

## Thanos Papanicolaou External Funding

### 1) PI: Thanos Papanicolaou

<b>Title</b>	<b>Sponsor</b>	<b>Dates</b>	<b>Award</b>	<b>Effort</b>
Field and Laboratory Investigation of Infiltration on Different Geomorphic Surfaces in a Watershed and Under Different Land Uses	USDA	09/30/2006-9/30/2008	\$149,999	100%
Determination of Sediment Sources in ARS CEAP Benchmark Watersheds	USDA	9/22/2006-6/30/2009	\$14,625	100%
Development of Stage-Discharge Relations for Ungaged Bridge Waterways in Western Iowa	HCA	10/13/2006-10/12/2009	\$70,000	100%
Bank Erosion	Obermann Center	7/1/2006-8/1/2006	\$18,000	100%
A Sediment Composite Fingerprinting Tool for the Clear Creek Watershed, IA	CGER	12/1/2006-12/1/2007	\$25,000	100%
Development of Stage-Discharge Relations for Ungaged Bridge Waterways in Western Iowa	DOT	10/1/2006-9/30/2009	\$112,000	100%
Monitoring Subsurface Water Quality via the Use of Infiltrometer Sensor Technology	DNR	11/15/2006-10/31/2008	\$54,000	100%
First Estimation of the Runoff Curve Number in the State of Iowa via Direct Rainfall Simulator Measurements	USDA	9/28/2005-9/30/2007	\$138,576	100%
The Effects of Headcut and Knickpoint Propagation on Bridges in Iowa	HCA	9/1/2005-8/31/2007	\$15,937	100%
The Effects of Headcut and Knickpoint Propagation on Bridges in Iowa	DOT	9/1/2005-8/31/2007	\$63,749	100%
Collaborative Proposal: A CI-Based Training, Demonstration Project of Current and Future Workforce on Earth Surface Processes; The Clear Creek Testbed	NSF	1/1/2006-12/31/2008	\$200,780	30%
Biogeochemical Tracers for Sed. Tracing	USGS	9/1/2004-12/31/2006	\$253,082	70%
Design Procedures and Field Monitoring of Submerged Barbs for	DOT	5/1/2005-10/31/2006	\$140,000	100%

Streambank Protection				
Field Investigation of the Shallow Habitat in the Fremont and Otoe Counties of the Missouri River in Iowa and Nebraska	NGPC	1/1/2005-12/31/2005	\$15,000	100%
Field Investigation of the Shallow Habitat in the Fremont and Otoe Counties of the Missouri River in Iowa and Nebraska	DNR	1/1/2005-12/31/2005	\$44,396	100%
Field and Laboratory Investigation of Hydraulic Structures Facilitating Fish Abundance and Passage through Bridges in Western Iowa Streams	DOT	9/1/2004-12/31/2005	\$59,628	100%
Field and Laboratory Investigation of Hydraulic Structures Facilitating Fish Abundance and Passage through Bridges in Western Iowa Streams	HCA	9/1/2004-12/31/2005	\$59,627	100%
A Sediment Composite Fingerprinting Tool: A Field-Based Quantification Method of the Sediment Origin within a Water Environment - A Pilot Study	DNR	7/1/2004-6/30/2005	\$59,537	100%
A Guide for Monitoring and Protecting Bridge-Waterways against Scour	DOT	4/1/2004-12/31/2005	\$80,816	8%
Coupling a Two-Dimensional Hydrodynamic and Sediment Routing Model to Predict the Environmental Impacts of the Alec River System on the Black Lake System, Alaska	CRAA	12/6/2003-12/5/2004	\$138,000	100%
Cause and Effect of Microventing in Underconsolidated Sediment Beds	ONR	2/5/2004-1/30/2005	\$43,177	100%
The Use of Biogeochemical Fingerprinting for Sediment Source Identification in a Predominately Rural Catchment in Eastern Iowa	VPs office	3/1/2004-2/30/2005	\$11,000	100%
Sediment Identification and Origin in the Upper Mississippi River Watershed	USACE	7/1/2003-10/30/2003	\$15,000	100%
Hydraulic and Geomorphic Controls on the Evolution of Cluster Bedforms in Gravel-Bed Streams	USGS	6/15/2003-7/31/2005	\$29,583	100%
Hydraulic and Geomorphic Controls on the Evolution of Cluster Bedforms in Gravel-Bed Streams	NSF	7/14/2003-7/31/2005	\$140,000	100%

Tracing Sediment Sources in Eastern Iowa by Using Stable Carbon and Nitrogen Isotopes: An Exploratory Research	ISWRI	3/1/2003-2/29/2004	\$10,000	100%
Collaborative Research: Hydraulic And Geomorphic Controls On The Evolution Of Cluster Microforms	USGS/NIWR	2002-2004	\$103,470	
Flow and Bathymetry Measurements at the Tacoma Narrows Bridge/Analysis	Parsons, Inc.	2002-2002	\$115,951	
Identifying The Source Fate, and Impact of Non- Point Source Sediment Loads	NOAA/Seagrant	2002-2004	\$65,803	
The Channeling Phenomenon In Young Marine Sediments	ONR/US NAVY	200220-04	\$181,835	
Groin Design For Stream Bank Protection	WSDOT	200120-03	\$69,000	Barber/ Hotchkiss
Clearwater Subbasin Assessment	Nez Perce/BPA	2001-2001	\$20,000	Saul
Near-Bed Turbulence above Clusters	Umass	200120-02	\$12,000	Odeh
Algorithm Development For Gravel Transport Sensors	WTC	2000-2002	\$64,207	
Erosion Of Cohesive Streambeds And Banks	USGS/WRC	2000-2001	\$20,000	Hotchkiss/ Barber/ King
Algorithm Development For Gravel Transport Sensors	D&A Instruments	2000-2002	\$6,420	
Recruitment Of Engineering Students	WSU	2000-2000	\$700	
Suspended Sediment Measurements	Un Of Hawaii	2000-2001	\$7,000	
Streambed Simulation In Culverts	WSDOT	1999-2000	\$72,000	Barber/ Hotchkiss
Formulation Of A Sediment Transport Model For The Lower Snake	PNNL	1999-2000	\$18,486	Hotchkiss
The Role Of Turbulence And Sediment Availability In Sediment Erosion Processes	USGS/WRC	1999-2000	\$15,000	
Sediment Modeling The Spokane River	Avista Utilities	1999-2000	\$15,000	
Hydraulic Design Of The Nine Mile	Avista Utilities	1999-2000	\$5,000	

Hydro Electric Development				
Hydraulic Test Protocol For IDFG Vee Screen	IDFG/BPA	1998-1999	\$15,968	Stock
Testing Of Hydraulic Grates	ABT, Inc.	1998-1999	\$2,500	

**2) Co-PI/Collaborator: Thanos Papanicolaou**

<b>Title</b>	<b>Sponsor</b>	<b>Dates</b>	<b>Award</b>	<b>Co-PI</b>
Acquisition Of X-Ray CT System For Non- Destructive Evaluation Of Solid Material	NSF	2000	\$592,550	Masad
Using Induced Turbulence To Assist Downstream Migrating	BPA	200020-02	\$127,180	Hotchkiss
Develop Methodology To Assess Impacts Of Restoration Alternatives On Physical And Biological Processes	PNNL	2002-2002	\$49,865	Barber