

# WASHINGTON County 2020 INVENTORY, APPRAISAL & INSPECTION SNAPSHOT

2/9/2021

## Inventory Data - NBIS Bridges Only

	<u>NBIS COUNT</u>
NBIS Bridges > 20'	213
Bridges 10'-20'	164
	377

Item 221 Inspection Responsibility	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab Col BV,BW County	2	213	377
Item 21 Maintenance responsibility	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab County	2	208	371
Col D City or other local	4	0	0
Railroad	27	5	6
Private (tohter than RR)	26	0	0
State Park	11	0	0
Local Park	23	0	0
Township	3	0	0
		213	377
Item 42A Type service on bridge	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab Other	0	0	0
Col Q Highway	1	202	365
Railroad	2	5	6
Ped/Bikeway	3	4	4
Hwy/RR	4	0	0
Hwy/Ped	5	2	2
		213	377
Item 42B Type service under bridge	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab Other	0	0	0
Col R Hwy w/ or w/o Ped	1	5	6
Railroad	2	0	0
Ped/Bkwy	3	2	2
Hwy w/ RR	4	0	0
Waterway	5	206	369
Hwy/Waterway	6	0	0
RR/Waterway	7	0	0
Hwy/Waterway/RR	8	0	0
Relief (for waterways)	9	0	0
		213	377

<b>ITEMS 43A,B,C Structure Type</b>	Data (Col M,N,O)	<b>CODE</b>	<b># NBIS</b>	<b># ALL</b>
Concrete Slab		101	13	70
Concrete Tee Beam		104	3	4
Concrete Box Beam/Girder Multiple		105	1	1
Concrete Frame		107	3	48
Concrete Culvert (incl frame culverts)		119	2	11
Concrete Continuous Slab		201	9	10
Concrete Continuous Box Beam/Girder Multiple		205	1	1
Steel Beam or Girder		302	40	54
Steel Girder w/ Floor System		303	3	3
Steel Deck Truss		309	1	1
Steel Thru Truss (includes Pony)		310	17	17
Steel Culvert (incl frame culverts)		319	3	25
Steel Continuous Beam or Girder		402	15	15
Prestressed Concrete Thru Arch		502	3	3
Prestr. Conc. Cont. Box Beam/Girder Multiple		505	92	103
Timber Thru Truss (includes Pony)		710	7	7
Timber Culvert (incl frame culverts)		819	0	1
Timber Culvert (incl frame culverts)		919	0	3
			<u>213</u>	<u>377</u>

<b>Item 92A Fracture Critical</b>		<b>CODE</b>	<b># NBIS</b>	<b># ALL</b>
Data Tab	Requires FC Inspection	Y	18	n/a
Col U,V,Y	Requires FC Inspection	N	195	n/a
			<u>213</u>	<u>n/a</u>
	FC date blank but FC=Y		0	n/a

missing Y/N switch RIC-T0258-0040 \_(7031093)

<b>Item 113 Scour</b>			<b># NBIS</b>	<b># ALL</b>
Data Tab	Bridge not over waterway	N	7	8
Col AA	unknown foundation	U	0	0
	over tidal waters	T	0	0
	foundations on dry land	9	0	0
	stable above footing	8	79	124
	countermeasures installed	7	0	0
	no scour evaluation made	6	0	0
	stable within footer limits	5	127	245
	stable action needed	4	0	0
	scour critical - unstable	3	0	0
	scour critical - scour present	2	0	0
	scour critical - failure imminent	1	0	0
	scour critical - bridge failed	0	0	0
			<u>213</u>	<u>377</u>



Item 63	Documented Engineering Judgment	# NBIS	# ALL
	Field Eval & Doc EJ	14	n/a

BR\_100 for these bridges?

Item 92B	Underwater	CODE	# NBIS	# ALL
Data Tab	requires dive inspection	N	206	n/a
Col W,X,Z	requires dive inspection	Y	7	n/a
			213	
	dive insp date blank but Dive=Y		0	n/a

Item 709	Plan Information	CODE	# NBIS	# ALL
Data Tab	plans not avail	0	22	96
Col. AW	plan avail	1	156	237
	field measured	2	26	35
	Field Testing	3	0	0
	not applicable	N	9	9
			213	377

Item 63	Method of Analysis	CODE	# NBIS	# ALL
Data Tab	Field Eval & Doc. Eng Judgment	0	14	89
Col. AV	Load testing	4	0	0
	No Rating done	5	9	0
	Load Factor (LF)	6	153	0
	WS or AS	7	2	0
	Load & Resistance Factor	8	35	17
	Assigned Rating (LFR) HS20	D	0	222
	Assigned Rating (LRFR) HL93	F	0	2
	Not applicable (Ped, RR, Bldg)	X	0	47
			213	377

**REMINDER:**

**Load Factor required for bridges built after 1993**

**(exceptions: timber, etc,)**

**LRFR required for bridges built after 2010**

## Inspection Condition Data - NBIS Bridges Only

Item 41	Operating Status	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab	Open, No restriction	A	182	346
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 struture not yet open	G	0	0
	closed for load cap. reason	K	6	6
	Posted for load capacity	P	25	25
	Posted for other than load	R	0	0
	Closed for other than load	X	0	0
			213	377

### Load Rating Data

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

# KEY METRICS

**(C)** Compliant  
**(SC)** Substantially Compliant

**(CC)** Conditionally Compliant  
**(NC)** Non- Compliant  
**(NC)** (SC) If corrected within 6/12 months  
 Refresher=6 mo, Comprehensive=12 mo

## METRIC 2 - Program Manager Qualification (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 Qualification (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 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	18	100.0%	(C)

## METRIC 12 - Routine Inspection

Field Ratings	# > +/-1	# Ratings	% PASS	COMPLIANCE	
field ratings	0	24	100.0%	(C)	
Comments	Missing	# < 6	% PASS		
Tab	Comments when Rating < 6	0	202	100.0%	(C)
	quality of comments	6	6	0.0%	(NC)
	Error	Total Scour	% PASS		
Comments	Rating should be = Scour	2	200	99.0% within tolerance +/- 1	
Tab	Noncompliant Scour Rating Err	0	200	100.0%	(C)

## METRIC 14 - Posting Load rating data tab

From Files review	# errors	#sampled	% PASS	COMPLIANCE
Op RF < 3 tons but not closed	0	213	100.0%	(C)
Op RF = 0 but not closed	0	213	100.0%	(C)

% Legal < 100 but not posted	0	213	100.0%	(C)
Item 41 = B	0	213	100.0%	(C)

**METRIC 16 - Fracture Critical Inspection**

<b>From Files review</b>	<b>Missing</b>	<b># FC</b>	<b>% PASS</b>	<b>COMPLIANCE</b>
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	0.1	2	95.0%	(SC)

**METRIC 17 - Underwater Inspection**

<b>From Files review</b>	<b>Missing</b>	<b># UW</b>	<b>% PASS</b>	<b>COMPLIANCE</b>
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
12	need complete comments with LES on all ratings <=6
16	Supply Risk Factors in FC Insp Procedure for each FC bridge

Note: Bridge file needs to have the dive insp credentials in the file.