

Sharing GISS data using OneDrive

This workflow will walk you through the process for sharing GIS data between FireNet users on an incident. All users must have existing FireNet accounts and will have the most options available to them when working with GIS data and synching data. New channels can be created within the incident for communication between users in Teams, and FireNet users can use Teams to communicate with all other FireNet users.

If you are a GISS on an Incident Management Team (IMT) or a GISS on an active incident and do not have a FireNet account you can request one [here](#). When filling out step 8 of the account request form be sure to select “Incident Management Team (IMT)” or Other and enter “GISS on incident” to speed up the account request process.

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Setting up Teams and the Incident directory structure

If this is an active incident a team will be created for the incident in FireNet. If a team has not been created yet, you can request one using the [FireNet request form](#). If you are requesting a new team to be created, make sure you answer yes to question 9 on the request form:

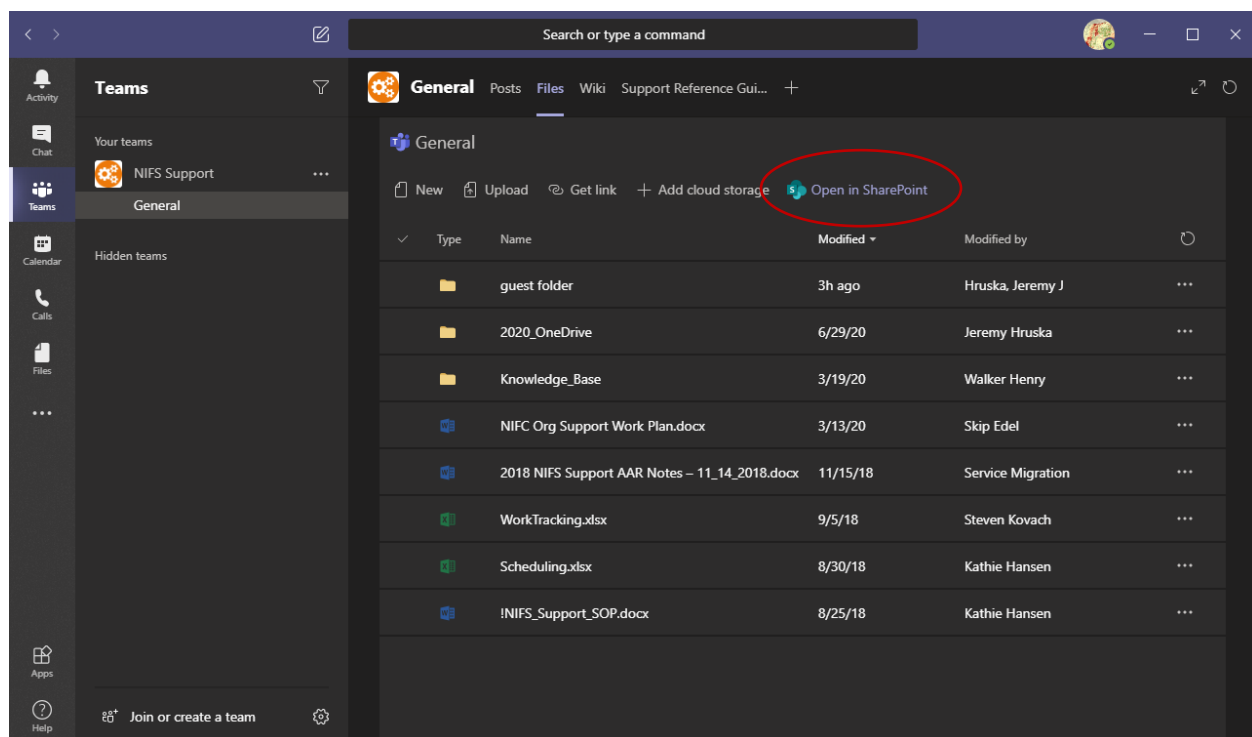
“Will content in the Team files section require the option to set permissions allowing a public setting to access files via a link? Note: This is not the default but an available option.”

*** For testing purposes, you can use your organizational Microsoft Teams and OneDrive accounts, see instructions at end of this document, [Appendix A: Testing without logging out of your current organization](#): ***

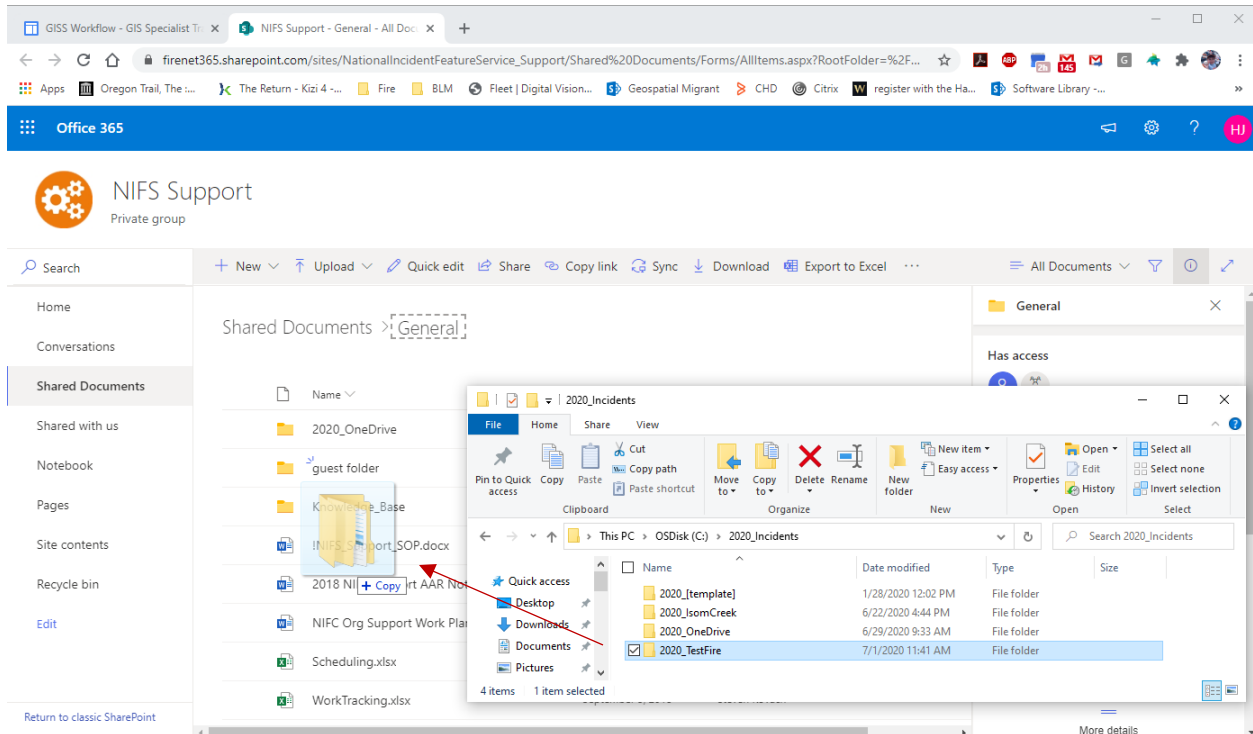
Once the team has been created you can upload the Geo Ops incident directory structure to the team to use for GISS data.

Follow the [GISS workflow](#) steps for setting up an incident, but instead of creating the folder structure on your hard drive, create that folder structure in Teams.

- 1) If needed, Download the current Geotopes Folder Structure from the bottom of the [NIFC page](#).
- 2) Make a copy of the 2024_[template] folder and rename it to match your incident name, i.e., 2024_TestFire.
- 3) In Teams select the general channel and the files tab, click Open in SharePoint to open a web browser of the folder structure (see note in [Appendix B](#)).



- 4) Drag and drop the 2024_TestFire folder that you created earlier into SharePoint.



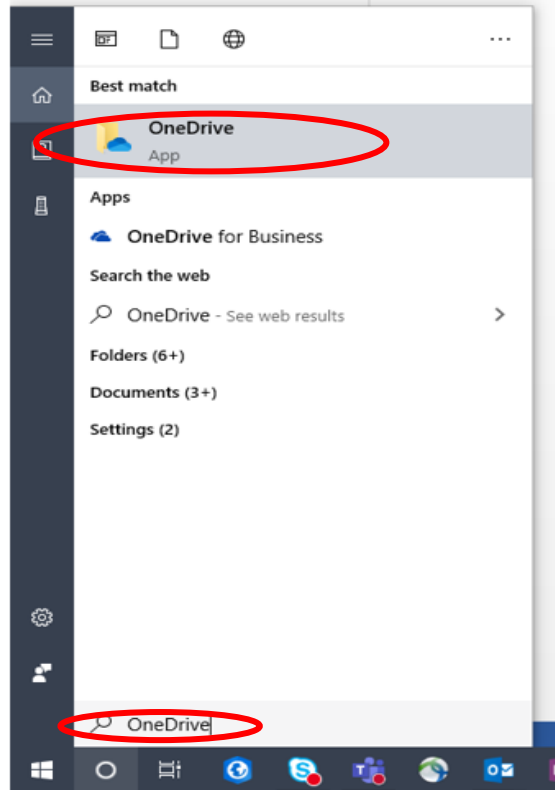
You now have the incident folder structure setup in Teams.

Setting up OneDrive

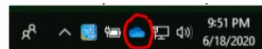
To sync files from SharePoint to OneDrive so they can be used by all the GISS at once you will need to do the following steps. This will log you out of your agency account and into FireNet. To complete these steps without logging out of your agency account see [Appendix A](#).

This will only work if you have a FireNet account, guests can access the files in SharePoint but will have to download them to their local PC to work with them, and then upload new copies.

- 1) Use the Windows search to find the “OneDrive” application. You want the OneDrive app not OneDrive for Business. Launch the OneDrive App.

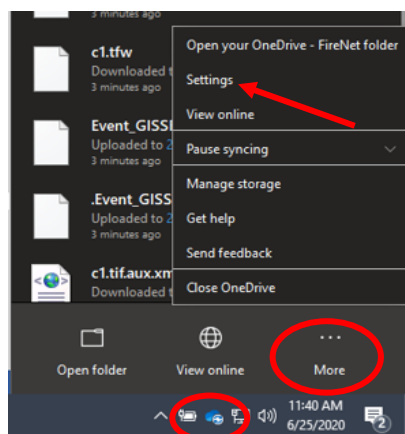


2) Once you open the OneDrive app a cloud icon will appear on your taskbar.

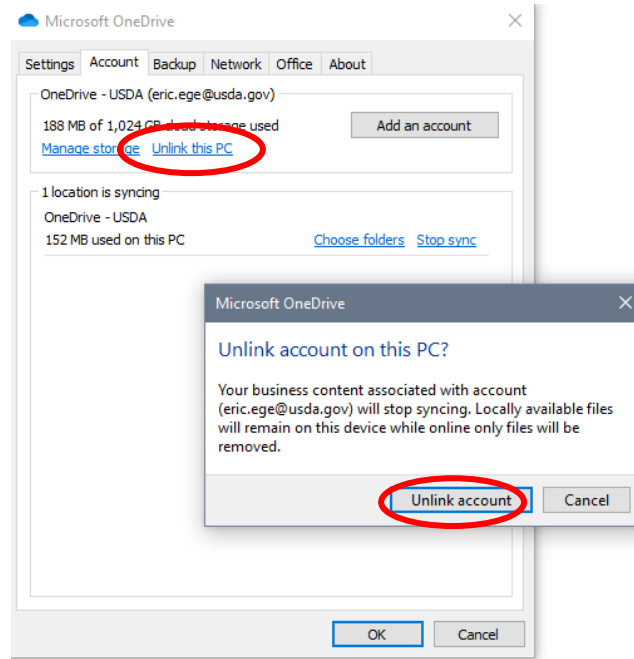


3) It is likely that you are logged into your default agency account. You will need to log out of your agency account and log in with your FireNet account (described in steps 4 and 5). If you are already logged out, you will see a login screen and you can skip to step 6.

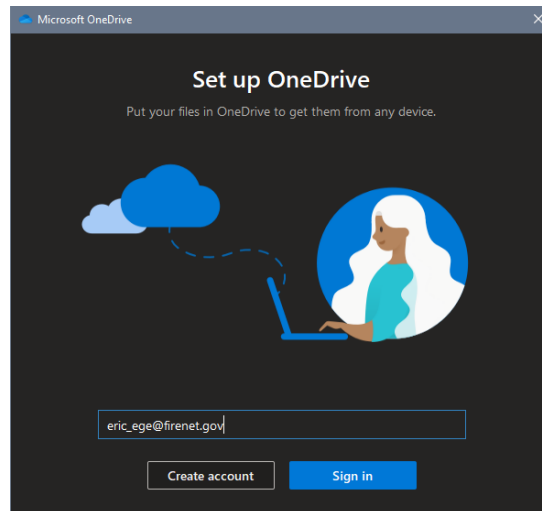
4) Right click on the cloud icon, click on the More option (with the ...'s) and Click Settings.



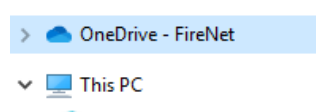
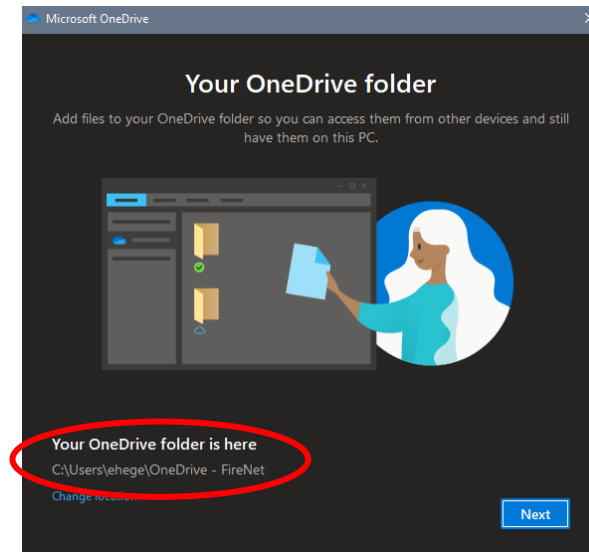
- 5) In the settings screen click on the Account tab. In the account tab you will see your agency OneDrive account. Click on Unlink this PC. You will get a warning to confirm the unlinking of your account.



- 6) Once you are logged out of your agency account your OneDrive app will restart itself and you can log into your FireNet account. You will need to enter the 2-factor authentication code sent to you by OneDrive.



- 7) You will have to click through a few screens. OneDrive will show you which folder it set up on your computer for you. You can just choose the default or change it if you need to. You can click through the rest of the screens and at the end it will open the OneDrive folder for you. Your OneDrive folder will also show up above This PC in the side panel of File Explorer. At this point OneDrive is set up on your computer.



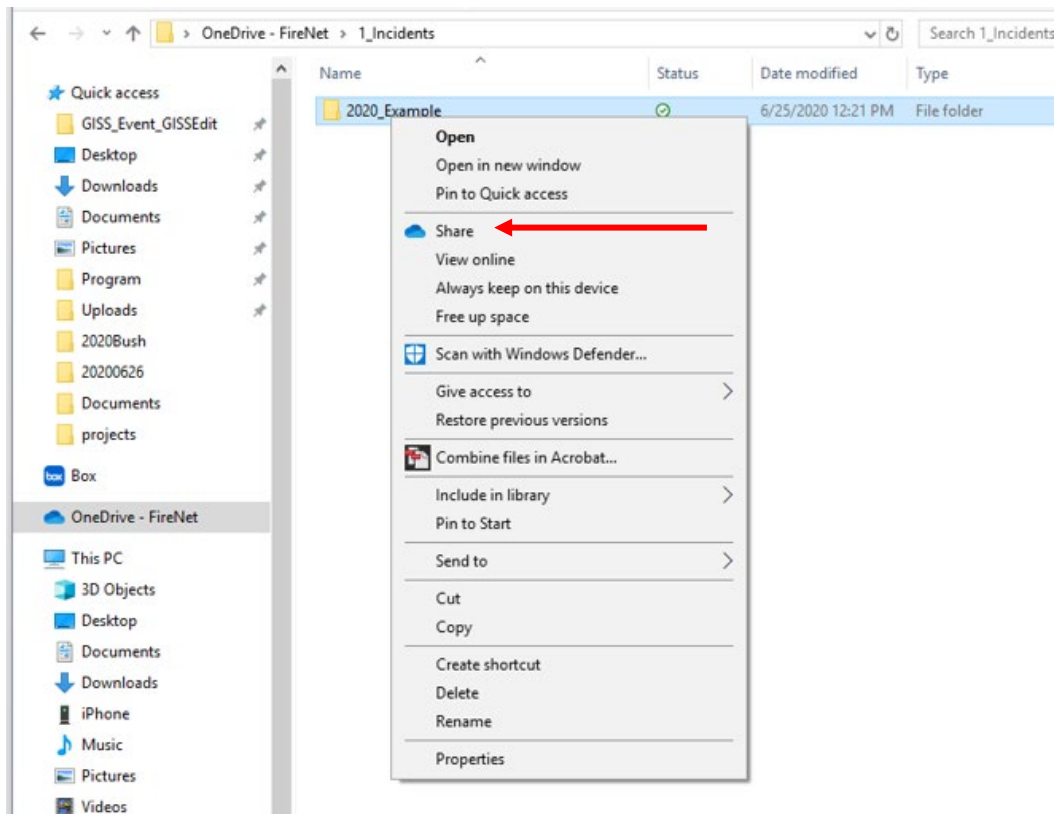
Setting up the incident

- 1) It is recommended to file all the base data you are planning on using into your base data folder.

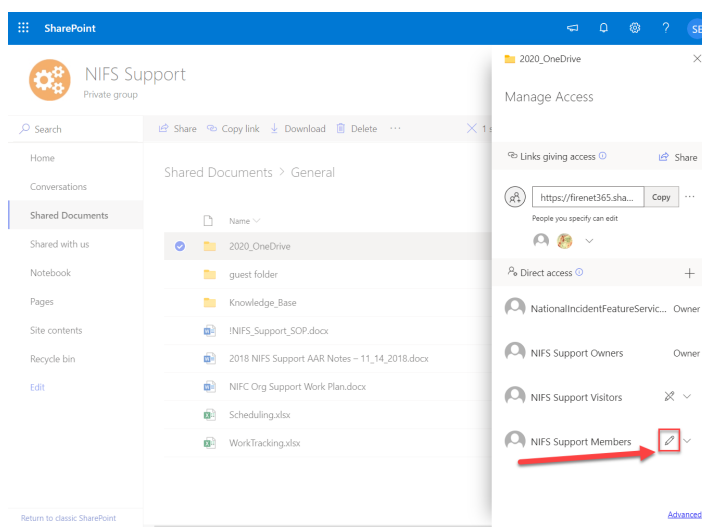
The base data takes the longest amount of time to sync to the cloud and the earlier in the incident you can put it into the cloud, the faster it will be available to other users. This step is optional though as you could also add base data as you go.

While your data is syncing you can share your folder to other users via OneDrive. You can either do it via File Explorer or on the web version of OneDrive at office.com. These instructions will show you how to do it via File Explorer.

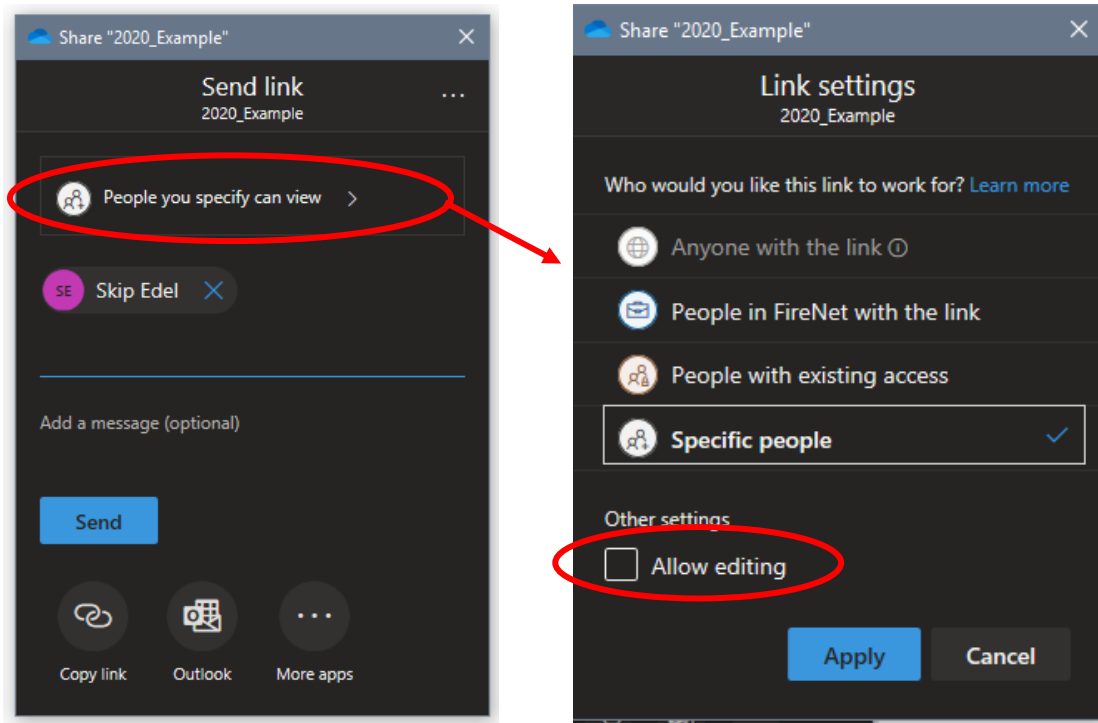
- 2) Right click on your incident folder and click Share.



3) In the share screen enter the FireNet accounts that you need to share your incident folder with.



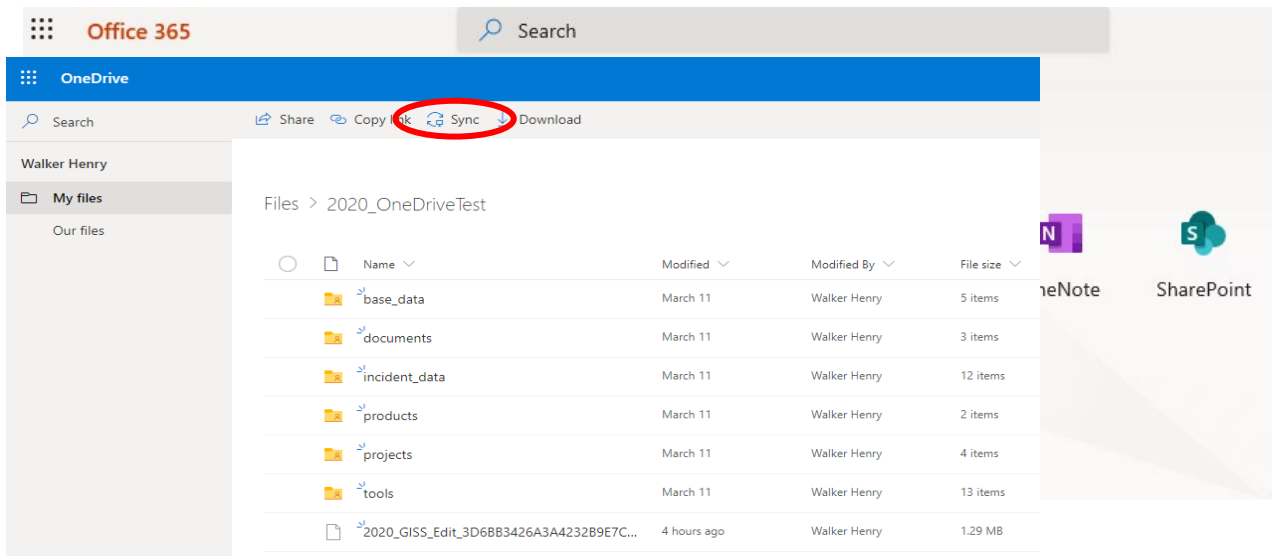
- 4) Then click on **People you specify can view** and make sure **Allow editing** is checked under Other settings.



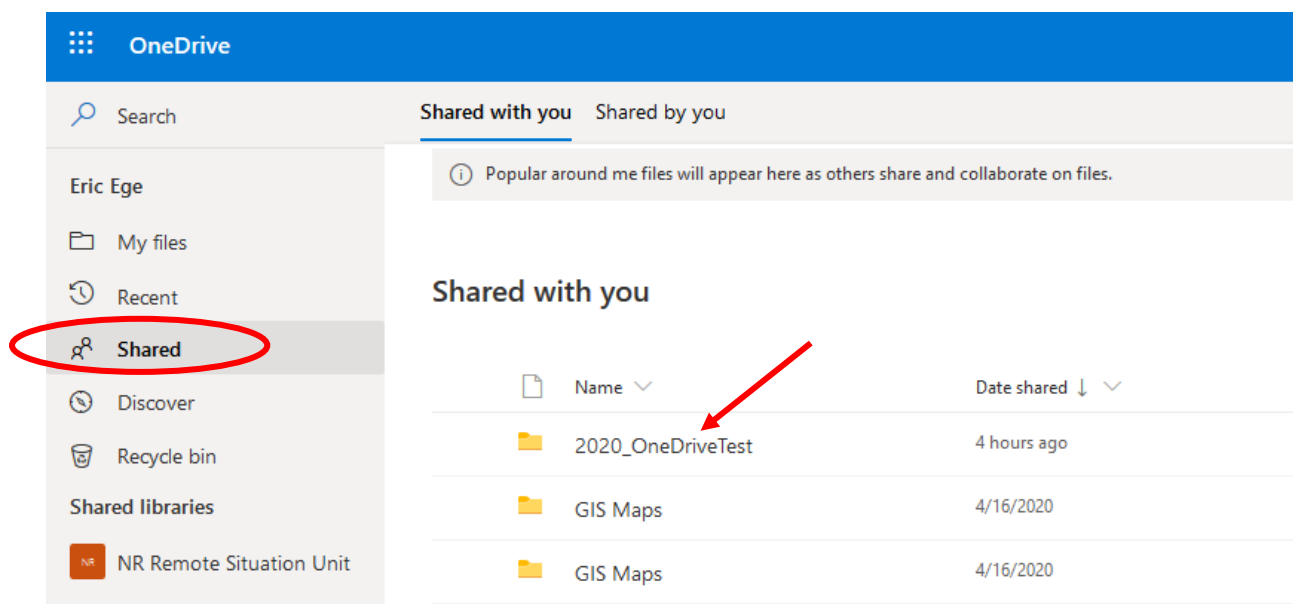
This will allow the users you share your incident with to edit and sync the changes back to everyone else. You can also share subfolders of your incident, which may be a good choice to share the Products folder to a SITL. Note: If you have limited internet connectivity or need to grant access to a portion of the folder structure for a SITL to upload and download products it is recommended that you create an upload folder and share that with the SITL or others that do not need access to all of the folders in the incident folder structure.

Syncing the incident to other computers

- 1) Go to <https://www.office.com> and log into your FireNet account. From there launch the web version of the OneDrive application.

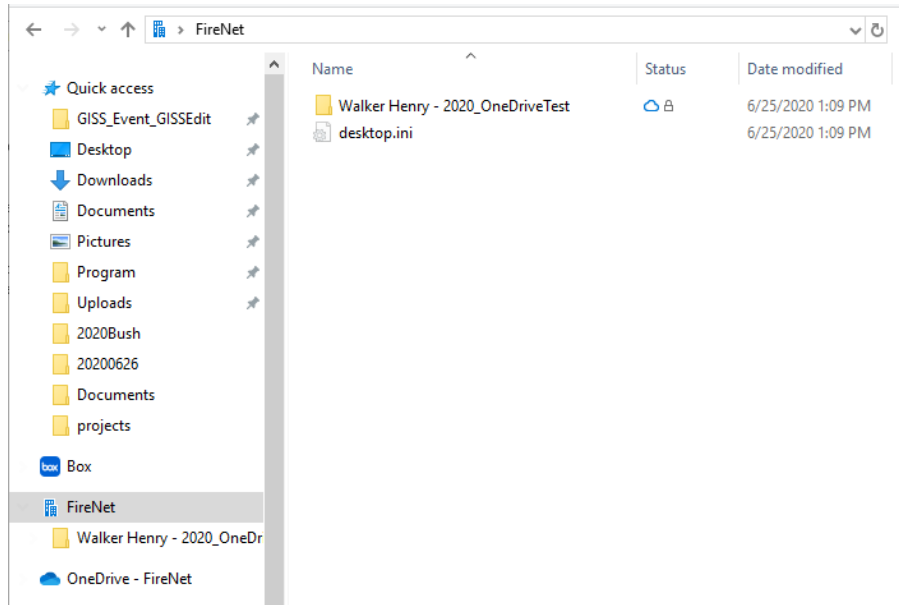


- 2) In the web OneDrive application click Shared on the left-hand side of the screen. Click on the incident folder that has been shared with you to enter the incident file structure.

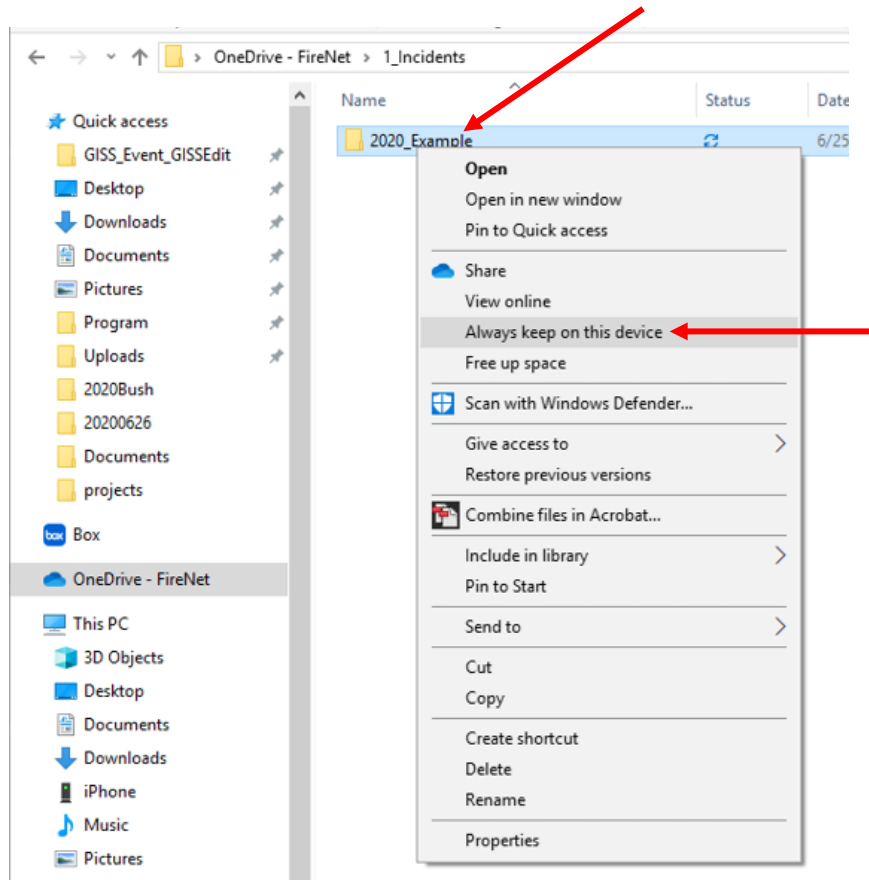


- 3) When you are inside the incident file structure click on the Sync button at the top of the screen. You do not need to select any of the folders inside the incident folder.

- 4) You will get a warning depending on your browser asking if you want to open the OneDrive app on your computer. You will need to allow this if you want the folder to sync.
- 5) A cloud icon will now appear in your taskbar, and you can view the sync status by clicking it.
- 6) When you open Explorer, you will see a FireNet folder was added to the side panel of Explorer. You can click on that icon and you will see the incident added to your computer. You will notice that there is still a Cloud Icon in the folder status.



- 7) The final step is to right click on the incident folder and select Always keep on this device.

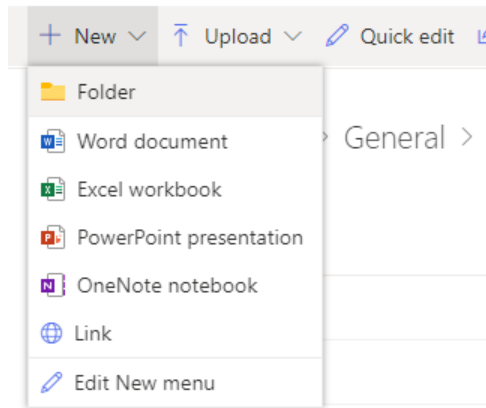


This will download all the files that are in the cloud to your local folder. You can watch the status of the sync as discussed in other sections and when the folder is fully synced on your computer you will see a green checkmark under status.

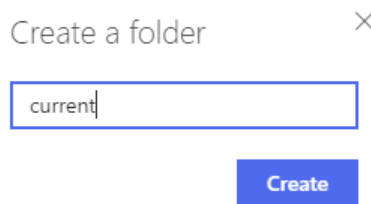
Create a shared folder and QR code

To share maps from teams with the public using a QR code, create a folder to share in the products folder called “current”.

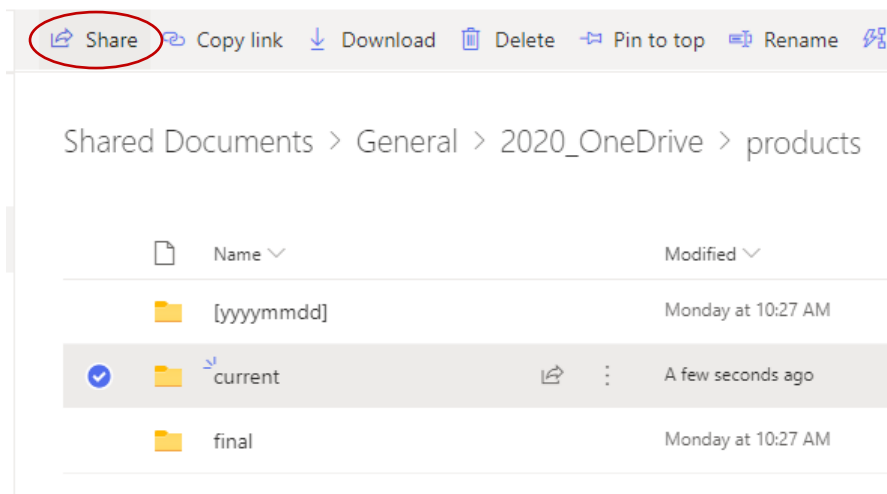
- 1) Navigate to the products folder in SharePoint and select new → folder.



2) Name the new folder “current” to store current maps.



3) Once the folder is created select the folder and click on share.



4) In the share settings window select, anyone with the link, and click Apply.

Share Copy link Sync Download

Link settings

Who would you like this link to work for?[Learn more](#)

- ☒ Anyone with the link ✓
- ☐ People in FireNet with the link
- ☐ People with existing access
- ☐ Specific people

Other settings

☐ Allow editing

☐ Set expiration date

☐ Set password

Apply Cancel

5) In the next window, select copy link.


Send Link


Anyone with the link can view >

Enter a name or email address

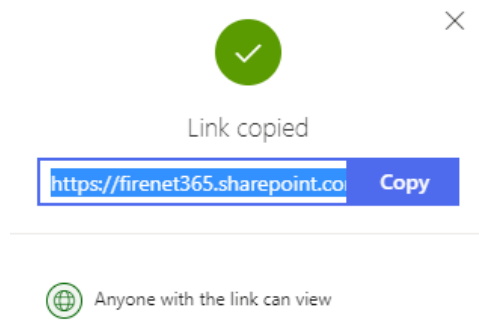
Add a message (optional)

Send

 Copy Link

 Outlook

The link will be copied to the clipboard.



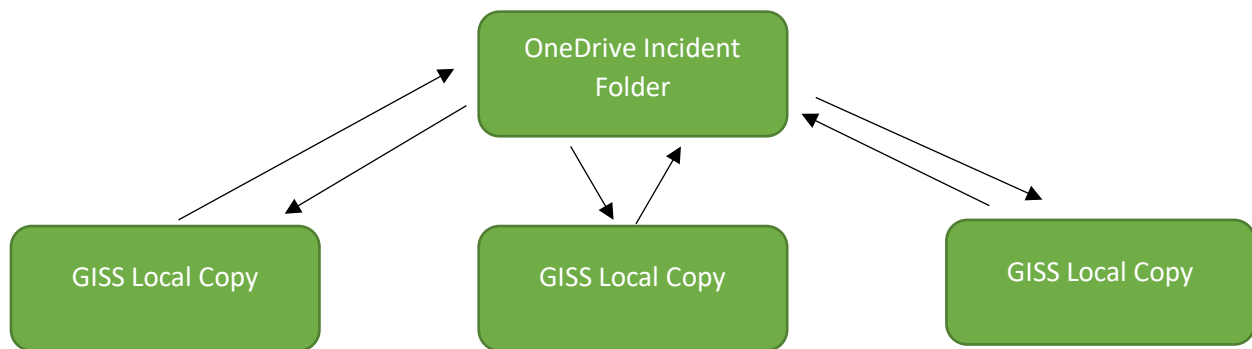
- 6) Copy the link and paste into a QR code generator. Once QR code is generated save as jpg in the products folder.



Test the QR code to make sure it points to the current folder. Updating the current folder with maps will allow people to download them to view, print or use in Avenza.

Keeping everyone in sync

Once you have everything set up following the steps above keeping everyone in sync happens in the background with minimal effort. Some things to note are that it is vital that everyone clicks the **Always keep on this device** option. This allows OneDrive to keep every local copy in sync with each other. Every GISS will have a complete local copy of the entire incident structure and OneDrive will keep them synced so everyone has the same files and data as shown in the concept diagram below.



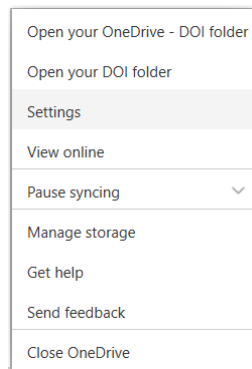
OneDrive will keep the local folders synced with each other however while you are working in GIS it will lock all your work for syncing. That means it will not send your work up to the cloud until you save and close out of your GIS program. You will also have to watch the sync status in the OneDrive cloud app in your system tray. You want to make sure everything fully syncs to the cloud before you get back into GIS. It also takes some communication with the other people you are working with. If there is a critical update that needs to sync to everyone you need to warn them that it is coming so they can watch their sync status and make sure it comes down.

File Geodatabases are essentially file folders with many internal files. OneDrive will sync each of the internal files separately. Because the only geodatabases you are really editing in are the Local Copy (ArcMap) or Download Map (ArcGIS Pro), it is strongly suggested you follow the NWCG [GISS Workflow](#). Essentially you are editing the Local Copy geodatabase and then completely replacing the Master Incident GDB with the edited one. Please see [Update the Master Incident GDB](#) in the GISS Workflow for more information. This reduces the likelihood of internal geodatabase file corruption.

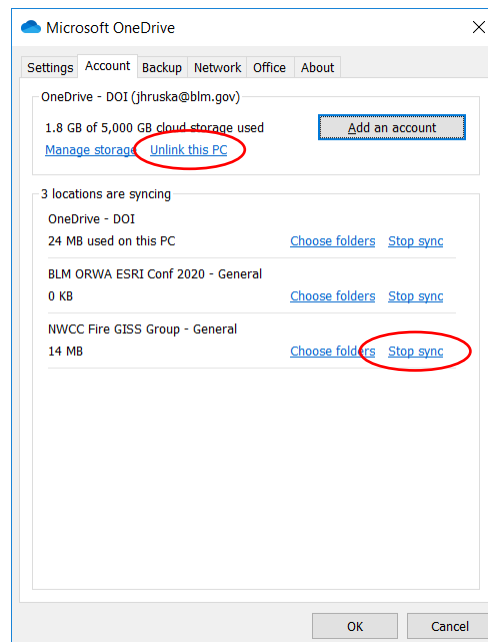
Removing your connection at the end of an Incident

After you have completed the assignment and no longer want your data to sync back and forth from your PC to OneDrive you need to stop the sync process or unlink your PC from one drive.

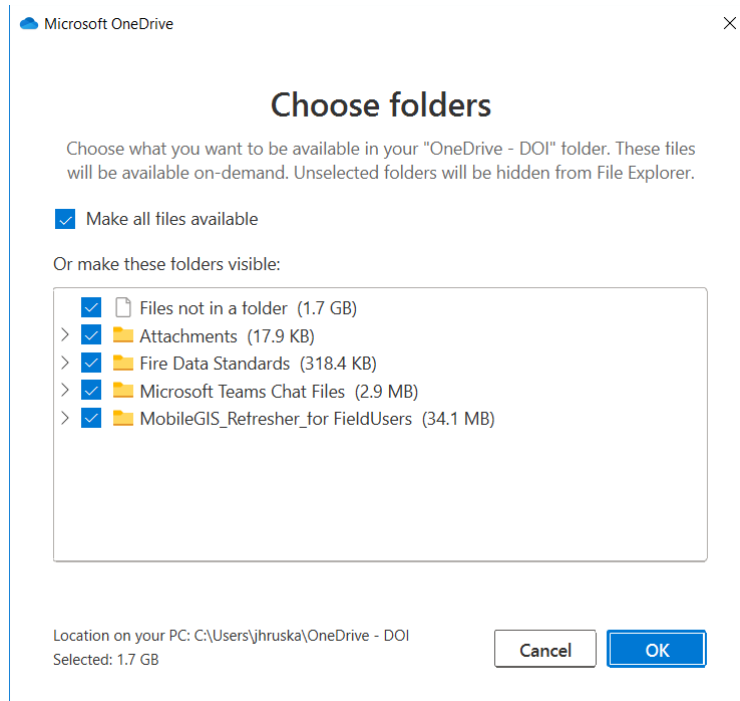
- 1) Right click on the OneDrive Icon in your taskbar and select Settings.



- 2) From the OneDrive settings window click the Account tab and select, unlink this PC, or Stop Sync to stop individual locations.



- 3) To remove folders from syncing completely but maintain the OneDrive connection select the Choose folders option and uncheck all folders you do not want to sync.

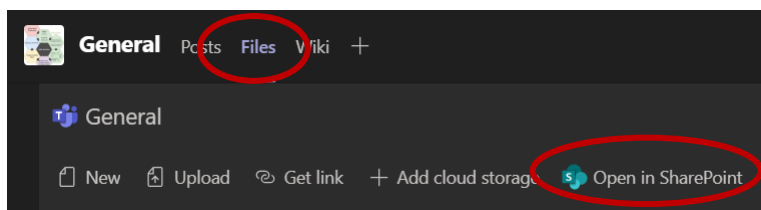


Appendix A: Testing without logging out of your current organization:

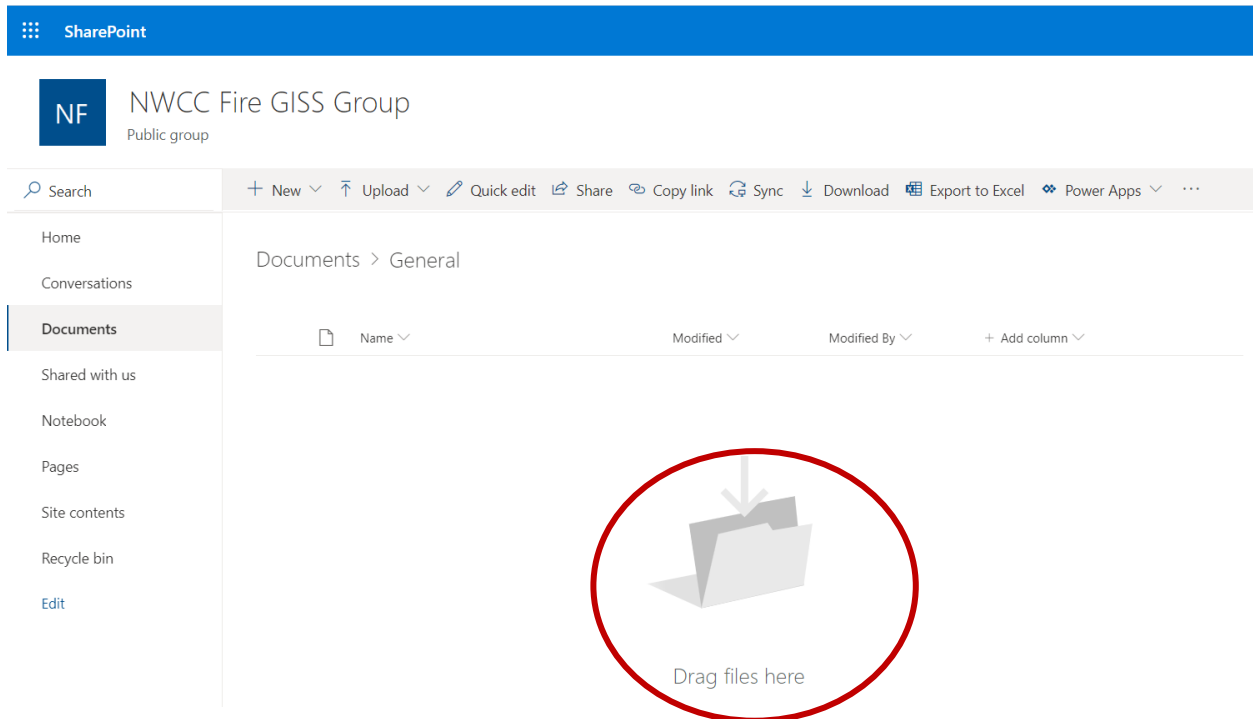
For testing purposes, you can sync a folder from DOI/USDA teams to OneDrive. Before starting this process make sure you are logged in to OneDrive with your DOI/USDA account, separate instructions are used for accessing data in FireNet with your FireNet account. These steps are for testing that workflow without having to use your FireNet account.

The following steps will show you how to copy the GSTOP folder structure to a channel in teams, if needed you can create a new channel or team to use for testing (or request one be created). Since you can only upload 10 files at a time in teams you will need to create the new folder structure in SharePoint. Once the folder is added to the channel in teams it can be synced in OneDrive and used as a file path in ArcGIS Pro.

- 1) Select the file structure for a channel in Teams and open it in SharePoint.

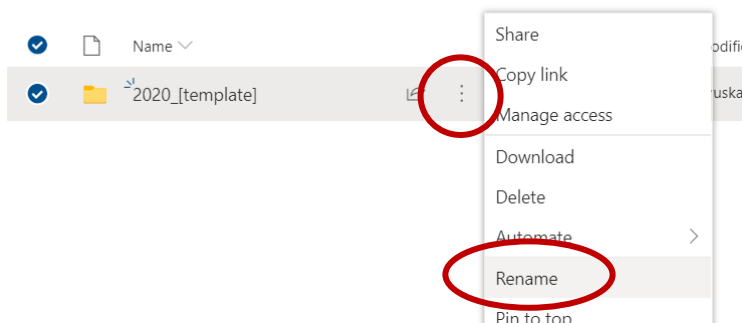


- 2) Drag the 2020_template folder from Windows Explorer to SharePoint. If needed download the 2020 template folder from here, [Current Folder Template](#).

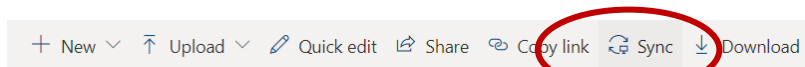


3) Rename the 2020_[template] to 2020_test or something similar.

Documents > General



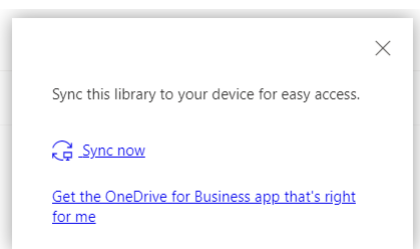
4) Click the sync button at the top of the folder.



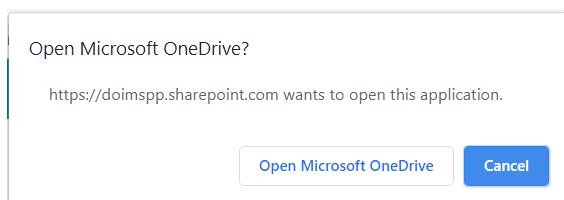
Documents > General > 2020_test

	Name ▾	Modified ▾	Modified By ▾
	base_data	About a minute ago	Hruska, Jerem
	documents	About a minute ago	Hruska, Jerem
	incident_data	About a minute ago	Hruska, Jerem

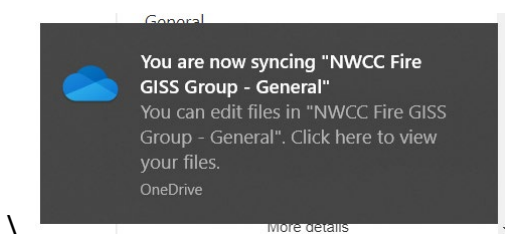
5) Select Sync Now.



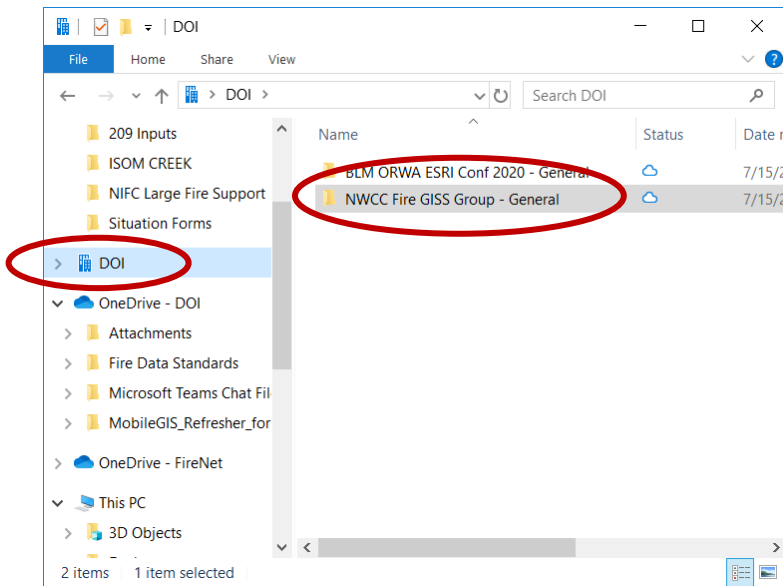
6) And select, Open Microsoft OneDrive.



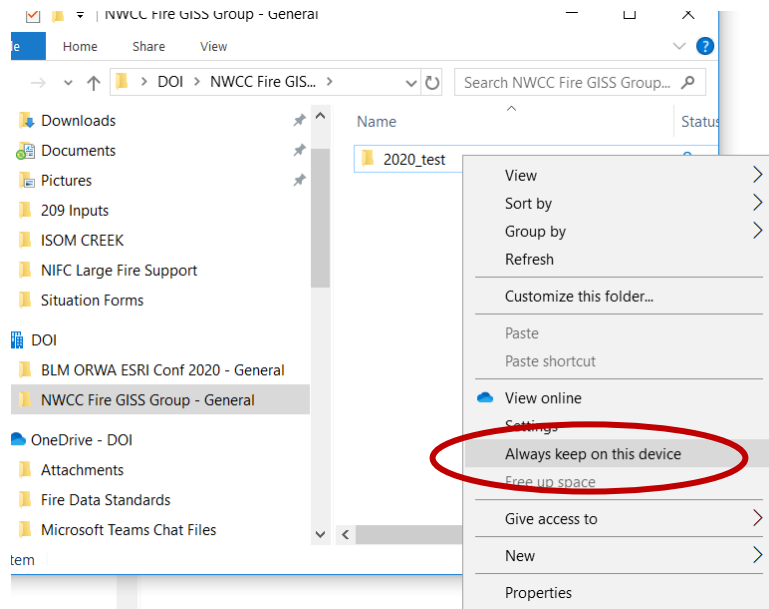
In the bottom right corner of your screen you should get a notification that you are now syncing.



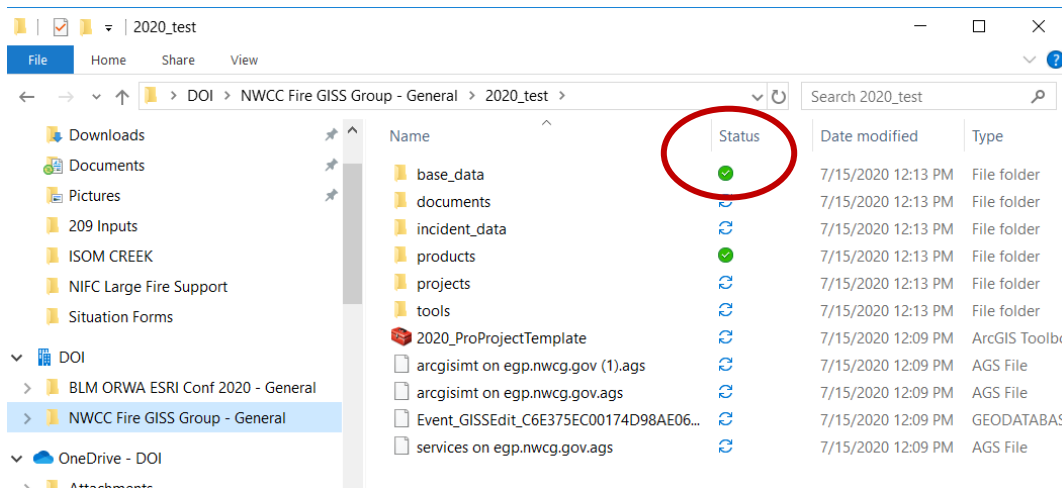
The folder structure will show up in OneDrive on your PC and you can navigate to that folder in Pro i.e., C:\Users\jhruska\DOI\NWCC Fire GISS Group - General\2020_test



7) To keep a local copy of the data on the device, right click the folder and select, always keep on this device.



The cloud icon in the status column will switch from a cloud to a green check mark when the drive is synced. To sync data in OneDrive you will need to exit completely out of Pro and wait for the green check in the status column notifying you that the data is synced.



The OneDrive workflow would be for multiple users to use the same sync'd folder in OneDrive as the incident directory structure. Any changes made by a user will be synced to all other users. The process above should be used pre-season to get used to working in OneDrive and syncing data updates from ArcGIS Pro to multiple users. Although Pro will allow multiple editors in a database at once, testing is still being done to see what effects two people editing the same data will have on the data syncing in OneDrive. Best practices would be to notify other users of edits being made and when the master incident gdb has been updated.

Appendix B: Tips and Tricks

- When creating the Incident directory structure in Teams everyone on that team will have access. Limit the access to only members of the Situation Channel to keep others from modifying/deleting data. Channel Access can be limited through SharePoint settings.
- Keep your edit map aprx on your local machine somewhere outside of your synced OneDrive folder structure so that it is not synced.
- FireNet will log you out of OneDrive after 18 hours, best practice is to sync, and exit or logoff of OneDrive at the end of your shift and log on again in the morning to sync changes.
- If you are having trouble syncing, try pausing and restarting sync, or logging off and logging back on to OneDrive.
- Archive old content outside of your synced OneDrive folder or to a folder that is not syncing in your teams folder structure like the eDoc Box.
- For ArcGIS Pro to sync updates to OneDrive you may need to completely exit out of Pro and wait for the sync process to finish as shown by a green check in the status column.
- If you have limited internet connectivity or need to grant access to a portion of the folder structure for a SITL to upload and download products it is recommended that you

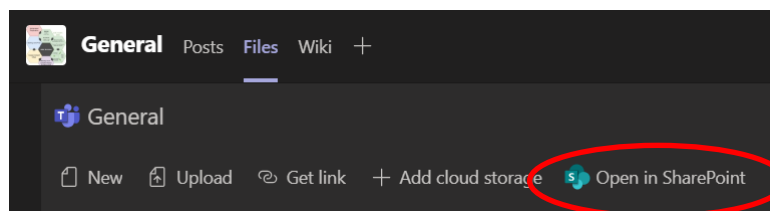
create an upload folder and share that with the SITL or others that do not need access to all the folders in the incident folder structure. This will speed up the time it takes for those users to sync data into OneDrive without having to sync the entire incident data folder.

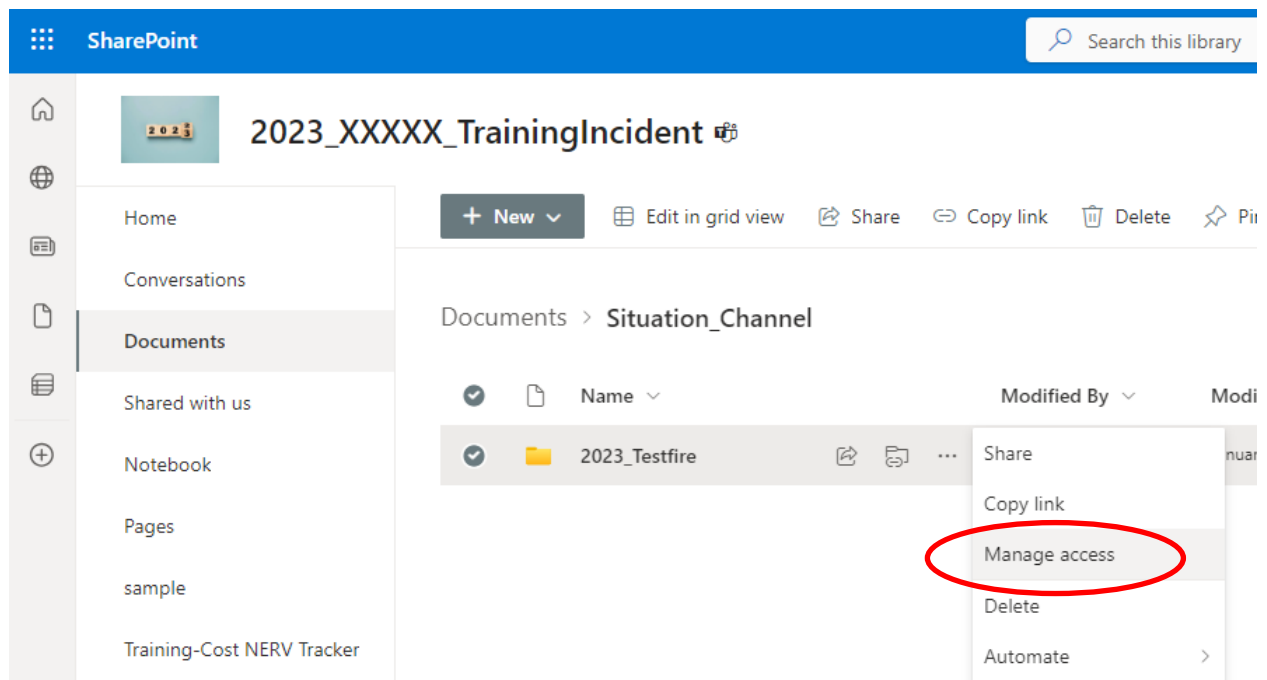
- You can choose which folders to sync instead of syncing all folders. For long duration incidents you may not need to sync all the base data or dated product folders from the previous month.
- When arriving as the second or third team on an incident choosing which folders to sync initially instead of syncing all folders will speed up the initial transition.
- If needed the Incident directory can be copied on a thumb drive instead of syncing over the network, copy from existing user:
C:\Users\<username>\FireNet\2023_XXXXX_TrainingIncident - 2023_Testfire and paste into same location on your computer.
- File names that are appended with “-ILMORSOLO58250” or other similar computer names are duplicate files created when there are issues with the sync process. If possible, have that user delete those files or they will keep trying to sync.
- If a file is accidentally deleted it is moved to the SharePoint recycle bin, there is also a link to a secondary recycle bin in SharePoint. FireNet admins should also be able to recover deleted files.
- OneDrive is a Microsoft application most issues can be resolved by searching the OneDrive site.
 - o [Troubleshoot Issues with OneDrive](#)
 - o [What do the OneDrive Icons mean?](#)

Appendix C: Controlling Access to your GIS folders.

If you want to control who has access to your GIS folder structure in teams you can create a group in the team to share that folder with. By default all channels and folders in teams are shared with everyone in the team and they have edit access. *Note: You may need to elevate your role to team Owner to change the edit access of your GIS folder.*

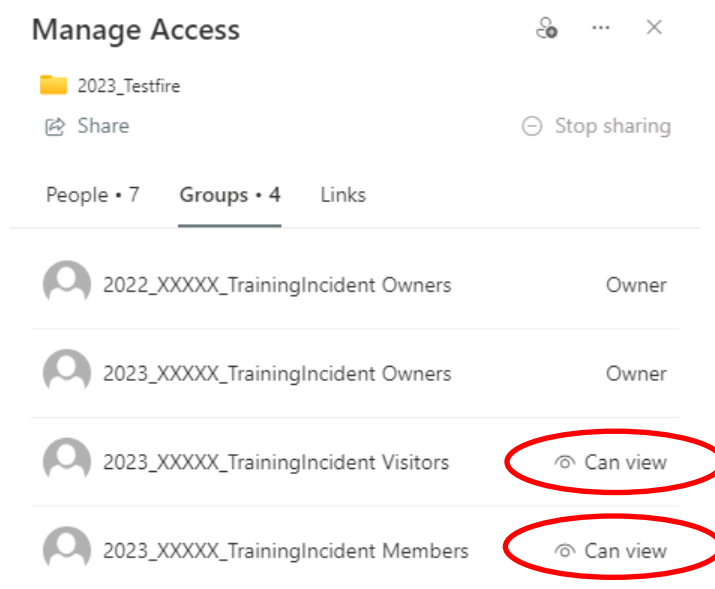
1. Open your GIS folder in SharePoint and select Mange access from the options list (three dots) next to the folder name.



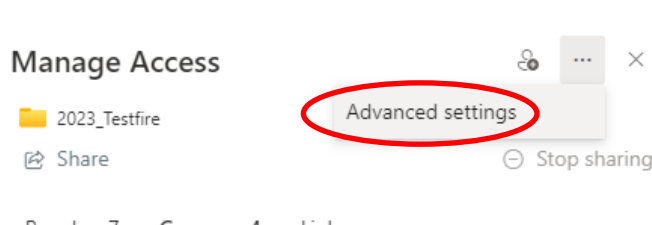


On the manage access window select Groups and you can see that Owners, Visitors and Members of the team have edit access.

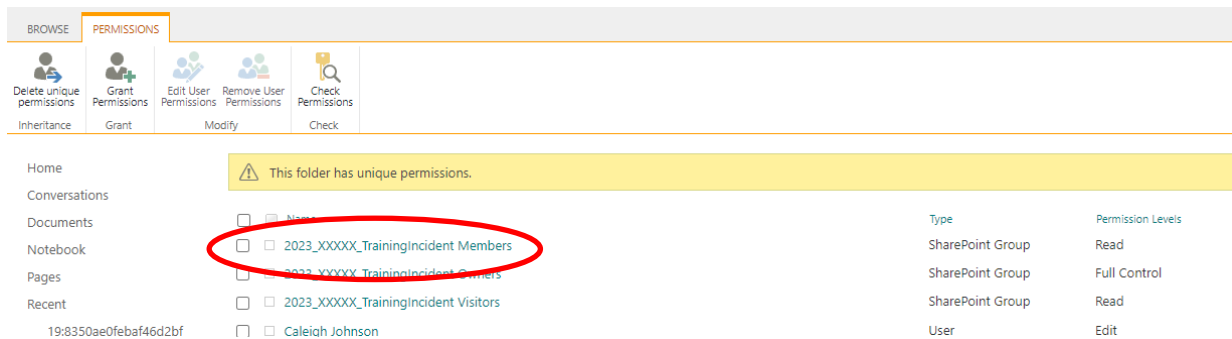
2. Change the Visitors and Members settings to "Can View".



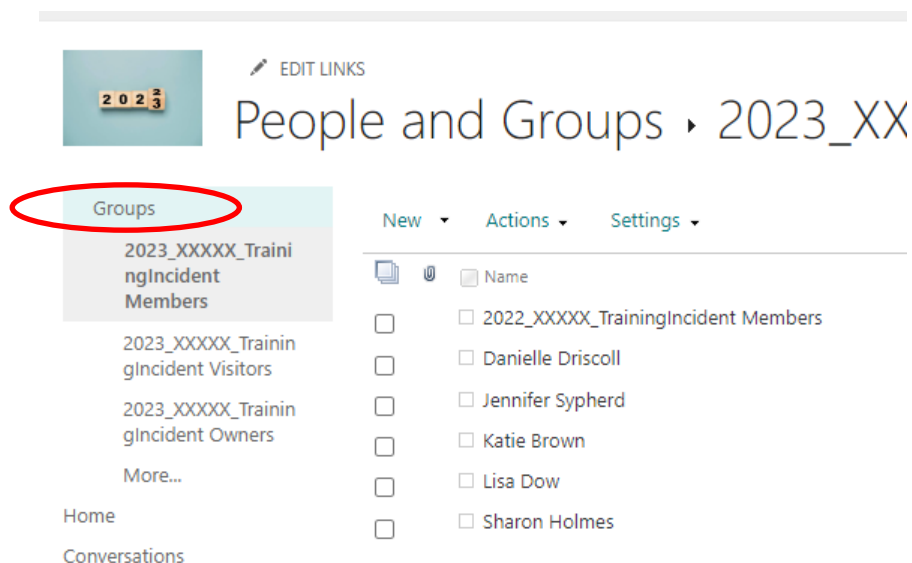
3. We need to create a new group that will be used for edit access. From the Manage access window select, Advanced Settings.



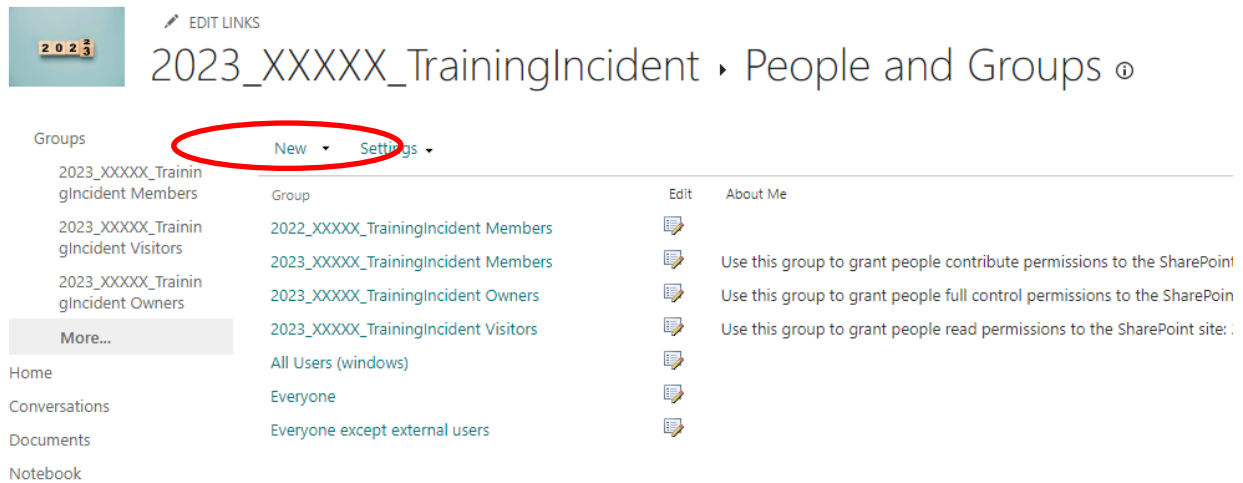
4. Select the first group listed in the access list to get to the groups page.



5. Select the Groups header on the left side to get to the main groups page.



6. From the groups page select New and enter the information for your group.



7. Add a name and description for the Group and select the full control radio button at the bottom of the screen, all other options can stay as they are, click create. after the group is created you can add members to the group.

EDIT LINKS

People and Groups › Create Group

Name and About Me Description
Type a name and description for the group.

Owner
The owner can change anything about the group such as adding and removing members or deleting the group. Only one user or group can be the owner.

Group Settings
Specify who has permission to see the list of group members and who has permission to add and remove members from the group.

Membership Requests
Specify whether to allow users to request membership in this group and allow users to request to leave the group. All requests will be sent to the e-mail address specified. If auto-accept is enabled, users will automatically be added or removed when they make a request.

Give Group Permission to this Site
Specify the permission level that you want members of this SharePoint group to have on this site. If you do not want to give group members access to this site, ensure that all checkboxes are unselected.

Name:
2023_Training_Incident_GISS

About Me:
Group to limit GIS folder access.

[Click for help about adding HTML formatting.](#)

Group owner:
Jeremy Hruska x

Who can view the membership of the group?
☒ Group Members ☐ Everyone

Who can edit the membership of the group?
☒ Group Owner ☐ Group Members

Allow requests to join/leave this group?
☐ Yes ☒ No

Auto-accept requests?
☐ Yes ☒ No

Send membership requests to the following e-mail address:
jeremy_hruska@firenet.gov

Choose the permission level group members get on this site: https://firenet365.sharepoint.com/sites/2022_XXXXX_TrainingIncident
☒ Full Control - Has full control.
☐ Design - Can view, add, update, delete, approve, and customize.

8. Add users by FireNet email address by clicking the dropdown arrow next to the New button.

EDIT LINKS

People and Groups ▸ 2023_Training_Incident_GISS ⓘ

New ▾

Actions ▾

Settings ▾

Add Users

Add users to this group.

☐ Jeremy Hruska

OX_Trainin
Members

OX_Trainin
/isitors

OX_Trainin
Owners

About Me

Share '2023_XXXXX_TrainingIncident'

Invite people

Shared with

Enter names or email addresses.

Include a personal message with this invitation (Optional).

SHOW OPTIONS

Share

Cancel

9. Grant access to your newly created group from the manage access settings of your GIS folder that you accessed in step 1.

← Grant access

2023_Training

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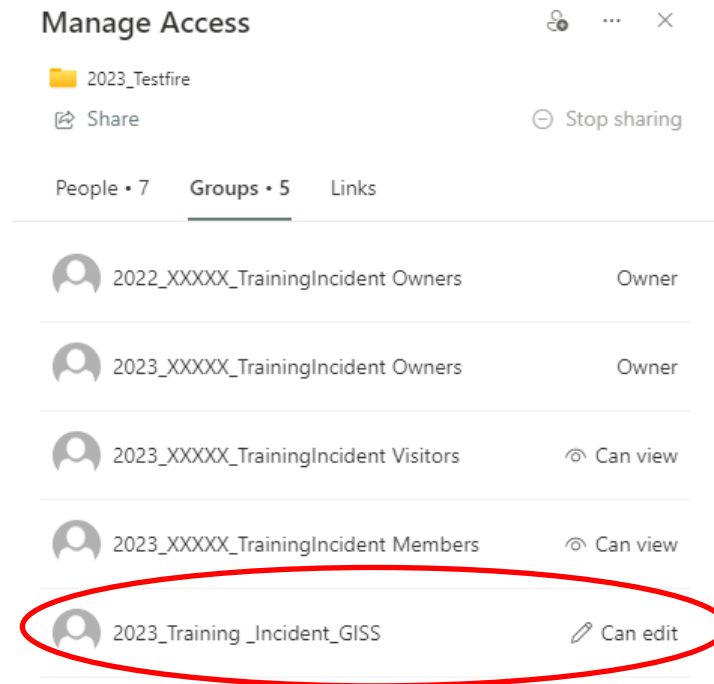
2023_Training_Incident_GISS

Search directory

☒ Notify people

Grant access

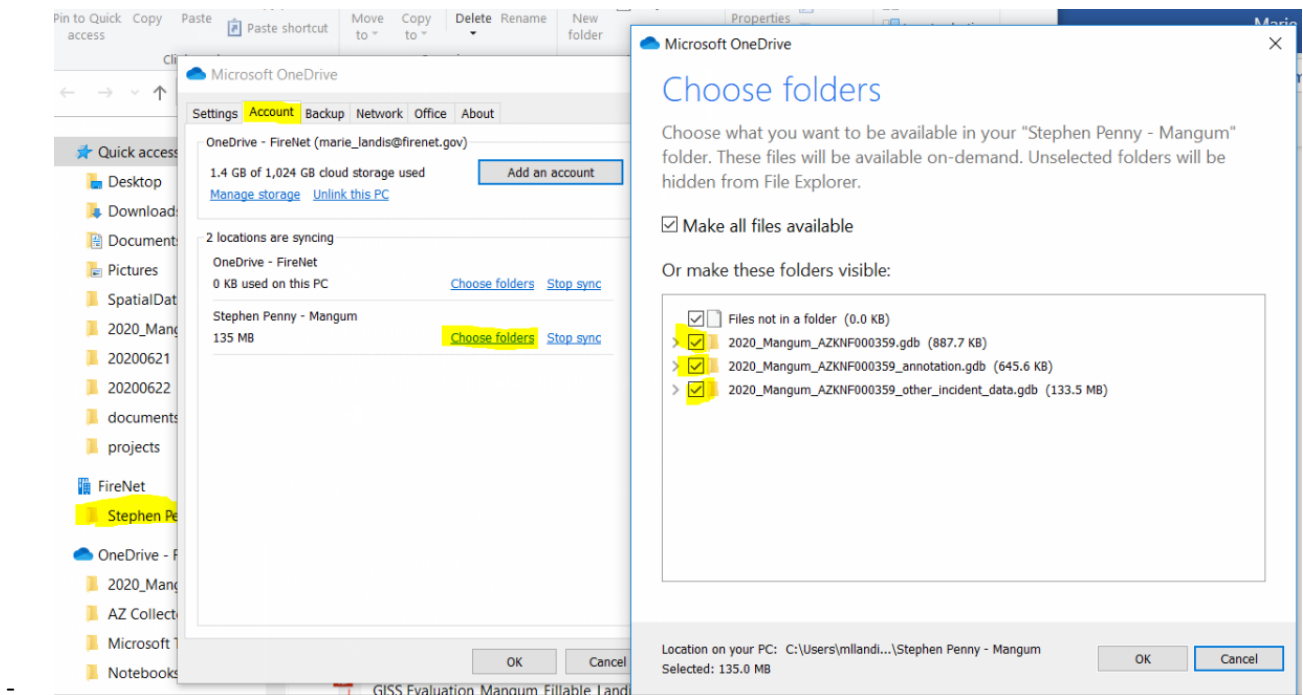
Your group should now be listed in the Manage Access window with edit access to your GIS folder.



Appendix D: Choosing Folders to Sync

There are also reports of the geodatabase disappearing. Attached is a write-up from Marie Landis of Southwest Team 3 on how to solve that issue. Folders can also be turned off and on if you do not need to sync them, for example dated products folders from the previous team.

- *We just resolved the "disappearing geodatabase" problem. Microsoft will sometimes choose which files are visible in One Drive (we notice this after syncs), and they must be turned on when they disappear. Right-click on the parent folder in One Drive, select "Settings," select the "Account" tab, and select "Choose folders" to toggle the folders off and on. Kind of a weird feature but I suppose useful if your One Drive is really crammed full of files.*



Appendix E: Acknowledgements

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Sean Triplett - NIFC