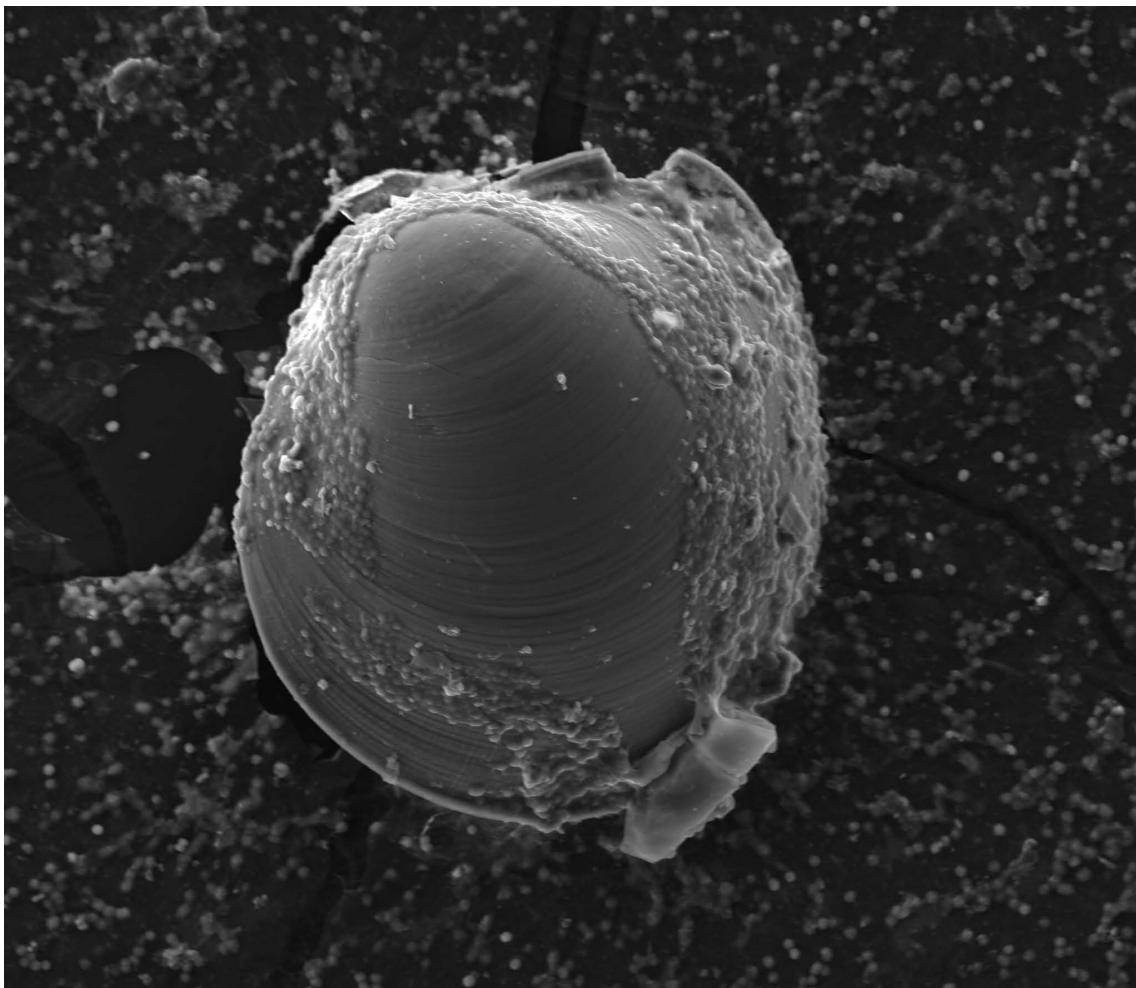


RECLAMATION

Managing Water in the West

Fiscal Year 2018

Science and Technology New Research Awards



U.S. Department of the Interior
Bureau of Reclamation

September 21, 2017

FY 2018 Bureau of Reclamation - Research and Development Office - Science & Technology Program - New Proposal Awards

Project ID	Project Lead	Title	Lead Researcher Organization	Benefiting Region(s)	Scoping or Conducting	Recommended FY18 Award	Total Estimated Cost Share	Reclamation Cost Share	Federal Cost Share	Non-Federal Cost Share
Water Infrastructure										
1833	Angel Gutierrez	Bio-based barriers for seepage and internal erosion control	LC	LC	Scoping	\$10,000	\$0	\$0	\$0	\$0
1836	Josh Mortensen	Improved Prediction of Hydrodynamic Loads on Spillway Gates	TSC	GP, MP, LC, UC, PN, Denver	Conducting	\$70,000	\$114,000	\$114,000	\$0	\$0
1840	Angel Gutierrez	Application of Enzyme Induced Carbonate Precipitation (EICP) for Channel Lining and Repair, Low Volume Road Stabilization, Embankment Construction, and Erosion Control	LC	GP, MP, LC, UC, PN, Denver	Conducting	\$22,000	\$0	\$0	\$0	\$0
1850	David Tordonato	Investigation of corrosion resistant primers, barrier topcoats and duplex systems	TSC	GP, MP, LC, UC, PN, Denver	Scoping	\$25,000	\$0	\$0	\$0	\$0
1863	Shannon Harrell	Permeability Compatibility Between Concrete Repair Material and Concrete Substrate	TSC	GP, MP, LC, UC, PN, Denver	Scoping	\$30,000	\$0	\$0	\$0	\$0
1884	Bobbi Jo Merten	Field Validation of Impedance Spectroscopy Coating Assessments	TSC	GP, MP, LC, UC, PN, Denver	Conducting	\$40,000	\$60,000	\$60,000	\$0	\$0
8143	Kit Shupe	Flow Deflectors for Abrasion Damage Mitigation in Stilling Basins	TSC	GP, MP, LC, UC, PN, Denver	Scoping	\$15,000	\$0	\$0	\$0	\$0
Power and Energy										
1862	Ben Few	Dielectric Frequency Response of Generator Stator Windings	TSC	GP, MP, LC, UC, PN, Denver	Conducting	\$54,500	\$80,000	\$80,000	\$0	\$0
8121	John Germann	Cavitation Detection Techniques for Optimizing Hydraulic Turbine Operation and Maintenance	TSC	GP, MP, LC, UC, PN, Denver	Conducting	\$140,000	\$239,000	\$239,000	\$0	\$0
Environmental Issues with Water and Power Delivery										
1831	Sherri Pucherelli	Comparison of next-generation DNA sequencing to traditional morphological identification for environmental monitoring	TSC	GP, MP, LC, UC, PN, Denver	Conducting	\$80,000	\$0	\$0	\$0	\$0
1846	Bryan Heiner	Self-Cleaning Strainers and Filtration to Mitigate Mussel Impacts	TSC	GP, MP, LC, UC, PN, Denver	Conducting	\$100,000	\$10,000	\$10,000	\$0	\$0
1847	Bryan Heiner	Hydraulically Driven Grinders to Mitigate Mussel Shell Debris	TSC	GP, MP, LC, UC, PN, Denver	Conducting	\$80,000	\$10,000	\$10,000	\$0	\$0
1852	Kevin Kelly	Alternate Control Strategy for Dreissinids Using Carbon Dioxide	TSC	GP, MP, LC, UC, PN	Conducting	\$114,500	\$0	\$0	\$0	\$0
1859	James Shannon	The Implementation of Flow-Temperature Artificial Neural Network Regression into Operations Planning Models	MP	MP, Denver	Conducting	\$68,000	\$22,000	\$17,000	\$0	\$5,000
1866	Yale Passamaneck	Sequencing of the quagga mussel genome as a tool for biocontrol	TSC	GP, MP, LC, UC, PN, Denver	Conducting	\$107,000	\$90,000	\$10,000	\$0	\$80,000
1867	Zach Leady	Seasonal/Temporary Wetland/Floodplain Delineation using Remote Sensing and Deep Learning	MP	MP, LC, Denver	Conducting	\$78,000	\$30,000	\$25,000	\$0	\$5,000
1868	Kent Walker	Literature review and synthesis of invasive mussel control techniques	TSC	GP, MP, LC, UC, PN, Denver	Scoping	\$20,000	\$0	\$0	\$0	\$0
1875	Audrey Rager	Invasive Mussel Veliger Morphology	TSC	GP, MP, LC, UC, PN	Conducting	\$16,500	\$0	\$0	\$0	\$0
1883	Zach Leady	Development of a GPU Accelerated Salinity Module for the SRH-2D Platform	MP	MP, Denver	Conducting	\$76,000	\$45,000	\$40,000	\$0	\$5,000
8142	Jolene Trujillo	Economic evaluation of activities associated with invasive mussel management	Policy	GP, MP, LC, UC, PN, Denver	Conducting	\$80,000	\$20,000	\$0	\$20,000	\$0
Water Operations and Planning										
1816	Michael Wright	Assessing potential future changes in atmospheric rivers over the western coast of the US.	MP	MP	Conducting	\$99,488	\$100,000	\$0	\$100,000	\$0
1881	Jordan Lanini	Risk-based decision making in reservoir operations	GP	GP, MP, LC, UC, PN	Conducting	\$33,000	\$80,000	\$80,000	\$0	\$0
1895	Marketa McGuire	Developing process-based and spatially consistent approaches for correcting streamflow biases in watershed hydrology simulations	TSC	GP, MP, LC, UC, PN, Denver	Conducting	\$103,045	\$24,184	\$0	\$24,184	\$0
Developing New Supplies										
1877	Leah Flint	Cost modeling of membrane desalination processes using Reclamation's WaTER model	TSC	GP, MP, LC, UC, PN, Denver	Conducting	\$83,464	\$115,000	\$110,000	\$0	\$5,000
8133	Saied Delagah	An Ultra-low-cost Thermal Energy Storage System using Reverse Osmosis Concentrate	TSC	GP, MP, LC, UC, PN, Denver	Conducting	\$98,154	\$59,800	\$0	\$0	\$59,800