

Statewide: Bridge Scour Monitoring and Retrofit Program **FY2011 Request:** **\$700,000**
Reference No: **36190**

AP/AL: Allocation **Project Type:** Construction
Category: Transportation
Location: Statewide **Contact:** Frank Richards
House District: Statewide (HD 1-40) **Contact Phone:** (907)465-3900
Estimated Project Dates: 07/01/2010 - 06/30/2015
Appropriation: Surface Transportation Program

Brief Summary and Statement of Need:

Install monitoring and telemetry and/or construct physical scour countermeasures at state bridges identified as scour-critical by the federally mandated Scour Evaluation Program. This project contributes to the Department's Mission by reducing injuries, fatalities and property damage and by improving the mobility of people and goods.

Funding:	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	Total
Fed Rcpts	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$4,200,000
Total:	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$4,200,000

<input checked="" type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input checked="" type="checkbox"/> On-Going
9% = Minimum State Match % Required		<input type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	
Totals:	0	0

Additional Information / Prior Funding History:

FY2010 - \$700,000; FY2009 - \$600,000; FY2008 - \$800,000; FY2007 - \$800,000; FY2006 - \$1,300,000; FY2005 - \$1,000,000; FY2004 - \$1,000,000; FY2003 - \$1,000,000; FY2002 - \$1,150,000; FY2001 - \$1,150,000.

Project Description/Justification:

Floods scouring streambed material from around bridge foundations is the most common cause of bridge failures. A national bridge scour evaluation program was established by the Federal Highway Administration (FHWA) in 1988 to reduce damage and loss of life. As part of this federally mandated program, bridges that are "scour-critical" (foundation rated as unstable based on observed or calculated conditions) must have the vulnerable component protected with a scour countermeasure, or be replaced.

This project provides scour-critical bridges with scour countermeasures. These countermeasures range from increased inspection, to continuous monitoring, to installations that counteract the scouring process, depending on the severity of scour at a particular site. Additionally, this project provides for limited re-evaluation of scour-critical bridges as new information becomes available.

So far, 224 bridges in Alaska have been identified as scour critical. Of these, 95 are not owned or maintained by the state. State bridge inspectors collect sounding data at these bridges on a biennial basis to monitor scour condition. Of the remaining bridges, 123 require annual inspections, three

require the installation of continuous monitoring, and three require a physical countermeasure to be installed.

The state must also evaluate bridges with unknown foundations (135 bridges) and bridges in the tidal environment (56 bridges) due to new federal requirements. This funding level allows for the routine scour inspections, the installation of new monitoring stations, unknown foundation studies, and physical countermeasures. The number of construction projects and unknown foundation studies that can be accomplished per year varies depending upon the complexity and remoteness of the bridge sites being considered.