

**GIS Day 2025** 

**Johnathan C Adkins** 

WVDOT INFORMATION TECHNOLOGY DIVISION

# Agenda

- What is event data?
- Self Service Report Portal
- Demonstration: Using the SSRP and Event Data
- QA/QC Event Data







#### What is Event Data?

- Geographic features stored in a tabular format
- Can be displayed either as line or point data
- Needs to be created specifically for the network you are using
- To be displayed on map, need to have GEOMETRY









## Formatting an Event Table

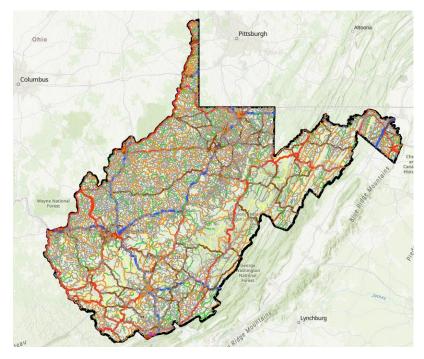
- RouteID 13 digit code that relates table entry to route in network
- From MP Beginning mile point
- To MP Ending mile point
- Event Info The information you want to display or analyze
- Unique ID Contains different value for each unit, GIS software will create this
- **†Milepoint** For non-linear features, like signs, bridges, potholes, etc...

1	Α	В	С	D	Е
1	Unique	RouteID	BMP	EMP	Width_ft
2	1	2040004010000	0.00	5.00	12
3	2	2040004010000	5.00	6.00	8
4	3	2040004010000	6.00	7.00	24
5	4	2040004010000	7.00	7.10	36
6	5	2040004010000	7.10	7.25	12





## What is needed to map event data?



ROUTE_ID	MP_Start	MP_End	AADT	AADT_YEA	AVG_LANE_	W PCT_PASS_SIGHT	SPEED_LIMIT_MPH	COUNTY	SignSystem
44100790000NB	21.28	25.46	8100	2023	12	(	70	44 - Roane	1 - Interstate
44100790000SB	21.28	25.79	9400	2020	12			44 - Roane	1 - Interstate
44100790000NB	25.46	25.79	8100	2023	12	0	70	44 - Roane	1 - Interstate
44100790000NB	25.79	33.99	6800	2023	12	(	70	44 - Roane	1 - Interstate
44100790000SB	25.79	36	7900	2020	12			44 - Roane	1 - Interstate
44100790000NB	33.99	34.05	6800	2023	12	(	70	44 - Roane	1 - Interstate
44100790000NB	34.05	36	6800	2023	12	(	70	44 - Roane	1 - Interstate
44200330000EB	0	4.33	2000	2023	10			44 - Roane	2 - U.S.
44200330000WB	0	4.33	1800	2020	10			44 - Roane	2 - U.S.
44201190000NB	0	5.86	1700	2023	NULL			44 - Roane	2 - U.S.
44201190000SB	0	5.86	1600	2020	NULL			44 - Roane	2 - U.S.
44200330000EB	4.33	5.61	2000	2023	10	(	55	44 - Roane	2 - U.S.
44200330000WB	4.33	5.61	2000	2020	10			44 - Roane	2 - U.S.

**Route Dataset** 

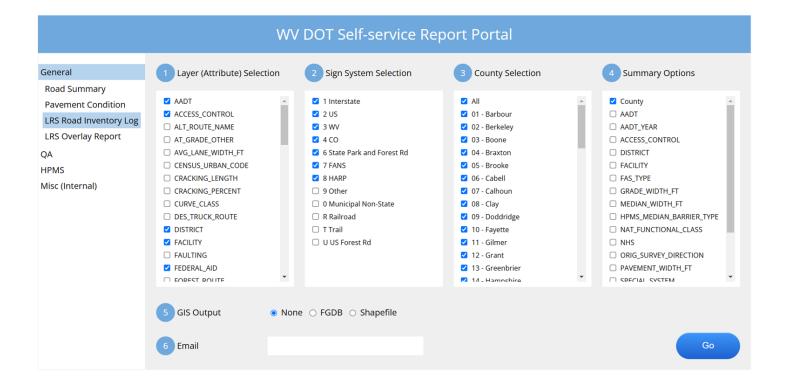
**Event Table** 







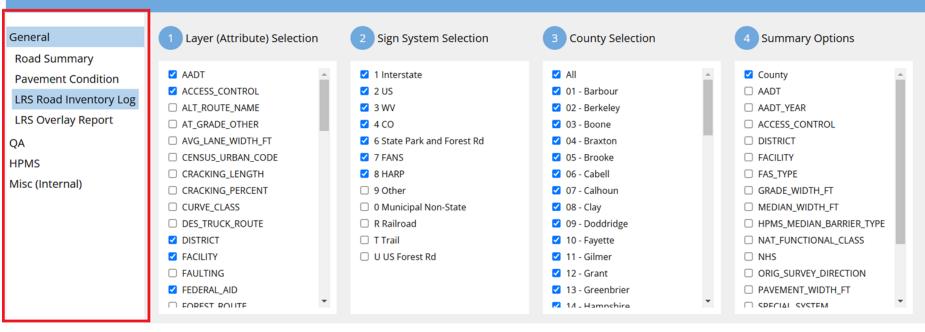
## Self-Service Report Portal







## Self-Service Report Portal - Left panel

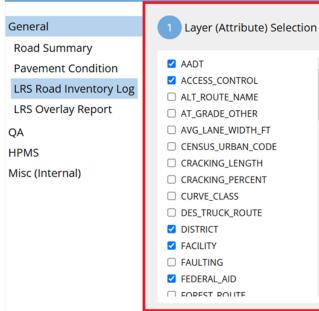






## Self-Service Report Portal - Layers

#### WV DOT Self-service Report Portal



2 Sign System Selection

1 Interstate
2 US
3 WV
4 CO
6 State Park and Forest Rd
7 FANS
8 HARP
9 Other
0 Municipal Non-State
R Railroad
T Trail
U US Forest Rd

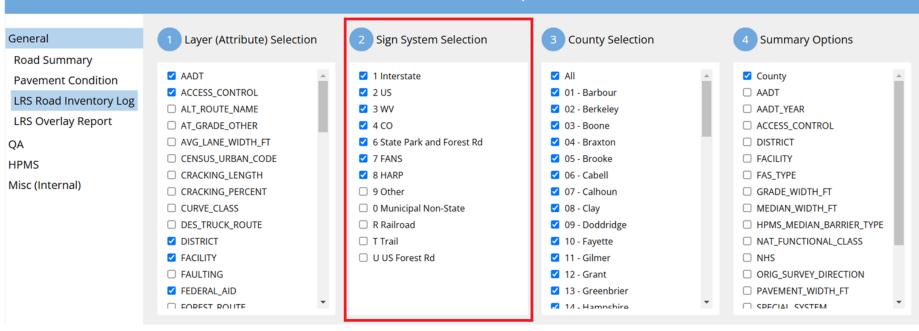
**County Selection** All 01 - Barbour 02 - Berkeley ✓ 03 - Boone 04 - Braxton 05 - Brooke ✓ 06 - Cabell 7 07 - Calhoun ✓ 08 - Clay 09 - Doddridge ✓ 10 - Fayette 11 - Gilmer 12 - Grant 13 - Greenbrier 11 - Hamnshira

**Summary Options** County □ AADT □ AADT\_YEAR □ ACCESS\_CONTROL □ DISTRICT ☐ FACILITY ☐ FAS\_TYPE ☐ GRADE\_WIDTH\_FT ☐ MEDIAN WIDTH FT ☐ HPMS\_MEDIAN\_BARRIER\_TYPE □ NAT\_FUNCTIONAL\_CLASS ☐ NHS □ ORIG\_SURVEY\_DIRECTION □ PAVEMENT\_WIDTH\_FT ☐ SDECIAL SYSTEM





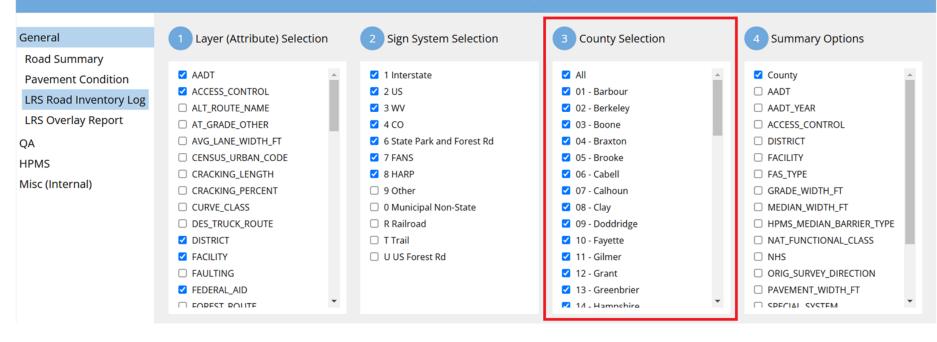
## Self-Service Report Portal - Sign System







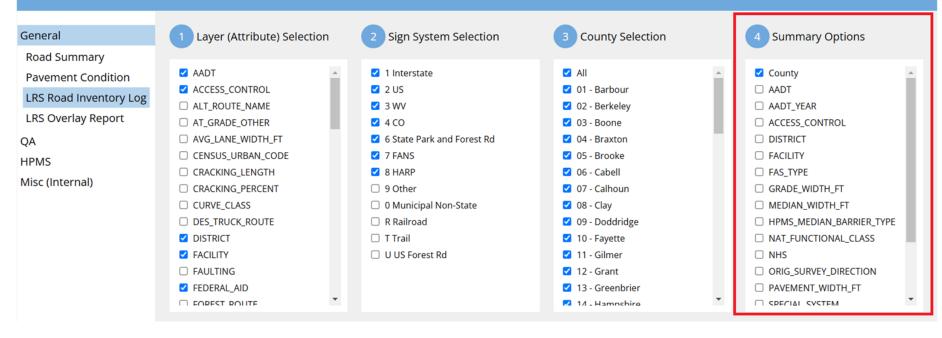
#### Self-Service Report Portal - Counties







## Self-Service Report Portal - Summary

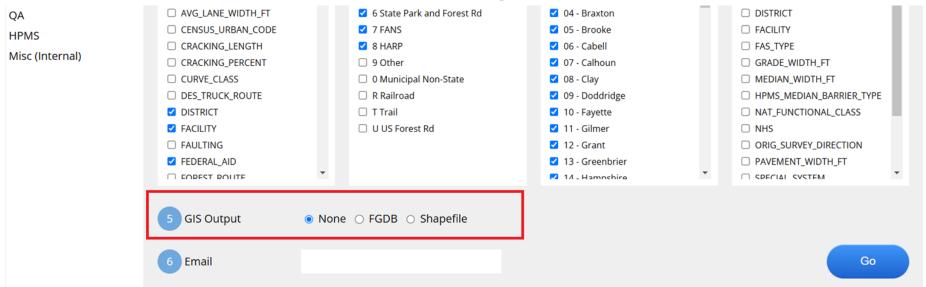






## Self-Service Report Portal - Download Formats

- None download a zip file containing an excel file with the selected layers.
- FGDB download a zip file containing a GeoDatabase and an excel file.
- Shapefile download a zip file containing a Shapefile and an excel file.

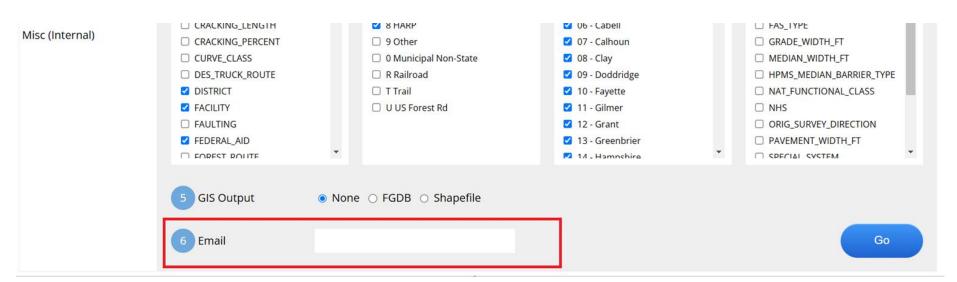






## Self-Service Report Portal - Email

 Email fill out the email to receive the link to download the zip file in your email.

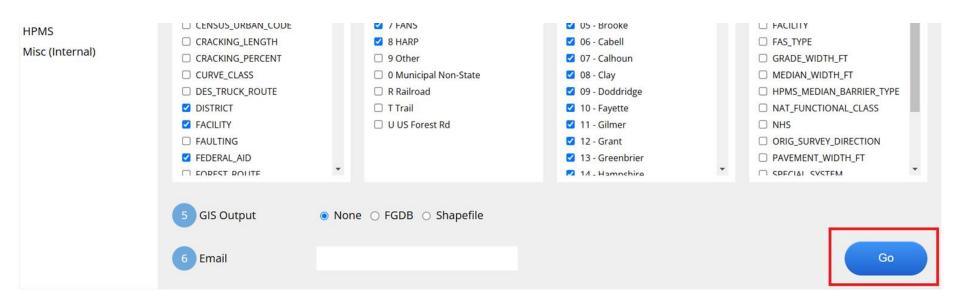






## Self-Service Report Portal - Go

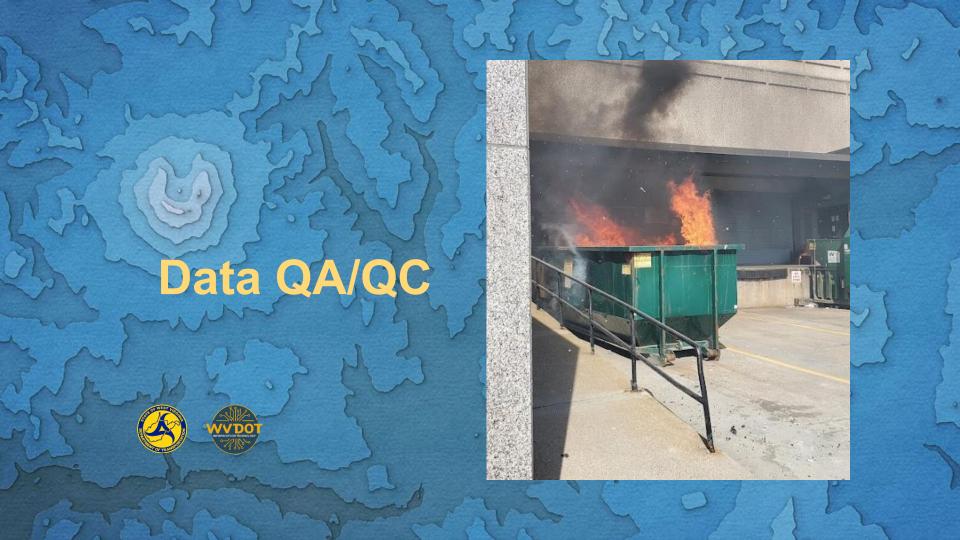
 Go - Click on Go button to start the download, depending on the amount of layers selected it will take moment.







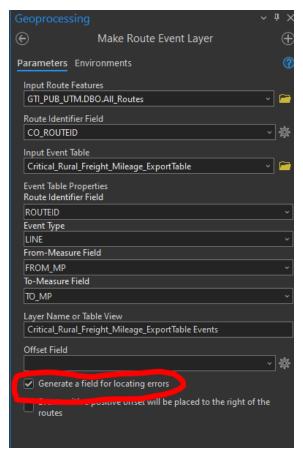




#### How to find errors?

- During Make Route Event Layer, always select
   Generate Location Errors
- Field LOC\_ERROR will be created on data
- Select by Attributes for LOC\_ERROR not equal NO ERROR

	ObjectID *	COUNTY	ROUTE_NAME	ROUTEID	FROM_MP	TO_MP	LENGTH	LOC_ERROR	SUPP_CODE	DESCRIPTION	QAQC_C
1		Tucker	Corridor H	47200480024EB		6.3	6.3	NO ERROR	24	Corridor H Constructi	<null></null>
		Wood	WV 2	5430002000000	23.11	29.46	6.35			WV 2 from the junctio	<null></null>
		Raleigh	WV 121 Coalfields Xpr	4130121000000	6.46	10.86	4.4		00	Coalfields Expressway	Short fro
		Mercer	US 52 King Coal High	28200520024EB			2.75		24	King Coal From WV 71	<null></null>
	5	Mercer	WV 108 King Coal Hig	2830108000000	1.1	2.43	1.33		00	King Coal from Wv 123	Portion (
		Putnam	US 35	40200350000NB		16.78	16.78	PARTIAL MATCH FOR T		US 35 from I-64 to the	<null></null>
		Ohio	WV 2	3530002000000		3.31	3.31		00	WV 2 from the Marsha	<null></null>
		McDowell	WV 121 Coalfields Xpr	2430121002400					24	Coalfields Expressway	Not exac
	9	Mercer	US 52 King Coal High	28200520024EB	7.83	10.93	3.1	PARTIAL MATCH FOR T	24	King Coal from WV 20	<null></null>

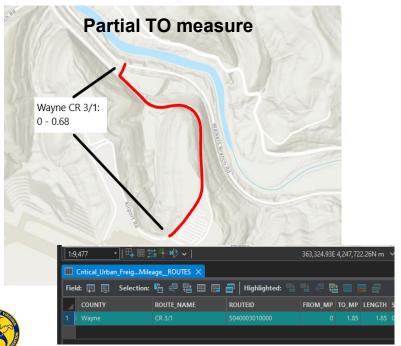


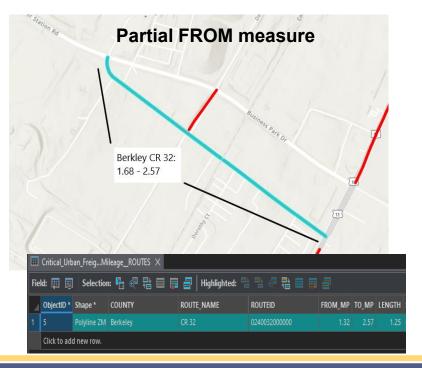




## > Error Types

- No Error
- Partial Match for the From(To) Measure
- Partial Match for the From Measure and To Measure









## > Error Types

#### Route Not Found

934837	2.33001E+12	1	39.74	40.1	Patching	0223	
934843	2.34001E+12		0	12.46	Patching	0223	
961382	2.34001E+12		0	12.46	Mowing	0223	
912248	2.34001E+12		0	0.08	Stabilizati	0223	
912251	2.34001E+12	/	0	0.4	Stabilizati	0223	
934896	2.34011E+12	l	0	0.89	Patching	0223	
934899	2.34001E+12	١	0	1.78	Patching	0223	
934900	2.34001E+12	١	1.78	1.84	Patching	0223	
961442	2.34021F+12		0	0.05	Mowing	0223	

#### Incorrect RouteIDs

	ID	357,038.00
	LNAME	
	MILES	1.13
	NHS	1.00
	NHS_ACTION	
	OWNERSHIP	1.00
(	ROUTEID	R-VA IS00581NB
	Shape_Length	0.02
VIES:	N1	1581



#### Concurrent routes



Wrong RouteID

#### Routes not in system yet





## Best Practices: Check your data

- Ask yourself these questions to gauge how difficult cleaning the data will be
- When was it created?
- Where did it come from?
- Does your sheet have the correct fields?
- Is the data formatted correctly?
- Does this file exist as a Shapefile or Feature Class?

Rural / Urban	MPO	County	Sign System	Route #	Begin	End	Length
Urban	FRMPO	Raleigh	US	19	8.75	12.191	3,441
Urban	FRMPO	Raleigh	US	19	17.12	18.32	1.2
Urban	FRMPO	Raleigh	US	19	16.321	18.927	2.606
Urban	воммро	Marshali	US	250	33.98	39.2	5.22
Urban	RIC	Kanawha	WV	94	1.507	6.962	5.455
Urban	RIC	Kanawha	US	119	0.7	1.17	0.47
Urban	RIC	Kanawha	wv	622	2.403	3.318	0.915
Urban	RIC	Kanawha	US	119	13.927	14.908	0.981
Urban	RIC	Kanawha	US	119	0	0.088	0.088
Urban	воммро	Ohio	WV	2	3.31	8.89	5.58
Urban	RIC	Kanawha	US	119	0	0.3	0.3
Urban	RIC	Kanawha	US	119	0	0.3	0.3
Urban	RIC	Kanawha	US	119	15.424	17.03	1.606





## Dest Practices: Which LRS are you using?

- If the data is clean, ask yourself these questions about the LRS
- Dominant Routes? All Routes? RIL? Transactional?
- When was the last version published?
- Are there routes that have been removed since last publication?
- Do the routes have signed Commissioner's Order?
- When in doubt, reach out to the data provider or the IT Division

# Dominant Routes WVDOT\_Publisher Data reflects most recent database publication (July 2024). All Dominant Highway Routes as part of Federal Linear Referencing System Type: Feature Service Date updated: 2/24/2025 Tags: Roads, Dominant Routes, LRS, WVDOH, WVDOH\_LRS, Lin... Date created: 4/10/2018







