



Date	Evaluated By	Agency
SID	Bridge #	Bridge Name
Superstructure Type		Substructure Type
Foundations (check all that apply): <input type="checkbox"/> Piles/drilled shafts <input type="checkbox"/> Spread footings <input type="checkbox"/> Sills <input type="checkbox"/> Other:		

Qualitative Scour Assessment Guidance

- This form is a basic qualitative assessment tool. Further quantitative scour evaluation may be required to adequately determine scour potential and the appropriate scour coding. Refer to FHWA documents HEC-18: Evaluating Scour at Bridges and HEC-20: Stream Stability at Highway Structures for more information.
- A qualitative scour appraisal will consider the extent of information known about foundations, behavior of the stream and thalweg, history of scour (if any), and countermeasures (if any).

Section A: Initial Assessment

Yes	No		Does the thalweg meander within the bridge limits or across the flood plain? If yes, the <i>potential</i> for a scour critical condition is increased and further evaluation should be considered.
Yes	No	N/A	Are land use changes (upstream or downstream) influencing channel behavior at the bridge site? If yes, the <i>potential</i> for a scour critical condition is increased and further evaluation should be considered.
Yes	No		Are foundation elevations known? If yes, continue Section A. If no, bridge considered scour critical. Go to Section B and document coding of BAP03 = U, 'Unknown foundations'. Scour plan of action (POA) required.
Yes	No		Are all piers on dry land and above floodwater elevations, without thalweg meander/migration potential? If no, continue Section A. If yes, bridge is not scour critical. Go to Section B and document coding of BAP03 = Z.
Yes	No		Is the waterway a controlled flow irrigation canal, either lined or unlined? If no, continue Section A. If yes, go to Section C (page 3) for further information and assessment.
Yes	No	N/A	For piles or drilled shaft foundations in the channel, with or without cap/footing, are the pile/shaft tip elevations 10-ft or less below the thalweg (or above the thalweg)? If yes, bridge <i>may</i> be scour critical. If no, further evaluation may be required to determine appropriate scour code.
Yes	No	N/A	For spread footing foundations in the channel, is the bottom of the footing or seal above the thalweg? If yes, bridge <i>may</i> be scour critical. If no, further evaluation may be required to determine appropriate scour code.

Continue to Section B (next page) and consider additional criteria.

Section B: Scour Code and Notes

Additional Criteria

- Additional non-quantifiable parameters should also be considered when determining scour criticality, such as substructure condition, channel condition, condition of riprap or other protection devices, erodible channel bed material versus non-erodible (i.e. rock), and meander bends. *Describe using Notes section below.*
- Consider the long-term effects of contraction scour, if present. *Describe using Notes section below.*

Is further investigation or evaluation warranted?

Yes

No

(If 'Yes', Level 1 Screening & Assessment is not applicable. Code BAP03 = 0 until an appraisal is completed.)

Is bridge scour critical?

Yes

No

(If 'Yes', scour plan-of-action (POA) required)

SNBI item BAP03 Scour Code: _____

Attach supporting documents such as plan sheets (as-builts, countermeasures, applicable repairs), channel cross-section with pier and thalweg elevations noted, sounding history, site photos, aerial photos, etc.

Notes:

Section C: Controlled Flow Irrigation Canal, Lined or Unlined

This section is applicable only to irrigation or other canals with a well-defined waterway cross-section at the bridge. Canal may be lined or unlined and flow is assumed to be controlled and/or regulated in some manner. Piers or abutments may be considered low-risk for scour due to the well-defined waterway and controlled flow conditions. Current scour condition, condition of the channel and channel protection are to be evaluated at each routine bridge inspection.

Choose and check the box that is most applicable:

Lined channel. Channel liner is in 'very good' to 'fair' condition (BC10 \geq 5) with no evidence of undermining of the liner or significant pier/abutment scour (BC11 \geq 5). Code BAP03 = A and document in Section B.

Lined channel. Channel liner has evidence of damage, instability, or undermining (BC09 or BC10 \leq 4) and/or inspection report evidence of pier/abutment scour or other flow related defects (BC11 \leq 4). Further investigation of substructure and/or a quantitative scour evaluation may be required to adequately determine scour potential and the appropriate scour coding. Level 1 Screening & Assessment is not applicable. Code BAP03 = 0 until an appraisal is completed.

Unlined channel. Channel and channel protection devices (if applicable) are in 'very good' to 'fair' condition (BC09 and BC10 \geq 5). History of groundlines show insignificant or no changes to the channel. No evidence of local pier scour or other flow related defects. Code BAP03 = A and document in Section B.

Unlined channel. Channel or channel protection devices have evidence of damage or instability (BC09 or BC10 \leq 4) -OR- history shows changes to the groundline -OR- inspection report notes local pier scour or other flow related defects (BC11 \leq 4). Further investigation of substructure and/or a quantitative scour evaluation may be required to adequately determine scour potential and the appropriate scour coding. Level 1 Screening & Assessment is not applicable. Code BAP03 = 0 until an appraisal is completed.