

# BRIDGE SCOUR ASSESSMENT

STRUCTURE NO: \_\_\_\_\_

INSPECTION DATE: \_\_\_\_\_

### SOIL TYPE

CHANNEL – BANK:  SAND & GRAVEL  SANDY SILT  SILT  SILTY CLAY  CLAY  SHALE  ROCK  
 CHANNEL – BED:  SAND & GRAVEL  SANDY SILT  SILT  SILTY CLAY  CLAY  SHALE  ROCK

### ABUTMENT FOUNDATION

TYPE:  CONCRETE PILE  STEEL PILE  TIMBER PILE  SPREAD FOOTING  DRILLED SHAFT  UNKNOWN  
 DEPTH:  KNOWN  UNKNOWN ADEQUACY:  STABLE  AT RISK  UNSTABLE

### ABUTMENT BACKWALL

BACKWALL TYPE:  STEEL SHEET  CONCRETE SHEET  CONCRETE WALL  TIMBER PLANK  STUB  
 BACKWALL ADEQUACY:  STABLE  AT RISK  FAILURE IMMINENT  FAILED  
 BACKWALL STRUCTURAL DETERIORATION:  YES  NO DECK TO BOTTOM OF BACKWALL: ABUT 1 \_\_\_\_\_ ft. ABUT 2 \_\_\_\_\_ ft.  
 APPROACH SLAB?  YES  NO ABUTMENT SCOUR ESTIMATE/PROBED: ABUT 1 \_\_\_\_\_ ft. ABUT 2 \_\_\_\_\_ ft.  
 APPROACH FILL:  SOLID  SMALL VOIDS  LARGE VOIDS  FAILED  
 BERM ADEQUACY:  STABLE  AT RISK  INEFFECTIVE  NONEXISTENT

### PIER/BENT

TYPE:  OPEN  ENCASED  DRILLED SHAFT  NONE  
 FOUNDATION TYPE:  STEEL PILE  CONCRETE PILE  TIMBER PILE  SPREAD FOOTING  
 FOUNDATION DEPTH:  KNOWN  UNKNOWN  
 STABILITY:  STABLE  AT RISK  UNSTABLE  
 DECK TO BOTTOM OF ENCASEMENT / FOOTING: \_\_\_\_\_ ft. SCOUR ESTIMATED / PROBED: (U.S. SIDE) \_\_\_\_\_ ft.  
 CALCULATED SCOUR: CONTRACTION \_\_\_\_\_ ft. LOCAL \_\_\_\_\_ ft.

### CHANNEL EVOLUTION AND BEHAVIOR

STAGE:  PREMODIFIED  CONSTRUCTED  DEGRADATION  THRESHOLD  AGGRADATION  RESTABILIZATION  
 CHARACTERISTICS:  HEAD-CUTTING  STEEP BANKS  BANK SEEPAGE  ALTERNATE BARS  MEANDERING  VEGETATED BANKS  
 BANK FAILURE:  ROTATION  POPOUT  SLAB MOVEMENT  SLOUGHING  EROSION  OTHER: \_\_\_\_\_  NONE

### BANK BUFFER ZONE

LEFT BANK: \_\_\_\_\_ ft. (width)  TREE LINED  GRASSED  CULTIVATED  OTHER: \_\_\_\_\_  
 RIGHT BANK: \_\_\_\_\_ ft. (width)  TREE LINED  GRASSED  CULTIVATED  OTHER: \_\_\_\_\_

### 300 SERIES SCOUR ITEMS

		YES	NO			YES	NO
326	ROADWAY EMBANKMENT EROSION (9-0)	<input type="checkbox"/>	<input type="checkbox"/>	352	FLOOD OVERTOPS ROAD/BRIDGE RELIEF	<input type="checkbox"/>	<input type="checkbox"/>
344	ABUTMENT WALLS UNDERMINED	<input type="checkbox"/>	<input type="checkbox"/>	353	POTENTIAL DEBRIS UPSTREAM	<input type="checkbox"/>	<input type="checkbox"/>
344A	APPROACHES SETTLED/WASHED OUT	<input type="checkbox"/>	<input type="checkbox"/>	354	BENTS/PIERS IN CHANNEL	<input type="checkbox"/>	<input type="checkbox"/>
346	STREAM BED DEGRADED	<input type="checkbox"/>	<input type="checkbox"/>	354A	STREAM FLOW ABAINST ABUTMENT	<input type="checkbox"/>	<input type="checkbox"/>
347	CONTRACTED STREAM/ABUTS INSIDE HB	<input type="checkbox"/>	<input type="checkbox"/>	355	BRIDGE ALIGNMENT WITH FLOW (9-0)	<input type="checkbox"/>	<input type="checkbox"/>
348	SCOUR AT: A (ABUT), B (BENT/PIER), C (A & B), N (NO)	<input type="checkbox"/>	<input type="checkbox"/>	356	DEBRIS BLOCKING CHANNEL AT BRIDGE	<input type="checkbox"/>	<input type="checkbox"/>
349	BANK EROSION IN PROGRESS	<input type="checkbox"/>	<input type="checkbox"/>	357	DROP FROM UPSTREAM DECK TO GROUND: ABUT 1 - _____ FLOWLINE - _____ ABUT 2 - _____	<input type="checkbox"/>	<input type="checkbox"/>
350	STREAM SHIFTED FROM BRIDGE CENTER	<input type="checkbox"/>	<input type="checkbox"/>	358	OPINION SCOUR PROBLEM	<input type="checkbox"/>	<input type="checkbox"/>
351	FLOODWATER REACHES LOW STRUCTURE	<input type="checkbox"/>	<input type="checkbox"/>	358B	SCOUR INCREASED IN LAST TWO YEARS	<input type="checkbox"/>	<input type="checkbox"/>
351A	LOW ROAD ELEV. ABOVE LOW STRUCTURE	<input type="checkbox"/>	<input type="checkbox"/>	358C	SCOUR PLAN OF ACTION EFFECTIVE DATE _____	<input type="checkbox"/>	<input type="checkbox"/>

### NBIS Item – 113 Rating

9: FOUNDATION SAFELY ABOVE FLOODWATER 8: STABLE, FOUNDATIONS RESISTS SCOUR 7: SCOUR PROBLEM MITIGATED  
 5: LOW RISK 4: ACTION REQUIRED 3: UNSTABLE FOUNDATION 2: UNSTABLE – EXTENSIVE SCOUR 1: FAILURE IMMINENT, CLOSED

JUSTIFICATION: \_\_\_\_\_

### ACTION

POA REQUIRED:  YES  NO ADDITIONAL STUDY REQUIRED:  YES  NO MAINTANANCE REQUIRED:  YES  NO

WRITTEN BY: \_\_\_\_\_ QC BY: \_\_\_\_\_ QA BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_ DATE: \_\_\_\_\_ DATE: \_\_\_\_\_