot) tax lot
<input checked="" type="checkbox"/>	PM Release Date

List View – Reports Overview

Inventory Reports

Properties List List Settings Reports

From either the **Properties** or **Tax Lots Inventory List** view click on **Reports**

Select criteria to graph

Date ranges for reporting based on Cycles

From first date of: 2012 Compliance Year Until last date of: 2012 Compliance Year

X Axis (Energy data)

Y Axis (Building Characteristic)

Click **Update Charts**

The pulldown list shows the Cycles for the organization

X Axis: Site EUI

- Site EUI
- Source EUI
- Weather Norm. Site EUI
- Weather Norm. Source EUI
- Energy Star Score

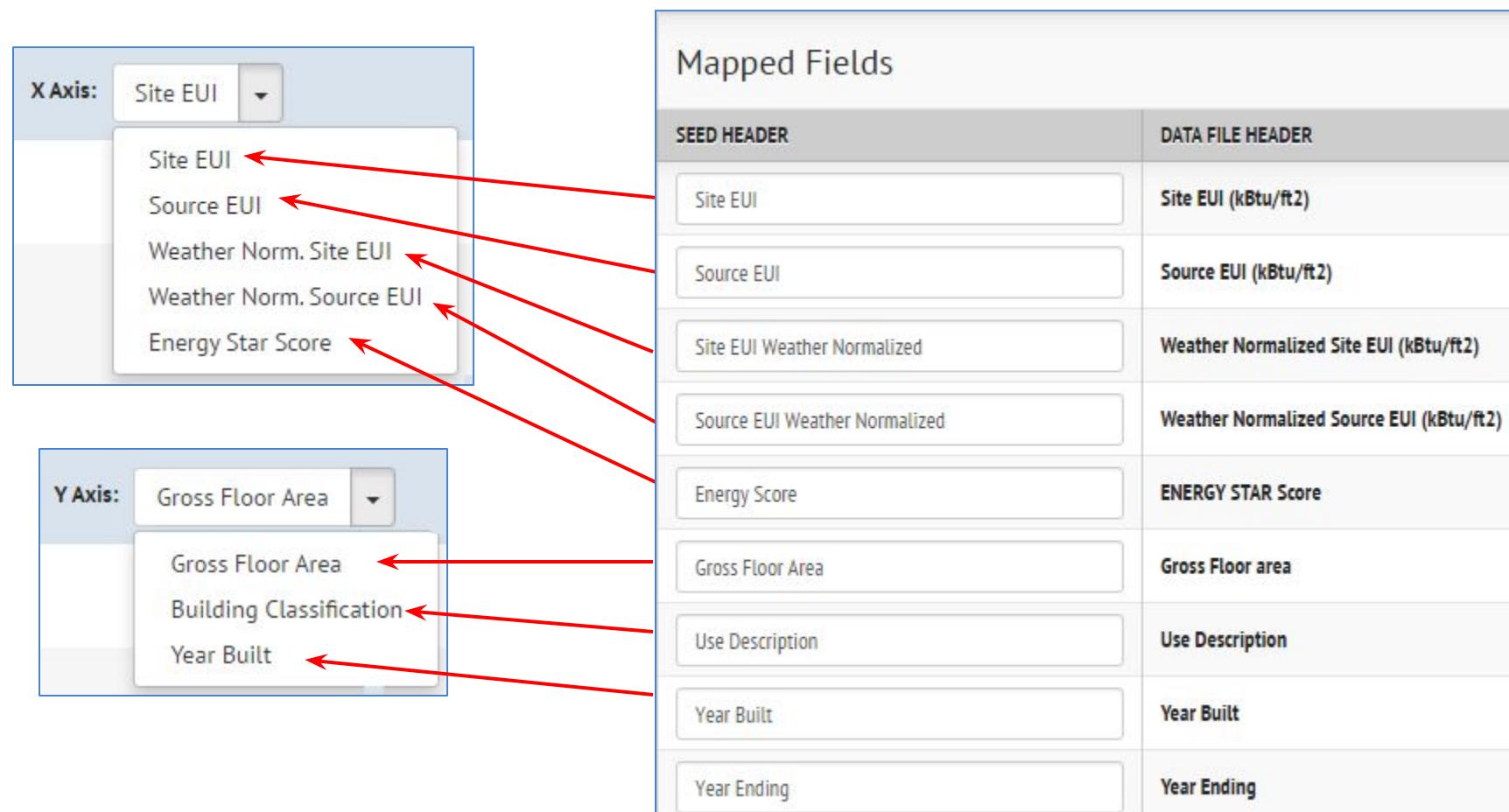
Y Axis: Gross Floor Area

- Gross Floor Area
- Building Classification
- Year Built

These field names must have been used when Mapping data in order to show data in the reports (see the next page for details)

List View – Reports – Field Mapping

You need to map the following fields in order for the reports to work
(Future work will include the ability to select fields that you want to plot so the mapping will not be as critical)



List View – Reports

Scatter Plot with all buildings

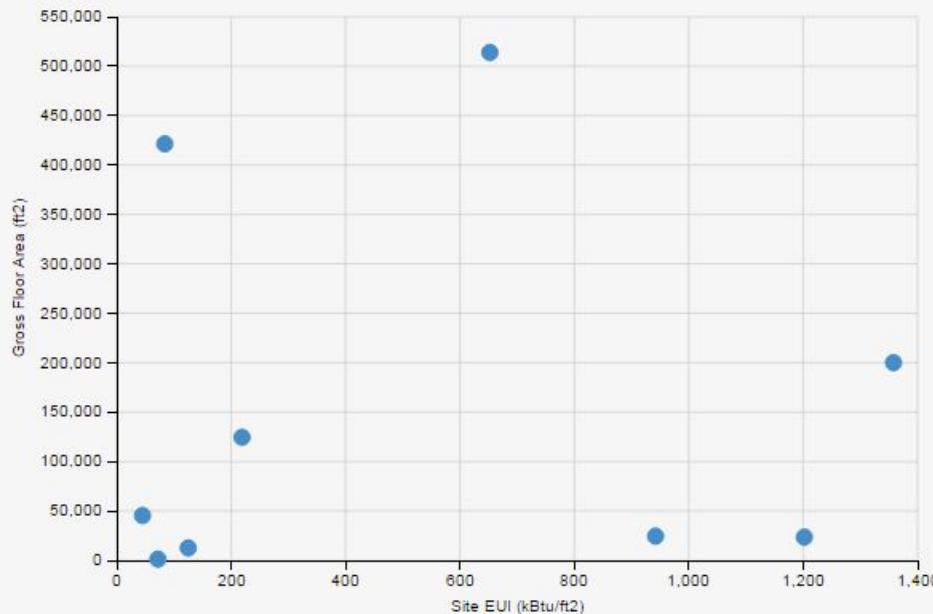
Bar Graph with Median Values

Inventory Reports

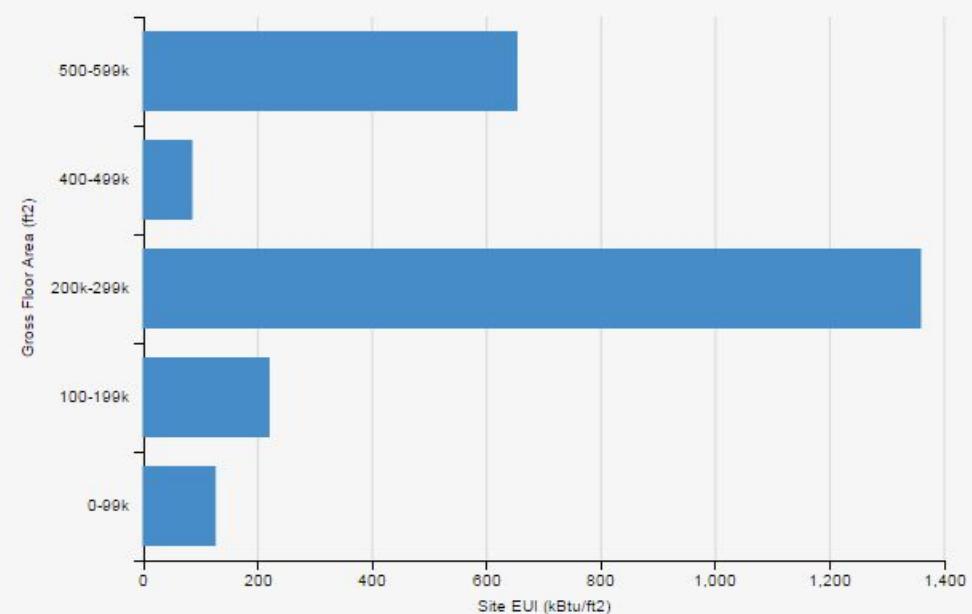
[Properties List](#) [List Settings](#) [Reports](#)
[Property Reports](#)

From first date of: 2017 Compliance Until last date of: 2017 Compliance X Axis: Site EUI Y Axis: Gross Floor Area [Update Charts](#)

Site Energy Use Intensity vs. Gross Floor Area



Site Energy Use Intensity vs. Gross Floor Area (Aggregated)



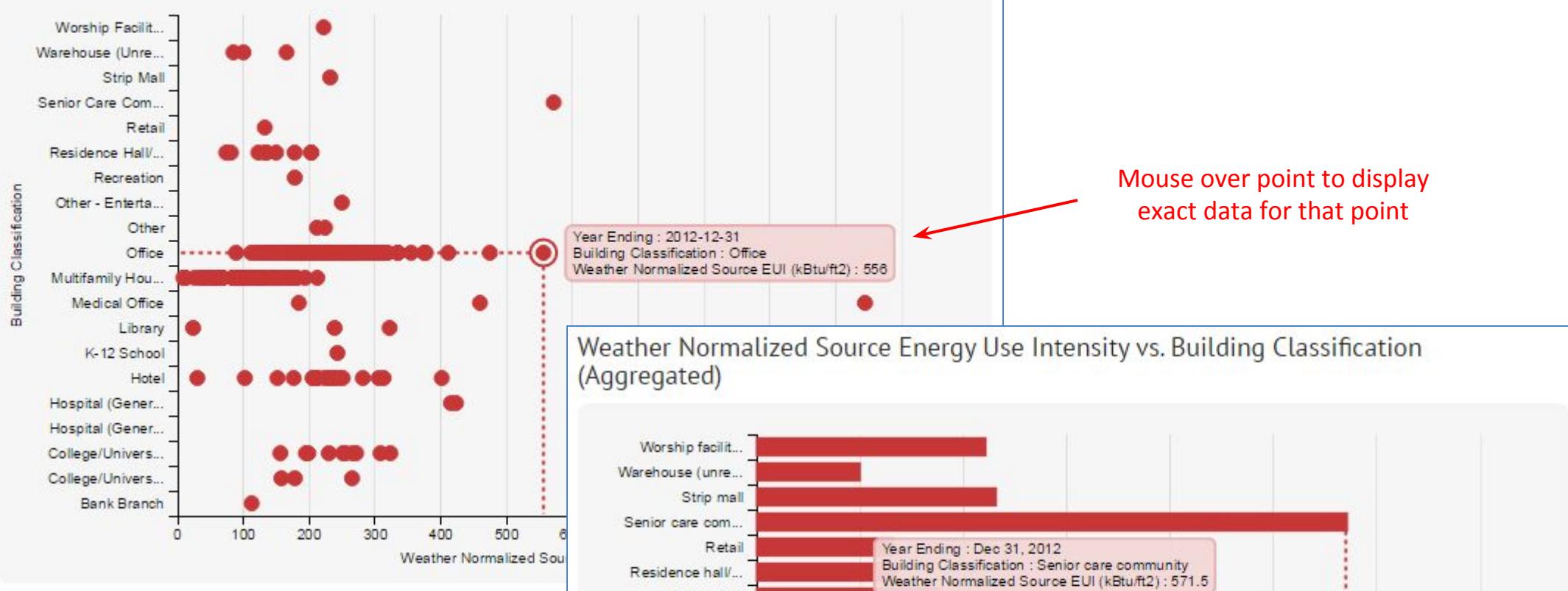
Year Ending	Properties with Data	Total Properties
2017	9	12

Program reports # data points
actually used for graphs

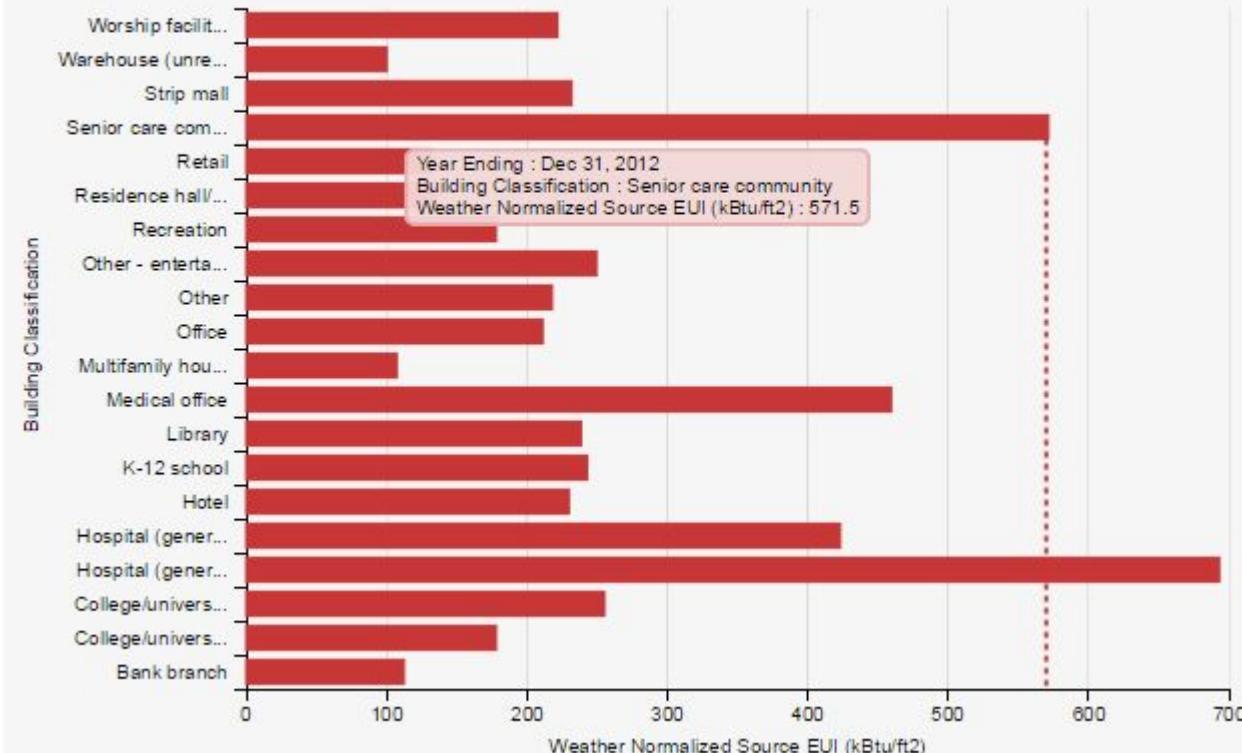
Year Ending	Properties with Data	Total Properties
2017	9	12

List View – Reports

Weather Normalized Source Energy Use Intensity vs. Building Classification



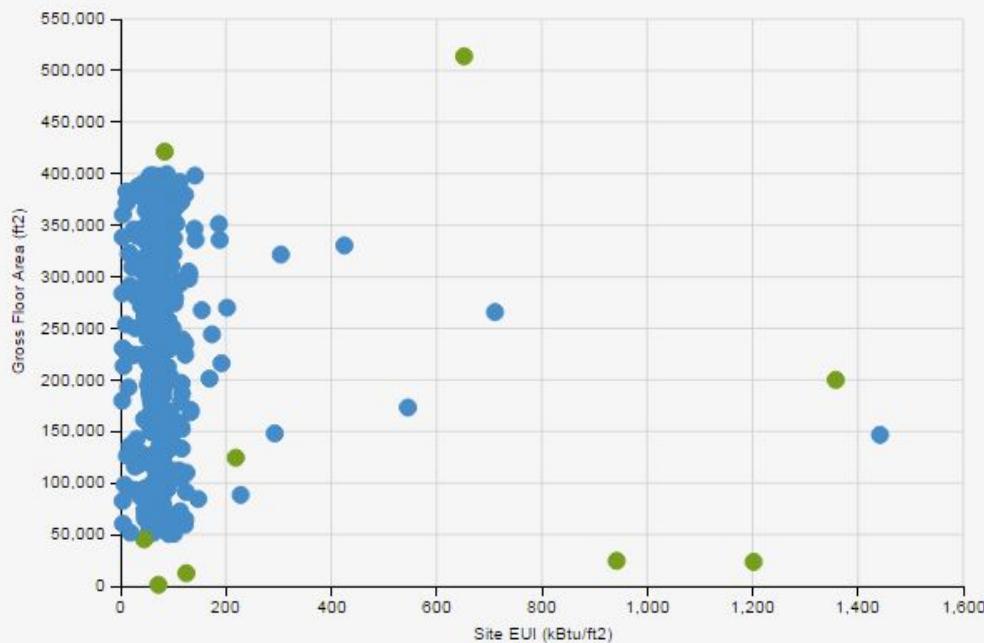
Weather Normalized Source Energy Use Intensity vs. Building Classification (Aggregated)



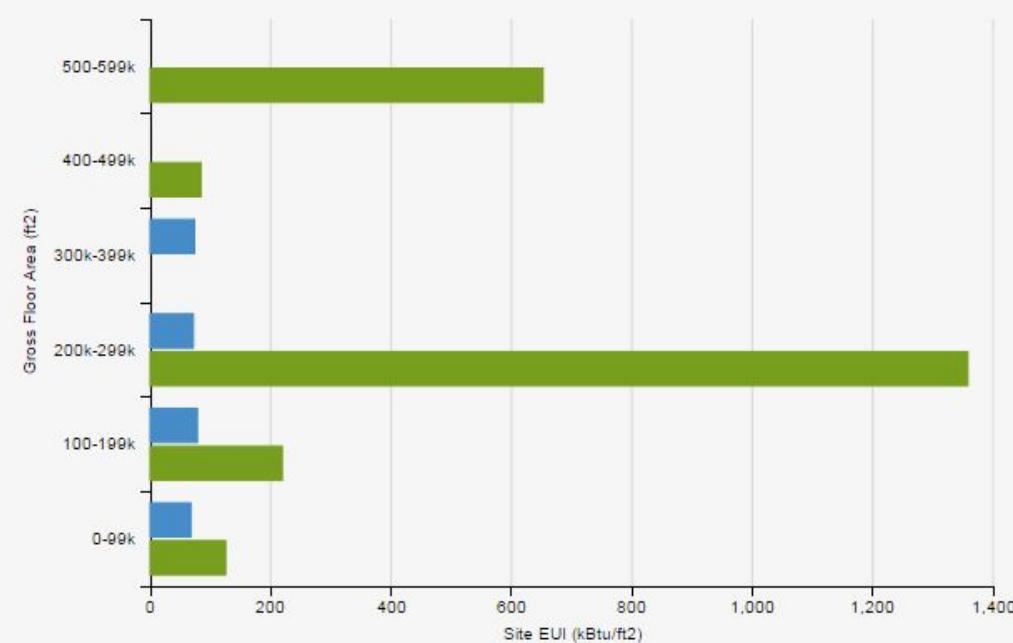
List View – Reports - Multiple Years of Data

**Multiple years of data
(based on Cycles)**

Site Energy Use Intensity vs. Gross Floor Area



Site Energy Use Intensity vs. Gross Floor Area (Aggregated)



Year Ending	Properties with Data	Total Properties
● 2016	392	512
● 2017	9	12

Year Ending	Properties with Data	Total Properties
● 2016	392	512
● 2017	9	12

Labels - List View

You can add pre-defined labels to records in the Inventory List view using the Actions pulldown list

2 - From the Actions pulldown list, select Add/Remove Labels

Properties List				
Actions ▾		Filter by label:	Add a label	
Merge Selected				
Delete Selected				
Export Selected				
Add/Remove Labels				
Data Quality Check				
Only Show Populated Columns				
+ ✓ 1154623		Address Line 1	ENERGY STAR Score	Jurisdiction
+ ✓ 1311523		50 Willow Ave SE	75	15
+ ✓ 1311523		2700 Welstone Ave NE	63	11
+ ✓ 1311524		11 Ninth Street		24
+ ✓ 1311525		12 Ninth Street	77	24
+ ✓ 1311526		20 Tenth Street	43	24
+ ✓ 1311527		35 Tenth Street	59	24651456
+ ✓ 1311528		93029 Wellington Blvd	34	Rowling Gym 13334485; 23810533
+ ✓ 3020139		93031 Wellington Blvd		East Computing Hall 13334485; 23810533
		2655 Welstone Ave NE	1	International House 11160509
				Hilltop Condos

3 - The Add/Remove Labels dialog box appears. Click the Add button for the label(s) to add

Add/Remove Labels

Create new label Label Name gray ▾ Create label

Add or remove labels from 2 selected properties

Low or No ENERGY STAR Score **Add**

Missing Data **Add**

Non-Residential **Add**

QC: Number of Buildings missing **Add**

Questionable Report **Add**

Residential **Add**

Update Bldg Info **Add**

... Done Cancel

A 'Remove' button is shown for tags that are already applied to one or more properties in the current selection

4 - Click the Done button and that label (or labels) will be added to the selected records

Labels - Adding Labels “on the fly”

You can also define labels “on the fly” from the Inventory List view

In the Property or Tax Lot tab

1. Filter a field or fields -- in this example we are filtering on the **Property Type** field for any value with **college** in the name
2. Select all the records by click the checkbox to the left of the column names
3. Click the **Actions** pulldown list
4. Select the **Add/Remove Labels** choice
5. The **Add/Remove Labels** dialog box appears
6. Type the name of the new label in the **Create new label** box and select the color
7. Click the **Create Label** button
8. The new label is added to the list of Labels
9. Click the **Add** button for the label you just created
10. Click the **Done** button to apply the label to the selected records

The label will be added to all the selected records

You can view the labels for each record in the Building Detail view (*see next page*)

1. Filter by label: college

2. Actions: Add/Remove Labels

3. Only Show Populated Columns

4. Address Line 1: 11 Ninth Street
Property Type: College/University

5. Add/Remove Labels

6. Create new label: College/University

7. Create label

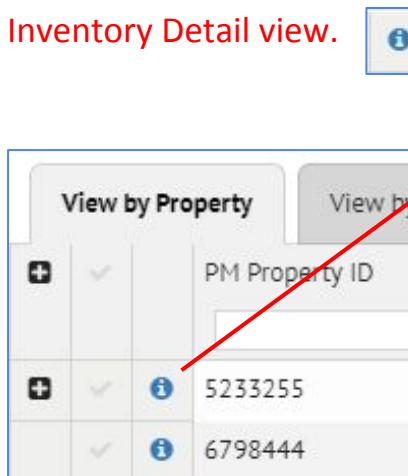
8. Add or remove labels from 2 selected

9. Add

10. Done

Detail View - Property & Tax Lot

From the Inventory List view, click the “Information” icon for a record to access the Inventory Detail view.



The **Tax Lot Detail** view will only show fields and data mapped to the Tax Lot table

The **Property Detail** view will only show fields and data mapped to the Property table

Links to access associated (paired) Tax Lot record detail views

		Property Detail	Notes	Settings
Property : 521 Elm Street				Edit
Add/Remove Labels Labels: > 50,000 SF				Settings link controls fields displayed and order
Add/Remove Labels				Edit the Master record
			Cycle	Cycle: 2018 Compliance Cycle
			Detail Settings Profile:	Property Detail Fields
				EXAMPLE-DATA-ESPM.XLSX
FIELD		MASTER		
PM Property ID		5233255	5233255	
Address Line 1		521 Elm Street	521 Elm Street	
Property Name		Montessori Day School	Montessori Day School	
Property Type		K-12 School	K-12 School	
City		Rust	Rust	
Gross Floor Area		200000	200000	
ENERGY STAR Score		55	55	
Site EUI		1358	1358	
Owner		Norton Schools	Norton Schools	
Owner Telephone		213-555-4368	213-555-4368	
Owner Email		Lee@norton.com	Lee@norton.com	
Paired Tax Lots		The first column is the Master record	Associated records can be unpaired	
TAX LOT ID		ADDRESS LINE 1	UNPAIR	
33366148		530 Elm Street	X	
33366555		521 Elm Street	X	
33366125		525 Elm Street	X	

Detail View - Notes

Property Detail Notes

Created	Type	Name	Text
02/01/2018 01:45:43 PM	Note	Manually Created	Need to get back to owner that the account is not complete

Add New Note

Note	Contact is Joyce Wise: 511-293-3929
------	-------------------------------------

Icon indicates Notes (Inventory List)

			PM Property ID
			1311527
			1311528

When unmerging a record that contains notes, the notes are duplicated to each new record with the original timestamps preserved.

When merging records that contain notes, the notes are combined into the new record with the original timestamps preserved. If exact note duplicates exist (for instance, from unmerging a record prior to re-merging) the exact duplicates are de-duplicated.

Detail View - Settings - Property & Tax Lot

Click Settings from either **Property** or **Tax Lot Detail view** to set the visibility and order properties for fields.

Tax Lot Detail Settings will only contain fields and data from the **Tax Lot** table

Property Detail Settings will only contain fields and data from the **Property** table

Enter values to search the list of fields, then “check” the ones you want to display

	Column Name
<input checked="" type="checkbox"/>	city
<input checked="" type="checkbox"/>	City (Property)
<input checked="" type="checkbox"/>	City (Tax Lot) tax lot
<input checked="" type="checkbox"/>	Owner City/State

Check the fields to display, uncheck them to prevent them from displaying, in the Detail view

Drag fields up and down to set the order

Property Detail Settings

Properties **Property Detail** Notes Settings

Column Order/Visibility Detail Settings Profile: **Property Detail Fields** ▼ ✓ ⤒ ✗ ✎

There are 56 columns of data available to you. Select columns from the list below to make them appear in your Properties Detail table. Drag the rows to change the order in which they appear.

Column Name
<input checked="" type="checkbox"/> PM Property ID
<input checked="" type="checkbox"/> Address Line 1
<input checked="" type="checkbox"/> Property Name
<input checked="" type="checkbox"/> Property Type
<input checked="" type="checkbox"/> City
<input checked="" type="checkbox"/> Gross Floor Area
<input checked="" type="checkbox"/> ENERGY STAR Score
<input checked="" type="checkbox"/> Site EUI
<input checked="" type="checkbox"/> Owner
<input checked="" type="checkbox"/> Owner Telephone
<input checked="" type="checkbox"/> Owner Email
<input checked="" type="checkbox"/> Address Line 2

Detail View - Settings - Property & Tax Lot

In all the Detail View (for both Property and Tax Lot views) the “List Settings Profile” allows the currently highlighted fields to be saved to a name, which then appears in a pulldown list. This allows different sets of fields to be saved to different profiles.

The screenshot shows the 'Property Detail Settings' page. At the top, there's a navigation bar with tabs: 'Property Detail', 'Notes', and 'Settings'. The 'Settings' tab is highlighted with a yellow background. Below the navigation bar, there's a section titled 'Column Order/Visibility' with a note: 'There are 943 columns of data available to you.' A list of columns is shown with checkboxes next to them. Red arrows point to specific actions: one arrow points to the 'Settings' tab in the top navigation, another points to the 'New' button in the top right of the settings page, and a third points to the 'Save' button. Labels with red text provide instructions: 'To edit an existing Detail Settings Profile, or to make a new one, click the Settings link on either the Property or Tax Lot Detail View', 'Click Save to save the changes to the current List Setting Profile', 'Click New to save the newly selected fields to a new List Settings Profile', 'Check new fields you want to add to the List Settings Profile', and 'Uncheck fields you want to remove from the List Settings Profile'.

Property Detail

Property Detail Notes Settings

Properties

Property Detail Settings

Property Detail Notes Settings

Detail Settings Profile: Property Detail Default Field ▾

Rename New

Column Order/Visibility

Save Delete

There are 943 columns of data available to you.

Select columns from the list below to make them appear in your Properties Detail table. Drag the rows to change the order in which they appear.

Column Name
Custom ID 1
PM Property ID
PM Parent Property ID
Address Line 1

Check new fields you want to add to the List Settings Profile
Uncheck fields you want to remove from the List Settings Profile

Detail View - Edit the Master Record

From the **Inventory List** view, click the “**Information**” icon for a record to access the **Inventory Detail** view.

Property Detail

Property : 11 Ninth Street

Add/Remove Labels Labels: > 50,000 SF College/University Cycle: 2018 Compliance Cycle

Edit

Property : 11 Ninth Street

Add/Remove Labels Labels: Cycle: 2018 Compliance Cycle

Save Changes Cancel

FIELD	MASTER	EXAMPLE-DATA-ESPM.XLSX
PM Property ID	1311523	1311523
Address Line 1	11 Ninth Street	11 Ninth Street
Property Name	Lucky University	Lucky University
Property Type	College/University	College/University
City	Rust	Rust
Gross Floor Area	55432	55432
ENERGY STAR Score		

Click **Edit** to change the information in the **Master** record.

This will put you in “Edit” mode

Click the **Save Changes** button in the upper right of the view when you have finished editing the **Master** record

To Edit Data:
Click on the data field in the **Master Record** and edit it directly

FIELD	MASTER
PM Property ID	1311523
Address Line 1	11 Ninth Street
Property Name	Lucky University
Property Type	College/University
City	Rust
Gross Floor Area	55432

The Master record is now updated with the changes

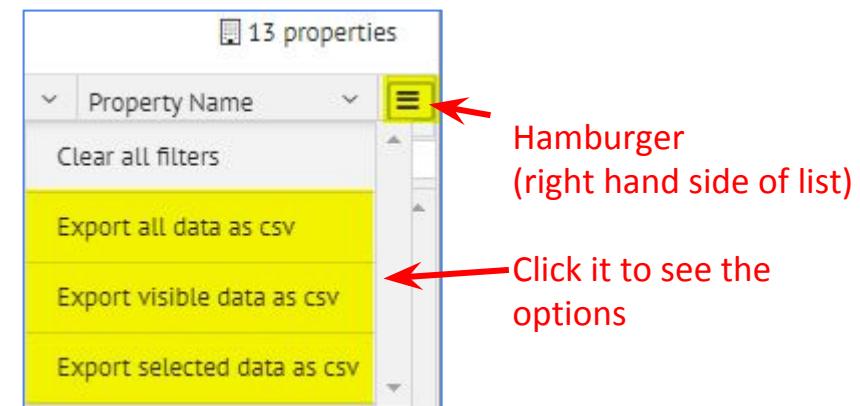
Export Data -- 2 Options

Option 1: Export options from the “Hamburger” menu

(this is probably the preferred option for most export needs)

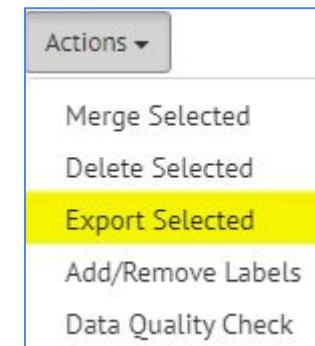
- 3 choices
 - **1a:** Export all data as CSV
 - **1b:** Export visible data as CSV
 - **1c:** Export selected data as CSV

This option only appears if you have checked some or all of the records
- Pros
 - Multiple values for matching fields will be exported (which will not using Option 2)
 - You can export the data as
 - “collapsed” (one line per record) or
 - “expanded” (includes separate lines for associated data)
- Cons
 - You do not have control over the export filename
 - Then name defaults to
 - <Organization Name> <Property/Tax Lot> Data.csv
 - Such as:
LBNL 302 Property Data.csv
 - Multiple exports result in filenames with sequential numbers after them (they are not overwritten)
 - LBNL 302 Property Data (1).csv
 - You do not have control over the location of the export file -- it will always be exported to your “Downloads” folder



Option 2: Export Selected from the Actions pulldown

- Pros
 - You can specify the filename and download location
- Cons
 - There is a **bug** that doesn't export multiple values in associated data fields
 - Only exports “collapsed” no matter what the Inventory view is



The following pages show examples using each of these options

Export Data -- Option 1a

Option 1a: Export all data as csv

- Exported data is “expanded” whether Inventory List is in “collapsed” or “expanded” view
- All records exported
- All fields set in List Settings exported

The screenshot shows a grid of property data with columns for PM Property ID, Jurisdiction Tax Lot ID, Address Line 1 (Tax Lot), Address Line 1 (Property), Property Name, Property Type, and Gross F. A context menu is open at the bottom right of the grid, listing 'Clear all filters' and 'Export all data as csv'. A red arrow points from the text 'The Inventory List can be in “collapsed” or “expanded” view' to this menu.

View by Property		View by Tax Lot						13 properties
		PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Address Line 1 (Property)	Property Name	Property Type	Gross F
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1311525	24651455		20 Tenth Street	Biology Hall	Lab	Export all data as csv
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4828379	11160509	2655 Welstone Ave NE	2660 Welstone Ave NE	Hilltop Offices	Offi	Export visible data as csv
<input type="checkbox"/>	<input checked="" type="checkbox"/>	5233255	33366125; 33366148; ...	521 Elm Street; 525 EL...	521 Elm Street	Montessori Day School	K-1	
	<input checked="" type="checkbox"/>	6798444			295444 Moser Lane	Senior Center	Social Meeting Hall	15533
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1154623	11160509	2655 Welstone Ave NE	2700 Welstone Ave NE	Hilltop Retail	Retail	23543

The Inventory List can be in “collapsed” or “expanded” view

The export will always be “expanded”, i.e., showing all the records including the associated records from the other table (Tax Lot or Property)



A	B	C	D	E	F
1 PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Address Line 1 (Property)	Property Name	Property Type
2 1311525	24651455		20 Tenth Street	Biology Hall	Laboratory
3	24651455				
4 4828379	11160509	2655 Welstone Ave NE	2660 Welstone Ave NE	Hilltop Offices	Office
5	11160509	2655 Welstone Ave NE			
6 5233255	33366125; 33366148; 33366555	521 Elm Street; 525 Elm Street; 530 Elm Street	521 Elm Street	Montessori Day School	K-12 School
7	33366555	521 Elm Street			
8	33366148	530 Elm Street			
9	33366125	525 Elm Street			
10 6798444			295444 Moser Lane	Senior Center	Social Meeting Hall
11 1154623	11160509	2655 Welstone Ave NE	2700 Welstone Ave NE	Hilltop Retail	Retail
12	11160509	2655 Welstone Ave NE			

Export Data -- Option 1b -- collapsed

Option 1b: Export visible data as csv

- Exported data is in same form as Inventory List (in the example below, both are “collapsed”)
- All records exported
- All fields set in List Settings exported

		View by Property		View by Tax Lot						
		PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Property Name	Address Line 1 (Property)	Property Type	Gross Fl		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Property Name	Address Line 1 (Property)	Property Type	Gross Fl	<input type="button" value="Clear all filters"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1311525	24651455		Biology Hall	20 Tenth Street	Laboratory		<input type="button" value="Export all data as csv"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4828379	11160509	2655 Welstone Ave NE	Hilltop Offices	2660 Welstone Ave NE	Office		<input type="button" value="Export visible data as csv"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	5233255	33366125; 33366148; 33366555	521 Elm Street; 525 Elm Street; 530 Elm Street	Montessori Day School	521 Elm Street	K-12 School		<input type="button" value=""/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	6798444			Senior Center	295444 Moser Lane	Social Meeting Hall	15533		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1154623	11160509	2655 Welstone Ave NE	Hilltop Retail	2700 Welstone Ave NE	Retail		23543	



Collapsed view in Inventory List (13 Property records)

Collapsed records in export (13 records)

	A	B	C	D	E	F
1	PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Property Name	Address Line 1 (Property)	Property Type
2	1311525	24651455		Biology Hall	20 Tenth Street	Laboratory
3	4828379	11160509	2655 Welstone Ave NE	Hilltop Offices	2660 Welstone Ave NE	Office
4	5233255	33366125; 33366148; 33366555	521 Elm Street; 525 Elm Street; 530 Elm Street	Montessori Day School	521 Elm Street	K-12 School
5	6798444			Senior Center	295444 Moser Lane	Social Meeting Hall
6	1154623	11160509	2655 Welstone Ave NE	Hilltop Retail	2700 Welstone Ave NE	Retail
7	1311527	13334485; 23810533	93029 Wellington Blvd; 94000 Wellington Blvd	East Computing Hall	93029 Wellington Blvd	College/University
8	1311528	13334485; 23810533	93029 Wellington Blvd; 94000 Wellington Blvd	International House	93031 Wellington Blvd	Residence
9	1311524	24651456	11 Ninth Street	Grange Hall	12 Ninth Street	Performing Arts
10	1311526	24651456	11 Ninth Street	Rowling Gym	35 Tenth Street	Fitness Center/Health Club
11	1311523	24651456	11 Ninth Street	Lucky University	11 Ninth Street	College/University
12	2264	1552813	050 Willow Ave SE	University Inn	50 Willow Ave SE	Hotel
13	6798215			City Library	295302 Moser Lane	Library
14	3020139	11160509	2655 Welstone Ave NE	Hilltop Condos	2655 Welstone Ave NE	Multifamily Housing

Export Data -- Option 1b -- expanded

Option 1b: Export visible data as csv

- Exported data is in same form as Inventory List (in the example below, both are “expanded”)
- All records exported
- All fields set in List Settings exported

The screenshot shows a SharePoint list titled "View by Property". The columns include PM Property ID, Jurisdiction Tax Lot ID, Address Line 1 (Tax Lot), Address Line 1 (Property), Property Name, Property Type, and Gross F. A context menu is open on the far right, showing options like "Clear all filters", "Export all data as csv", and "Export visible data as csv". The "Export visible data as csv" option is highlighted.

	PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Address Line 1 (Property)	Property Name	Property Type	Gross F
■	1311527	13334485; 23810533	93029 Wellington Blvd; 94000 Wellington Blvd	93029 Wellington Blvd	East Computing Hall	College	Clear all filters
■		13334485	93029 Wellington Blvd				Export all data as csv
■		23810533	94000 Wellington Blvd				Export visible data as csv
■	1311523	24651456	11 Ninth Street	11 Ninth Street	Lucky University	College/University	
■		24651456	11 Ninth Street				

Expanded view in Inventory List
Expanded records in export

All records are exported with their associated records;
in this case, all 13 Property records are exported with
separate lines for their associated Tax Lot records

The screenshot shows an Excel spreadsheet titled "LBNL 302 Property Data.csv - Microsoft Excel". The data is organized into columns A through F. The first row contains column headers: PM Property ID, Jurisdiction Tax Lot ID, Address Line 1 (Tax Lot), Property Name, Address Line 1 (Property), and Property Type. The subsequent rows show the data for each property, including its associated tax lot details. Row 2 shows a single tax lot for property 1311527. Rows 3 and 4 show two separate tax lots for property 1311523. Row 5 shows a single tax lot for property 1311523.

	A	B	C	D	E	F
1	PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Property Name	Address Line 1 (Property)	Property Type
2	1311527	13334485; 23810533	93029 Wellington Blvd; 94000 Wellington Blvd	East Computing Hall	93029 Wellington Blvd	College/University
3		13334485	93029 Wellington Blvd			
4		23810533	94000 Wellington Blvd			
5	1311523	24651456	11 Ninth Street	Lucky University	11 Ninth Street	College/University
6		24651456	11 Ninth Street			

Export Data -- Option 1c

Option 1c: Export selected data as csv

- Exported data is “collapsed” whether Inventory List is in “collapsed” or “expanded” view
- Selected (checked) records are exported
- All fields set in the Inventory List view List Settings are exported

The screenshot shows the 'View by Property' tab of the Inventory List. A context menu is open on the right side, showing options like 'Clear all filters', 'Export all data as csv', 'Export visible data as csv', and 'Export selected data as csv'. The 'Export selected data as csv' option is highlighted in green. Three red arrows point from the text 'All selected (checked) records are exported (3 in this example)' to the three checked rows in the list. Another red arrow points from the text 'Multiple values in matching fields are included (in this case the Jurisdiction Tax Lot ID and Address Line 1 Tax Lot fields)' to the third row where multiple values are listed.

PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Address Line 1 (Property)	Property Name	Property Type	Gross F...
1311525	24651455		20 Tenth Street	Biology Hall	Laboratory	421351
4828379	11160509	2655 Welstone Ave NE	2660 Welstone Ave NE	Hilltop Offices	Office	55121
5233255	33366125; 33366148; 33366555	521 Elm Street; 525 Elm Street; 530 Elm Street	521 Elm Street	Montessori Day School	K-12 School	200000
6798444			295444 Moser Lane	Senior Center	School	50000

All selected (checked) records
are exported (3 in this example)

Multiple values in matching fields are included
(in this case the Jurisdiction Tax Lot ID and Address Line 1 Tax Lot fields)

The screenshot shows an Excel spreadsheet with the title 'LBNL 302 Property Data.csv - Microsoft Excel'. The data is organized into columns A through H, corresponding to the fields in the list view. The first four rows of data are highlighted in yellow. Red arrows point from the text 'All fields set in List Settings (and visible in the Inventory List view) are exported' to the columns in the list view and to the columns in the Excel spreadsheet.

A	B	C	D	E	F	G	H
PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Property Name	Address Line 1 (Property)	Property Type	Gross Floor Area	UBID
1311525	24651455		Biology Hall	20 Tenth Street	Laboratory	421351	11
4828379	11160509	2655 Welstone Ave NE	Hilltop Offices	2660 Welstone Ave NE	Office	55121	3
5233255	33366125; 33366148; 33366555	521 Elm Street; 525 Elm Street; 530 Elm Street	Montessori Day School	521 Elm Street	K-12 School	200000	5

All fields set in List Settings (and visible in the
Inventory List view) are exported

Export Data -- Option 2

Option 2: Export Selected

- Exported data is “collapsed” whether Inventory List is in “collapsed” or “expanded” view
- Selected (checked) records are exported
- All fields set in the Inventory List view List Settings are exported
- Pro
 - You can specify the name and location of the exported file
- Con
 - **BUG:** If there are multiple associated values in any matching fields (such as Jurisdiction Tax Lot ID, UBID, etc) only one value will be exported (*this will be fixed in future versions*)
 - If you don’t have multiple values in a matching field or you don’t want to export those fields, you can use this option

Records with single values in the matching fields (in this case Jurisdiction Tax Lot ID and Address Line 1 Tax Lot) are exported properly

Records with multiple values in the matching fields (in this case Jurisdiction Tax Lot ID and Address Line 1 Tax Lot) are NOT exported properly -- only one of the values is exported

	B	C	D	E	F	G	H	I	
1	PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Property Name	Address Line 1 (Property)	Property Type	Gross Floor Area	UBID	Property Lab
2	1311525	24651455		Biology Hall	20 Tenth Street	Laboratory	421351	11	> 50,000 SF
3	4828379	11160509	2655 Welstone Ave NE	Hilltop Offices	2660 Welstone Ave NE	Office	55121	3	> 50,000 SF
4	5233255	33366555	521 Elm Street	Montessori Day School	521 Elm Street	K-12 School	200000	5	> 50,000 SF

	B	C	D	E	F	G	H	I	
1	PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Property Name	Address Line 1 (Property)	Property Type	Gross Floor Area	UBID	Property Lab
2	1311525	24651455		Biology Hall	20 Tenth Street	Laboratory	421351	11	> 50,000 SF
3	4828379	11160509	2655 Welstone Ave NE	Hilltop Offices	2660 Welstone Ave NE	Office	55121	3	> 50,000 SF
4	5233255	33366555	521 Elm Street	Montessori Day School	521 Elm Street	K-12 School	200000	5	> 50,000 SF

Overview

- Every account holder belongs to an Organization
- Most SEED users will only have a Parent Organization

Organizations				
Organizations I Manage				
ORGANIZATION				
LBNL 20				Number of records for Properties and Tax Lots for each Cycle , by Organization
Sub-Organizations				
◀				
Organizations I Belong To				
ORGANIZATION NAME	NUMBER OF PROPERTIES	NUMBER OF TAX LOTS	YOUR ROLE	ORGANIZATION OWNER(S)
LBNL 20	2017 Compliance: 12	2017 Compliance: 10	owner	Robin LBNL 20

- SEED is structured to allow a Parent Organization to have Sub-Organizations

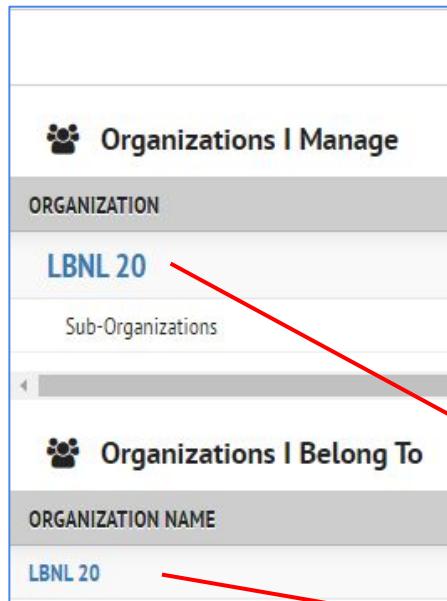
Organizations				
Organizations I Manage				
ORGANIZATION				
lbnl				There is a Parent Organization
Sub-Organizations				
LBL 1				
LBL 2				
LBL 3				
LBL 4				

Role can be:

- Owner
- Member
- Viewer

There is a Parent Organization

There can also optionally be Sub-Organizations



- Click on an organization in either
 - Organizations I Manage
 - Or
 - Organizations I Belong To
- The view for that organization will be displayed

The screenshot shows the detailed view for the organization 'LBNL 20'. The title bar displays the organization name. Below it is a navigation menu with various administrative links. The 'Members' link is currently active, indicated by a blue background.

Organization Name

- The links from this view are
 - **Settings:** The Admin screen for organization settings
 - **Sharing:** The Admin screen for managing how data is shared
 - **Column Settings:** Change the names of the fields in the existing data
 - **Column Mappings:** Manage the mappings for new fields being imported
 - **Data Cleansing:** The Admin screen for managing Data Cleansing settings
 - **Cycles:** The Admin screen for managing Cycles
 - **Labels:** The Admin screen for managing Labels
 - **Sub-Organizations:** A list of all sub-organizations related to this organization
 - **Members:** A list of all members of this organization

Settings Admin Page

In the Organization / Settings tab, you can change the name of the organization

Click on the
Settings link



The screenshot shows the 'Settings' tab selected in the top navigation bar. The page title is 'Settings'. There are four main configuration sections:

- Organization Name:** A text input field containing 'LBNL 20'. A red arrow points to this field with the text 'You can change the organization name'.
- Measurement unit display for energy use intensities (EUI):** A dropdown menu set to 'kBtu/sq. ft./year'. A red arrow points to this menu with the text 'You can change the Units (SI or IP)'.
- Measurement unit display for areas:** A dropdown menu set to 'square feet'. A red arrow points to this menu with the text 'You can change the Units (SI or IP)'.
- Significant figures for EUIs and areas:** A dropdown menu set to '0.02'. A red arrow points to this menu with the text 'You can change the number of decimal places displayed'.

A blue 'Save Changes' button is located at the bottom left of the form.

Sharing Admin Page

< Organizations

LBNL 20

Settings

Sharing

Column Settings

Column Mappings

Data Quality

Cycles

Labels

Sub-Organizations

Members

Save Changes

Sharing Your Data

Click on the **Sharing** link

Selecting Fields to Share

As the admin of your SEED instance you can control what data is shared throughout your organization and between your sub-organizations as well as what data is shared externally with the public-at-large. The subset of data you choose to share with the public can be different than the subset shared between your sub-organizations.

From the list below, select the fields that you want to: 1) share internally within your organization, and 2) share publicly with users outside your organization.

SHARE DATA WITH		
PUBLIC	TABLE NAME	FIELD NAME
<input type="checkbox"/>	Search table name	Search field name
<input type="checkbox"/>	PropertyState	Address Line 1
<input type="checkbox"/>	TaxLotState	Address Line 1 (Tax Lot)
<input type="checkbox"/>	PropertyState	Address Line 2
<input type="checkbox"/>	PropertyState	Building Certification
<input type="checkbox"/>	TaxLotState	City (Tax Lot)
<input type="checkbox"/>	PropertyState	Custom ID 1
<input type="checkbox"/>	PropertyState	Energy Alerts
<input type="checkbox"/>	PropertyState	ENERGY STAR Score
<input type="checkbox"/>	PropertyState	PM Generation Date
<input type="checkbox"/>	PropertyState	Gross Floor Area
<input type="checkbox"/>	TaxLotState	Jurisdiction Tax Lot ID (Tax Lot)
<input type="checkbox"/>	PropertyState	Associated Tax Lot ID

The owner of a Parent Organization can select fields to view between Sub-Organizations.

The owner of a Parent Organization can set the query threshold for viewing records between Sub-Organizations.

Set a Query Threshold

Enter the minimum threshold count of buildings that can be returned in a shared query. The building count threshold is important for allowing other organizations to perform statistical analysis on your data without revealing information about individual buildings.

Count #

Column Settings Admin Page

This screen shows the mappings for the data in the database. Changes to the mappings here affect the existing data.

For example, if the Display Name is changed, it will affect the field “display” name that is shown in the Inventory List and Detail screens for existing data. It does not affect the way that future fields will be mapped, so if field mappings are changed, they should probably also be changed in the Column Mappings screen. This screen also allows fields to be protected from being overwritten when new data is imported.

The screenshot shows the 'Column Settings' tab selected in the top navigation bar. Below the navigation bar, there is a title 'Column Settings' with a back arrow icon, a 'Save Changes' button, and a section titled 'Modifying Column Settings'. The main area contains a table with columns: DISPLAY NAME, COLUMN NAME, DATA TYPE, and MERGE PROTECTION. The table lists various fields like Additions, Address, Address Line 1, etc., with their corresponding column names and data types. The 'Merge Protection' column contains checkboxes, all of which are currently unchecked. A red arrow points to the 'Column Settings' link in the navigation bar, and another red arrow points to one of the checkboxes in the 'Merge Protection' column. A large red box on the left side of the table highlights the 'DISPLAY NAME' column header.

DISPLAY NAME	COLUMN NAME	DATA TYPE	MERGE PROTECTION
Additions	Additions extra data		<input type="checkbox"/>
Address	Address extra data		<input type="checkbox"/>
Address Line 1	address_line_1	Text	<input type="checkbox"/>
Address Line 2	address_line_2	Text	<input type="checkbox"/>
APN	APN extra data		<input type="checkbox"/>
Baths	Baths extra data		<input type="checkbox"/>
BLDGs	BLDGs extra data		<input type="checkbox"/>

Click on the Column Settings link

This is the name that is displayed, for example, in the Inventory List and Detail views, based on how the data was originally mapped. This name can be changed and it will affect all views of that field

Check the box in the “Merge Protection” column to prevent existing data in the “Master Record” from being updated when new data is imported. This is useful for fields where the data has been edited by hand, and could be overwritten when new data is imported which would overwrite the hand edited changes.

Column Mappings Admin Page

This screen shows the stored default mappings for files that have been previously imported, which is the **default** mapping for these fields when new files are imported in the future. If problems are found in the mappings here, the bad mappings should be deleted so that when new files with these fields are imported, those same mapping mistakes will not be made again. Changing the mappings here does not affect existing data, it only affects the default mapping settings for data that will be imported in the future.

The screenshot shows the 'Column Mappings' tab selected in the top navigation bar. Below the navigation bar, there is a section titled 'Deleting Column Mappings' with a note about deleting individual or all column mappings. A red arrow points to the 'Column Mappings' link in the top left of the main content area. Another red arrow points to the 'Delete All Mappings' button in the top right. The main content area contains a table with four columns: 'ORIGINATING COLUMN', 'MAPPED COLUMN', 'MAPPED COLUMN DISPLAY NAME', and 'DELETE'. Red annotations provide additional context for specific rows:

ORIGINATING COLUMN	MAPPED COLUMN	MAPPED COLUMN DISPLAY NAME	DELETE
address_line_1	address_line_1	Address Line 1	
APN Unformatted	jurisdiction_tax_lot_id	Jurisdiction Tax Lot ID	
AYB_YearBuilt	year_built	year_built	
Baths	Baths	Baths	
Beds	BLDGs	BLDGs	
BLDGs	BLDGs	BLDGs	
BuildingAr	Building Name	Building Name	
Buildings	Building Status	Building Status	
city	City	City	
City	City	City	
Class	Class	Class	

Annotations in red text and arrows:

- An arrow points to the 'Column Mappings' link with the text "Click on the Column Mappings link".
- An arrow points to the 'Delete All Mappings' button with the text "Click the 'Delete All Mappings' button to eliminate all the default mappings for files being imported in the future".
- An arrow points to the 'ORIGINATING COLUMN' header with the text "Field name in the file being imported".
- An arrow points to the 'MAPPED COLUMN' header with the text "Internal database field name".
- An arrow points to the 'MAPPED COLUMN DISPLAY NAME' header with the text "The field 'Mapping', i.e., the field name displayed in the SEED screens".
- An annotation for the 'Beds' row states: "This mapping is incorrect and should be deleted".
- An annotation for the 'city' row states: "Here are two different fields mapped to the same correct field name".

Data Quality Admin Page: Overview

Manage Data Quality Rules

- Create Data Quality rules
- Data Quality rules are run automatically by the program in the Mapping Review step
- Data Quality rules can be run “by hand” any time from the Actions menu in the Inventory List view

Click on the **Data Quality** link

The screenshot shows the Data Quality Admin Page for the organization "LBNL 302". The top navigation bar includes links for Settings, Sharing, Column Settings, Column Mappings, **Data Quality** (which is highlighted), Cycles, Labels, Sub-Organizations, and Members. Below the navigation is a toolbar with buttons for **Restore Default Rules**, **Reset All Rules**, and **Save Changes**. A section titled "Data Quality" contains a sub-section "Modifying Data Quality Rules". It instructs users to select rules for enabling/disabling, modifying validation values, and assigning labels. A table lists four rules, each with fields for Field, Data Type, Required, Not Null, Minimum, Maximum, Units, Severity, Label, and Delete. The first rule is for "Address Line 1" (Text type). The second is for "ENERGY STAR Score" (Number type). The third is for "Gross Floor Area" (Number type). The fourth is for "Site EUI" (Number type). Each row includes dropdown menus for units and severity, and a red "X" button for deletion. At the bottom of the page are buttons for **Restore Default Rules**, **Reset All Rules**, and **Save Changes**.

LBNL 302

Data Quality

Modifying Data Quality Rules

From the table below, select the rules that you want to: 1) enable/disable within your organization, 2) modify the minimum/maximum values to validate against on file upload, and 3) optionally assign or remove a label if the condition is not met.

Create a new rule

View by Property Separate rules are defined for Property and Tax Lot fields **View by Tax Lot**

FIELD	DATA TYPE	REQUIRED	NOT NULL	MINIMUM	MAXIMUM	UNITS	SEVERITY	LABEL	DELETE
Address Line 1	Text	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	(field must contain this text)			Error	DQ: Missing Address	
ENERGY STAR Score	Number	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	10	100		Error	DQ: Low / No ENERGY STAR Score	
Gross Floor Area	Number	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	100	7000000	square fe	Error	DQ: Low / No Gross Floor Area	
Site EUI	Number	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	10	1000	kBtu/sq. f	Error	DQ: Low / No Site EUI	

Restore Default Rules **Reset All Rules** **Save Changes**

Data Quality Admin Page: Create a new rule

Create a new rule

View by Property **View by Tax Lot**

FIELD	DATA TYPE	REQUIRED	N
<input checked="" type="checkbox"/> Address Line 1 (Property)	Number	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Address Line 2 (Property)			
<input checked="" type="checkbox"/> Alert - Individual Monthly Meter Entry Is More Than 65 Days Long			
<input checked="" type="checkbox"/> Alert - Meter Has Less Than 12 Full Calendar Months Of Data			
<input checked="" type="checkbox"/> Alert - No Meters Are Associated With This Property			

Click the Create a new rule button

Select the desired field from the pulldown list

Set the Data Type

Check Required and/or Not Null

Enter Min/Max or Text to check

Units (optional)

Set to Error or Warning

Click + to add a label

Click the red X button to delete the rule

DQ: Alert: No meters

Add

FIELD	DATA TYPE	REQUIRED	NOT NULL	MINIMUM	MAXIMUM	UNITS	SEVERITY	LABEL	DELETE
<input checked="" type="checkbox"/> Alert - No Meters Are	Text	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	OK			Error	DQ: Alert: No meters	

FIELD	DATA TYPE	REQUIRED	NOT NULL	MINIMUM	MAXIMUM	UNITS	SEVERITY	LABEL	DELETE
<input checked="" type="checkbox"/> Alert - No Meters Are	Text	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	OK			Error	DQ: Alert: No meters	
<input checked="" type="checkbox"/> ENERGY STAR Score	Number	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	10	100		Error	DQ: ENERGY STAR Score < 10, > 100	

Click the Save Changes button

Save Changes

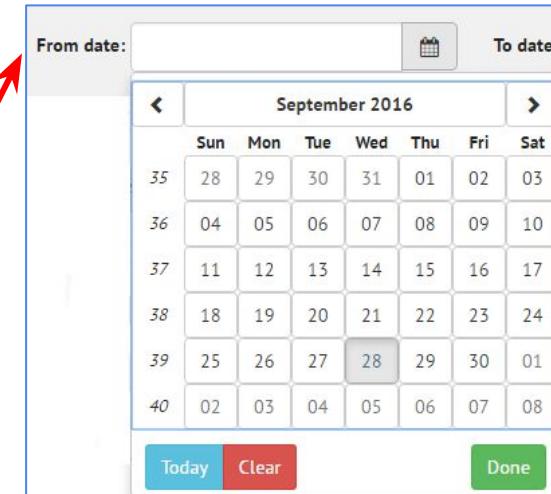
Manage Cycles

- Create Date “cycles” such as Compliance cycles
- Assigned on data import
- Used to filter data views

Type a name to create a new cycle

Click on the **Cycles** link

Set the **From date** and **To date**



Settings	Sharing	Column Settings	Column Mappings	Data Quality	Cycles	Labels	Sub-Organizations	Members												
Create new cycle <input type="text" value="Cycle Name"/>		From date: <input type="text"/>		To date: <input type="text"/>		<input type="button" value="Create Cycle"/>														
Existing Cycles <table border="1"> <thead> <tr> <th>NAME</th> <th>FROM DATE</th> <th>TO DATE</th> <th>Actions</th> </tr> </thead> <tbody> <tr> <td>2017 Compliance Cycle</td> <td>01-01-2017</td> <td>12-31-2017</td> <td><input type="button" value="edit"/></td> </tr> <tr> <td>2018 Compliance Cycle</td> <td>01-01-2017</td> <td>12-31-2017</td> <td><input type="button" value="edit"/></td> </tr> </tbody> </table>									NAME	FROM DATE	TO DATE	Actions	2017 Compliance Cycle	01-01-2017	12-31-2017	<input type="button" value="edit"/>	2018 Compliance Cycle	01-01-2017	12-31-2017	<input type="button" value="edit"/>
NAME	FROM DATE	TO DATE	Actions																	
2017 Compliance Cycle	01-01-2017	12-31-2017	<input type="button" value="edit"/>																	
2018 Compliance Cycle	01-01-2017	12-31-2017	<input type="button" value="edit"/>																	

Labels Admin Page

- Labels can be defined in this Admin page
- They can also be defined “on the fly” in the Inventory List and Detail view as needed

The screenshot shows the 'Labels Admin Page' for the organization 'LBNL 302'. At the top, there is a navigation bar with links: 'Settings', 'Sharing', 'Column Settings', 'Column Mappings', 'Data Quality', 'Cycles', 'Labels' (which is highlighted), 'Sub-Organizations', and 'Members'. Below the navigation bar, there is a section for 'Create new label' with fields for 'Label Name' (set to 'gray') and a 'Create label' button. A red arrow points to the 'Labels' link in the navigation bar with the text 'Click on the Labels link'. Another red arrow points to the 'Create label' button with the text 'You can create new labels'. The main area is titled 'Existing Labels' and contains a table with columns 'NAME' and actions 'edit' and 'X'. Several labels are listed, including '> 10,000 < 50,000 SF', '< 10,000 SF', '> 50,000 SF', 'Call', 'Change of Ownership', 'College/University', 'Compliant', 'DQ: Low / No ENERGY STAR Score', 'DQ: Low / No Gross Floor Area', 'DQ: Low / No Site EUI', and 'DQ: Missing Address'. Red arrows point from the text 'In this screen you can define as many labels as you need' to the first three labels ('> 10,000 < 50,000 SF', '< 10,000 SF', and '> 50,000 SF'). Red arrows also point from the text 'A set of default labels are automatically generated (dark blue)' to the 'Call', 'Change of Ownership', 'College/University', and 'Compliant' labels. Red arrows point from the text 'The default labels can be edited or deleted' to the 'edit' and 'X' buttons for each row. A red arrow points to the 'edit' and 'X' buttons for the 'Compliant' label with the text 'You can Edit or Delete existing labels'.

In this screen you can define as many labels as you need

- A set of default labels are automatically generated (dark blue)
- The default labels can be edited or deleted

You can Edit or Delete existing labels

Sub-Organizations Admin Page

SEED PLATFORM™

← Organizations Parent Organization → LBNL 21

Settings Sharing Column Settings Column Mappings Data Quality Cycles Labels **Sub-Organizations** Members

Sub-Organizations

Click on the Sub-Organizations link

Create a new sub-organization

SUB-ORGANIZATION NAME	OWNER NAME	OWNER EMAIL
LBNL 20	Robin LBNL 20	rdmitchell+20@lbl.gov
LBNL 2111	Robin LBNL 211	rdmitchell+211@lbl.gov

The owner of a Parent Organization can create Sub-Organizations

Create a New Sub-Organization

Sub-Org Name:

Invite an Owner:

Note 1: Sub-organizations can not be deleted.
Note 2: Parent organization members are not automatically made members of sub-organizations.

Cancel Create New Sub-Organization

The owner being invited to a Sub-Organization has to already be a member of the Parent Organization (and can be deleted from the Parent later)

Parent / Sub-Organization Roles

The permissions for each Role in a Parent Organization and a Sub-Organization

	Parent	Sub Organization		
		Owner	Member	Viewer
Set fields for display between Sub-Org	X			
Create Sub Orgs	X			
Add Members	X To parent or at Sub org setup	X To own Suborg		
Remove Members	X In parent	X From own Sub org		
View Members	X In parent Owner(s) of suborg	X In own Sub org		
Change Settings • Rename Suborg • Change member role	X In parent	X In own Sub org		
Add Data (Create Datasets)	X	X	X	
Edit data	X All the Suborgs associated with it	X In own Sub org	X In own Sub org	
View data	X All the Suborgs associated with it	X In own Sub org	X In own Sub org	X In own Sub org

Members Admin Page

You can invite new members to your organization

The screenshot shows the 'Members' tab selected in the navigation bar of the 'LBNL 21' organization. A modal window titled 'Invite a New Member' is open, prompting for the member's first name, last name, email address, and role. The 'Role' dropdown menu lists 'Member', 'Owner' (which is selected and highlighted in blue), and 'Viewer'. Below the form are 'Cancel' and 'Send Invite' buttons. Red annotations provide instructions: one arrow points to the 'Members' tab with the text 'Click on the Members link'; another arrow points to the 'Role' dropdown with the text 'You can set the role of the new member'; and a third arrow points to the 'Send Invite' button with the text 'When you click Send Invite the person will receive an email, asking them to set a password for their account'. The main table displays columns for Member Name, Member Email, and Member Role, with a single row visible for 'Robin Mitchell'.

← Organizations LBNL 21

Settings Sharing Column Settings Column Mappings Data Quality Cycles Labels Sub-Organizations **Members**

Members

MEMBER NAME MEMBER EMAIL MEMBER ROLE

member name member email member role

Robin Mitchell

Invite a New Member

First Name: Enter first name

Last Name: Enter last name

Email Address: Enter Email Address

Role: Member
Owner
Viewer

Cancel Send Invite

You can set the role of the new member

Click on the **Members** link

Invite a new member

When you click **Send Invite** the person will receive an email, asking them to set a password for their account

Swagger Interface to SEED RESTful APIs

SEED PLATFORM™ LBNL 302 ▾

 **swagger** Hello, rdmitchell+302@lbl.gov [Django Logout](#) [Authorize](#)

SEED API

v1 [Show/Hide](#) [List Operations](#) [Expand Operations](#)

v2 [Show/Hide](#) [List Operations](#) [Expand Operations](#)

v2.1 [Show/Hide](#) [List Operations](#) [Expand Operations](#)

POST /api/v2.1/portfolio_manager/report/

POST /api/v2.1/portfolio_manager/template_list/

GET /api/v2.1/properties/ Return all Properties available to user through specified org.

Implementation Notes
Return all Properties available to user through specified org.

Parameters

Parameter	Value	Description	Parameter Type	Data Type
page	<input type="text"/>		query	string
per_page	<input type="text"/>		query	string
identifier	<input type="text"/>		query	string
address_line_1	<input type="text"/>		query	string
cycle	<input type="text"/>		query	string
property	<input type="text"/>		query	string
cycle_start	<input type="text"/>		query	string
cycle_end	<input type="text"/>		query	string
analysis_state	<input type="text"/>		query	string

Response Messages

HTTP Status Code	Reason	Response Model	Headers
200			

[Try it out!](#)

Contact

Contact

For SEED-Platform Users:

Please visit our User Support website for tutorials and documentation to help you learn how to use SEED-Platform.

<https://sites.google.com/a/lbl.gov/seed/>

There is also a link to the SEED-Platform Users forum, where you can connect with other users.

<https://groups.google.com/forum/#!forum/seed-platform-users>

For direct help on a specific problem, please email:

SEED-Support@lists.lbl.gov

For SEED-Platform Developers:

The Open Source code is available on the Github organization SEED-Platform:

<https://github.com/SEED-platform>

Please join the SEED-Platform Dev forum where you can connect with other developers.

<https://groups.google.com/forum/#!forum/seed-platform-dev>

About SEED Platform™

The Standard Energy Efficiency Data (SEED)™ Platform is a software application that helps organizations easily manage data on the energy performance of large groups of buildings. Users can combine data from multiple sources, clean and validate it, and share the information with others. The software application provides an easy, flexible, and cost-effective method to improve the quality and availability of data to help demonstrate the economic and environmental benefits of energy efficiency, to implement programs, and to target investment activity.

[More details](#)

Development Team:

Managed by: [National Renewable Energy Laboratory](#)

Funding from: [U.S. Department of Energy](#)

Version

2.3.0.68bdd74

When reporting an issue, including the complete Version # is useful