

Habitat Management Digitizing Guide

10/2018

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Template Guidelines

- Do not add any new fields to the templates.
- Do not alter the existing fields of the templates in any way (do not rename them, do not change the data types, do not change the domains, etc.)
- Do not reproject or transform the coordinate system of the templates.
- Each polygon or line you digitize MUST have values in these fields filled in: StateID, VegMgmtPractice1, Month1, Year. **They cannot be null.** See tables for descriptions of these fields.
- You may digitize two separate layers, if necessary: one polygon layer with management tracts and one line layer with management treatments. **Do not change the names of the template feature classes.**
 - <StateID>_MgmtTracts_Template is where management treatments that have specific boundaries should be digitized. This includes treatments like fire, grazing, herbaceous chemical treatment, brush treatment, disking, clear cut, haying, etc. The majority of your treatments will be digitized in this layer.
 - <StateID>_MgmtLines_Template is where management treatments along a line may be digitized. This includes treatments such as edge feathering or thinning. If you deem it more appropriate to digitize these treatments in the MgmtTracts feature class that is perfectly fine. It is up to your discretion what treatments fit what feature class, but this feature class will likely have less treatments digitized in it.
- Digitized tracts and lines may overlap one another.
- Digitized tracts obviously should fall within the focal or reference area, however if there is a portion of the tract or line that is outside of the area, that is ok and should be digitized anyway.
- **Do not submit data that has been submitted in a prior year!** However, you may submit multiple years of data within a single feature class.
- **If you choose to digitize your data outside of the template, be sure the field data types in your dataset match the field data types in the template. See tables for details on field data types in the template. Also see "Loading Data into the Template" section.**

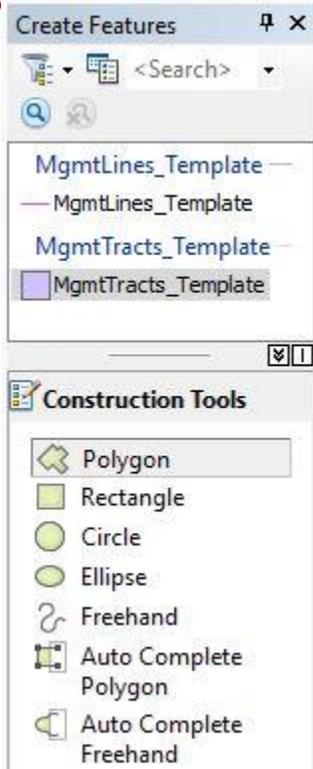
Digitizing Your Data

This section covers how to digitize your data into the template.

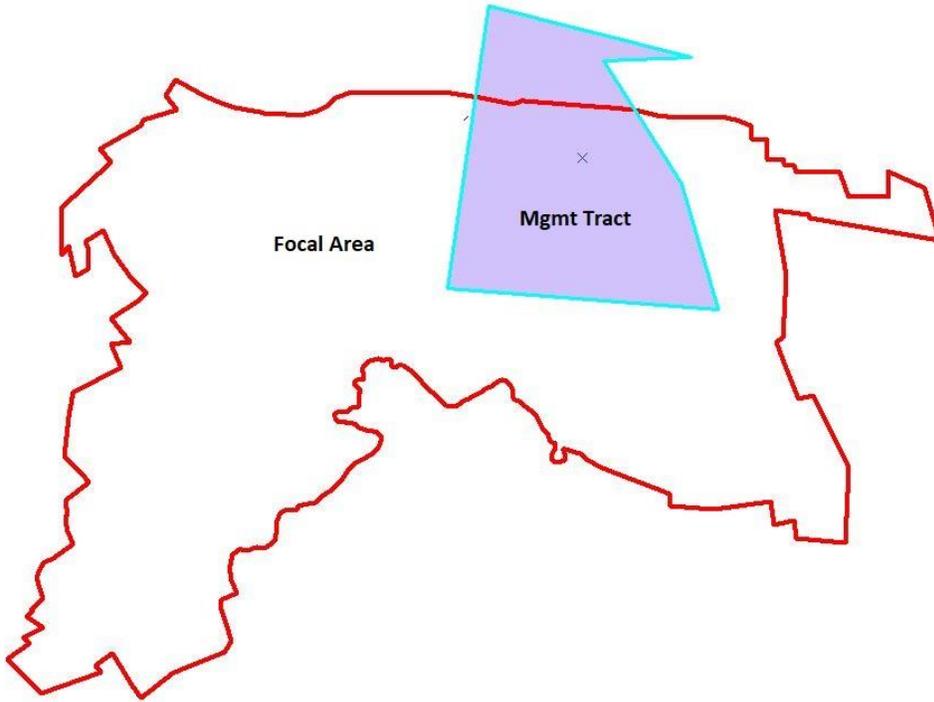
1. Add the two template layers, <StateID>_MgmtTracts_Template and <StateID>_MgmtLines_Template to the map.
2. On the Editor toolbar click Editor > Start Editing. If you do not have an Editor toolbar, go to the Customize menu > Toolbars > Editor.
3. Open the Create Features window from your Editor toolbar.



4. In the Create Features window, select the feature class you would like to digitize a polygon (or line) in. Once selected, see the "Construction Tools" window just below and select whether you would like to draw a polygon, rectangle, line, etc. In the MgmtTracts template, you will likely use "Polygon". In the MgmtLines template, you should **only** use "Line."



5. Begin drawing your polygon or line by clicking on the map. Double click to end drawing.

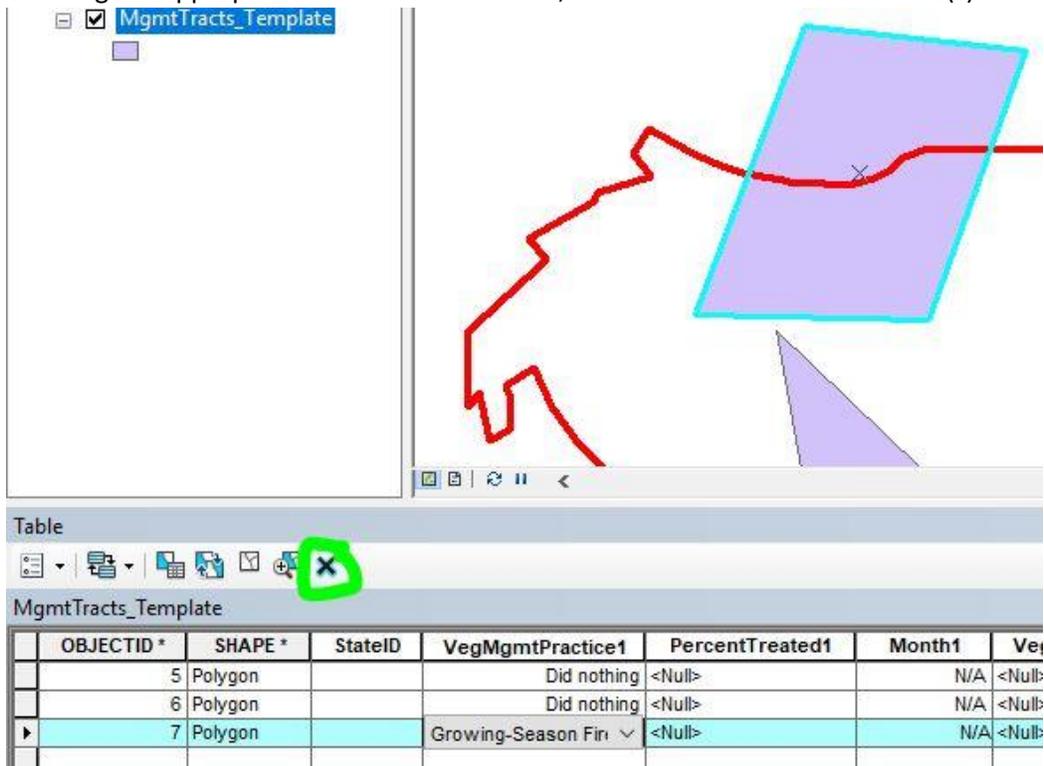


6. Open the attribute table of the layer and fill out the fields associated with the new polygon or line you have drawn. To open the attribute table, in the Table of Contents (typically left side of screen), right-click the layer and hit "Open Attribute Table." The polygon or line you just digitized will be highlighted in blue in the attribute table.
- If it is easier, you may digitize all your tracts/lines and fill in the attribute table after you are done. To determine which polygon or line you are filling in attributes for, you may click the gray box to the left of the record in the attribute table which will highlight the polygon or line on the map.

MgmtTracts_Template

OBJECTID *	SHAPE *	StateID	VegMgmtPractice1	PercentTreated1	Month1	VegM
5	Polygon		Did nothing	<Null>	N/A	<Null>
6	Polygon		Did nothing	<Null>	N/A	<Null>
7	Polygon		Growing-Season Fir	<Null>	N/A	<Null>

7. If you have made a mistake and would like to delete a feature you digitized, open the attribute table and after ensuring the appropriate features are selected, click the X to delete the feature(s).



The screenshot shows a GIS application window. On the left, a legend shows a checked box for 'MgmtTracts_Template'. The main map area displays a red line and a purple polygon. A small 'X' icon is visible on the purple polygon. Below the map is a toolbar with various icons, including a green circle around an 'X' icon. Below the toolbar is an attribute table for 'MgmtTracts_Template'.

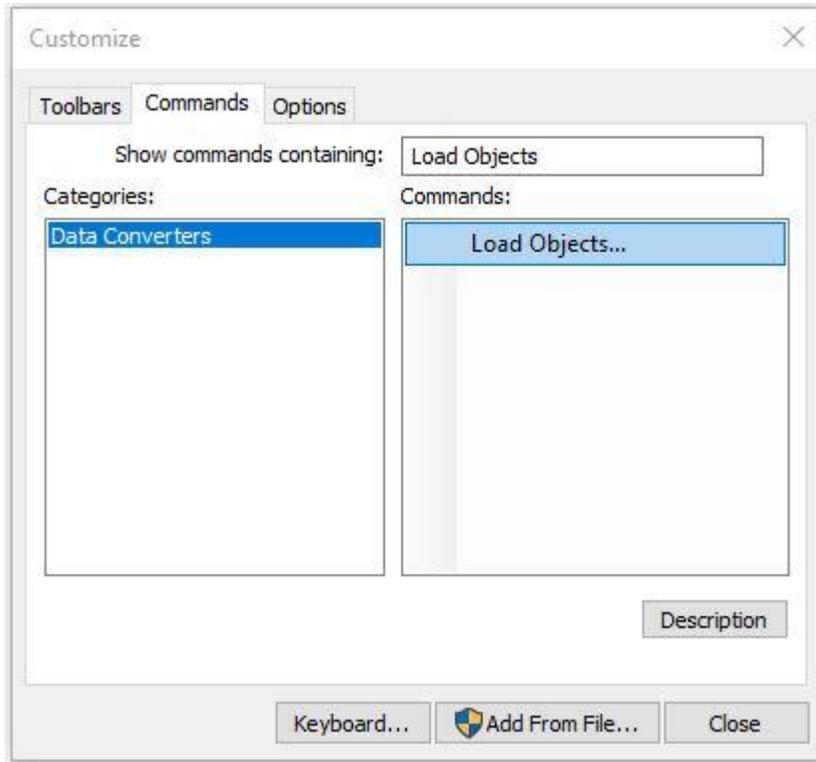
OBJECTID *	SHAPE *	StateID	VegMgmtPractice1	PercentTreated1	Month1	Ve
5	Polygon		Did nothing	<Null>	N/A	<Null>
6	Polygon		Did nothing	<Null>	N/A	<Null>
7	Polygon		Growing-Season Fir	<Null>	N/A	<Null>

8. When you are done digitizing and filling in the attribute fields, on the Editor toolbar, hit the Editor dropdown menu and click "Save Edits." Then on the same menu, click "Stop Editing."

Loading Data into the Template

This section covers how to load your data into the template from another shapefile or geodatabase if you did not choose to digitize your tracts directly into the template.

1. Open ArcMap and add the Editor toolbar to the user interface. On the top menu bar, go to Customize > Toolbars > Editor
2. Add the “Load Objects” command to the Editor toolbar.
 - a. On the top menu bar, go to Customize > Customize Mode... > Commands tab > Type “Load Objects” into the search bar.

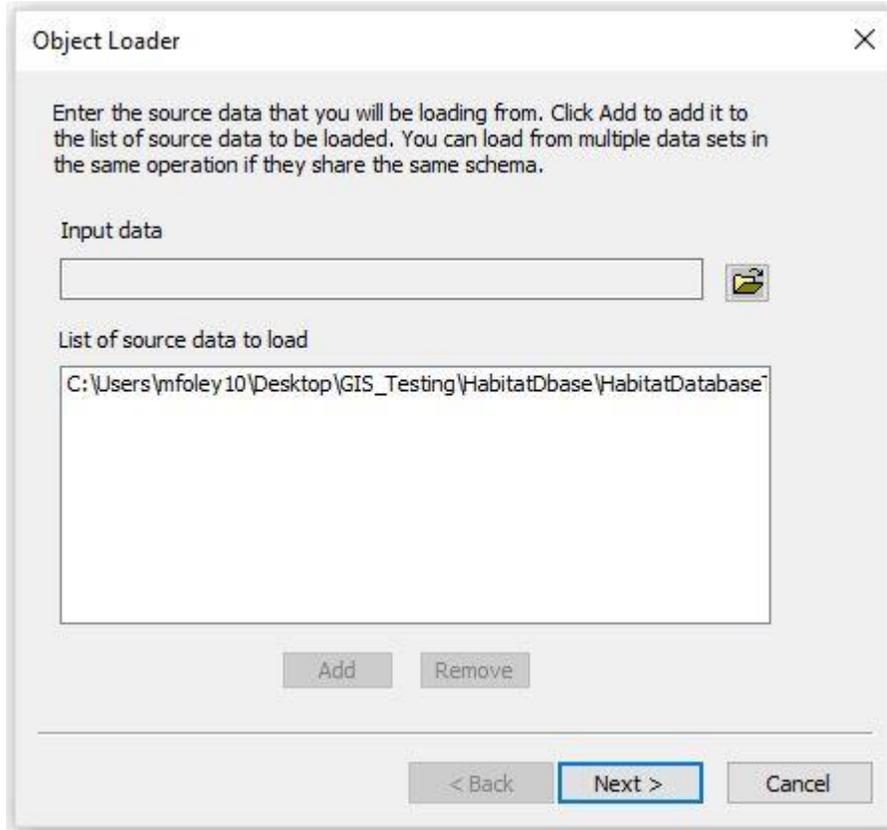


- b. Under the “Commands” side of the dialogue box, click and drag the “Load Objects” command to the Editor toolbar and drop it. The Editor toolbar will now look something like this (the order of the buttons doesn’t matter):

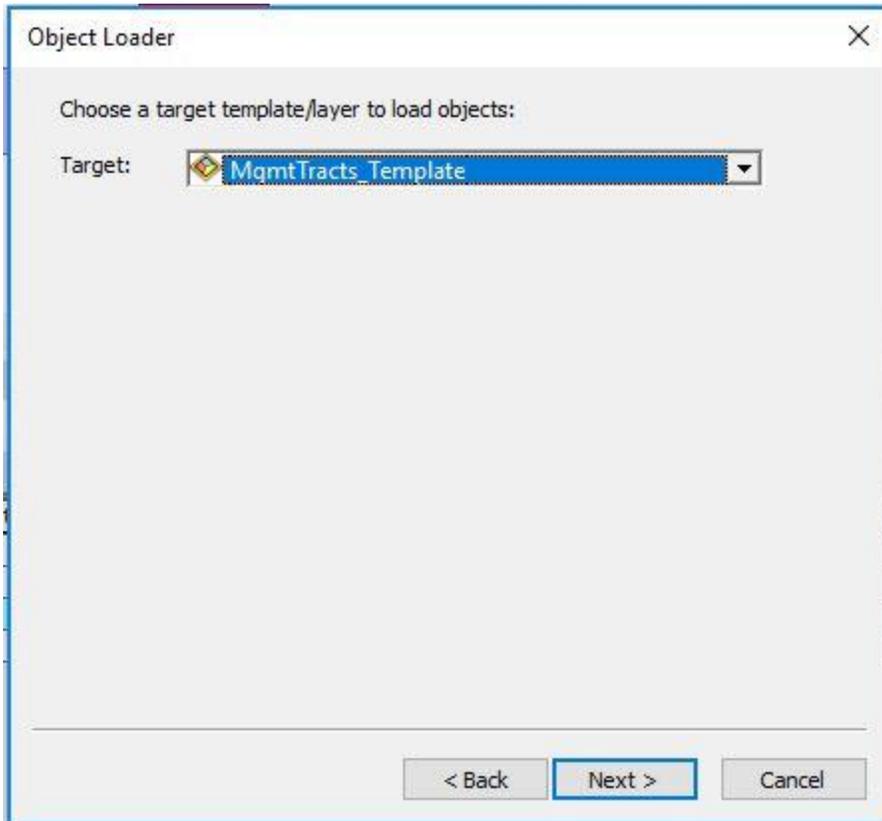


3. Add the dataset that contains your digitized tracts data to the map. If it contains tract data you have already submitted in previous years, select the data you would like to submit for the current year and export it to a new file. **Please do not submit data that has already been submitted in prior years!**
 - a. You can use the [“Select by Attributes”](#) tool to select a subset of data in your dataset.
 - b. After selecting the subset, right-click the layer name in the table of contents > Data > Export Data... and leave Export set to “Selected Features”, use the same coordinate system as the layer’s source data, and save the output feature class where you can access it. You may choose whether to save it as a feature class (which must be saved inside a geodatabase) or as a shapefile.
 - c. Add the exported data to the map when prompted.
4. Add both <StateID>_MgmtTracts_Template and <StateID>_MgmtLines_Template layers to the map

5. Open the <StateID>_MgmtTracts_Template attribute table. To open the attribute table, in the Table of Contents (typically left side of screen), right-click the layer and hit "Open Attribute Table."
6. On the Editor toolbar, click Editor > Start Editing. In the dialogue that opens, click on <StateID>_MgmtTracts_Template.
7. On the Editor toolbar, click "Load Objects"
8. In the dialogue that opens, click the browse folder button and navigate to your digitized tract dataset or the exported tract dataset you created in step 3 if applicable. Click "Open" when you have chosen the correct file, then click "Add"



9. Click "Next"
10. Ensure the target dataset is set to <StateID>_MgmtTracts_Template.



11. Click “Next”
12. Match fields from the target dataset up with the fields in your digitized dataset (“Matching Source Field”). If the *field data type* (string, int, float, etc.) does not match the target dataset’s field data type, the tool will run but the column or rows may not populate with values as you would expect. You must then fix the rows in your digitized dataset so they match the target dataset and run the tool again. The names of the fields do not need to match but the field data types do.

Object Loader ✕

For each target field, select the source field that should be loaded into it.

Target Field	Matching Source Field
StateID [string]	StateID [string]
VegMgmtPractice1 [int]	VegMgmtPractice1 [int]
PercentTreated1 [int]	PercentTreated1 [int]
Month1 [int]	Month1 [int]
VegMgmtPractice2 [int]	VegMgmtPractice2 [int]
PercentTreated2 [int]	PercentTreated2 [int]
Month2 [int]	Month2 [int]
VegMgmtPractice3 [int]	VegMgmtPractice3 [int]
PercentTreated3 [int]	PercentTreated3 [int]
Month3 [int]	Month3 [int]

13. Click "Next"
14. On the next dialogue, click "Load all of the source data" and click "Next"
15. Click "No" on the input features being snapped. Click "Yes" to validate the new features. Click "Next"
16. Review the information and click "Finish"
17. Right-click the <StateID>_MgmtTracts_Template in your table of contents and open the attribute table. Review the features to determine that all have loaded successfully. If any of them are highlighted in blue, they did not pass validation and something went wrong during data transfer.

- a. Change the view on the attribute table to only show selected records; at the bottom of the attribute table, there are two buttons, click the one on the right that is completely blue.



- b. This view contains all the features that were marked invalid. Select a single record by clicking the gray box to the left of the row.

	OBJECTID *	SHAPE *	SHAPE_Length	SHAPE_Area	StateID	Point	PatchNum	IsDeveloped
▶	13	Polygon	3047.456191	156783.088441	VA	BP0	1	Not developed/non-habitat

- c. With that record selected, go the Editor Toolbar, click Editor > Validate Features
- d. The message that appears will give you some information about why the feature is invalid. You may repeat this on the other invalid features to determine if the error is the same for all them.
- e. Fix what is causing the issue in your digitized dataset.
- f. Delete the features in the **template** dataset. Switch back the view to display all records (click the left button seen in step 18a). Click the Table Options button > Select All. All records will be highlighted in blue. Click the "X" on the table toolbar to delete them.



- g. Repeat steps 5, 6, and 8 - 18 to try loading the features again.
18. Repeat this process with your digitized MgmtLines, ensuring you are choosing the appropriate MgmtLines_Template layer for steps 8 and 10 (and 3 if applicable).
19. When you have loaded features into both the MgmtTracts_Template and the MgmtLines_Template and they have been validated, save your edits and stop editing. On the Editor toolbar, go to Editor > Stop Editing. Save the edits when prompted.

Submitting Your Data

Using the NBCI Habitat Monitoring and Management Data Explorer, you can submit your data in the form of a zipped file geodatabase.

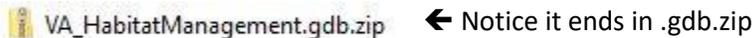
1. Check that your data is structured appropriately before compressing the file geodatabase. Your file geodatabase should contain **only** two layers: <StateID>_MgmtTracts_Template and <StateID>_MgmtLines_Template. They **must** be named in this exact format. In ArcCatalog, it should look something like this:



2. Compress the geodatabase using Windows File Explorer. Be sure to compress the folder that ends in the extension .gdb. Do not submit zip files where the .gdb folder is nested inside another folder.



After it has been zipped, it should look like this:



3. Open the Data Explorer. Click the drip torch icon on the right side of the map:



4. In the dialogue that opens, choose your state, add your zipped geodatabase, and add your email address. Click "Submit Management Data."

A screenshot of a dialog box titled 'Habitat Management'. It contains the following fields and controls:

- State: A dropdown menu with 'Alabama' selected.
- Choose zip file to upload: A 'Choose File' button next to the text 'No file chosen'.
- Email Address: An empty text input field.
- Submit Management Data: A large button at the bottom of the dialog.

5. Results should be viewable in ten minutes. You will receive an email notification from nbciquailcount@gmail.com notifying you when the process is complete.

Template Attribute Table Fields

Field Name	Field Data Type	Description	Example Value(s)
StateID	Text; does not allow nulls	The two letter abbreviation of your state. When you create a new feature in the template, it will default to your StateID.	KY
VegMgmtPractice1	Long; does not allow nulls	<p>A dropdown list where you can pick the vegetation management practice that was used on the tract of land you digitize. If digitizing outside of the template, use integer values below appropriately:</p> <ul style="list-style-type: none"> 0 Did nothing 1 Herbaceous Chemical Control - Spot Treatment 2 Herbaceous Chemical Control - Broadcast Spraying 3 Growing-Season Fire 4 Dormant-Season Fire 5 Partial Disking 6 Whole-Field Disking 7 Patch-Burn Grazing 8 Rotational Grazing 9 Deferred Grazing 10 Emergency Grazing 11 Chemical Brush Management 12 Mechanical Brush Management 13 Edge Feathering 14 Brush Piles 15 Clear Cut 16 Thinning 17 Forest Opening 18 Deferred Haying 19 Emergency Haying 20 Establishing Herbaceous Cover 21 Establishing Trees 22 Establishing Shrubs 23 Fallowing/idling 24 Food Plots 	3

PercentTreated1	Long	<p>This is a dropdown list that allows you to pick the percentage (in increments of 5) of the tract you digitize that received the vegetation management treatment. If digitizing outside of the template, use integer values below appropriately:</p> <p>5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100</p>	10
Month1	Long; does not allow nulls	<p>This is a dropdown list that allows you to pick month in which you applied the vegetation management treatment. If digitizing outside of the template, use the integer values below appropriately:</p> <p>1 2 3 4 5 6 7</p>	6

		8 9 10 11 12	
VegMgmtPractice2	Long	This is the same field as VegMgmtPractice1 and may be used if you performed more than one vegetation management practice on a single tract you have digitized. This field may be left null if you did not use more than one vegetation management practice. If digitizing outside of template , refer to VegMgmtPractice1 to find the appropriate integer values to use.	22
PercentTreated2	Long	This is the same field as PercentTreated1 and corresponds to VegMgmtPractice2. This field may be left null if you did not use more than one vegetation management practice. If digitizing outside of template , refer to PercentTreated1 to find the appropriate integer values to use.	6
Month2	Long	This is the same field as Month1 and corresponds to VegMgmtPractice2. This field may be left null if you did not use more than one vegetation management practice. If digitizing outside the template , refer to Month1 to find the appropriate integer values to use.	9
VegMgmtPractice3	Long	This is the same field as VegMgmtPractice1 and may be used if you performed more than two vegetation management practices on a single tract you have digitized. This field may be left null if you did not use more than two vegetation management practices. If digitizing outside of template , refer to VegMgmtPractice1 to find the appropriate integer values to use.	11
PercentTreated3	Long	This is the same field as PercentTreated1 and corresponds to VegMgmtPractice3. This field may be left null if you did not use more than two vegetation management practices. If digitizing outside of template , refer to PercentTreated1 to find the appropriate integer values to use.	25
Month3	Long	This is the same field as Month1 and corresponds to VegMgmtPractice3. This field may be left null if you did not use more than two vegetation management practices. If digitizing outside the template , refer to Month1 to find the appropriate integer values to use.	5
FarmBillPractice	Long	This is a dropdown list that allows you to pick from CRP, EQIP, and (in the case of South Carolina only) CLAP practices used on a tract you digitized. This field may be	106

		<p>left null if the management tract does not participate in these programs. If digitizing outside the template, use the integer values below appropriately:</p> <p>0 CP-1 (Introduced Grass and Legume Establishment)</p> <p>1 CP-2 (Native Grass, Forb, and Legume Establishment)</p> <p>2 CP-3 (Tree Planting)</p> <p>3 CP-3A (Hardwood Tree Planting)</p> <p>4 CP-4B (Wildlife Habitat Corridors)</p> <p>5 CP-4D (Permanent Wildlife Habitat)</p> <p>6 CP-5A (Field Windbreak Establishment)</p> <p>7 CP-6 (Diversion)</p> <p>8 CP-8A (Grass Waterway)</p> <p>9 CP-9 (Shallow Water Areas for Wildlife)</p> <p>10 CP-12 (Wildlife Food Plot)</p> <p>11 CP-15A (Grass Contour Strip)</p> <p>12 CP-16A (Shelterbelt Establishment)</p> <p>13 CP-17A (Living Snow Fence)</p> <p>14 CP-18B (Salinity Reducing Vegetation Establishment)</p> <p>15 CP-21 (Grass Filter Strips)</p> <p>16 CP-22 (Riparian Buffers)</p> <p>17 CP-23 (Floodplain Wetland Restoration)</p> <p>18 CP-23A (Non-Floodplain Wetland Restoration)</p> <p>19 CP-24 (Cross Wind Trap Strip)</p> <p>20 CP-25 (Rare and Declining Habitat)</p> <p>21 CP-26 (Sediment Retention)</p> <p>22 CP-27 (Farmable Wetland - Wetland)</p> <p>23 CP-28 (Farmable Wetland - Buffer)</p> <p>24 CP-29 (Wildlife Habitat Buffer (Marginal Pasture))</p> <p>25 CP-30 (Wetland Buffer (Marginal Pasture))</p> <p>26 CP-31 (Bottomland Hardwood Tree Establishment)</p> <p>27 CP-33 (Upland Bird Habitat Buffer)</p> <p>28 CP-34 (Flood Control Structure)</p> <p>29 CP-36 (Longleaf Pine Establishment)</p> <p>30 CP-37 (Duck Nesting Habitat)</p> <p>31 CP-38 (State Acres for Wildlife Enhancement)</p>	
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		32	CP-39 (Farmable Wetland Program - Constructed Wetland)	
		33	CP-40 (Farmable Wetland Program - Aquaculture Wetland)	
		34	CP-41 (Farmable Wetland Program - Flood Prairie Wetland)	
		35	CP-42 (Pollinator Habitat Establishment)	
		36	EQIP-310 (Bedding)	
		37	EQIP-311 (Alley Cropping)	
		38	EQIP-314 (Brush Management)	
		39	EQIP-315 (Herbaceous Weed Treatment)	
		40	EQIP-326 (Clearing and Snagging)	
		41	EQIP-327 (Conservation Cover)	
		42	EQIP-328 (Conservation Crop Rotation)	
		43	EQIP-329 (Residue and Tillage Management, No-Till)	
		44	EQIP-330 (Contour Farming)	
		45	EQIP-331 (Contour Orchard and Other Perennial Crops)	
		46	EQIP-332 (Contour Buffer Strips)	
		47	EQIP-338 (Prescribed Burning)	
		48	EQIP-340 (Cover Crop)	
		49	EQIP-342 (Critical Area Planting)	
		50	EQIP-345 (Residue and Tillage Management, Reduced Till)	
		51	EQIP-379 (Multi-Story Cropping)	
		52	EQIP-380 (Windbreak/Shelterbelt Establishment)	
		53	EQIP-381 (Silvopasture)	
		54	EQIP-382 (Fence)	
		55	EQIP-383 (Fuel Break)	
		56	EQIP-384 (Woody Residue Treatment)	
		57	EQIP-386 (Field Border)	
		58	EQIP-388 (Irrigation Field Ditch)	
		59	EQIP-390 (Riparian Herbaceous Cover)	
		60	EQIP-391 (Riparian Forest Buffer)	
		61	EQIP-393 (Filter Strip)	
		62	EQIP-394 (Firebreak)	
		63	EQIP-395 (Stream Habitat Improvement and Management)	
		64	EQIP-412 (Grassed Waterway)	
		65	EQIP-422 (Hedgerow Planting)	

		66	EQIP-460 (Land Clearing)	
		67	EQIP-462 (Precision Land Forming)	
		68	EQIP-464 (Irrigation Land Leveling)	
		69	EQIP-466 (Land Smoothing)	
		70	EQIP-468 (Lined Waterway or Outlet)	
		71	EQIP-482 (Mole Drain)	
		72	EQIP-484 (Mulching)	
		73	EQIP-490 (Tree/Shrub Site Preparation)	
		74	EQIP-511 (Forage Harvest Management)	
		75	EQIP-512 (Forage and Biomass Planting)	
		76	EQIP-528 (Prescribed Grazing)	
		77	EQIP-548 (Grazing Land Mechanical Treatment)	
		78	EQIP-550 (Range Planting)	
		79	EQIP-585 (Stripcropping)	
		80	EQIP-590 (Nutrient Management)	
		81	EQIP-592 (Feed Management)	
		82	EQIP-595 (Integrated Pest Management)	
		83	EQIP-600 (Terrace)	
		84	EQIP-601 (Vegetative Barrier)	
		85	EQIP-603 (Herbaceous Wind Barriers)	
		86	EQIP-604 (Saturated Buffer)	
		87	EQIP-612 (Tree/Shrub Establishment)	
		88	EQIP-643 (Restoration of Rare and Declining Natural Communities)	
		89	EQIP-644 (Wetland Wildlife Habitat Management)	
		90	EQIP-645 (Upland Wildlife Habitat Management)	
		91	EQIP-646 (Shallow Water Development and Management)	
		92	EQIP-647 (Early Successional Habitat Development/Management)	
		93	EQIP-649 (Structures for Wildlife)	
		94	EQIP-650 (Windbreak/Shelterbelt Renovation)	
		95	EQIP-654 (Road/Trail/Landing Closure and Treatment)	
		96	EQIP-655 (Forest Trails and Landings)	
		97	EQIP-656 (Constructed Wetland)	
		98	EQIP-657 (Wetland Restoration)	
		99	EQIP-658 (Wetland Creation)	

		100 EQIP-659 (Wetland Enhancement) 101 EQIP-660 (Tree/Shrub Pruning) 102 EQIP-666 (Forest Stand Improvement) 103 SC CLAP - Winter Disking 104 SC CLAP - Timber Stand Improvement (Mechanical or Chemical) 105 SC CLAP - Firebreaks 106 SC CLAP - Hedgerow Establishment 107 SC CLAP - Forest Opening Establishment 108 SC CLAP - Field Border Establishment 109 SC CLAP - Control of Sod-Forming Grasses 110 SC CLAP - Prescribed Burning 111 SC CLAP - Tree/Shrub Establishment for Woody Escape Cover 112 SC CLAP - Thinning to <= 60 Basal Area 113 SC CLAP - Conservation Cover Native or Pollinator Species 114 SC CLAP - Native Warm Season Grass Establishment	
MCMPractice1	Long	This is a dropdown list that allows you to pick from mid-contract management practices used on farm bill enrolled tracts. This field may be left null if the MCM practice is unknown, was not performed, or the tract is not enrolled in a farm bill program. If digitizing outside of the template , use integer values below appropriately: 1 Shallow Disking 2 Prescribed Burn 3 Herbicide Application 4 Interseeding 5 Mowing	4
Month4	Long	This is the same field as Month1 and corresponds to MCMPractice1. This field may be left null ONLY if MCMPractice1 is left null. If digitizing outside the template , refer to Month1 to find the appropriate integer values to use.	4
MCMPractice2	Long	This is the same field as MCMPractice1 and may be used if more than one mid-contract management practice was performed on the tract. This field may be left null if <= 1 MCM practice was used. If digitizing outside the template , refer to MCMPractice1 to find the appropriate integer values to use.	1

Month5	Long	This is the same field as Month1 and corresponds to MCMPractice2. This field may be left null ONLY if MCMPractice2 is left null. If digitizing outside the template, refer to Month1 to find the appropriate integer values to use.	12
Year	Long; does not allow nulls	This is a dropdown list that specifies the year in which the vegetation management and farm bill practices were applied to the tract. If digitizing outside the template, use the integer values below appropriately: 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035	2014
Herbicide1	Long	This is a dropdown list that may be used if an herbicide treatment was performed on the tract. This field may be left null if no herbicide treatment was used or it is	6

		<p>unknown. If digitizing outside the template, use the integer values below appropriately:</p> <ul style="list-style-type: none"> 1 2,4-D 2 2,4-D + Picloram 3 Aminopyralid 4 Clethodim 5 Glyphosate 6 Imazapic 7 Imazapyr 8 Metsulfuron methyl 9 Picloram 10 Sethoxydim 11 Triclophyr 12 Triclophyr + Fluroxypyr 13 Other 	
Herbicide2	Long	<p>This is the same field as Herbicide1 and may be used if more than one herbicide was applied. This field may be left null if ≤ 1 herbicide was used or the second herbicide used is unknown. If digitizing outside the template, refer to Herbicide1 for the appropriate integer values to use.</p>	10
ImplementedBy	Long	<p>This field is a dropdown list where you may pick who performed the vegetation management treatment on the tract. This field may be left null if it is unknown. If digitizing outside the template, use the integer values below appropriately:</p> <ul style="list-style-type: none"> 1 State Agency 2 Contractor 3 Private Landowner 4 NGO 5 Other 	3
FundedBy	Long	<p>This field is a dropdown list where you may pick who funded the vegetation management treatment. This field may be left null if it is unknown. If digitizing outside the template, use the integer values below appropriately:</p> <ul style="list-style-type: none"> 1 State Agency 2 Federal Agency 3 Private Landowner 4 NGO 	4

		5 Other	
Comments	Text	Any comments you wish to add about a particular patch	Saw a bobwhite here.