

Scour Program Update

Presented for:

Midwestern Hydraulic Engineering
Conference

by:

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National Bridge Scour Evaluation Program

- Established in 1988
- Various phases
 - Scour Screening, Scour Evaluations, Scour Critical, Unknown Foundations (?), . . .
- Targeted completion: January 1997

Scour Categories

- Five general categories based on Item 113 of the FHWA Coding Guide
 - Guidelines on Item 113 were updated by FHWA in April 27, 2001

Categories

- Low Risk (8, 7, 5, 4)
- Scour Susceptible (6)
- Unknown Foundations (U)
- Tidal Waterways (T)
- Scour Critical (3, 2, 1, 0)

Screening Status by Category

<u>Categories</u>	<u>Nationwide</u>	<u>Midwest</u>
Low Risk	344,131	138,775
Scour Susceptible	26,890	12,418
Unknown Foundations	86,133	16,781
Tidal	920	0
<u>Scour Critical</u>	<u>26,472</u>	<u>5,496</u>
Total	484,546*	173,470*

*As of August 8, 2003

Evaluations Status

	<u>Nationwide</u>	<u>Midwest</u>
Evaluations Completed	370,603	144,271
<u>Evaluations Remaining</u>	<u>27,810*</u>	<u>12,418**</u>
Total	398,413 (93.3%)	156,689 (92.1%)***

* Does not include unknown foundations and tidal

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*** 3 DOTs with less than 90%

Evaluations Status

-- Midwestern States --

	<u>Federal-aid</u>	<u>Non-Federal-aid</u>
Evaluations Completed	56,217	88,054
<u>Evaluations Remaining</u>	<u>3,541*</u>	<u>8,877*</u>
Total**	59,758 (94.1%)	96,931(90.8%)

•Does not include unknown foundations

** 3 DOTs with less than 90%

Next Steps

- DOTs with 90 percent or more completed to report once a year (April)*
- DOTs with less than 90 percent to continue reporting on a biannual basis (April and November)*
 - FHWA would like to work together with DOTs to identify strategies that would help reach 90% completion of the scour evaluations

* Reports should continue until all evaluations are completed

Scour Critical Bridges

- 26,472 bridges under this category
- Plan of Action
 - FHWA hydraulic engineers available upon request to assist DOTs in developing POAs

Unknown Foundations

- 86,133 bridges under this category
 - Most of these bridges on secondary system?
- Exempted from evaluations
 - FHWA is considering to host a symposium in 2004
 - NCHRP 24-25, Risk-based guidelines
 - Geotechnical Notebook Issuance No. 16
 - www.fhwa.dot.gov/bridge/geopub.htm
 - Microcomputer Program HYRISK
 - www.fhwa.dot.gov/bridge/hydsoft.htm

Training

- NHI 135046, *Stream Stability and Scour at Highway Bridges*
 - Policy and Guidance
 - Based on HECs 18 and 20
- NHI 135047, *Stream Stability and Scour at Highway Bridges for Bridge Inspectors*

Questions?

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