

# **ArcGIS Pro Permitting and Environmental Information Tool**

OVERVIEW AND USER INSTRUCTIONS

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# DISCLAIMER

*This document is intended solely to assist federal broadband grant recipients and subgrantees in better understanding Infrastructure Investment and Jobs Act (IIJA) broadband grant programs and the requirements set forth in the Notice of Funding Opportunity (NOFO) for this program. This document does not and is not intended to supersede, modify, or otherwise alter applicable statutory or regulatory requirements, the terms and conditions of the award, or the specific application requirements set forth in the NOFO. In all cases, statutory and regulatory mandates, the terms and conditions of the award, the requirements set forth in the NOFO, and follow-on policies and guidance, shall prevail over any inconsistencies contained in this document.*

*NTIA's ArcGIS Pro Permitting and Environmental Information Tool (APPEIT) should be used for informational purposes only and is intended solely to assist users with preliminary identification of broadband deployments that may require permits or planning to avoid potentially significant impacts to environmental resources subject to the National Environmental Policy Act (NEPA) and other statutory requirements.*

*The tool is not an exhaustive or complete resource and does not and is not intended to substitute for, supersede, modify, or otherwise alter any applicable statutory or regulatory requirements, or the specific application requirements set forth in any NTIA NOFO, Terms and Conditions, or Special Award Condition. In all cases, statutory and regulatory mandates, and the requirements set forth in NTIA grant documents, shall prevail over any inconsistencies contained in these templates.*

*The tool relies on publicly available data available on the websites of other federal, state, local, and Tribal agencies, and in some instances, private organizations and research institutions. Layers identified with a double asterisk include information relevant to determining if an "extraordinary circumstance" may warrant more detailed environmental review when a categorical exclusion may otherwise apply. While NTIA continues to make amendments to its websites to comply with Section 508, NTIA cannot ensure Section 508 compliance of federal and non-federal websites or resources users may access from links on NTIA websites.*

*All data is presented "as is," "as available" for informational purposes. NTIA does not warrant the accuracy, adequacy, or completeness of this information and expressly disclaims liability for any errors or omissions.*

*Please e-mail [NTIAanalytics@ntia.gov](mailto:NTIAanalytics@ntia.gov) with any questions.*

# PURPOSE AND OVERVIEW

The Department of Commerce's National Telecommunications and Information Administration (NTIA) is providing the ArcGIS Pro Permitting and Environmental Information Tool (APPEIT) to help federal broadband grant recipients and subgrantees identify permits and environmental factors as they plan routes for their broadband deployments. Identifying permit requirements early, initiating pre-application coordination with permitting agencies, and avoiding environmental impacts help drive successful infrastructure projects.

NTIA's public release of the APPEIT tool supports government-wide efforts to improve permitting and explore how online and digital technologies can promote efficient environmental reviews.

## INTRODUCTION

### TECHNICAL DESCRIPTION

This Esri ArcGIS Pro tool was created to support permitting, planning, and environmental review preparation efforts by providing access to data layers from publicly available sources, including federal review, permitting, and resource agencies. For the full list of APPEIT layers, see Appendix Table 1. The tool is comprised of an ArcGIS Pro Project containing a custom ArcGIS Toolbox tool, linked web map shared by the NTIA's National Broadband Map (NBAM), a report template, and a Tasks item to guide users through using the tool. This ArcGIS Pro project and its contents (maps and data) are consolidated into a packaged (.ppkx) project file.

To use APPEIT, users will input a project area boundary or project route line in a shapefile or feature class format. The tool will return as a CSV and PDF report that lists any federal layers from the [ArcGIS Pro Permitting and Environmental Information Web Map](#) that intersect the project. Users may only input a single project area or line at a time; multiple projects or project segments will need to be screened separately. For project route lines, users are required to specify a buffer distance. The buffer distance that is used for broadband projects should be determined by the area of anticipated impact and should generally not exceed 500 feet. For example, the State of Maryland recommends a 100-foot buffer for broadband permitting.<sup>1</sup> The tool restricts buffers to two miles to ensure relevant results.

For additional information about tasks or project packages see the Esri documentation below.

- [Introduction to Tasks](#)
- [Project Packages](#)

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<sup>1</sup> [Navigating-Broadband-Permitting-Process.pdf](#)



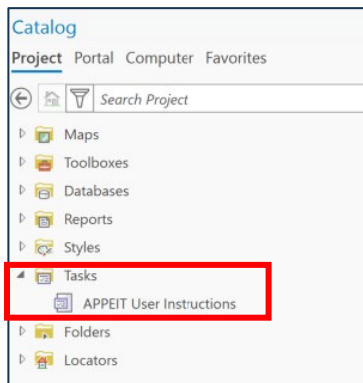
# SYSTEM REQUIREMENTS

Please confirm that your system meets the [minimum requirements](#) to run ArcGIS Pro, and that you have ArcGIS Pro version 3.x installed. If needed, update your ArcGIS Pro software to the latest available version before opening the APPEIT project package. The tool has been designed to work with a basic-level license or above.

## DOWNLOAD AND SETUP

### SETUP

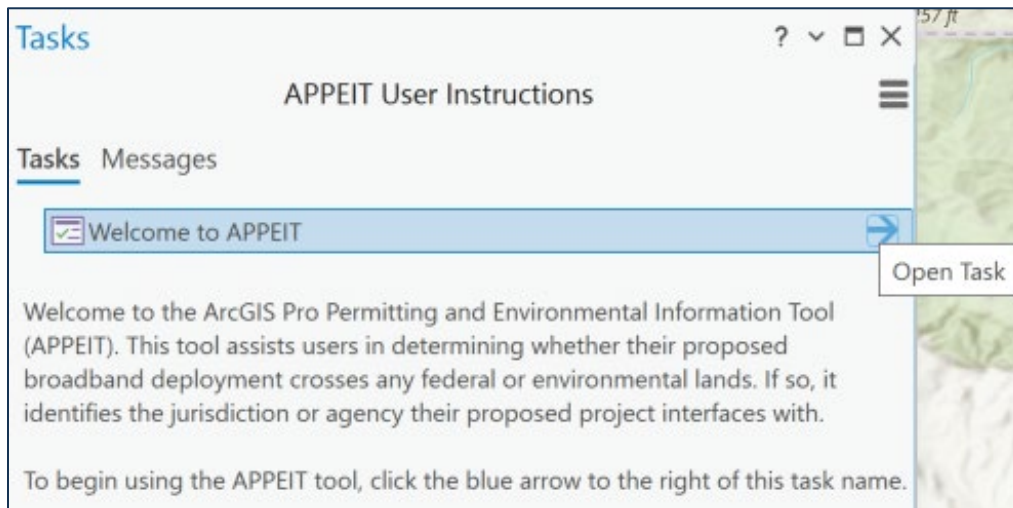
1. Use this [link](https://nbam.maps.arcgis.com/home/item.html?id=37fa42c6313e4bdb9d8a9c05d2624891) to download the project package, which is available at:  
<https://nbam.maps.arcgis.com/home/item.html?id=37fa42c6313e4bdb9d8a9c05d2624891>.
2. Navigate to your downloads folder, open ["APPEIT\_Public\_20250228.ppkx"]
  - If prompted, choose a folder location to open and unpack the ArcGIS Pro project structure.
  - If you are not prompted, the project unpacks to the default location set in the Sharing and Download section of your ArcGIS Pro Options. This setting can be found under the Project Tab > Options > Sharing and Download.
3. Once the project package opens, navigate to the Catalog pane and select the Tasks dropdown.



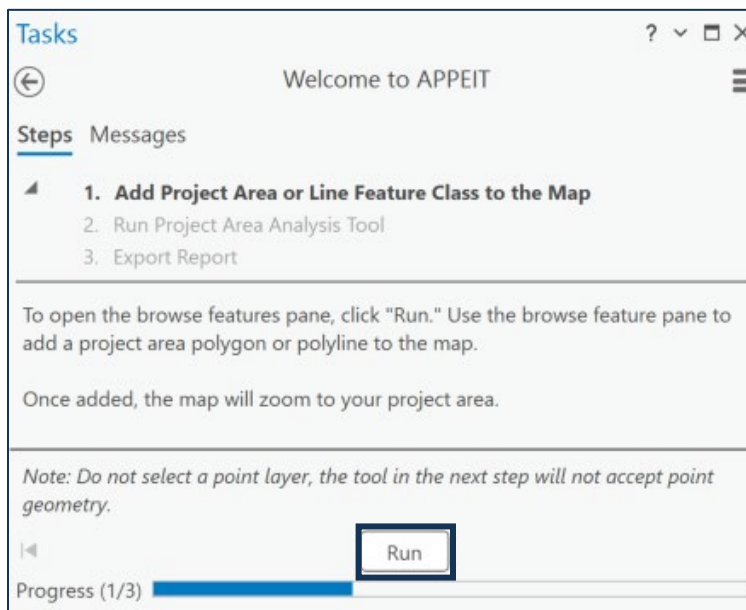
4. Double click the APPEIT User Instructions task, and a Task pane will open. You are now ready to use the tool!

# RUN APPEIT

1. Double click “Welcome to APPEIT” in the Tasks pane



2. The first task instructs you to add your project file. This can be a polygon or a line but must represent a single project. The tool cannot incorporate multiple projects in one run, however, the tool can screen discontinuous segments/areas of a single project.



3. Click Run and the “Add Data” pane will open. Navigate to your file and click “Open” to add your file to the map.
4. The map will zoom to the area of your file and the task will proceed to the next step.
5. Enter the Project Name and Project ID / Grant ID.
  - a. For Broadband Equity Access and Deployment (BEAD) program projects, use the Project ID assigned by the Eligible Entity. Refer to the BEAD Final Proposal Guidance v1.2. for more information on project ID's.
  - b. For other IIJA broadband grant programs, use the assigned Grant ID.

- c. If no Project Name or ID exists, then a placeholder name and ID can be entered.

The screenshot shows the 'Tasks' window of the APPEIT application. The window has a title bar with a question mark, a dropdown arrow, a maximize button, and a close button. Below the title bar is a navigation bar with a back arrow and the text 'Welcome to APPEIT'. The main content area is divided into two tabs: 'Steps' and 'Messages'. The 'Steps' tab is active, showing a list of steps: 1. Add Project Area or Line Feature Class to the Map (marked with a green checkmark), 2. Run Project Area Analysis Tool (highlighted), and 3. Export Report. Below the steps, there are three sections: 1. Enter Project Name: (instructions for BEAD and other IJA programs), 2. Enter Project ID Grant ID: (instructions for BEAD and other IJA programs, with a link to 'BEAD Final Proposal Guidance v1.2'), and 3. Select an input project area or line feature class: (instructions on how to select a project file). Below these sections are the 'Parameters' and 'Environments' tabs. The 'Parameters' tab is active, showing input fields for 'Project Name' (Test Project), 'Project ID' (Testing 123), 'Input Project Area or Line' (Test\_Line), 'Project Buffer Distance (Line Only)' (500), and 'Buffer Units' (Feet). At the bottom, there is a note: 'Note: Shapefile or feature class inputs are accepted. This input does not accept point geometry.' and three buttons: 'Skip', 'Run' (highlighted with a red box), and 'Next Step'. A progress bar at the very bottom shows 'Progress (2/3)'.

6. Use the drop-down menu to select the project file you added to the map in step 3 or drag it in from the map contents pane.
  - a. Optionally, use browse button to add a different project area or line feature class directly to the tool.
7. If your project area file is a line, you must specify a Project Buffer Distance and select one of the Buffer Unit options from the dropdown. If your project area file is a polygon, no additional settings are necessary. Please reference buffer distance recommendations in the technical description section of this document.
8. Click Run.
9. To view the tool's progress, click "View Details". Here you can see messages about the tool's progress. Depending on the size of your project, it is estimated that each run will take

approximately 10-20 minutes. When the tool completes, it will provide a message with the location of a CSV report output. To generate the PDF report, continue to the next step.

The screenshot shows the 'Parameters' tab of a software interface. It includes fields for 'Project Name' (Test Project), 'Project ID' (Testing 123), and 'Input Project Area or Line' (Test\_Line). A progress bar indicates the tool is 'Running...'. At the bottom, a row of buttons contains 'Skip', 'Run', and 'Next Step'. The 'View Details' button is highlighted with a red rectangular box.

```
... Coastal Zone Management Act
... NOAA - Coral Reef Habitat Combined
... National Levee Database - Leveed Areas
... National Register of Historic Places - Points
... National Register of Historic Places - Polygons
Merging Analysis...
Writing results to report...
ArcGIS Pro Report updated successfully.
CSV Report saved: C:\Users\Documents\APPEIT_Public\APPEIT_Report_2025-03-07_133150.csv
Cleaning up...
Succeeded at Friday, March 7, 2025 1:35:38 PM (Elapsed Time: 4 minutes 1 seconds)
```

10. Once the tool is completed, click Next Step.
11. Within the 'Tasks' pane, navigate to the Input Report dropdown and select "ArcGIS Pro Permitting & Environmental Information (APPEIT) Report."
12. Choose where you would like the PDF File saved.

The screenshot shows the 'Tasks' pane with a 'Welcome to APPEIT' message. It lists three steps: '1. Add Project Area or Line Feature Class to the Map', '2. Run Project Area Analysis Tool', and '3. Export Report'. Below the steps, there is instructional text about exporting to PDF. The 'Parameters' tab is visible at the bottom, showing 'Input Report' set to 'ArcGIS Pro Permitting & Environmental Information (APPEIT) Report' and 'PDF File' set to 'C:\Users\Report.pdf'. At the bottom of the pane, a row of buttons contains 'Skip', 'Run', and 'Finish'. The 'Run' button is highlighted with a red rectangular box.



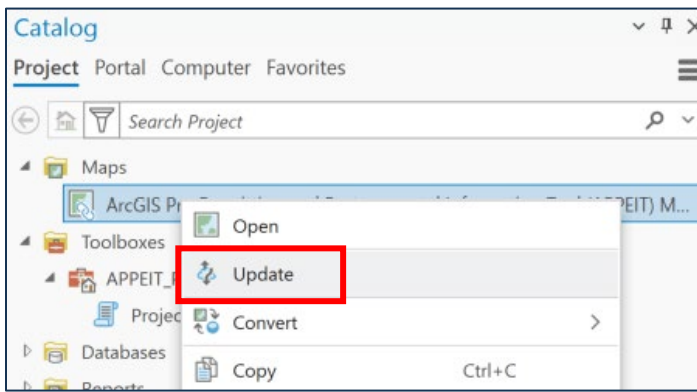
13. Ignore the additional options on this page. Data Definition, Export Options, and Page Range options give you additional settings to modify the output report, but it is recommended that no changes should be made.
14. Click Run.
15. Once this step is completed, you can review the PDF report output. The report output lists any layer(s) that has an overlap with the project area or line input. The report will include the layer category, layer name, and a subcategory area name. Some layers do not have a subcategory breakdown and are simply listed as presence/absence. These layers will show 'NA' as the area name.

Category	Layer Name	Area Name
EPA Programs	Impaired Waters - Assessment Lines	Bighorn River
EPA Programs	Impaired Waters - Assessment Lines	Dry Creek
EPA Programs	Impaired Waters - Assessment Lines	Shell Creek
EPA Programs	Integrated Compliance Information System for Air (AIR)	NA
EPA Programs	National Pollutant Discharge Elimination System Sites (NPDES)	NA
EPA Programs	Resource Conservation and Recovery Act (RCRA)	Other Hazardous Waste Sites
EPA Programs	Resource Conservation and Recovery Act (RCRA)	Unknown
EPA Programs	Resource Conservation and Recovery Act (RCRA)	Very Small Quantity Generator
Federal/Tribal Land	BLM Lands	Bureau of Land Management
Federal/Tribal Land	GSA Federal Real Property	FOREST SERVICE
Federal/Tribal Land	USFS Surface Ownership Parcels	Bighorn National Forest
Floodplains/Wetlands	FEMA Flood Hazard Zones	NA
Floodplains/Wetlands	National Levee Database - Leveed Areas	Greybull - Bighorn LB & Dry Creek RB
Floodplains/Wetlands	USFWS Wetlands	NA
Infrastructure	EIA - Crude Oil Trunk Pipelines	SPECTRA ENERGY
Infrastructure	EIA - Natural Gas Interstate and Intrastate Pipelines	WBI Energy Transmission
Infrastructure	Electric Power Transmission Lines (HIFLD)	PACIFICORP
Infrastructure	Electric Retail Service Territories (HIFLD)	BIG HORN RURAL ELECTRIC CO
Infrastructure	Electric Retail Service Territories (HIFLD)	PACIFICORP
Infrastructure	Electric Retail Service Territories (HIFLD)	WAPA-- WESTERN AREA POWER ADMINISTRATION
Infrastructure	Rail Lines	Burlington Northern Santa Fe Rlwy
Infrastructure	Rail Lines	NA
Infrastructure	Railroad Crossings	NA
Infrastructure	USGS - Coal Fields	Big Horn Basin Region
Report Totals		Count: 24

16. Note: If there are any issues with accessing a layer in the APPEIT map, they will be listed at the end of the report. Please be aware of any errors listed as they indicate that a layer was not included in the analysis, and it may contain overlap with the project area.

Category	Layer Name	Area Name
Infrastructure	USFS - Right of Way	STATE OF WYOMING, DEPARTMENT OF HIGHWAYS
Infrastructure	USFS - Right of Way	STATE OF WYOMING, HIGHWAY COMMISSION
Infrastructure	USFS - Right of Way	Transportation Commission of Wyoming
Infrastructure	USFS - Right of Way	TRANSPORTATION COMMISSION OF WYOMING
Infrastructure	USFS - Right of Way	USDI BUREAU OF LAND MANAGEMENT
Infrastructure	USFS - Right of Way	Warner, Larry L. & Janice L.
Infrastructure	USFS Special Uses Communications Sites	MEDICINE MOUNTAIN
Infrastructure	USGS - Coal Fields	Big Horn Basin Region
Report Totals		Count: 44
Errors detected, these layers are not included in the analysis: ('EPA Programs', 'Ozone 8-hr (2015 Standard)'), ('EPA Programs', 'Ozone 8-hr (2008 standard)'), ('EPA Programs', 'Ozone 8-hr (1997 standard)'), ('EPA Programs', 'PM2.5 Annual (2012 standard)'), ('EPA Programs', 'PM2.5 24hr (2006 standard)'), ('EPA Programs', 'PM2.5 Annual (1997 standard)'), ('EPA Programs', 'PM10 (1987 standard)'), ('EPA Programs', 'Lead (2008 standard)'), ('EPA Programs', 'SO2 1-hr (2010 standard)')		

If an error occurs, you should manually verify any potential overlap with the project or rerun the tool. If you run into consistent issues, try updating the connection to the web map by navigating to the catalog pane, maps, right click on the APPEIT map and select update. If the issue persists, please contact NBAM support for assistance at [NTIAanalytics@ntia.gov](mailto:NTIAanalytics@ntia.gov).



# APPENDIX

## TABLE 1 – APPEIT LAYERS

APPEIT relies on publicly available data on the websites of other federal, state, local, and Tribal agencies and, in some instances, private organizations and research institutions. Table 1 below lists all layers, layers with a double asterisk include information relevant to determining whether an “extraordinary circumstance” may warrant a more detailed environmental review when a categorical exclusion may otherwise apply.

Group	Layer Name	Source
Federal/Tribal Land	NPS Land**	<a href="https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/NPS_Land_Permitting_Layer/FeatureServer/0">https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/NPS_Land_Permitting_Layer/FeatureServer/0</a>
Federal/Tribal Land	USBR Land**	<a href="https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/USBR_Land_for_Permitting/FeatureServer/0">https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/USBR_Land_for_Permitting/FeatureServer/0</a>
Federal/Tribal Land	USACE Lands for Permitting**	<a href="https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/USACE_Land_Permitting_Layer/FeatureServer/0">https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/USACE_Land_Permitting_Layer/FeatureServer/0</a>
Federal/Tribal Land	BIA AIAN National LAR**	<a href="https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/BIA_AIAN_LAR_Layers/FeatureServer/0">https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/BIA_AIAN_LAR_Layers/FeatureServer/0</a>
Federal/Tribal Land	BIA AIAN LAR Supplemental**	<a href="https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/BIA_AIAN_LAR_Layers/FeatureServer/1">https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/BIA_AIAN_LAR_Layers/FeatureServer/1</a>
Federal/Tribal Land	BIA AIAN Tribal Statistical Areas**	<a href="https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/BIA_AIAN_LAR_Layers/FeatureServer/2">https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/BIA_AIAN_LAR_Layers/FeatureServer/2</a>
Federal/Tribal Land	Alaska Native, and Native Hawaiian Areas**	<a href="https://tigerweb.geo.census.gov/arcgis/rest/services/TIGERweb/AIANNHA/MapServer/47">https://tigerweb.geo.census.gov/arcgis/rest/services/TIGERweb/AIANNHA/MapServer/47</a>

Federal/Tribal Land	DoD Lands for Permitting**	<a href="https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/DoD_Lands_for_Permitting/FeatureServer/0">https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/DoD_Lands_for_Permitting/FeatureServer/0</a>
Federal/Tribal Land	USFS Surface Ownership Parcels**	<a href="https://apps.fs.usda.gov/arcx/rest/services/EDW/EDW_BasicOwnership_01/MapServer/0">https://apps.fs.usda.gov/arcx/rest/services/EDW/EDW_BasicOwnership_01/MapServer/0</a>
Federal/Tribal Land	USFWS National Realty Boundaries	<a href="https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/USFWS_National_Realty_Boundaries/FeatureServer/0">https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/USFWS_National_Realty_Boundaries/FeatureServer/0</a>
Federal/Tribal Land	BLM Lands**	<a href="https://services.arcgis.com/P3ePLMYs2RVChkJx/arcgis/rest/services/USA_Bureau_of_Land_Management_Lands/FeatureServer/0">https://services.arcgis.com/P3ePLMYs2RVChkJx/arcgis/rest/services/USA_Bureau_of_Land_Management_Lands/FeatureServer/0</a>
Federal/Tribal Land	USACE Project (Points)**	<a href="https://geospatial.sec.usace.army.mil/server/rest/services/CPN/Corps_Project_Notebook/FeatureServer/0">https://geospatial.sec.usace.army.mil/server/rest/services/CPN/Corps_Project_Notebook/FeatureServer/0</a>
Federal/Tribal Land	USACE Navigable Waterway Network	<a href="https://services7.arcgis.com/n1YM8pTrFmm7L4hs/ArcGIS/rest/services/ndc/FeatureServer/7">https://services7.arcgis.com/n1YM8pTrFmm7L4hs/ArcGIS/rest/services/ndc/FeatureServer/7</a>
Federal/Tribal Land	USACE Land Parcel Area**	<a href="https://geospatial.sec.usace.army.mil/server/rest/services/REMIS/cwldm/FeatureServer/4">https://geospatial.sec.usace.army.mil/server/rest/services/REMIS/cwldm/FeatureServer/4</a>
Federal/Tribal Land	GSA Federal Real Property**	<a href="https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/GSA_Federal_Real_Property/FeatureServer/0">https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/GSA_Federal_Real_Property/FeatureServer/0</a>
Federal/Tribal Land	Historical Trails - Lines	<a href="https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/National_Historic_Trails/FeatureServer/0">https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/National_Historic_Trails/FeatureServer/0</a>
Federal/Tribal Land	Historical Trails - Polygons	<a href="https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/National_Historic_Trails/FeatureServer/1">https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/National_Historic_Trails/FeatureServer/1</a>
Critical Habitats	Critical Habitat - Polygon Features – Final**	<a href="https://services.arcgis.com/QVENGdaPbd4LUkLV/arcgis/rest/services/USFWS_Critical_Habitat/FeatureServer/0">https://services.arcgis.com/QVENGdaPbd4LUkLV/arcgis/rest/services/USFWS_Critical_Habitat/FeatureServer/0</a>
Critical Habitats	Critical Habitat - Polygon Features – Proposed**	<a href="https://services.arcgis.com/QVENGdaPbd4LUkLV/arcgis/rest/services/USFWS_Critical_Habitat/FeatureServer/2">https://services.arcgis.com/QVENGdaPbd4LUkLV/arcgis/rest/services/USFWS_Critical_Habitat/FeatureServer/2</a>
EPA Programs	Resource Conservation and Recovery Act (RCRA)**	<a href="https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/Resource_Conservation_and_Recovery_Act_RCRA/FeatureServer/0">https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/Resource_Conservation_and_Recovery_Act_RCRA/FeatureServer/0</a>
EPA Programs	National Pollutant Discharge Elimination System Sites (NPDES)**	<a href="https://services.arcgis.com/cJ9YHowT8TU7DUyn/arcgis/rest/services/FRS_INTERESTS_NPDES/FeatureServer/0">https://services.arcgis.com/cJ9YHowT8TU7DUyn/arcgis/rest/services/FRS_INTERESTS_NPDES/FeatureServer/0</a>
EPA Programs	Major National Pollutant Discharge Elimination System Facilities (NPDES_MAJOR)**	<a href="https://services.arcgis.com/cJ9YHowT8TU7DUyn/arcgis/rest/services/FRS_INTERESTS_NPDES_MAJOR/FeatureServer/0">https://services.arcgis.com/cJ9YHowT8TU7DUyn/arcgis/rest/services/FRS_INTERESTS_NPDES_MAJOR/FeatureServer/0</a>

EPA Programs	Toxic Release Inventory (TRI)**	<a href="https://services.arcgis.com/cJ9YHowT8TU7DUyn/arcgis/rest/services/FRS_INTERESTS_TRI/FeatureServer/0">https://services.arcgis.com/cJ9YHowT8TU7DUyn/arcgis/rest/services/FRS_INTERESTS_TRI/FeatureServer/0</a>
EPA Programs	Superfund Nation Priorities List (SEMS_NPL)**	<a href="https://services.arcgis.com/cJ9YHowT8TU7DUyn/arcgis/rest/services/FRS_INTERESTS_SEMS_NPL/FeatureServer/0">https://services.arcgis.com/cJ9YHowT8TU7DUyn/arcgis/rest/services/FRS_INTERESTS_SEMS_NPL/FeatureServer/0</a>
EPA Programs	Assessment Cleanup and Redevelopment Exchange System (ACRES)	<a href="https://services.arcgis.com/cJ9YHowT8TU7DUyn/arcgis/rest/services/FRS_INTERESTS_ACRES/FeatureServer/0">https://services.arcgis.com/cJ9YHowT8TU7DUyn/arcgis/rest/services/FRS_INTERESTS_ACRES/FeatureServer/0</a>
EPA Programs	Integrated Compliance Information System for Air (AIR)	<a href="https://services.arcgis.com/cJ9YHowT8TU7DUyn/arcgis/rest/services/FRS_INTERESTS_AIR/FeatureServer/0">https://services.arcgis.com/cJ9YHowT8TU7DUyn/arcgis/rest/services/FRS_INTERESTS_AIR/FeatureServer/0</a>
EPA Programs	Impaired Waters - Assessment Points**	<a href="https://gispub.epa.gov/arcgis/rest/services/OW/ATTAINS_Assessment/MapServer/0">https://gispub.epa.gov/arcgis/rest/services/OW/ATTAINS_Assessment/MapServer/0</a>
EPA Programs	Impaired Waters - Assessment Lines**	<a href="https://gispub.epa.gov/arcgis/rest/services/OW/ATTAINS_Assessment/MapServer/1">https://gispub.epa.gov/arcgis/rest/services/OW/ATTAINS_Assessment/MapServer/1</a>
EPA Programs	Impaired Waters - Assessment Areas**	<a href="https://gispub.epa.gov/arcgis/rest/services/OW/ATTAINS_Assessment/MapServer/2">https://gispub.epa.gov/arcgis/rest/services/OW/ATTAINS_Assessment/MapServer/2</a>
EPA Programs	Sole Source Aquifers**	<a href="https://geopub.epa.gov/arcgis/rest/services/NEPAssist/Water/MapServer/6">https://geopub.epa.gov/arcgis/rest/services/NEPAssist/Water/MapServer/6</a>
EPA Programs	Ozone 8-hr (2015 Standard)	<a href="https://gispub.epa.gov/arcgis/rest/services/OAR_OAQPS/NonattainmentAreas/MapServer/2">https://gispub.epa.gov/arcgis/rest/services/OAR_OAQPS/NonattainmentAreas/MapServer/2</a>
EPA Programs	Ozone 8-hr (2008 standard)	<a href="https://gispub.epa.gov/arcgis/rest/services/OAR_OAQPS/NonattainmentAreas/MapServer/1">https://gispub.epa.gov/arcgis/rest/services/OAR_OAQPS/NonattainmentAreas/MapServer/1</a>
EPA Programs	Ozone 8-hr (1997 standard)	<a href="https://gispub.epa.gov/arcgis/rest/services/OAR_OAQPS/NonattainmentAreas/MapServer/0">https://gispub.epa.gov/arcgis/rest/services/OAR_OAQPS/NonattainmentAreas/MapServer/0</a>
EPA Programs	PM2.5 Annual (2012 standard)	<a href="https://gispub.epa.gov/arcgis/rest/services/OAR_OAQPS/NonattainmentAreas/MapServer/7">https://gispub.epa.gov/arcgis/rest/services/OAR_OAQPS/NonattainmentAreas/MapServer/7</a>
EPA Programs	PM2.5 24hr (2006 standard)	<a href="https://gispub.epa.gov/arcgis/rest/services/OAR_OAQPS/NonattainmentAreas/MapServer/5">https://gispub.epa.gov/arcgis/rest/services/OAR_OAQPS/NonattainmentAreas/MapServer/5</a>
EPA Programs	PM2.5 Annual (1997 standard)	<a href="https://gispub.epa.gov/arcgis/rest/services/OAR_OAQPS/NonattainmentAreas/MapServer/6">https://gispub.epa.gov/arcgis/rest/services/OAR_OAQPS/NonattainmentAreas/MapServer/6</a>
EPA Programs	PM10 (1987 standard)	<a href="https://gispub.epa.gov/arcgis/rest/services/OAR_OAQPS/NonattainmentAreas/MapServer/8">https://gispub.epa.gov/arcgis/rest/services/OAR_OAQPS/NonattainmentAreas/MapServer/8</a>
EPA Programs	Lead (2008 standard)	<a href="https://gispub.epa.gov/arcgis/rest/services/OAR_OAQPS/NonattainmentAreas/MapServer/3">https://gispub.epa.gov/arcgis/rest/services/OAR_OAQPS/NonattainmentAreas/MapServer/3</a>
EPA Programs	SO2 1-hr (2010 standard)	<a href="https://gispub.epa.gov/arcgis/rest/services/OAR_OAQPS/NonattainmentAreas/MapServer/4">https://gispub.epa.gov/arcgis/rest/services/OAR_OAQPS/NonattainmentAreas/MapServer/4</a>
Infrastructure	EIA - Natural Gas Wells	<a href="https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/Natural_Gas_Wells_Permitting/FeatureServer/0">https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/Natural_Gas_Wells_Permitting/FeatureServer/0</a>

Infrastructure	EIA - Underground Natural Gas Storage	<a href="https://services2.arcgis.com/FiaPA4ga0iQKduv3/arcgis/rest/services/Underground_Natural_Gas_Storage/FeatureServer/0">https://services2.arcgis.com/FiaPA4ga0iQKduv3/arcgis/rest/services/Underground_Natural_Gas_Storage/FeatureServer/0</a>
Infrastructure	EIA - Power Plants	<a href="https://services2.arcgis.com/FiaPA4ga0iQKduv3/arcgis/rest/services/Power_Plants_in_the_US/FeatureServer/0">https://services2.arcgis.com/FiaPA4ga0iQKduv3/arcgis/rest/services/Power_Plants_in_the_US/FeatureServer/0</a>
Infrastructure	EIA - Natural Gas Interstate and Intrastate Pipelines	<a href="https://services2.arcgis.com/FiaPA4ga0iQKduv3/arcgis/rest/services/Natural_Gas_Interstate_and_Intrastate_Pipelines_1/FeatureServer/0">https://services2.arcgis.com/FiaPA4ga0iQKduv3/arcgis/rest/services/Natural_Gas_Interstate_and_Intrastate_Pipelines_1/FeatureServer/0</a>
Infrastructure	EIA - Crude Oil Trunk Pipelines	<a href="https://services2.arcgis.com/FiaPA4ga0iQKduv3/arcgis/rest/services/Crude_Oil_Trunk_Pipelines_1/FeatureServer/0">https://services2.arcgis.com/FiaPA4ga0iQKduv3/arcgis/rest/services/Crude_Oil_Trunk_Pipelines_1/FeatureServer/0</a>
Infrastructure	EIA - Hydrocarbon Gas Liquids Pipelines	<a href="https://services2.arcgis.com/FiaPA4ga0iQKduv3/arcgis/rest/services/Hydrocarbon_Gas_Liquids_Pipelines_1/FeatureServer/0">https://services2.arcgis.com/FiaPA4ga0iQKduv3/arcgis/rest/services/Hydrocarbon_Gas_Liquids_Pipelines_1/FeatureServer/0</a>
Infrastructure	EIA - Petroleum Products Pipelines	<a href="https://services2.arcgis.com/FiaPA4ga0iQKduv3/arcgis/rest/services/Petroleum_Products_Pipelines_1/FeatureServer/0">https://services2.arcgis.com/FiaPA4ga0iQKduv3/arcgis/rest/services/Petroleum_Products_Pipelines_1/FeatureServer/0</a>
Infrastructure	Electric Power Transmission Lines	<a href="https://services2.arcgis.com/FiaPA4ga0iQKduv3/arcgis/rest/services/US_Electric_Power_Transmission_Lines/FeatureServer/0">https://services2.arcgis.com/FiaPA4ga0iQKduv3/arcgis/rest/services/US_Electric_Power_Transmission_Lines/FeatureServer/0</a>
Infrastructure	Electric Retail Service Territories	<a href="https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/Electric_Retail_Service_Territories_HIFLD/FeatureServer/0">https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/Electric_Retail_Service_Territories_HIFLD/FeatureServer/0</a>
Infrastructure	National Scenic Byways	<a href="https://services1.arcgis.com/fBc8EJBxQRMchlei/arcgis/rest/services/NTIR_TRANS_NationalScenicByways_NSBP_In/FeatureServer/0">https://services1.arcgis.com/fBc8EJBxQRMchlei/arcgis/rest/services/NTIR_TRANS_NationalScenicByways_NSBP_In/FeatureServer/0</a>
Infrastructure	USFS Special Uses Communications Sites	<a href="https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/US_Forest_Service_Communication_Sites/FeatureServer/0">https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/US_Forest_Service_Communication_Sites/FeatureServer/0</a>
Infrastructure	USFS - Right of Way	<a href="https://apps.fs.usda.gov/arcx/rest/services/EDW/EDW_ALPStatusAndEncumbrance_01/MapServer/71">https://apps.fs.usda.gov/arcx/rest/services/EDW/EDW_ALPStatusAndEncumbrance_01/MapServer/71</a>
Infrastructure	USGS - Coal Fields	<a href="https://services.arcgis.com/P3ePLMYs2RVChkJx/arcgis/rest/services/USA_Coal_Fields_view/FeatureServer/0">https://services.arcgis.com/P3ePLMYs2RVChkJx/arcgis/rest/services/USA_Coal_Fields_view/FeatureServer/0</a>
Infrastructure	Surface and Underground Coal Mines	<a href="https://services7.arcgis.com/FGr1D95XCGALKXqM/arcgis/rest/services/CoalMines_US_EIA/FeatureServer/247">https://services7.arcgis.com/FGr1D95XCGALKXqM/arcgis/rest/services/CoalMines_US_EIA/FeatureServer/247</a>

Infrastructure	Rail Lines	<a href="https://services2.arcgis.com/FiaPA4ga0iQKduv3/arcgis/rest/services/Transportation_v1/FeatureServer/9">https://services2.arcgis.com/FiaPA4ga0iQKduv3/arcgis/rest/services/Transportation_v1/FeatureServer/9</a>
Infrastructure	Railroad Crossings	<a href="https://services1.arcgis.com/4yjifSiIG17X0gW4/arcgis/rest/services/FRA_Crossing_Inventory_Form_71_Current/FeatureServer/0">https://services1.arcgis.com/4yjifSiIG17X0gW4/arcgis/rest/services/FRA_Crossing_Inventory_Form_71_Current/FeatureServer/0</a>
Floodplains/Wetlands	FEMA Flood Hazard Zones**	<a href="https://hazards.fema.gov/arcgis/rest/services/public/NFHL/MapServer/28">https://hazards.fema.gov/arcgis/rest/services/public/NFHL/MapServer/28</a>
Floodplains/Wetlands	USFWS Wetlands**	<a href="https://services.arcgis.com/P3ePLMYs2RVChkJx/arcgis/rest/services/USA_Wetlands/FeatureServer/0">https://services.arcgis.com/P3ePLMYs2RVChkJx/arcgis/rest/services/USA_Wetlands/FeatureServer/0</a>
Floodplains/Wetlands	Wild and Scenic Rivers**	<a href="https://geopub.epa.gov/arcgis/rest/services/NEPAssist/Water/MapServer/9">https://geopub.epa.gov/arcgis/rest/services/NEPAssist/Water/MapServer/9</a>
Floodplains/Wetlands	CBRS Units**	<a href="https://cbrsgis.wim.usgs.gov/arcgis/rest/services/CoastalBarrierResourcesSystem/MapServer/3">https://cbrsgis.wim.usgs.gov/arcgis/rest/services/CoastalBarrierResourcesSystem/MapServer/3</a>
Floodplains/Wetlands	Coastal Zone Management Act**	<a href="https://coast.noaa.gov/arcgis/rest/services/Hosted/CoastalZoneManagementAct/FeatureServer/0">https://coast.noaa.gov/arcgis/rest/services/Hosted/CoastalZoneManagementAct/FeatureServer/0</a>
Floodplains/Wetlands	NOAA - Coral Reef Habitat Combined	<a href="https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/Coral_Reef_Habitat_Combined/FeatureServer/0">https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/Coral_Reef_Habitat_Combined/FeatureServer/0</a>
Floodplains/Wetlands	National Levee Database - Leveed Areas**	<a href="https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/National_Levee_Database_Leveed_Areas/FeatureServer/0">https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/National_Levee_Database_Leveed_Areas/FeatureServer/0</a>
Historic Places	National Register of Historic Places – Points**	<a href="https://services2.arcgis.com/FiaPA4ga0iQKduv3/arcgis/rest/services/nrhp_points_v1/FeatureServer/0">https://services2.arcgis.com/FiaPA4ga0iQKduv3/arcgis/rest/services/nrhp_points_v1/FeatureServer/0</a>
Historic Places	National Register of Historic Places – Polygons**	<a href="https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/NationalRegisterofHistoricPlaces_Polygon/FeatureServer/0">https://services3.arcgis.com/OYP7N6mAJJCyH6hd/arcgis/rest/services/NationalRegisterofHistoricPlaces_Polygon/FeatureServer/0</a>

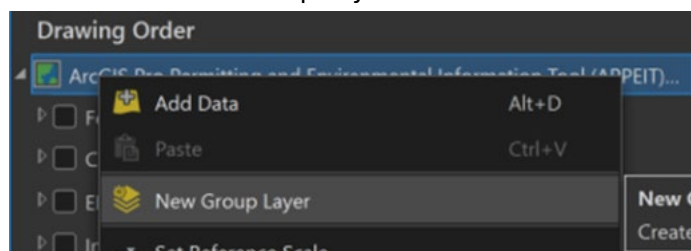
# APPEIT LAYERS CUSTOMIZATION GUIDE

## DESCRIPTION

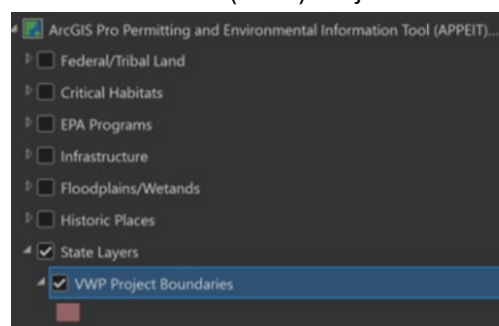
The National Telecommunications and Information Administration released the ArcGIS Pro Permitting and Environmental Information Tool (APPEIT) to assist federal broadband grant recipients and subgrantees in identifying required permits and environmental considerations when planning broadband deployment routes. APPEIT offers flexibility, allowing users to customize the tool by adding or removing map layers to meet their specific needs. This document provides step-by-step instructions to reconfigure the tool to work with a custom set of layers.

## STEPS TO UPDATE LAYER LIST

1. Open the [APPEIT Project Package](#) and save it.
2. Open the ArcGIS Pro Permitting and Environmental Information Tool (APPEIT) Map and navigate to the contents pane to view the standard list of layers included in APPEIT.
  - a. To add a layer as a new category for the report, right click in the maps contents pane a select “New Group Layer”.



- i. Name the group layer. For this example, we will create a new group called “State Layers”.
    - ii. Add a new layer into the group. For this example, we are adding the Virginia Water Protection (VWP) Project Boundaries layer.



Link to layer: [Virginia Water Protection \(VWP\) Project Boundaries](#)

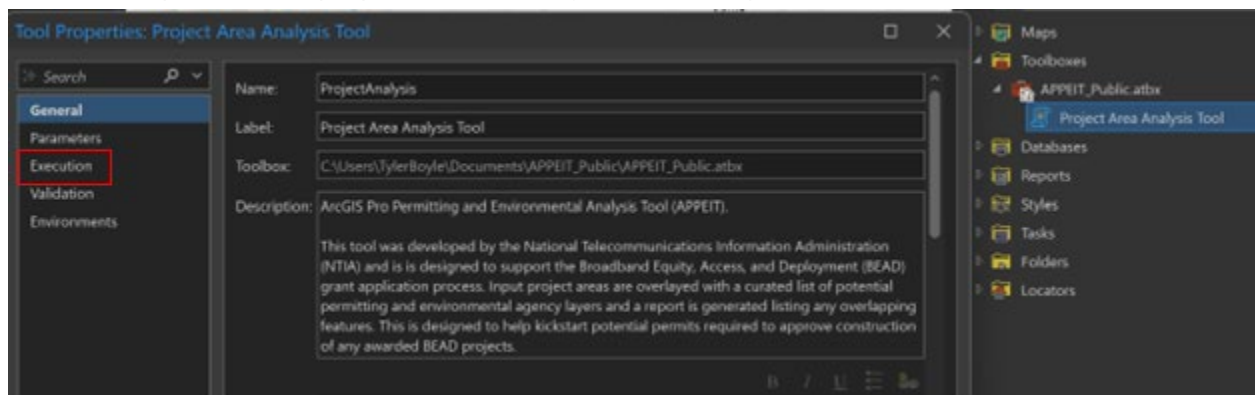
- iii. Note: If only adding new layers to the map, it is best practice to add them to the bottom of the list; it will make the next steps easier.
    - b. If adding or removing from an existing group layer, simply remove the layer from the map or add the layer to the group layer.
    - c. Save your project.
  3. Export a copy of the APPEIT Reference Index Table to File Geodatabase Table format.
  4. Open the new index table in ArcGIS Pro and modify the records to match the new list of layers in your updated map.



- a. If you added a new category and layer, add a new row to the table with the relevant information. Adding the VA example with the new State category should be added as shown below.

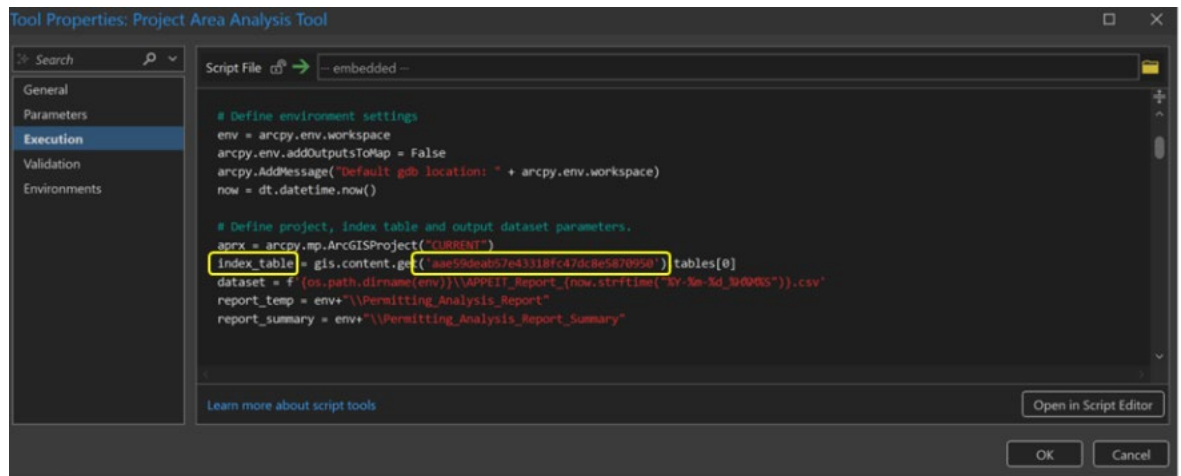
OBJECTID *	Category	Layer	Field	Position
55	Infrastructure	Railroad Crossings	<Null>	58
56	Floodplains/Wetlands	FEMA Flood Hazard Zo...	<Null>	60
57	Floodplains/Wetlands	USFWS Wetlands	<Null>	61
58	Floodplains/Wetlands	Wild and Scenic Rivers	<Null>	62
59	Floodplains/Wetlands	CBRS Units	<Null>	63
60	Floodplains/Wetlands	Coastal Zone Managem...	<Null>	64
61	Floodplains/Wetlands	NOAA - Coral Reef Hab...	<Null>	65
62	Floodplains/Wetlands	National Levee Databas...	SYSTEM_NAME	66
63	Historic Places	National Register of His...	RESNAME	68
64	Historic Places	National Register of His...	RESNAME	69
65	State Layers	VWP Project Boundaries	PROJECT_NAME	71

- i. Make sure the Category and Layer name exactly match the contents pane in the map.
  - ii. If desired, add a field name that will be used to summarize the results, in this case we will summarize results by “PROJECT\_NAME”. Leave as null if you do not need a to summarize by a field.
  - iii. Add the new layer position. Note that we skipped position 70, which is reserved for the group layer “State Layers”.
- b. If making additions or subtractions to existing categories, follow the same steps, making sure to update the positions for all layers in the map.
- c. Save edits on the index table.
5. Publish the index table to ArcGIS Online.
6. Open the tool properties of the Project Area Analysis Tool and select the execution tab.



7. Find the “index\_table” parameter and replace the item ID value with the new item ID for the updated index table that you have published. Ensure that you have shared the new table in a way you can access it from ArcGIS Pro.





8. Save and close the script.
9. You should now be ready to run the APPEIT with your customized layer list.