

**WARREN County 2021**  
**INVENTORY, APPRAISAL & INSPECTION SNAPSHOT**

7/2/2021

**Inventory Data - NBIS Bridges Only**

	<u>NBIS COUNT</u>
NBIS Bridges > 20'	187
Bridges 10'-20'	202
	389

<b>Item 22 Inspection Responsibility</b>		<b>CODE</b>	<b># NBIS</b>	<b># ALL</b>
Data Tab	Col B'V,B'W County	2	187	389
<b>Item 21 Maintenance responsibility</b>		<b>CODE</b>	<b># NBIS</b>	<b># ALL</b>
Data Tab	County	2	187	385
Col D	City or other local	4	0	0
	Railroad	27	0	1
	Private (tohter than RR)	26	0	3
	State Park	11	0	0
	Local Park	23	0	0
	Township	3	0	0
			187	389
<b>Item 42 Type service on bridge</b>		<b>CODE</b>	<b># NBIS</b>	<b># ALL</b>
Data Tab	Other	0	0	0
Col Q	Highway	1	187	388
	Railroad	2	0	1
	Ped/Bikeway	3	0	0
	Hwy/RR	4	0	0
	Hwy/Ped	5	0	0
			187	389
<b>Item 42 Type service under bridge</b>		<b>CODE</b>	<b># NBIS</b>	<b># ALL</b>
Data Tab	Other	0	0	0
Col R	Hwy w/ or w/o Ped	1	0	1
	Railroad	2	0	0
	Ped/Bkwy	3	0	3
	Hwy w/ RR	4	0	0
	Waterway	5	187	385
	Hwy/waterway	6	0	0
	RR/waterway	7	0	0
	Hwy/waterway/RR	8	0	0
	Relief (for waterways)	9	0	0
			187	389

<b>ITEMS 43A,B,C Structure Type</b> (Col M,N,O)		<b>CODE</b>	<b># NBIS</b>	<b># ALL</b>
	Concrete Slab	101	5	28
	Concrete Frame	107	5	32
	Concrete Culvert (incl frame culverts)	119	7	41
	Concrete Continuous Slab	201	4	5
	Steel Beam or Girder	302	7	21
	Steel Thru Truss (includes Pony)	310	3	3
	Steel Culvert (incl frame culverts)	319	10	30
	Steel Continuous Beam or Girder	402	3	3
	Prestressed Concrete Thru Arch	502	1	1
	Prestr. Conc. Cont. Box Beam/Girder Multiple	505	125	151
	Prestr. Conc. Cont. Box Beam/Girder Multiple	605	3	3
	Timber Culvert (incl frame culverts)	819	3	11
	Aluminum or Iron Culvert (incl frame culverts)	919	11	60
			187	389

<b>Item 92 Fracture Critical</b>		<b>CODE</b>	<b># NBIS</b>	<b># ALL</b>
Data Tab	Requires FC Inspection	Y	2	n/a
Col U,V,Y	Requires FC Inspection	N	185	n/a
			187	n/a
		FC Switch Y/N is Blank	0	n/a

<b>Item 11: Scour</b>			<b># NBIS</b>	<b># ALL</b>
Data Tab	Bridge not over waterway	N	0	4
Col AA	unknown foundation	U	0	0
	over tidal waters	T	0	0
	foundations on dry land	9	7	13
	stable above footing	8	124	231
	countermeasures installed	7	18	52
	no scour evaluation made	6	0	0
	stable within footer limits	5	38	89
	stable action needed	4	0	0
	scour critical - unstable	3	0	0
	scour critical - scour present	2	0	0
	scour critical - failure immine	1	0	0
	scour critical - bridge failed	0	0	0
			187	389

<b>Item 92 Underwater</b>		<b>CODE</b>	<b># NBIS</b>	<b># ALL</b>
Data Tab	requires dive inspection	N	180	n/a
Col W,X,Z	requires dive inspection	Y	7	n/a
			187	

<b>Item 70 Plan Information</b>		<b>CODE</b>	<b># NBIS</b>	<b># ALL</b>
Data Tab	plans not avail	0	9	58
Col. A/W	plan avail	1	171	307
	field measured	2	7	23
	Field Testing	3	0	0
	not applicable	N	0	1
			187	389

<b>Item 63 Method of Analysis</b>		<b>CODE</b>	<b># NBIS</b>	<b># ALL</b>
Data Tab	Work Stress	0	11	66
Col. AV	LFR	1	0	0
	LRFR	2	0	0
	load test	3	0	0
	No rating done	4	0	0
	LFR	5	0	1
	AS	6	116	211
	LRFR	7	2	10
	Assigned LFR HS20	8	58	101
	Assigned LRFR HL93	D	0	0
	not appl (RR, etc)	F	0	0
	Not applicable (Ped, RR, Bld	X	0	0
			187	389

**REMINDER:**

**Load Factor required for bridges built aft (exceptions: timber, etc.)  
LRFR required for bridges built after 2010**

## Inspection Condition Data - NBIS Bridges Only

Item 41 Operating Status		CODE	# NBIS	# ALL
Data Tab	Open, No restriction	A	164	363
Col AM	Open, posting recommended	B	0	0
	Open, Half width constr.	C	0	0
	Open because of temp. fix	D	0	0
	Open using temp. structure	E	0	0
	New structure not yet open	G	0	0
	closed for load cap. reason	K	2	3
	Posted for load capacity	P	21	23
	Posted for other than load	R	0	0
	Closed for other than load	X	0	0
			187	389

### Load Rating Data

Load Rating Tab	# OF ERRORS
Col. AN	Op RF greater than Inv RF?
Col. AO	Posting and % Legal OK?
Col. AP	"0" used instead of blank
Col. AT	% legal <> lowest RF
Col. AY	Item 70 correct?
Col. AW	Method of Rating Alike?
Col. AX	Op & Inv RF in Tons as req'd?
Col. AY	Item 575 correct?
Col. AZ	Depth of fill completed?

### KEY METRICS

<b>(C)</b>	<b>Compliant</b>	<b>(CC)</b>	<b>Conditionally Compliant</b>
<b>(SC)</b>	<b>Substantially Compliant</b>	<b>(NC)</b>	<b>Non-Compliant</b>
		<b>(NC)</b>	<b>(SC) If corrected within 6/12 months</b>
			<b>Refresher=6 mo, Comprehensive=12 mo</b>

#### METRIC 2 - Program Manager Q (from files examination)

From Files review	Missing	#sampled	% PASS	COMPLIANCE
PE /Experience	0	1	100.0%	(C)
Comprehensive	0	1	100.0%	(C)
Refresher	0	1	100.0%	(C)

#### METRIC 3 - Team Leader Qualifi (from files examination)

From Files review	Missing	#sampled	% PASS	COMPLIANCE
Degree /Experience	0	2	100.0%	(C)
Comprehensive	0	2	100.0%	(C)
Refresher	0	2	100.0%	(C)

**METRIC 5 - UW Diver Qualificat** (from files examination)

From Files review		Missing	#sampled	% PASS	COMPLIANCE
Degree / Experience		0	1	100.0%	(C)
Comprehensive training		0	1	100.0%	(C)

**METRIC 6 Insp. Frequency Routine**

Bridge	Inspections Overdue	# OVERDUE	% PASS	COMPLIANCE
Data Tab NBIS - 24 months		0	100.0%	(C)
Col. AB ORC - Calendar Year		0	100.0%	(C)
BIM - 18 months		0	100.0%	(C)

**METRIC 8 - Insp. Frequency Underwater**

Dive Inspections Overdue	# OVERDUE	# UW	% PASS	COMPLIANCE
Data Tab Col. Z 60 months	0	7	100.0%	(C)

**METRIC 10 - Insp. Frequency FC Member**

FC Inspections Overdue	# OVERDUE	# FC	% PASS	COMPLIANCE
Data Tab Col. Y 24 months	0	2	100.0%	(C)

**METRIC 12 - Routine Inspection**

Field Ratings	# > +/-	# Rating	% PASS	COMPLIANCE
field ratings	0	24	100.0%	(C)
Comments	Missing	# < 6	% PASS	
Tab Comments when Rating < 6	3	185	98.4%	(C)
Comments	Error	total Scot	% PASS	
Tab Rating should be = Scour	0	185	100.0%	within tolerance +/- 1
Tab Noncompliant Scour Rating f	0	185	100.0%	(C)

The 3 bridges missing comments for scour had comments about scour in other items like Substructure and Culvert. They are fully compliant.

**METRIC 14 - Posting** Load rating data tab

From Files review	# errors	#sampled	% PASS	COMPLIANCE
Op RF < 3 tons but not closed	0	187	100.0%	(C)
Op RF = 0 but not closed	0	187	100.0%	(C)
% Legal < 100 but not posted	0	187	100.0%	(C)
Item 41 = B	0	187	100.0%	(C)

You have 10 bridge where they are coded as posted, but there is no sign installation date entered in Column AM Item 70.01

**METRIC 16 - Fracture Critical Inspection**

From Files review	Missing	# FC	% PASS	COMPLIANCE
Fract Critical Member ID	0	2	100.0%	(C)
Fatigue Prone Detail	0	2	100.0%	(C)
Gusset Plate Calculations	0	2	100.0%	(C)
FC Inspection Procedure	0	2	100.0%	(C)

**METRIC 17 - Underwater Inspection**

From Files review	Missing	# UW	% PASS	COMPLIANCE
UW Inspection Procedure	0	1	100.0%	(C)
Location of UW elements	0	1	100.0%	(C)
UW frequency identified	0	1	100.0%	(C)

**PRELIMINARY FHWA 23 Metric Matrix**

23 metrics used by FHWA to measure NBIS compliance

**Compliance Codes for the following Metrics:**

- (C)** Compliant
- (SC)** Substantially Compliant
- (CC)** Conditionally Compliant (Adhering to approved PCA)
- (NC)** Not Compliant

Metric	Description	(C)	(SC)	(CC)	(NC)
1	State Bridge Inspection Organization				
2	Program Manager Qualification				
3	Team Leader Qualification				
4	Load Rating Engineer Qualification				
5	UW Bridge Inspection Diver Qualification				
6	Routine Inspection Frequency - Low Risk				
7	Routine Inspection Frequency - High Risk				
8	UW Inspection Frequency - Low Risk				
9	UW Inspection Frequency - High Risk				
10	FC Inspection Frequency				
11	Frequency Criteria				
12	Inspection Quality				
13	Load Rating				
14	Posted or Restricted Bridges				
15	Bridge Files				
16	FC Bridges				
17	UW inspection procedures				
18	Scour Critical Bridges				
19	Complex Bridges				
20	QC/QA				
21	Critical Findings				
22	Inventory **				
23	Updating of Data				

\*\* based on results of Field Review

Metric	Action Needed
14	enter sign installation dates in item 70.01 for those missing the dates