Missoula Finance Department

Budget Data Cleaning Procedure

Updated: May 2, 2025

Introduction

Congratulations! You have been tasked with updating the annual **City of Missoula Program Inventory and Expenditure Status Power BI Dashboard**! In order to complete this task in full there are a few manual tasks that need to take place.

This document lays out how to complete this entire process in five easy to follow stages. Please complete the tasks in order from start to finish. You will find an interactive activity, images, and links you'll need to utilize. You may be tasked with this process in entirety or pick up the process at any point.

Before you begin, please meet with your supervisor to become onboarded with the required access to the following workspaces and tools:
- SharePoint Library: ***City Program Inventory Budget Breakdown***
- Tyler Edens Credentials / Access
- Workiva Workspace Credentials / Access
- Desktop Folder, for local downloading of *.xlsx* and *.csv* files that is easily navigable
- Google Colab: ***Program Inventory and Expenditure Status Data Cleaning Notebook***
- Access to Desktop or Cloud version of Power BI

# *Stage 1: Understanding the Why, An Interactive Activity*

Review **this short interactive activity** to understand how priority-based budgeting works at the City of Missoula, and how the City aligns strategic pillars with budgeted expenditures.

If you are a returning data cleaning completer, you can skip this stage and proceed directly to the next stage.

Stage 2: Gathering Excel Files

Expenditure Status

1. Begin by Logging in to **Tyler Edens**
2. Navigate to the Expenditure Status report by following;
   a. *General Ledger > Ledger End of Period > Expenditure Report*
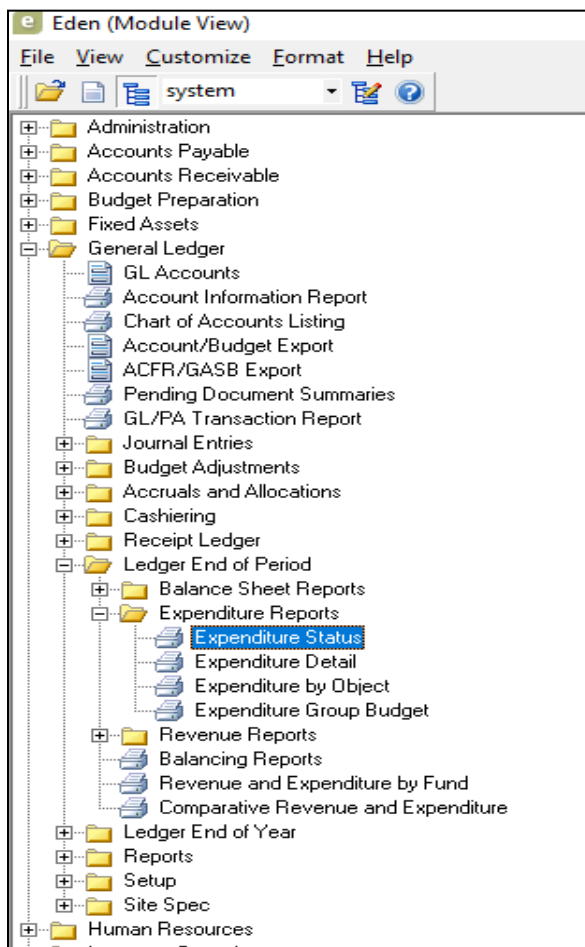
3. A QBE form will pop up. Here you will enter *** (astrix)** in the **Account #** Box to not exclude any accounts. Next, you'll select **Run**:

4. Select the ***fiscal year*** for the data you'd like and preview the report:
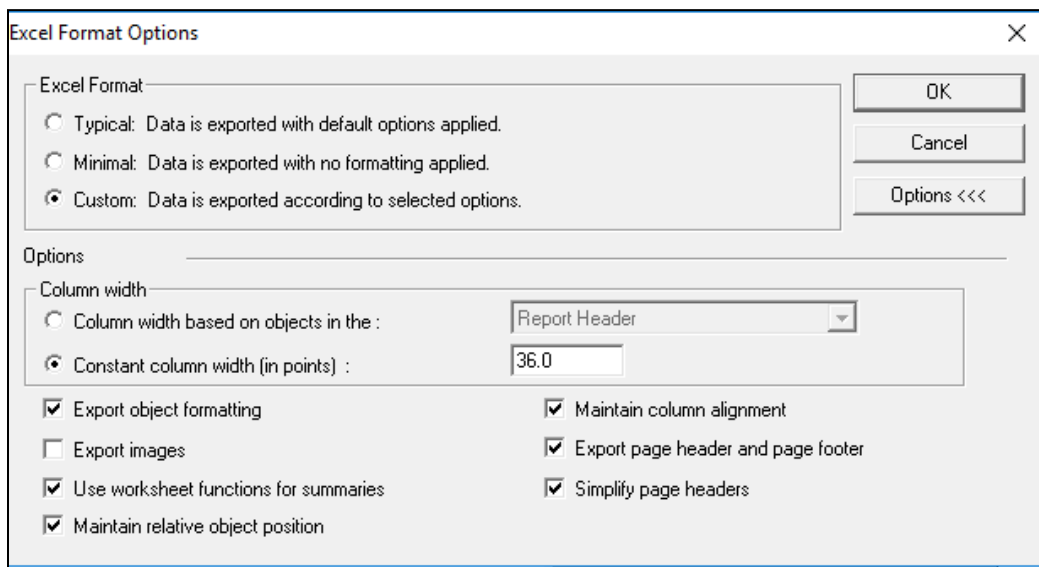
5. **Export** the report to Excel, **Data only**:
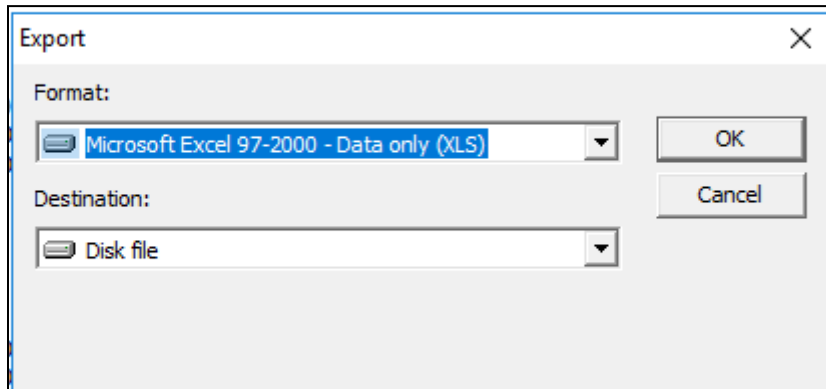


6. Use the following **formatting options**:

7. Select **OK** and download your report. Make sure it is located in a file that is easily navigable. We will be using this file later on in the report.

Note: Save the next file in the same folder you saved this file, to allow ease of use later on in this process.

Program Inventory Data

1. Log into the **Workiva Workspace** via City Provided Credentials.
2. Navigate to **Files > Budget Reports for Council > Program Inventory** *(You can also search for "Program Inventory Internal Data Collection")*.
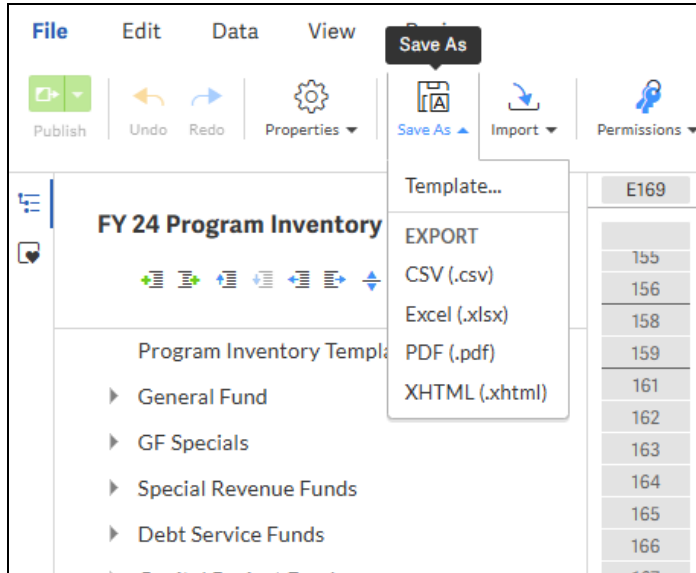
NOTE: If you can't see the file, you may not have access. You can request access by speaking to "Buck" Robert Brovold or Jessie Hogg.
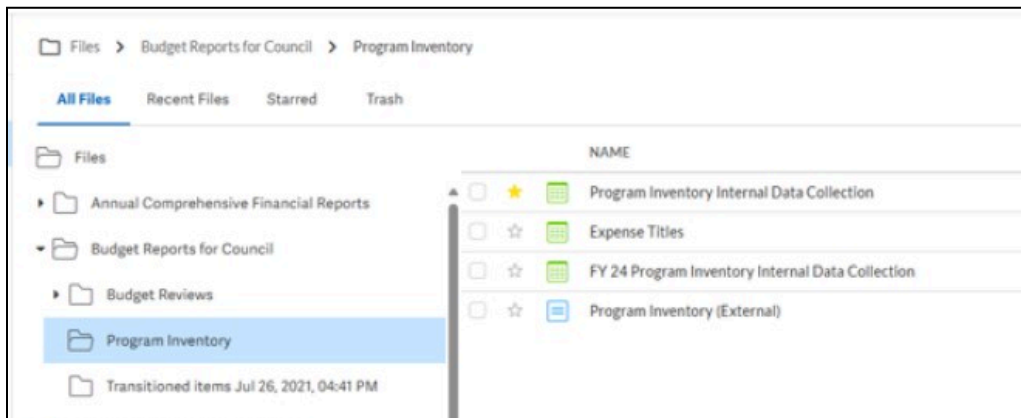
3. Scroll down to **Data > Program Inventory Data Table**
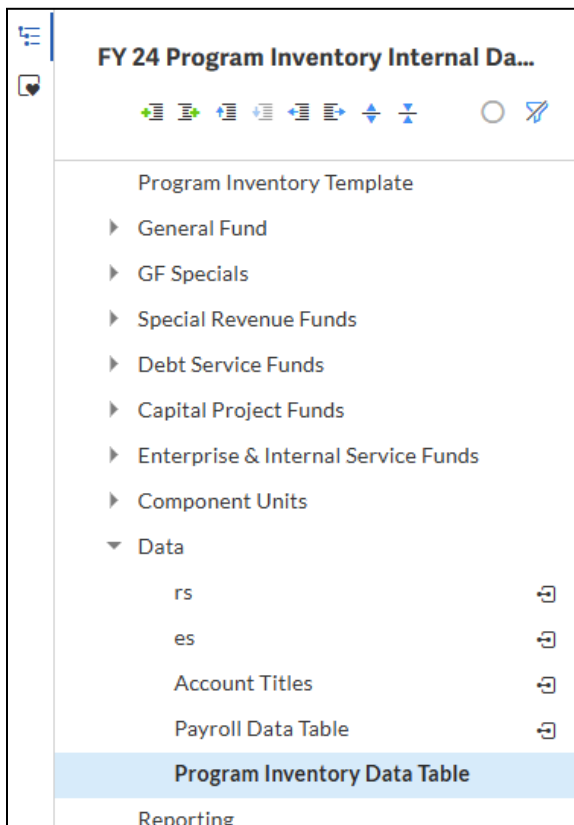
4. Under **File > Save As > Excel Spreadsheet**

5. Under **Export Options**, Select **Current Sheet**
6. Update the **Value Options** displayed

7. Select **Export** and save the file to the same folder you saved the previous expenditure status report for easily handling in the next few stages of this process.

Stage 3: Initiating the Data Cleaning Process

1. Navigate to the **Program Inventory and Expenditure Status Data Cleaning Notebook**.
2. **Read through and follow all the guided steps on this landing page to complete this task.**

3. You may need to refresh your ***connection*** to a new *Runtime* in the right hand side of the colab.
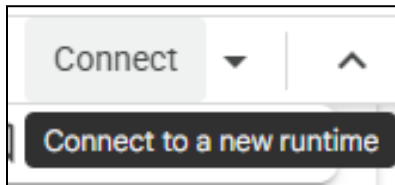
4. Upload your original files into the cleaning notebook. **CTRL + Right Mouse Click** on each file in your folder will select them both for upload.
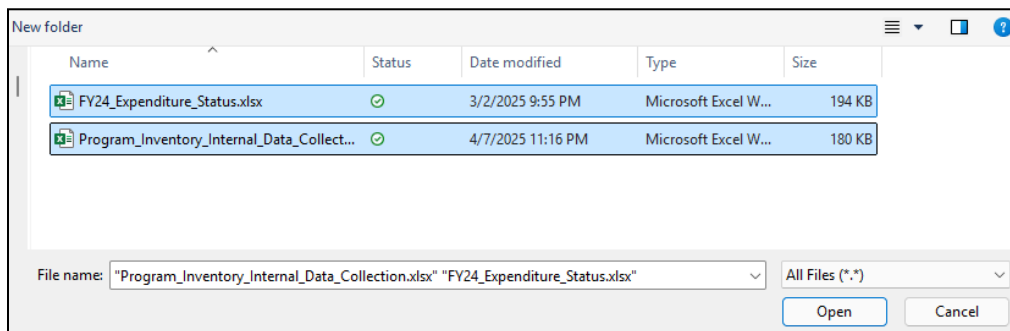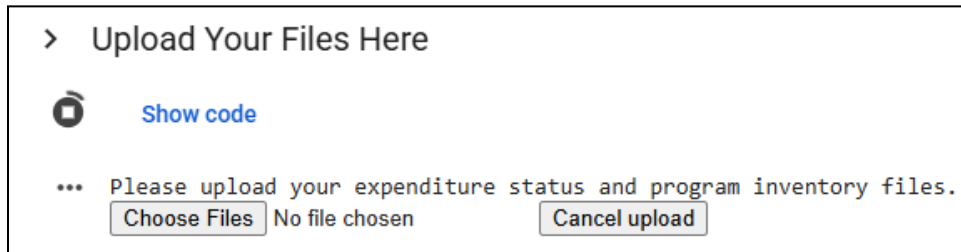

5. **The notebook will handle all the dirty work and clean the data** then provide the workable and clean **.csv** files that you will upload to SharePoint in the next stage of this task. *This is the stage where you may allow Google Colab to download multiple files, select **Allow**.*
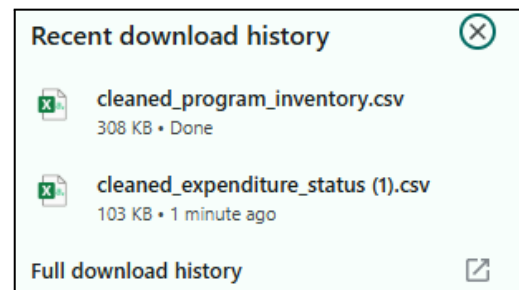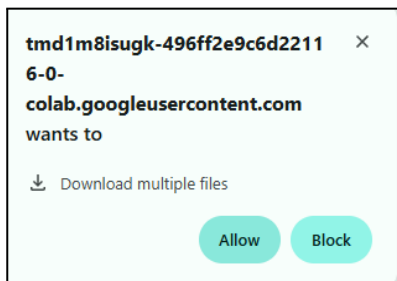

6. Once you have downloaded the clean files you can *proceed to the next stage*.

Stage 4: Uploading Clean Data to SharePoint

1. Obtain credentials for your access to the **SharePoint Library Site**.
2. Navigate to the **City Program Inventory Budget Breakdown** SharePoint Library.
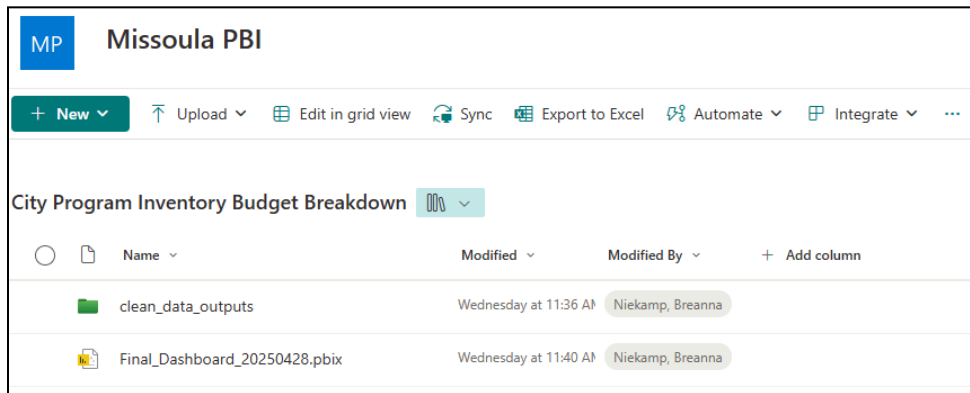

3. Upload the final **.csv** files in the **clean_data_outputs** folder. Ensure that the file names are in the correct format.
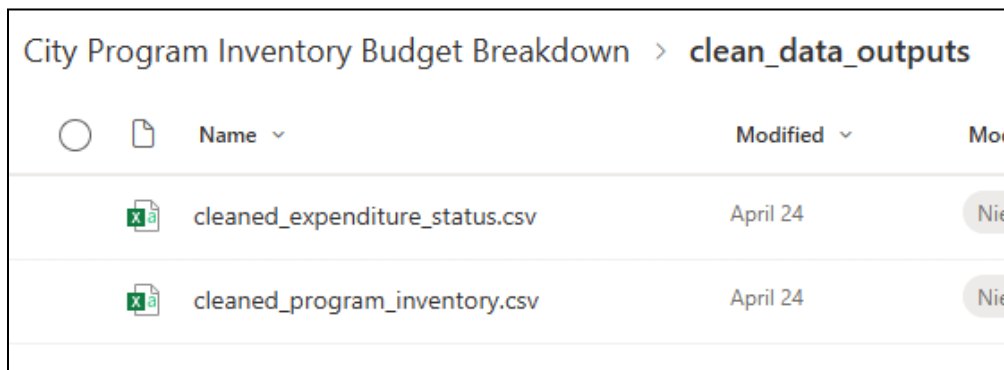

Note: You may receive a popup that will prompt you to overwrite the existing files. You will want to select yes, and proceed with overwriting the existing files. This will ensure file names remain consistent for the Dashboard Update.

Stage 5: Refreshing the Power BI Dashboard

1. Navigate to the **City of Missoula Program Inventory and Expenditure Dashboard**.
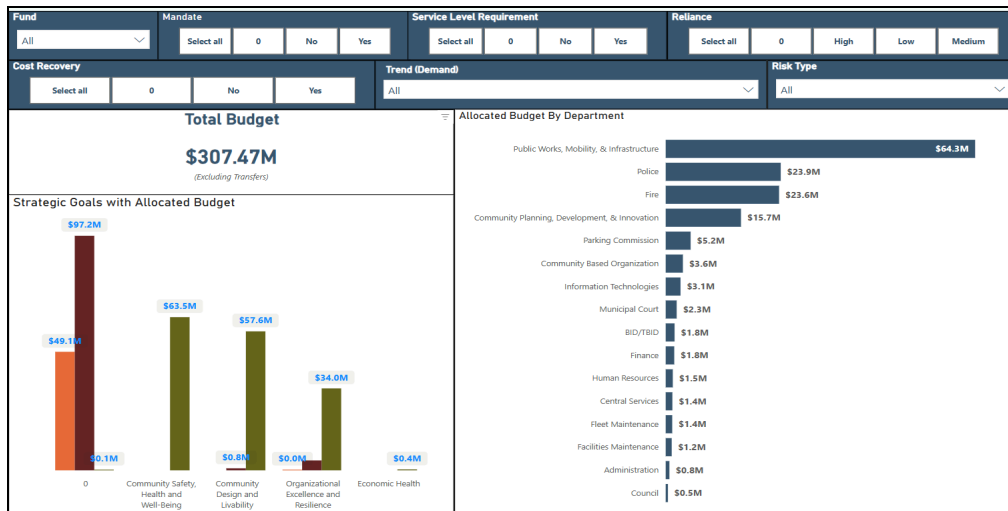
2. If your view is not updated, or looks off you can troubleshoot by navigating back to the SharePoint Library.

3. From here, you will want to confirm with your administrator on how to proceed with **Refreshing the Dashboard** with the updated data.

4. Your administrator should be able to navigate to the working Dashboard location, and **Refresh** the Dashboard accordingly. This button will be located next to the *Transform Data* location in the *Power BI Ribbon*.
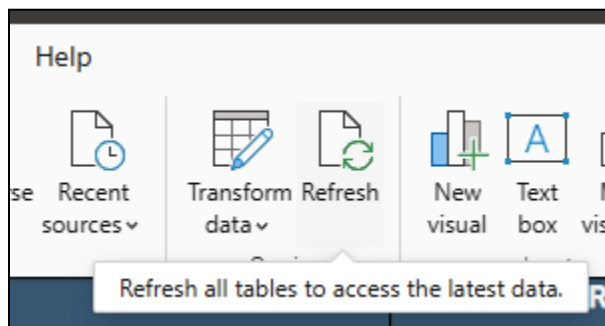
Once you have confirmed that your data has been updated; ***Congrats! You have completed this task in full!***