Standard Operating Procedure (SOP) #14

Workspace Setup and Project Records Management

Version 2.0 (March 18, 2022)

Change History

New Version #	Revision Date	Author	Changes Made	Reason for Change	Previous Version #
1.01	5/24/2021	Kelly Kozar, Kim Weisenborn	Updated content. Updated SOP references and external links. Added info about local workstation. Added Appendix SOP 14.a.	To reflect current records management procedures. To update outdated SOP references and external links and make appendix accessible.	1.0
2.0	3/18/2022	Kim Weisenborn, Kelly Kozar	Added information about accessing the FTPC monitoring project workspace from the PACN I&M SharePoint site, how to link files to the database, and how to access the database from SharePoint.	PACN data is no longer stored on a networked server (I:\ drive) and is now stored on the PACN I&M SharePoint site.	1.01

Only changes in this specific SOP will be logged here. Version numbers increase incrementally by hundredths (e.g., version 1.01, version 1.02) for minor changes. Major revisions should be designated with the next whole number (e.g., version 2.0, 3.0, 4.0). Record the previous version number, date of revision, author of the revision, changes made, and reason for the change along with the new version number.

Purpose

This SOP document describes how to access the Focal Terrestrial Plant Communities (FTPC) Monitoring project workspace on the Pacific Island Inventory and Monitoring Network (PACN) SharePoint (SPO) site[1], how to set up a local workspace on the user's computer and describes the PACN Monitoring Archive Library[2], which is used for archival of finished FTPC Monitoring products.

[1] PACN SharePoint site, https://doimspp.sharepoint.com/sites/nps-PWR-PACNIM (accessed 18 March 2022).
[2] PACN Monitoring Archive Library, https://doimspp.sharepoint.com/sites/nps-PWR-PACNIM/monitoring_archive/ (accessed 18 March 2022).

Project Workspace

A section of the networked PACN I&M SharePoint site is reserved for this project, and access permissions are established so that project staff members have access to needed files within this workspace. Prior to each season, the PACN Botanist should make sure that Active Directory accounts are established for each new staff member, and that the PACN Data Manager is notified to ensure access to the PACN I&M SharePoint site.

To access the FTPC Monitoring project workspace in SharePoint:

1. Navigate to the PACN I&M SharePoint site – https://doimspp.sharepoint.com/sites/nps-PWR-PACNIM

2. From there, click on the "Vital Signs" Library from the top navigation bar. If you do not see it listed, click on the horizontal ellipse ... to display more libraries (Figure SOP 14.1).

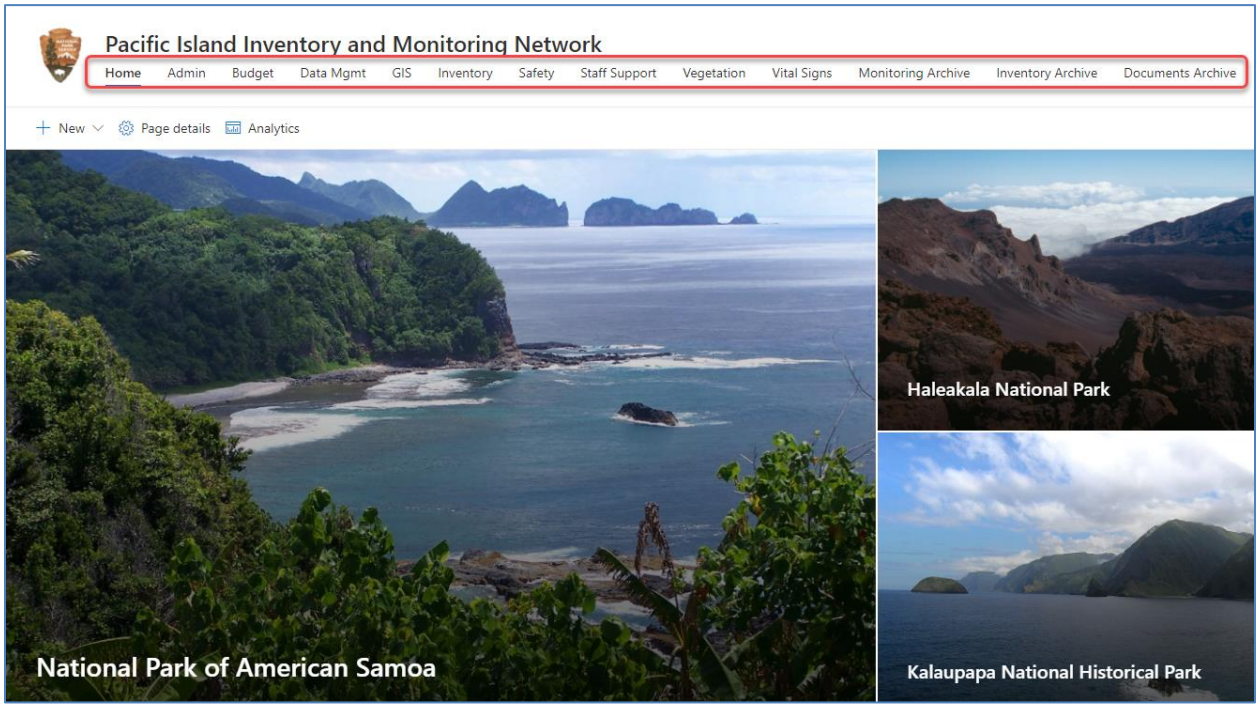

Figure SOP 14.1. PACN I&M SharePoint site libraries, including Vital Signs.

3. From the Vital Signs Library, click on the "05_focal_terr_plant_communities" folder to access the FTPC Monitoring project workspace (Figure SOP 14.2).

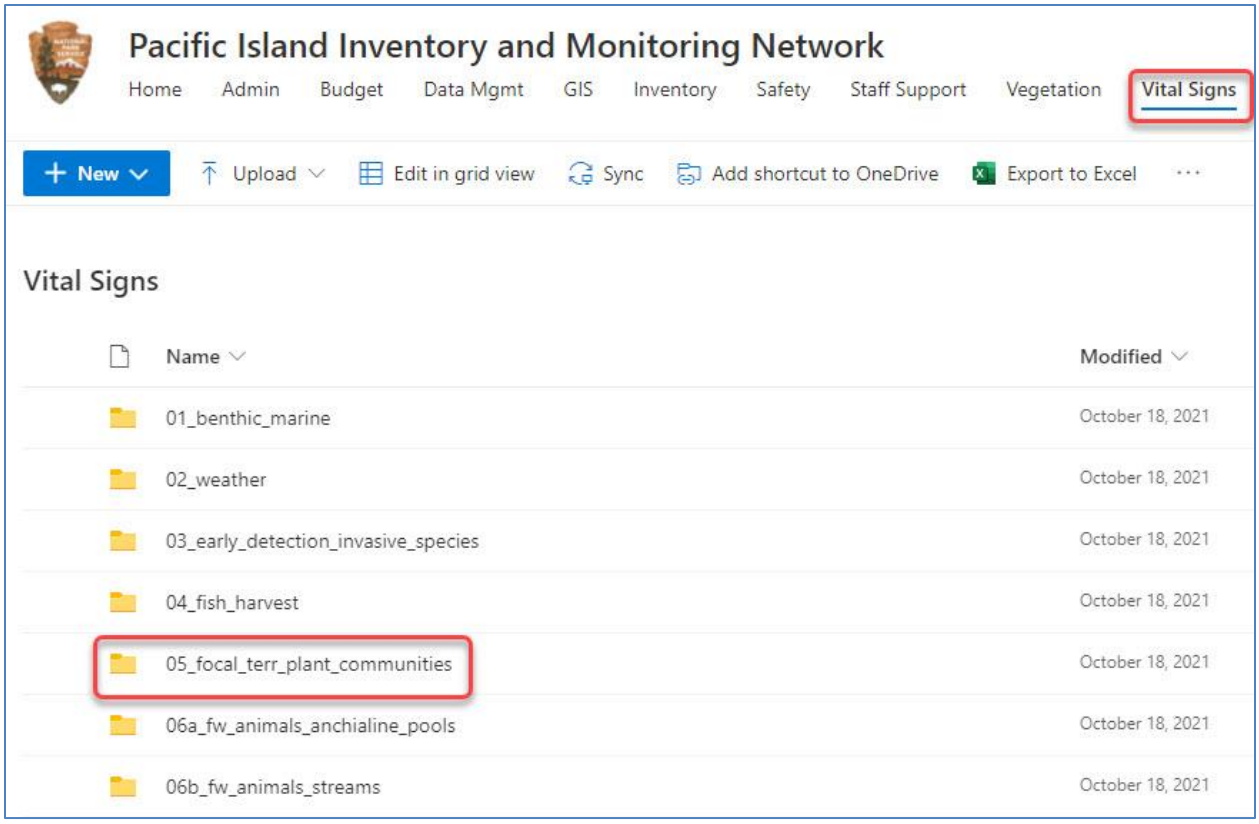

Figure SOP 14.2. Folder structure for the Vital Signs Library within the PACN I&M SharePoint site, highlighting the FTPC Monitoring project workspace folder.

The file structure within FTPC Monitoring project workspace is shown in Figure SOP 14.3.

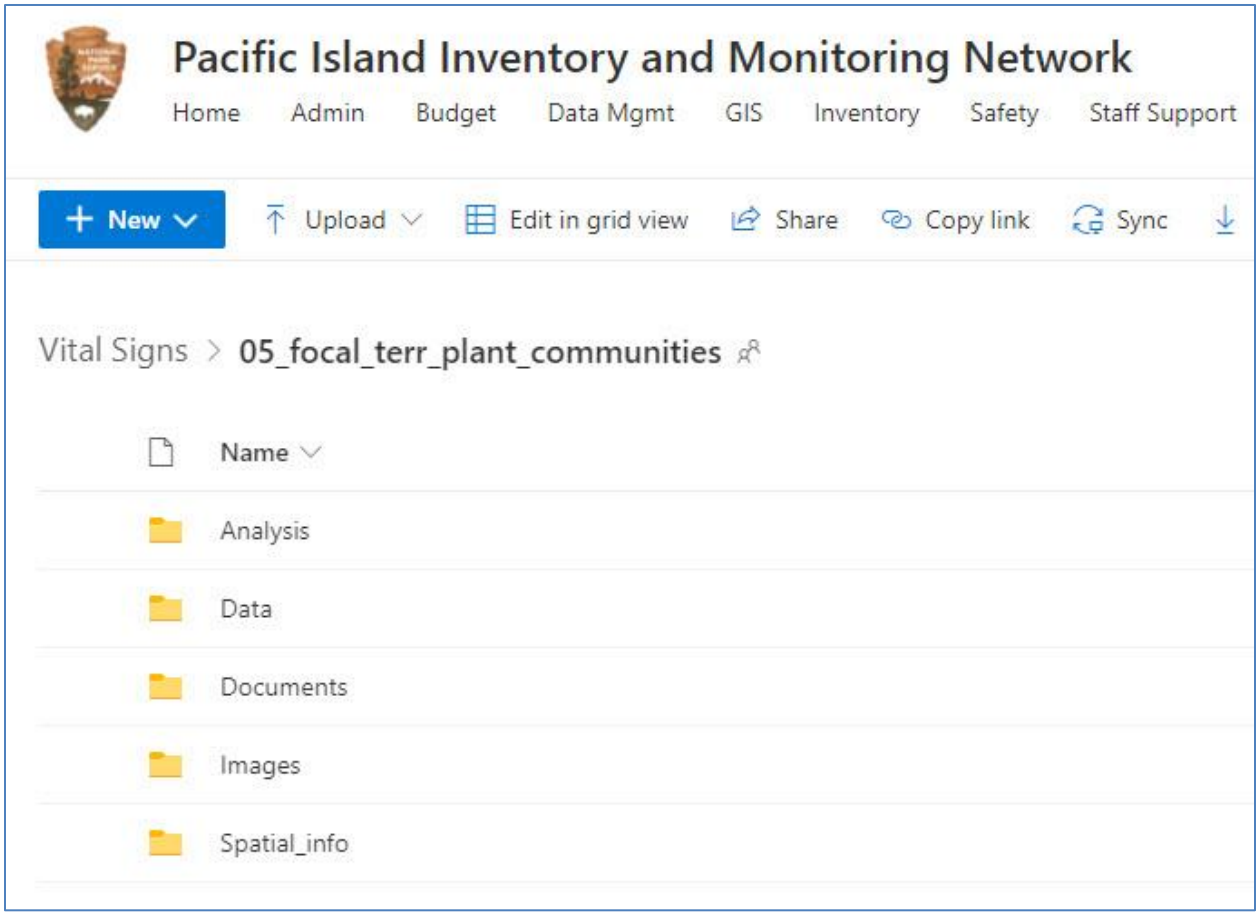

Figure SOP 14.3. File structure for the FTPC Monitoring project workspace within the PACN I&M SharePoint site.

Each major folder and subfolder are described as follows:

- Analysis: contains working files associated with data analysis.
- Data:
    - Database: contains the working database files for the season. Note that the master database containing certified data for the projects is stored in the PACN Digital Library.
        - Database Documentation: contains data management SOPs and user guides for processing FTPC data, including the FTPC Monitoring Database User Guide for data entry, verification, and certification.
        - Database Log: contains spreadsheet to record progress of data entry. Spreadsheets are identified by field season year.

        - Veg Species Database: contains the Plant Species Taxon Database for adding new plant species to the species list, including the database user guide to utilize the database.
        - VS FTPC Database Images: contains processed images to be imported into the working database. Note that this folder contains subfolders to arrange files by year, park, and sampling event.
    - Meetings: contains meeting notes.
    - QAQC: contains subfolders relating to QAQC record checks for data certification.
    - Scanned Datasheets: contains scanned field datasheets. Note that this folder contains subfolders to arrange files by year and park.
- Documents: Contains subfolders to categorize documents as needed for various stages of project implementation.
- Images: For storing images associated with the project. Note that this folder contains subfolders to arrange files by year and park.
- Spatial Info: Contains files related to visualizing and interacting with GIS data. Note that this folder contains subfolders to arrange files by year and park.
    - GIS Data: New working shapefiles and geodatabases specific to the project.
        - Data: ESRI File geodatabase (.gdb) spatial data, project specific ArcGIS Pro layers (.lyrx), and Excel (.xlsx) station coordinate table files.
        - Projects: ArcGIS Pro Project (.arpx) + associated folders, Map (.mapx) and Layout (.pagx) composition files.
        - Shapefiles for upload: Shape files (.shp, .shx, .dbf [all mandatory], .cpg, .sbn, .sbx, prj, .xml [optional])
    - GPS Data: Raw data files downloaded from GPS unit.
    - Map Products: Map PDF (.pdf) files.

Database Files

Files to be linked to the FTPC Monitoring Database are located in subfolders within the "Database" folder in the FTPC Monitoring project workspace. These files include processed images.

Note: Prior to linking images to the FTPC Monitoring Database, a shortcut will need to be added to the user's OneDrive. See the Creating Shortcut to Database Files section for procedures

prior to linking files, and refer to the FTPC Monitoring Database User Guide for instruction on how to link files.

Images

Image files to be linked to the database are located in the "VS_FTPC_Database_images" database folder in SharePoint. Within this folder is a subfolder for the current sampling year, and within that, a subfolder for each park. Images that are to be linked to the database should be placed in the appropriate folder for the year and park after they have been processed (Figure SOP 14.4). Make sure these files are placed in the correct folders before linking to the database.

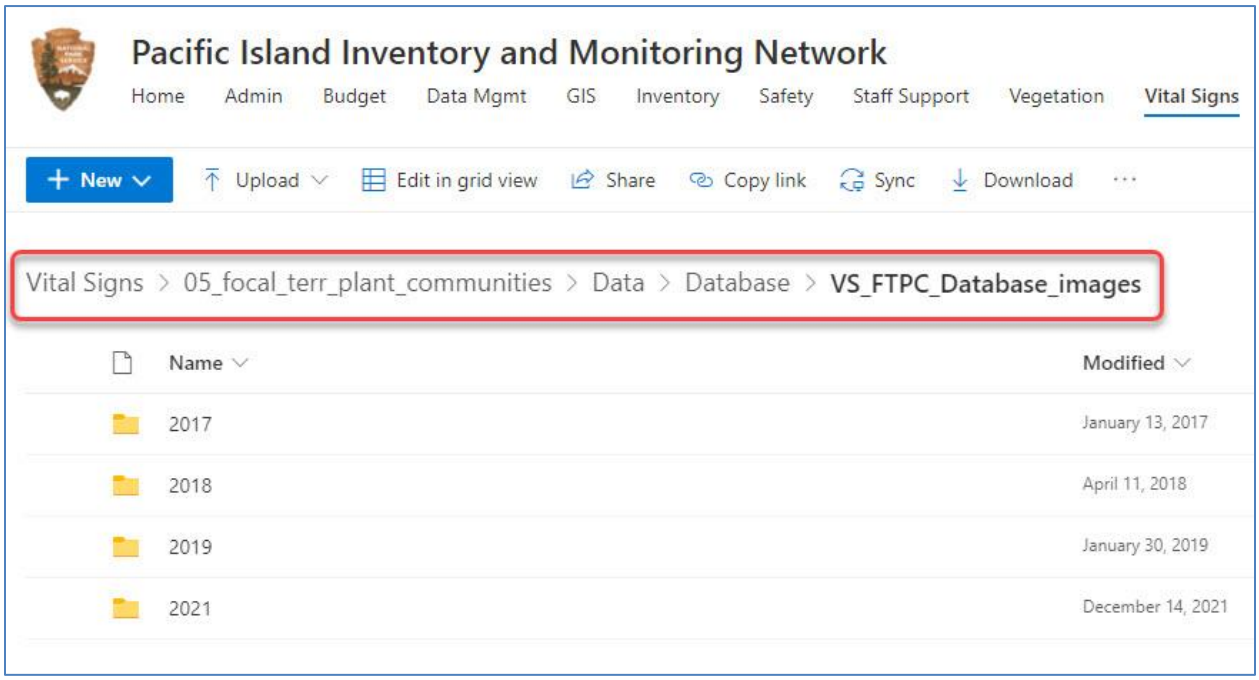

Figure SOP 14.4. Folders for station images and sampling event images that will be linked to the FTPC Monitoring Database.

Original images, and images output from GeoJot+ Core® software after processing should go into their respective year and park subfolders within the "Images" folder in the main directory (Figure SOP 14.5). Refer to SOP #16 Managing Photographic Images for detailed information on processing and managing photos.

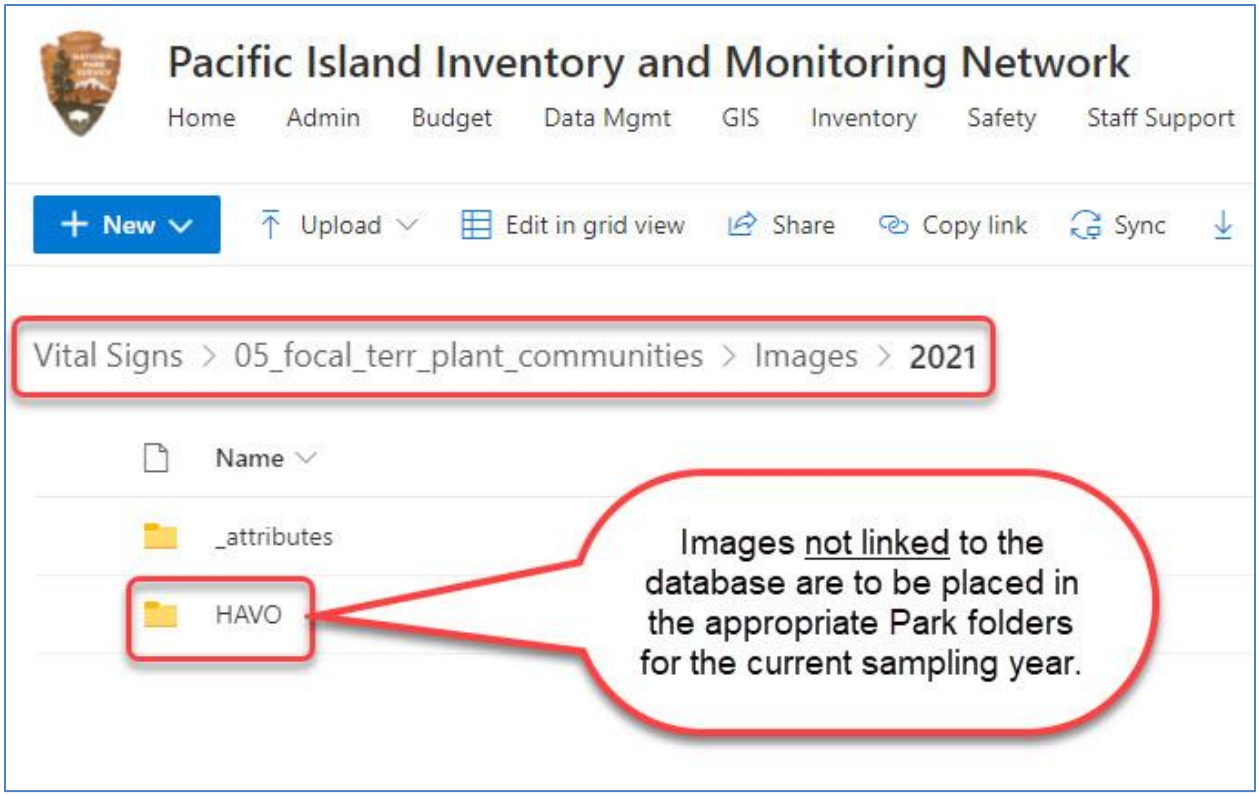

Figure SOP 14.5. Original images and output images from processing are stored in the Images folder for the year and park.

Now that the images files are in the proper locations on the PACN I&M SharePoint site, the next step is to set up the user's local workspace so that the user can properly access the Streams Monitoring Database and link the files.

Local Workspace

Data entry and processing will be done on staff members local workspace (i.e., laptop). Staff members will set up a local project workspace on their local working C:\ drive for when working in the FTPC SQL database.

To setup a workspace on a local working C:\ drive, create a "FTPC" folder on the Desktop (e.g., C:\Users\[UserName]\Desktop\FTPC). Within this folder, create a "Data" folder, and within that create a "Database" folder (Figure SOP 14.6).

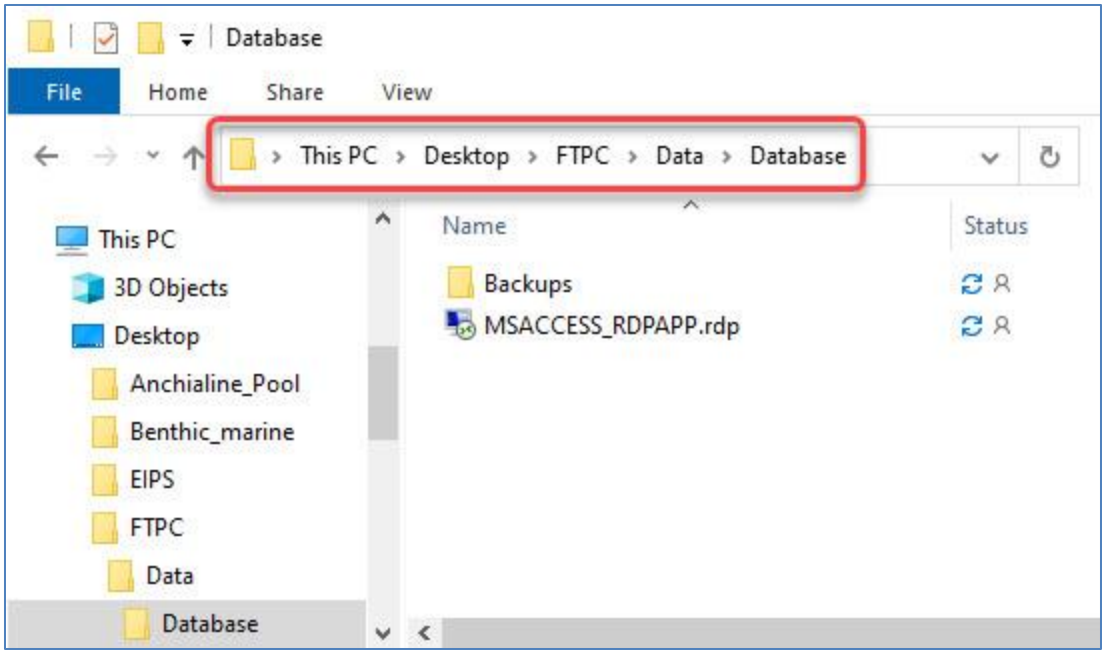

Figure SOP 14.6. Example of the FTPC local workspace folder structure.

Creating Shortcut to Database Files

In order to properly link database images to the database from a local workstation, a shortcut will need to be added to the user's OneDrive. If your OneDrive account has not been set up, refer to the section, "Backup Your PC with OneDrive" in the SOP Microsoft® Backup and Restore in Windows 10.

To create shortcut:

1. Navigate to the "Database" folder in the PACN I&M SharePoint site FTPC Monitoring project workspace (Figure SOP 14.7).
2. Select the "VS_FTPC_Database_images" folder by checking the checkmark icon next to the folder. The folder will be selected when it is highlighted in gray and displays a checked colored circle to the left of the folder (Figure SOP 14.7).
3. Once the folder is selected, click the "Add shortcut to OneDrive" button.

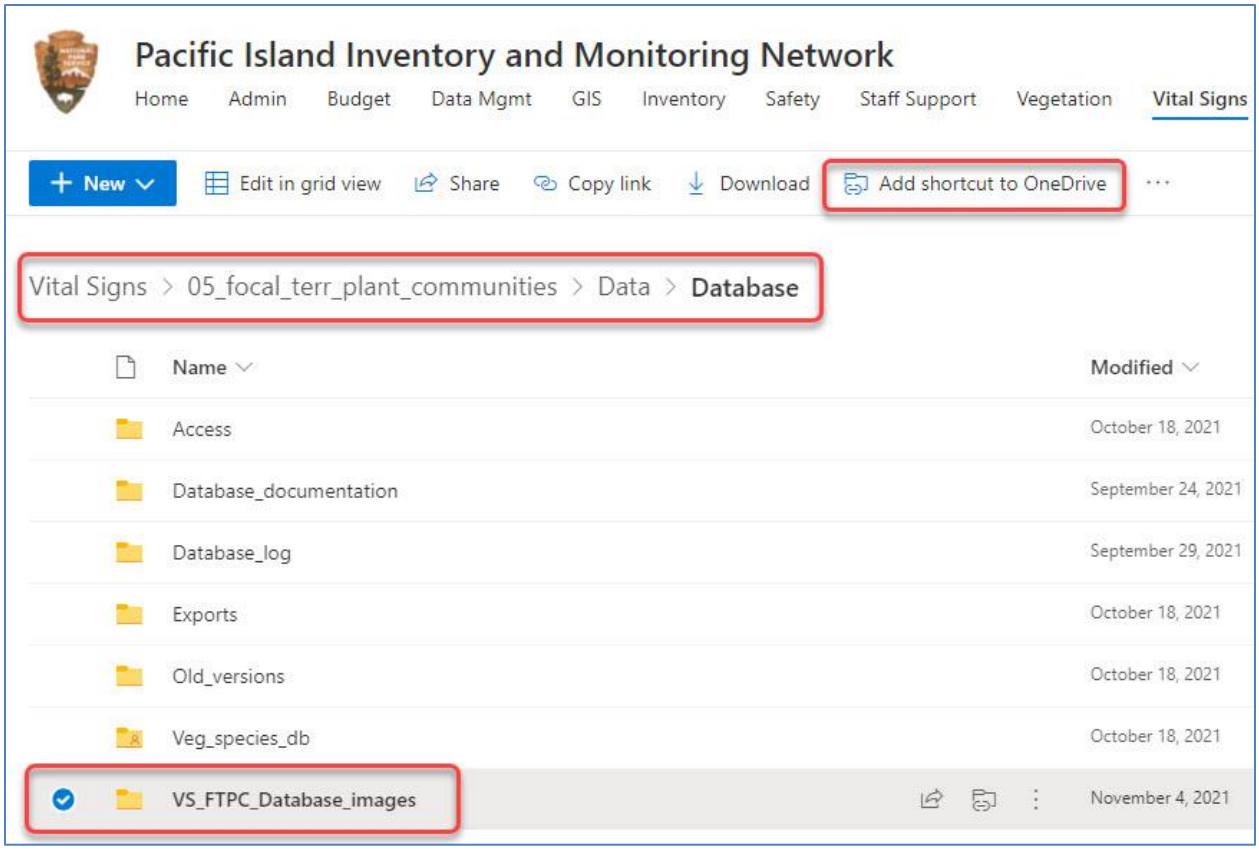

Figure SOP 14.7. Example of creating a shortcut of the "VS_FTPC_Database_images" folder on the user's local workstation.

4. Open your OneDrive folder in File Explorer to view the shortcuts. Click on the OneDrive icon in your taskbar and click "Open folder". Alternatively, open File Explorer and navigate to OneDrive -DOI (Figure 14.8).

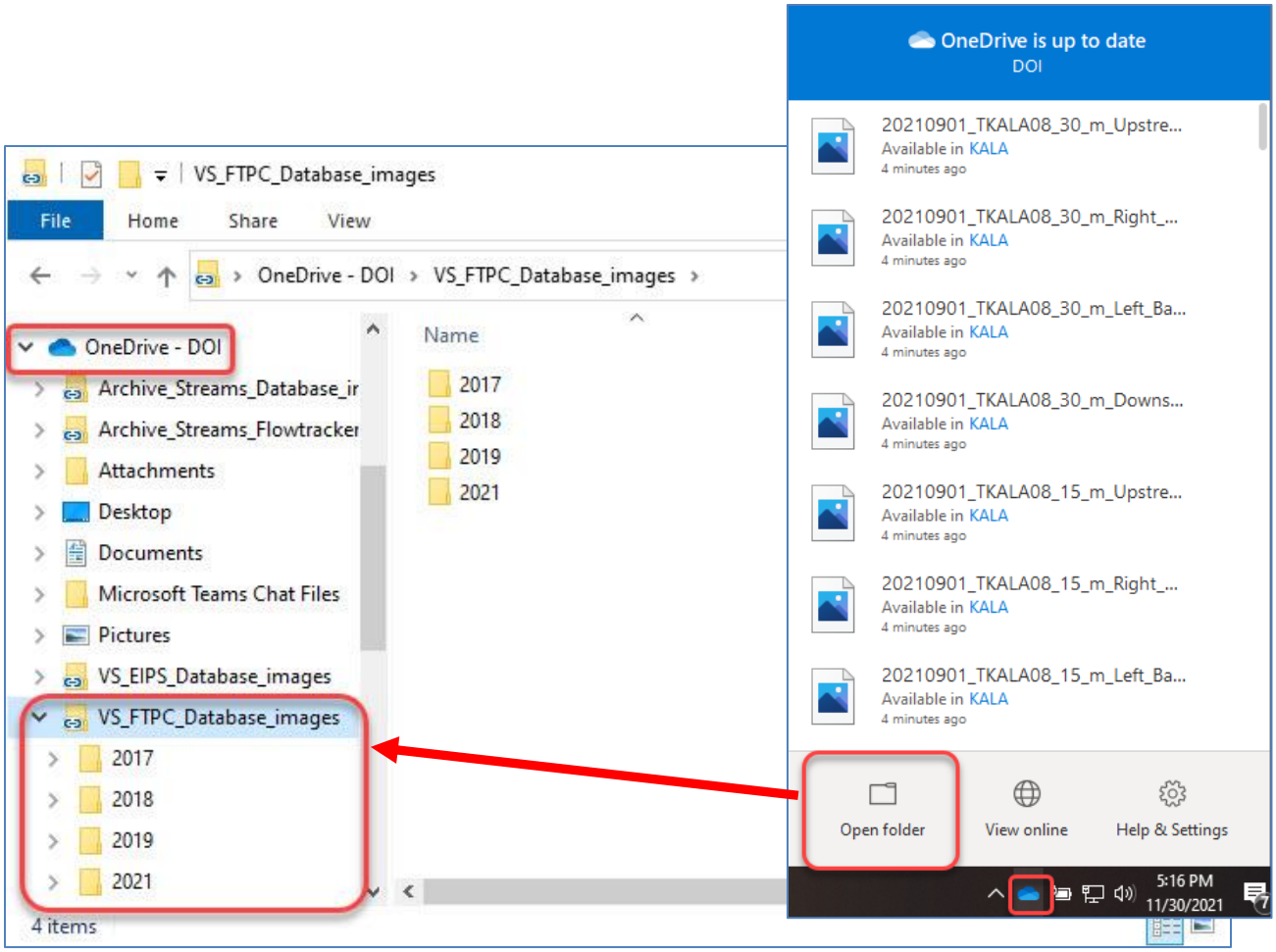

Figure SOP 14.8. Shortcut to the VS_FTPC_Database_images folder in PACN SharePoint.

5. The shortcuts will be in your OneDrive – DOI folder. Folders with a link icon  are shortcuts to the PACN I&M SharePoint site.

6. Clicking on the VS_FTPC_Database_images folder will show you year (s) subfolders, and within those the park subfolders. Clicking on a park subfolder will show you the FTPC monitoring images for that park and year.

7. The icon of a blue cloud outline  under Status shows that the file is in the SharePoint cloud, but that it has not been downloaded.

8. Files will only be downloaded as needed. Downloaded files are show as a green circle with a check mark in it  .

9. For information on linking files to the database, see the FTPC Monitoring Database User Guide.

Using the Database

The FTPC Monitoring Database files are located on the PACN I&M SharePoint site in the FTPC Monitoring project workspace in the "Database" folder. There are two files that make up the database, which are the front-end and back-end files located in the root of the "Database" folder. For a user to utilize the database, both of these files will need to be downloaded onto the user's local workstation. Refer to the "Installing the Database" section in the FTPC Monitoring Database User Guide for instructions on how to download these files to the user's workstation prior to data entry.

Naming Conventions

General naming conventions are standardized across protocols using the below folder naming and file naming standards. References to naming standards for the FTPC protocol involving specific file types should use the abbreviation key located in Appendix SOP 14.a. Abbreviation Key for File Naming Standards.

Folder Naming Standards

In all cases, folder names should follow these guidelines:

- No spaces or special characters in the folder name.
- Use the underscore ("_") character to separate words in folder names.
- Try to limit folder names to 20 characters or fewer.
- Dates should be formatted as YYYYMMDD (4-digit year, 2-digit month, 2-digit day).

File Naming Standards

In all cases, file names should follow these guidelines:

- No spaces or special characters in the file name.
- Use the underscore ("_") character to separate file name components.
- Try to limit file names to 30 characters or fewer, up to a maximum of 50 characters.
- Dates should be formatted as YYYYMMDD.
- Correspondence files should be named as YYYYMMDD_AuthorName_subject.

Archival and Records Management

All project files should be reviewed, cleaned up and organized by the PACN Botanist on a regular basis (e.g., annually in January). Decisions on what to retain and what to destroy should be made following guidelines stipulated in NPS Director's Order 11D[3], which provides a schedule indicating

[3] NPS 2001, https://www.nps.gov/policy/DOrders/DO_11D.pdf (accessed 18 March 2022).

the amount of time that the various kinds of records should be retained. Although many of the files for this project may be scheduled for permanent retention, it is important to isolate and protect these important files and not lose them in the midst of a large, disordered array of miscellaneous project files. Because this is a long-term monitoring project, good records management practices are critical for ensuring the continuity of project information. Files will be more useful to others if they are well organized, well named, and stored in a common format. In addition, it is important that files containing sensitive information be stored in a manner that will enable quick identification. Refer to SOP #20 Sensitive Information Procedures for more information.

To help ensure safe and organized electronic file management, PACN has implemented a system for archived data products called the PACN Monitoring Archive Library, which is a hierarchical digital filing system stored on the PACN I&M SharePoint site. The typical arrangement is by project, then by year to facilitate easy access. Network users have read-only access to these files, except where information sensitivity may preclude general access.

Digital products are delivered for long-term storage according to the schedule in SOP #21 Product Delivery Specifications. Submission of certified products occurs by emailing the PACN Data Manager the PACN Data Submission form (refer to Appendix SOP 21.a in SOP #21 Product Delivery Specifications) and PACN Project Data Certification form (refer to Appendix SOP 21.b in SOP #21 Product Delivery Specifications). When the PACN Data Manager receives these forms, she will transfer final products and files for the submission period to the PACN Digital Library. The master versions of all digital files relating to the FTPC Monitoring Protocol are stored within the PACN Digital Library, with regular file back-ups accomplished automatically. Presently, the master protocol files include the protocol narrative, the SOPs, and the FTPC Monitoring database files. Analog (non-digital) materials are to be handled according to current practices of the individual park collections.

Maintenance of Archived Data

Any editing of archived data is accomplished jointly by the PACN Botanist or designee and PACN Data Manager. Prior to any major changes of a dataset, a copy is stored with the appropriate version number to allow for tracking of changes over time. Likewise, any time a revision of the protocol requires a revision to the database, a complete copy of the database will be made and stored in an archive directory.

Versioning of archived datasets is handled by adding an updated date stamp to the end of the file name (e.g., *PACN_FTPC_master_database_20171013*). Frequent users of the data are notified of the updates and provided with a copy of the most recently archived version.

Every change must be documented in the edit log and accompanied by an explanation that includes pre- and post-edit data descriptions. All data collected using this protocol are subject to the following three caveats:

- Only make changes that improve or update the data while maintaining data integrity.

- Once archived, document any changes made to the dataset through an edit log. At end of each fiscal year, the PACN Database Manager will update the central database and will post read-only versions.
- Mistakes can be made during editing so updates must be compared with the original data form prior to validating the data.

Appendix SOP 14.a. Abbreviation Key for File Naming Conventions

- **[PARK]** – 4-letter park code:
    - **AMME** – American Memorial Park
    - **HALE** – Haleakalā National Park
    - **HAVO** – Hawai‘i Volcanoes National Park
    - **KAHO** – Kaloko-Honokōhau National Historical Park
    - **KALA** – Kalaupapa National Historical Park
    - **NPSA** – National Park of American Samoa
    - **PUHE** – Pu‘uhonau o Hōnaunau National Historical Park
    - **PUHO** – Pu‘ukoholā Heiau National Historic Site
    - **WAPA** – War in the Pacific National Historical Park
- **[Protocol]**
    - **FT** – Focal Terrestrial Plant Communities
- **[Community]**
    - **C** – Coastal Strand
    - **L** – Limestone Forest
    - **M** – Mangrove Wetland
    - **S** – Subalpine Shrubland
    - **W** – Wet Forest
- **[SamplingFrame]**
    - **ER** – Nāhuku/East Rift
    - **GU** – Guam
    - **HA** – Haleakalā
    - **HO** – Ho‘olehua
    - **KA** – Kalawao
    - **KH** – Kaloko-Honokōhau
    - **KD** – Kīpahulu District
    - **KU** – Kahuku
    - **ML** – Mauna Loa

- **OL** – ʻŌlaʻa
- **PA** – Puʻu Aliʻi
- **MU** – Muchot
- **TA** – Taʻū
- **TT** – Tutuila

- **[Plot]**

  - **F[##]** – Fixed plot + 2-digit plot number (e.g., F02 – fixed plot 2)
  - **R[##]** – Rotational plot + 2-digit plot number (e.g., R32 – rotational plot 32)

- **[YYYYMMDD]**: 4-digit year, 2-digit month, 2-digit day as the first date in the sampling time series (e.g., 20220114 = January 14, 2022).