

# TTP Bridge Update

## BIA Providers Conference

1



Anchorage, AK  
November 28, 2018

Russell Garcia, PE  
TTP Bridge Program Manager  
FHWA/Office of Tribal Transportation

# Topics

2

- TTP Bridge Components
- TTP Bridge Program
- TTP Bridge Inspection Program
- Tribal Bridge Inspection (MAP-21)
- NBI Data Submittal – BIA & Tribal
- Tribal Bridge Inspection Process
- NBIS Compliance – 23 Metrics



# TTP Bridge Components

3

- **TTP Bridge Program**
  - Funding Applications – 23 CFR 661
- **TTP Bridge Inspection Program**
  - 23 CFR 650 Subpart C
  - Tribal Bridge Inspection (initial/routine)
  - NBI Data Submittal Update – FHWA NBI
  - NBIS Compliance – Bridge Posting



# TTP Bridge Program



## ***Criteria for bridge eligibility (23 CFR § 661.17):***

- Bridge eligibility requires the following: i. Have an opening of 20 feet or more. ii. Be classified as a tribal transportation facility. iii. Be structurally deficient or functionally obsolete. iv. Be recorded in the National Bridge Inventory (NBI) maintained by the FHWA.
- Bridges that were constructed, rehabilitated, or replaced in the last 10 years, are only eligible for seismic retrofit or installation of scour countermeasures.



# TTP Bridge Program



## ***Eligible activities for TTP Bridge Program funds (23 CFR § 661.15):***

TTP Bridge Program funds can be used by Tribes for the following activities:

Planning, design, engineering, preconstruction, construction, and inspection of a project to replace, rehabilitate, seismically retrofit, paint, apply calcium magnesium acetate, sodium acetate/formate, or other environmentally acceptable, minimally corrosive anti-icing and deicing composition.



# TTP Bridge Program



## *Procedures for submitting an application package from FHWA Agreement Tribe:*

Any time during the year a Tribe may prepare and submit to their FHWA Tribal Coordinator (TC) an application package to request funding for bridge preliminary engineering (PE) or bridge construction (CN). **The TC will assist the Tribe in preparing the application package. Then, the application package is submitted directly to FHWA/OTT Bridge Program Manager (PM) for review of the application.**



# TTP Bridge Program



## *Procedures for submitting an application package from BIA Tribe:*

Any time during the year a Tribe may prepare and submit to their BIA Regional Office an application package to request funding for PE or CN. **The BIA Region will assist the Tribe in preparing the application package, review the Tribe's submittal and resolve any issues with the Tribe. Then, the application package is submitted to BIADOT for review and submitted to FHWA/OTT.**



# TTP Bridge Program

8

- Funding under SAFETEA-LU:  
\$14 million/year (FY05-FY12)
- Funding under MAP-21:  
\$9 million/year (FY13-FY15)
- Funding under FAST Act:  
\$13.95 million (FY16)  
\$14.25 million (FY17)  
\$14.55 million (FY18)





# TTP Bridge Program

9

## FY18:

- Funds made available = \$13.3 million
- Received 59 bridge applications for about \$34 million total funding request
- Funded 35 bridge projects for \$13.3 million

## FY19:

- Funds made available to date = **\$2.4 million**
- Under the 68-day CR



# TTP Bridge Program

10

- Funded Projects under SAFETEA-LU (FY05-FY12):  
228 bridge projects for about \$140 million
- Funded Projects under MAP-21 (FY13-FY15):  
66 bridge projects for about \$26 million
- Funded Projects under FAST Act (FY16-FY18)  
80 bridge projects for about \$37 million
- **374 funded projects for about \$203 million**



### FY18 FUNDED TTP BRIDGE PROJECTS

NO.	BIA Region / FHWA Tribe	Reservation	Project Name	Funds Allocated
1	Eastern Oklahoma	Eastern Shawnee Tribe	Spring River Bridge	\$1,000,000.00
2	Eastern Oklahoma	Choctaw Nation of Oklahoma	Muddy Boggy Creek Bridge	\$400,000.00
3	FHWA Tribe	Hydaburg Cooperative Associaion	Hydaburg Bridge	\$568,780.00
4	FHWA Tribe	Klawock Cooperative Association	Salt Chuck Bridge	\$508,259.70
5	FHWA Tribe	Klawock Cooperative Association	Salt Chuck Bridge	\$558,408.10
6	FHWA Tribe	Citizen Potawatomi Nation	Route 8919 Bridge	\$150,000.00
7	FHWA Tribe	Fort Yukon	Ivars Bridge	\$120,808.41
8	FHWA Tribe	Rosebud	Old Hollow Wood Bridge	\$400,000.00
9	FHWA Tribe	Osage	Dog Thresher	\$350,000.00
10	FHWA Tribe	Port Graham	Bridge 8PGH35	\$150,000.00
11	FHWA Tribe	Port Graham	Bridge 8PGH37	\$150,000.00
12	FHWA Tribe	Port Graham	Bridge 8PGH39	\$150,000.00
13	FHWA Tribe	Fort Hall	Just Bridge	\$33,000.00
14	FHWA Tribe	Fort Hall	Portneuf River Bridge	\$100,000.00
15	Great Plains	Santee Sioux	Ray Stark Bridge	\$400,000.00
16	Great Plains Region	Lake Traverse	Owens Bridge	\$808,534.40

NO.	BIA Region / FHWA Tribe	Reservation	Project Name	Funds Allocated
17	Great Plains Region	Lower Brule	Counselor Creek Bridge	\$110,000.00
18	Midwest Region	Lac du Flambeau Band of Lake	Trout River Bridge	\$68,296.00
19	Midwest Region	Pokagon Band of Potawatomi	Sink Bridge Road	\$400,000.00
20	Northwest Region	Quinault	North Modlips River Bridge	\$150,000.00
21	Northwest Region	Quinault	Red Creek Bridge	\$150,000.00
22	Northwest Region	Coleville	21 Mile Creek Bridge	\$150,000.00
23	Northwest Region	Yakama Nation	Klickitat River Bridge	\$400,000.00
24	Southern Plain Region	Wichita & Affiliated Tribes of OK	Bridge 7542	\$102,388.00
25	Southern Plain Region	Kaw Nation of Oklahoma	Bridge 11633	\$180,000.00
26	Southern Plains	Wichita and Affiliated Tribes	Bridge 8874	\$202,416.00
27	Southern Plains	Kaw Nation	Bridge 15022	\$300,000.00
28	Southern Plains	Kaw Nation	Bridge 17985	\$105,000.00
29	Southern Plains	Otoe Missouriia Tribe	Bridge 12682	\$127,000.00
30	Southern Plains	Ponca Tribe	Bridge 10609	\$127,000.00
31	Southern Plains	Apache Tribe of OK	Bridge 7827	\$144,000.00
32	Southern Plains	Otoe Missouriia Tribe	Bridge 11536	\$160,537.00
33	Southern Plains	Prairie Band Potawatomi Nation	Bridge B04862T0205	\$349,964.00
34	Southwest Region	Santo Domingo	Santo Domingo Bridge	\$470,001.57
35	Western Region	Colorado River	Tyson Wash Bridge	\$4,000,000.00

**\$13,338,393.18**

# Tribal Bridge Inspection (MAP-21)



- Calls for a National Inventory of bridges and tunnels on public roads **including tribally** and Federally owned bridges
- Calls for bridge and tunnel inspection standards to be carried out by State, Federal and **tribal governments**



# Tribal Bridge Inspection



- 332 sections in RIFDS ownership coded as 2 (Tribal)
- 250 sections verified to date
- 157 sections were verified either not a bridge, not a tribal bridge, proposed bridge, or pedestrian bridge



# FY18 NBI Data Submittal (BIA & Tribal)

15

- BIA NBI Inspection Data Submittal – 1,009 bridge records
  - 986 bridge records
  - 23 bridge records from the Oglala Tribe
- Tribal NBI Inspection Data Submittal – 69 bridge records
  - 12 bridge records from Port Graham
  - 12 bridge records from Hydaburg
  - 26 bridge records from Eastern Band of Cherokee
  - 1 bridge record from Fort Yukon
  - 3 bridge records from Klawock
  - *12 bridge records from PBPT (BIA Tribe)*
  - *1 bridge record from Shakopee (BIA Tribe)*
  - *1 bridge record from Crooked Creek (BIA Tribe)*
  - *1 bridge record from Elim (BIA Tribe)*



# FY19 NBI Data Submittal (Tribal)

16

- FY18 Tribal NBI Data – 69 bridge records
- FY19 Additional Tribal NBI Data – 73 bridge records from BIADOT inspection ID/IQ contract
- Total of 142 Tribal bridges to be recorded in the NBI
- EFL Bridge – 29 FHWA Tribal bridges to be inspected in Jan 2019
  - 26 EBCI Tribal bridges (routine)
  - 2 Mohegan Tribal bridges (initial)
  - 1 Citizen Potawatomi Tribal bridge (initial)
  - Initial/Routine Inspection, load rating, and scour analysis





# Tribal Bridge Inspection Process

17

- **Tribally Owned Bridges.** Procedures for FHWA Agreement Tribes requesting initial inspection of tribally owned bridges for inclusion in the FHWA NBI:
  1. The Tribe verifies if the tribal bridge is a public bridge, 20 ft. or more in length.
  2. Tribe coordinates with the TC to fill out the tribal bridge inspection request form.
  3. The TC submits the inspection request form to the FHWA TTP Bridge Program Manager (PM).
  4. PM submits the request form to EFL Bridge for inspection.



# Tribal Bridge Inspection Process

18

## Continuation:

5. Once inspected by EFL Bridge, a copy of the inspection report and the NBI data file (432 text file) is provided to the FHWA TTP Bridge PM and to the EFL Bridge Management Team for 2<sup>nd</sup> level review.
6. Once approved, the NBI data file is submitted to FHWA HQ Office of Bridges and Structures for recordation in the FHWA NBI.



# Tribal Bridge Inspection Process

19

- **Tribally Owned Bridges.** Procedures for BIA Tribes requesting inspection of tribally owned bridges for inclusion in the FHWA NBI:
  1. The Tribe verifies if the tribal bridge is a public bridge, 20 ft. or more in length.
  2. Tribe coordinates with the BIA Region to fill out the tribal bridge inspection request form.
  3. BIA Region submits the request form to the BIA TTP Bridge PM for inspection by the consultant.
  4. PM submits the request to the BIADOT's consultant or in-house BIA Regional Inspection Team



# Tribal Bridge Inspection Process

20

## Continuation:

5. Once inspected, BIADOT sends a copy of the NBI data file to the EFL Bridge Management Team for 2<sup>nd</sup> level review.
6. Once approved, the NBI data file is submitted to FHWA HQ Office of Bridges and Structures for recordation in the FHWA NBI.



# Tribal Bridge Inspection Form

21



U.S. Department of Transportation  
Federal Highway Administration

## TRIBAL BRIDGE INSPECTION FORM

### TRIBE INFORMATION

TRIBE NAME Eastern Band of Cherokee Indians

### BRIDGE LOCATION

CITY Cherokee STATE NC

LATITUDE 35.48522000 LONGITUDE 83.18912000

### BRIDGE INFORMATION

BRIDGE/STRUCTURE OWNER EBCI  
ROUTE OWNER (IF DIFFERENT) \_\_\_\_\_  
BRIDGE ID NUMBER (IF KNOWN) T-007  
BRIDGE NAME \_\_\_\_\_  
ROUTE NAME Copperhead Rd  
ROUTE NUMBER 4317  
SECTION NUMBER 20  
BRIDGE/STRUCTURE LENGTH 32 FT 0 IN  
YEAR BUILT Unkown

### BRIDGE INSPECTION INFORMATION

LAST INSPECTION DATE (MM/DD/YYYY): 01/27/2018  
INSPECTED BY: Vaughn & Melton CE  
REPAIRS MADE SINCE INSPECTION? YES  NO   
REPAIR DATE \_\_\_\_\_

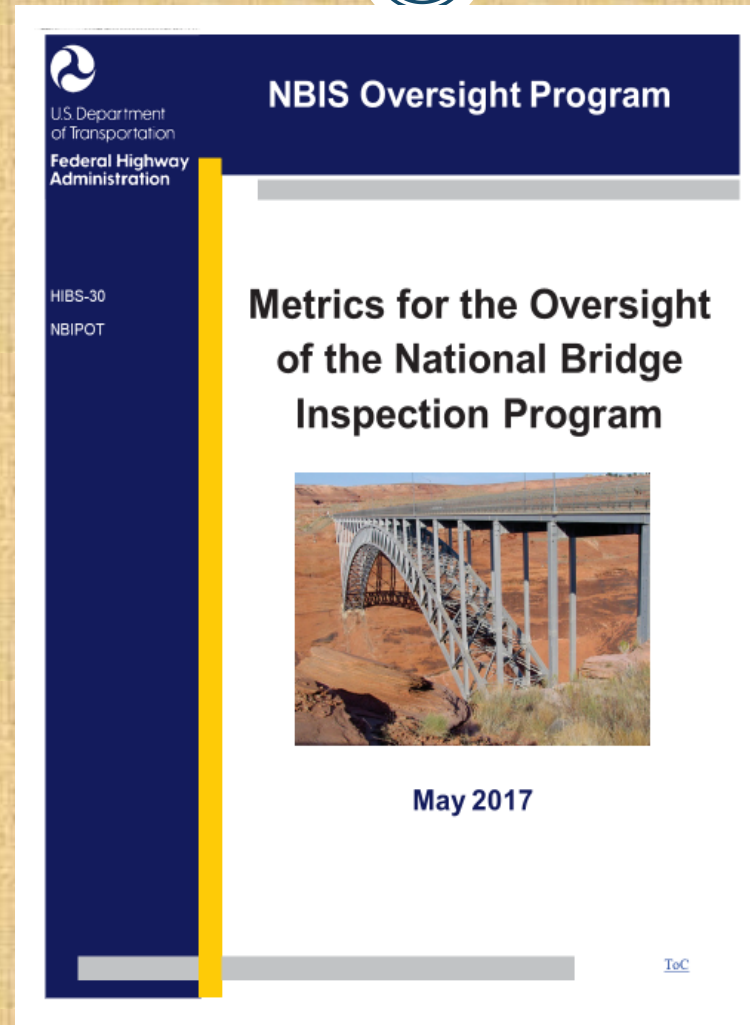
COMMENTS:

INFORMATION APPROVED BY: M. Miles DATE: 7-26-17



# NBIS Compliance – 23 Metrics

22



# NBIS Compliance – 23 Metrics

23

NBIP Metrics Contents

rev 5/1/17

## National Bridge Inspection Program Metrics

<a href="#">Introduction</a>	3
<a href="#">NBIP Metrics Glossary</a>	4
<a href="#">Metric #1: Bridge inspection organization</a>	5
<a href="#">Metric #2: Qualifications of personnel – Program Manager</a>	8
<a href="#">Metric #3: Qualifications of personnel – Team Leader(s)</a>	10
<a href="#">Metric #4: Qualifications of personnel – Load Rating Engineer</a>	13
<a href="#">Metric #5: Qualifications of personnel – UW Bridge Inspection Diver</a>	15
<a href="#">Metric #6: Inspection frequency – Routine – Lower risk bridges</a>	17
<a href="#">Metric #7: Inspection frequency – Routine – Higher risk bridges</a>	22
<a href="#">Metric #8: Inspection frequency – Underwater – Lower risk bridges</a>	24
<a href="#">Metric #9: Inspection frequency – Underwater – Higher risk bridges</a>	26
<a href="#">Metric #10: Inspection frequency – Fracture Critical Member</a>	28
<a href="#">Metric #11: Inspection frequency – Frequency criteria</a>	30
<a href="#">Metric #12: Inspection procedures – Quality Inspections</a>	32
<a href="#">Metric #13: Inspection procedures – Load Rating</a>	38
<a href="#">Metric #14: Inspection procedures – Post or Restrict</a>	43
<a href="#">Metric #15: Inspection procedures – Bridge Files</a>	46
<a href="#">Metric #16: Inspection procedures – Fracture Critical Members</a>	49
<a href="#">Metric #17: Inspection procedures – Underwater</a>	52
<a href="#">Metric #18: Inspection procedures – Scour</a>	55
<a href="#">Metric #19: Inspection procedures – Complex Bridges</a>	58
<a href="#">Metric #20: Inspection procedures – QC/QA</a>	61
<a href="#">Metric #21: Inspection procedures – Critical Findings</a>	64
<a href="#">Metric #22: Inventory – Prepare and Maintain</a>	67
<a href="#">Metric #23: Inventory – Timely Updating of Data</a>	71



# NBIS Compliance

24

## Metric #1: Bridge inspection organization

*NBIS Reference: 23 CFR 650.307 – Bridge inspection organization  
Criteria*

- An organization is in place to inspect, or cause to inspect, all highway bridges on public roads.
- Organizational roles and responsibilities are clearly defined and documented for each of the following aspects of the NBIS: policies and procedures, QC/QA, preparation and maintenance of a bridge inventory, bridge inspections, reports, and load ratings.
- Functions delegated to other agencies are clearly defined and the necessary authority is established to take needed action to ensure NBIS compliance.
- A program manager (PM) is assigned the responsibility for the NBIS.





# NBIS Compliance – 23 Metrics

25

## Metric #6: Inspection frequency – Routine – Lower risk bridges

*NBIS Reference: 23 CFR 650.311 (a) – Routine inspections*

### *Criteria*

- Routine inspections are performed at regular intervals not to exceed (NTE) 24 months, or NTE 48 months when adhering to FHWA approved criteria.



# NBIS Compliance – 23 Metrics

26

## **Metric #14: Inspection procedures – Post or Restrict**

*NBIS Reference: 23 CFR 650.313 (c) Inspection procedures – Post or restrict bridges*

### Criteria

- Bridges are posted or restricted in accordance with the AASHTO Manual for Bridge Evaluation (MBE) or in accordance with State law, when the maximum unrestricted legal loads or State routine permit loads exceed that allowed under the operating rating or equivalent rating factor.
- Posting deficiencies must be resolved within 90 days and provide pictures of bridge posting.



# NBIS Compliance – Bridge Posting

Recommended posting, No Legal implementation for Federal Agency INDIAN TRIBAL GOVERNMENT(2017)								
State: INDIAN TRIBAL GOVERNMENT								
State Code	Structure Number	Features Desc	Facility Carried	Highway District	County Code	Open Closed	Tribe	Weight Limit
02	000000001017-20	IRR BIA RTE 1017	Unnamed Creek	SE	201	B	Klawock	10 Tons
02	000000001017-40	IRR BIA RTE 1017	Unnamed Creek	SE	201	B	Klawock	10 Tons
02	000000008PGH-35	IRR BIA RTE 8PGH	UNNAMED CREEK	CN	122	B	Port Graham	15 Tons
02	000000008PGH-39	IRR BIA RTE 8PGH	UNNAMED CREEK	CN	122	B	Port Graham	10 Tons
02	E09211T0461-040	IRR BIA RTE 461	UNNAMED CREEK	SE	201	B	Hydaburg	10 Tons
02	E09211T0461-060	IRR BIA RTE 461	UNNAMED CREEK	SE	201	B	Hydaburg	8 Tons
02	E09211T0461-080	IRR BIA RTE 461	UNNAMED CREEK	SE	201	B	Hydaburg	8 Tons
02	E09211T0735-010	IRR BIA RTE 735	SUKKWAN STRAIT	SE	201	B	Hydaburg	22 Tons

# NBIS Compliance – Bridge Posting

28

## Bridge Posting: Hydaburg E09211T0461-060 East End



# NBIS Compliance – Bridge Posting

29

## Bridge Posting: Hydaburg E09211T0461-060 West End



# QUESTIONS???

30

SAFE

UNSAFE

