

**US Army Corps of Engineers**<sub>®</sub> Engineer Research and Development Center



# Publications of the U.S. Army Engineer Research and Development Center

Appendix B: January 2017-December 2017

Compiled by James A. Dolan

June 2018

**The U.S. Army Engineer Research and Development Center (ERDC)** solves the nation's toughest engineering and environmental challenges. ERDC develops innovative solutions in civil and military engineering, geospatial sciences, water resources, and environmental sciences for the Army, the Department of Defense, civilian agencies, and our nation's public good. Find out more at www.erdc.usace.army.mil.

To search for other technical reports published by ERDC, visit the ERDC online library at <a href="https://erdc-library.erdc.dren.mil/">https://erdc-library.erdc.dren.mil/</a>.

## Publications of the U.S. Army Engineer Research and Development Center

Appendix B: January 2017-December 2017

Compiled by James A. Dolan

Information Technology Laboratory U.S. Army Engineer Research and Development Center 3909 Halls Ferry Road Vicksburg, MS 39180-6199

Final report

Approved for public release; distribution is unlimited.

Prepared for U.S. Army Engineer Research and Development Center 3909 Halls Ferry Road Vicksburg, MS 39180-6199

## Abstract

Publications issued January through December 2017 by the U.S. Army Engineer Research and Development Center (ERDC) are listed. The publications are grouped according to the technical laboratories or technical program for which they were prepared. Procedures for obtaining ERDC reports are included in the Preface.

**DISCLAIMER:** The contents of this report are not to be used for advertising, publication, or promotional purposes. Citation of trade names does not constitute an official endorsement or approval of the use of such commercial products. All product names and trademarks cited are the property of their respective owners. The findings of this report are not to be construed as an official Department of the Army position unless so designated by other authorized documents.

DESTROY THIS REPORT WHEN NO LONGER NEEDED. DO NOT RETURN IT TO THE ORIGINATOR.

# Contents

Ab	stract	ii
Pre	eface	v
1	Engineer Research and Development Center (ERDC)	
	Special reports	
	Technical Notes	
	Technical reports	
2	Coastal and Hydraulics Laboratory (CHL)	4
	Letter reports	
	Special reports	4
	Technical notes	5
	Section I – Waves and coastal flooding	5
	Section II – Beach behavior and restoration	5
	Section IV – Inlets and estuary channels	5
	Section VI – Miscellaneous coastal subjects	5
	Section VII – River engineering and sedimentation	6
	Section IX – Navigation	6
	Section X – Engineering Hydrology	6
	Technical reports	6
3	Cold Regions Research Engineering Laboratory (CRREL)	9
	Special reports	9
	Technical reports	9
4	Construction Engineering Research Laboratory (CERL)	12
	Contract reports	
	Miscellaneous papers	
	Special reports	
	Technical notes	
	Technical reports	
5	Environmental Laboratory (EL)	22
	Contract reports	
	Special reports	
	Technical notes	
	Technical reports	23
6	Geotechnical and Structures Laboratory (GSL)	26
	Special reports	
	Technical notes	
	Technical reports	27
7	Information Technology Laboratory (ITL)	31

	Special reports	31
	Technical reports	31
8	Aquatic Nuisance Species Research Program (ANSRP)	30
0		
	Technical notes	
9	Aquatic Plant Control Research Program (APCRP)	33
	Bulletin	33
	Technical notes	33
	Biological control	
10	Dredging Operations and Environmental Research Program (DOER)	34
	Technical notes	34
	Dredged material management	34
	Environmental resource protection	34
	Risk	34
	Dredging technologies	35
11	Ecosystem Management and Restoration Research Program (EMRRP)	36
	Technical notes	36
	Species information (SI)	
	Stream restoration (SR)	36
12	Engineering with Nature Program (EWN)	37
	Technical notes	37
13	Regional Sediment Management Demonstration Program (RSM)	
	Technical Notes	38
14	Wetlands Regulatory Assistance Program (WRAP)	
	Technical notes	
15	Miscellaneous Publications	40

**Report Documentation Page** 

## Preface

The purpose of this report is to provide an annual update of existing literature produced by the U.S. Army Engineer Research and Development Center (ERDC). Publications issued January through December 2017 are listed herein. The publications are grouped according to the technical laboratories and/or technical programs for which they were prepared.

ERDC publications containing the statement "Approved for Public Release; Distribution is Unlimited" are available electronically by clicking on the Digital Object Identifier (DOI) link located under each report or from the ERDC Library's digital repository at <a href="https://erdc-library.erdc.dren.mil/">https://erdc-library.erdc.dren.mil/</a>. A footnote by the report number denotes a limited distribution report. Limited distribution reports are available to qualified agencies from the Defense Technical Information Center (DTIC) at <a href="https://www.dtic.mil">www.dtic.mil</a>. For ordering purposes and when available, Accession Document (AD) numbers have been supplied.

When electronic access is not an option, library-to-library loaning is available through Online Computer Library Center (OCLC). The ERDC Library's OCLC symbol is AERDC. Requestors should contact their local library for interlibrary loans. The ERDC Library does not loan directly to individuals. The loaning of limited distribution reports is at the discretion of the ERDC Library and only if the requestor meets the qualifications of the report's limited distribution statement.

This report was compiled by the U.S. Army Engineer Research and Development Center, Information Technology Laboratory (ERDC-ITL), under the general supervision of Ms. Molly S. McManus, Chief, Information Science and Knowledge Management Branch, ITL; Mr. Ken Pathak, Chief, Software Engineering and Informatics Division, ITL; Ms. Patti S. Duett, Deputy Director, ITL; Dr. David A. Horner, Director, ITL.

At the time of publication, COL Bryan S. Green was the Commander of ERDC. Dr. David W. Pittman was the Director.

# 1 Engineer Research and Development Center (ERDC)

## Special reports

<u>Report Number</u>	<u>Date</u>	<u>Title</u>	AD Number
ERDC SR-17-1	Feb 2017	Material Life Cycle Analysis for the Reduction of Waste Generation at Military Installations, by G. Rodriguez, D. Gilbert, LTC M.Z. Rahman, J. Flores, P. Stynoski, C. Fox-Lent, and I. Linkov http://dx.doi.org/10.21079/11681/22601	AD1040169
ERDC SR-17-2	Jun 2017	Sustainability-Related Publications Calendar Years 2015 – 2016, by F.H. Holcomb, P.N. Deliman, and D.B. Ringelberg http://dx.doi.org/10.21079/11681/22666	AD1040362
ERDC SR-17-3	Jul 2017	Review of Ice-Induced Scour Impacts to Navigation and Structures, by M.L. Carr and T.A. Dahl http://dx.doi.org/10.21079/11681/22764	AD1037265
ERDC SR-17-4	Sep 2017	Firing Range Contaminants and Climate Change Tool: Spreadsheet User Instructions, by C. Fox-Lent, D.C. Marchese, C.M. Foran, and M.E. Swearingen http://dx.doi.org/10.21079/11681/24341	AD1043935

### **Technical Notes**

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC TN-17-1	May 2017	Exudate Chemical Profiles Derived from Lespedeza and Other Tallgrass Prairie Plant Species, by D.B. Ringelberg, A.M. Beck, R.R. Busby, I.G. Smith, and A.C. Yannarell http://dx.doi.org/10.21079/11681/22584	AD1037456

<u>Report Number</u>	<u>Date</u>	<u>Title</u>	AD Number
ERDC TR-14-6 Rep. 2	Jul 2017	Thermal, Microchannel, and Immersed Boundary Extension Validation for the Lattice-Boltzmann Method: Report 2 in "Discrete Nano-Scale Mechanics and Simulations" Series, by W.P. England and J.B. Allen http://dx.doi.org/10.21079/11681/22863	AD1038169

ERDC TR-17-1	Apr 2017	Identification of Sediment Sources to Calumet River through Geochemical Fingerprinting, by D.W. Perkey, M.A. Chappell, J.M. Seiter, and H.M. Wadman http://dx.doi.org/10.21079/11681/22191	AD1035052
ERDC TR-17-2	May 2017	High-Fidelity Simulations of Electromagnetic Propagation and RF Communication Systems: T53 Final Report, by S.S. Streeter, D.J. Breton, M.L. Maxson, and C.T. Goodin http://dx.doi.org/10.21079/11681/22551	AD1037448
ERDC TR-17-3	Jun 2017	A Guide for Using Geochemical Methods in Dredged Material, Sediment Tracking, and Sediment Budget Studies, by H.M. Wadman, D.W. Perkey, J.M. Seiter, M.A. Chappell, and B. Lafferty http://dx.doi.org/10.21079/11681/22663	AD1035716
<sup>1</sup> ERDC TR-17-4	Jun 2017	Test Record for the Underbody Blast Test of the Blue Panther, by T.N. Williams, G.K. Doles, J.Q. Ehrgott, Jr., M.D. Marshall, G.B. Herring, and J.L. Morrow	AD1035601
ERDC TR-17-5	Jun 2017	A Multifactor Ecosystem Assessment of Wetlands Created Using a Novel Dredged Material Placement Technique in the Atchafalaya River, Louisiana: An Engineering With Nature Demonstration Project, by J.F. Berkowitz, SC. Kim, N.R. Beane, D.E. Evans, E. Summers, B. Suedel, M. Flanagin, and J. Corbino http://dx.doi.org/10.21079/11681/22625	AD1040366
ERDC TR-17-6	Jun 2017	Validation of Short-Term Noise Assessment Procedures: FY16 Summary of Procedures, Progress, and Preliminary Results, by M.E. Swearingen, G.W. Lyons, K.A. Morozova, A.R. Lammers, B.R. Greene, M.J. White, L.S. Duckworth, and J.M. Barr http://dx.doi.org/10.21079/11681/22668	AD1040368
<sup>1</sup> ERDC TR-17-7	Jul 2017	Enabling Technology: Development of a Remotely Operated Vessel for Pier Inspection, by J.K. Marshall, T.C. Pratt, M. Hammons, W.M. Hossley, and T.N. Waller	AD1037033
<sup>1</sup> ERDC TR-17-8	Jul 2017	Passive Seismic Sensor Evaluation for Fixed Site Tunnel Detection, by K.E. Martin, G. Galan-Comas, R.D. Costley, A.P. Lester, E.P. Simpson, E. Smith, and J.R. Picucci	AD1037824

<sup>&</sup>lt;sup>1</sup> Limited distribution; see Preface.

ERDC TR-17-9	Aug 2017	Spectral Assessment of Soil Properties: Standoff Quantification of Soil Organic Matter Content in Surface Mineral Soils and Alaskan Peat, by S.L. Jarvis, T.A. Douglas, K.L. Foley, R.M. Jones, J.E. Anderson, S.D. Newman, and R.A. Barbato http://dx.doi.org/10.21079/11681/22904	AD1040369
ERDC TR-17-10	Sep 2017	Concrete Growth and Fatigue Analysis of Chickamauga Lock Miter Gate Anchorages, by M.D. Smith, A. Hammack, R.D. Moser, Q. Alexander, B. Burnham, and S.L. Williams http://dx.doi.org/10.21079/11681/23660	AD1039414
ERDC TR-17-11	Oct 2017	Early Detection Of Failure Mechanisms In Resilient Biostructures: A Network Flow Study, by R.R. Patel, G.A. Riveros, D.S. Thompson, F.J. Acosta, E.J. Perkins, J.J. Hoover, J.F. Peters, and A. Tordesillas	AD1040514
		http://dx.doi.org/10.21079/11681/24960	
ERDC TR-17-12	Sep 2017	Preliminary Feasibility and Risk Analysis of a Carbon Dioxide Barrier at Brandon Road Lock and Dam, by J.M. Nestler, D.L. Smith, C.M. Woodley, R.D. Moser, and P.C. Flanagan http://dx.doi.org/10.21079/11681/24822	AD1046322
ERDC TR-17-13	Oct 2017	Sustainable Carbon Dioxide Sequestration as Soil Carbon to Achieve Carbon Neutral Status for DoD Lands, by S.L. Larson, R. Busby, W.A. Martin, V.F. Medina, P. Seman, C.A. Hiemstra, U. Mishra and T. Larson http://dx.doi.org/10.21079/11681/25406	AD1041089
ERDC TR-17-14	Dec 2017	Refinement of Foam Backfill Technology for Expedient Airfield Damage Repair; Phase II: Development of Prototype Foam Dispensing Equipment and Improved Tactics, Techniques and Procedures, by J.L. Johnson, M. Mejías-Santiago, L.A. Gurtowski, C.S. Griggs, and C.A. Rutland http://dx.doi.org/10.21079/11681/25903	AD1043654
ERDC TR-17-15	Dec 2017	Development of an Engineering Soil Database, by M. Zakikhani, P.T. Gidley, and J.S. Tingle http://dx.doi.org/10.21079/11681/25962	AD1044224
ERDC TR-17-17	Dec 2017	Identifying Key Factors Relevant for Base Camp Siting, by J.C. Cegan, G.W. Calfas, and M.E. Bates <u>http://dx.doi.org/10.21079/11681/26472</u>	AD1049310

# **2** Coastal and Hydraulics Laboratory (CHL)

### **Letter reports**

Report Number	<u>Date</u>	Title	AD Number
<sup>1</sup> ERDC/CHL LR-17-1	Mar 2017	Comparison of Three Modeled Storm Surge Levels between Existing and With-Project Conditions for Present Day and Future Sea Level Rise Condition for Freeport Harbor, Freeport, TX, by T.C. Massey and J.A. Melby	
<sup>1</sup> ERDC/CHL LR-17-2	May 2017	Port of Anchorage Dredging Study: Assessment of Refinement of Hydraulics, by B. Ebersole and L. Raad	
<sup>1</sup> ERDC/CHL LR-17-3	May 2017	Assessment of Circulation for Upper Cook Inlet, Alaska, Using ADCIRC-2DDI Model, by L. Raad	
<sup>1</sup> ERDC/CHL LR-17-4	Jun 2017	Manning's <i>n</i> for Sediment Used in the Mud Mountain Fish Barrier Structure Model, by J.A. Sharp, G.L. Brown, and B.D. Fuller	
<sup>1</sup> ERDC/CHL LR-17-5	Aug 2017	Investigation into Prefilling Littoral Barriers, by B.C. McFall	
<sup>1</sup> ERDC/CHL LR-17-6	Aug 2017	Evaluating Sediment Mobility for Southport Harbor Nearshore Placement, by B.C. McFall	

### **Special reports**

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CHL SR-17-1	Aug 2017	The Feasibility of Performing Particle- Tracking-Based Flow Measurements with Acoustic Cameras, by D.L. Young and B.C. McFall http://dx.doi.org/10.21079/11681/22910	AD1038980

<sup>1</sup> Limited distribution; see Preface.

### **Technical notes**

#### Section I – Waves and coastal flooding

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CHL CHETN-I-93	Jan 2017	Initialization and Setup of the Coastal Model Test Bed : STWAVE, by A.B. Spicer, T.J. Hesser, J.M. Smith, and M.A. Bryant http://dx.doi.org/10.21079/11681/21463	AD1028126
ERDC/CHL CHETN-I-94	Feb 2017	Erosion of Coastal Foredunes: A Review on the Effect of Dune Vegetation, by D.B. Bryant, M.A. Bryant, and A.S. Grzegorzweski http://dx.doi.org/10.21079/11681/21464	AD1040370

#### Section II – Beach behavior and restoration

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CHL CHETN-II-56	Feb 2017	Coastal Foredune Evolution, Part 1: Envrionmental Factors and Forcing Processes Affecting Morphological Evolution, by K.L. Brodie, M.L. Palmsten, and N.J. Spore http://dx.doi.org/10.21079/11681/21468	AD1028704
ERDC/CHL CHETN-II-57	Mar 2017	Coastal Foredune Evolution, Part 2: Modeling Approaches for Meso-Scale Morphologic Evolution, by M.L. Palmsten, K.L. Brodie, and N.J. Spore <u>http://dx.doi.org/10.21079/11681/21627</u>	AD1031655

#### Section IV – Inlets and estuary channels

<u>AD Number</u>
ature Calculations in the Coastal AD1035054 g System, by H. Li and M.E. Brown doi.org/10.21079/11681/21666

#### Section VI - Miscellaneous coastal subjects

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CHL CHETN-VI-46	Mar 2017	A Custom Data Logger for Real-Time Remote Field Data Collections, by P.J. Dickhudt and K.K. Hathaway http://dx.doi.org/10.21079/11681/21631	AD1031656

#### Section VII – River engineering and sedimentation

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CHL CHETN-VII-16	Jun 2016	Sediment Scaling for Mud Mountain Fish Barrier Structure, by J.A. Sharp, G.L. Brown, and G.L. Bell http://dx.doi.org/10.21079/11681/22649	AD1037509
ERDC/CHL CHETN-VII-17	Jul 2017	Overview of Levee Setback Projects and Benefits, by T.A. Dahl, C.H. Theiling, and W. Echevarria http://dx.doi.org/10.21079/11681/22767	AD1037439

#### **Section IX – Navigation**

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CHL CHETN-IX-45	Jun 2017	Rapid Operational Access and Maneuver Support (ROAMS) Platform for Improved Military Logistics Lines of Communication and Operational Vessel Routing, by D. Loney, K. Pevey, J. McAlpin, B. Nelsen, and B. Hargis http://dx.doi.org/10.21079/11681/22642	AD1035976
ERDC/CHL CHETN-IX-46	Sep 2017	Use of AIS and AISAP for Analysis of Vessel Wakes in Charleston Harbor: A Case Study, by B. Scully and A. McCartney http://dx.doi.org/10.21079/11681/22908	

#### Section X – Engineering Hydrology

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CHL CHETN-X-4	Dec 2017	Development of an Automatic Soil Texture Extraction Routine Using Combined SSURGO and STATSGO2 Dataset, by K.A. Cotterman and N.R. Pradhan http://dx.doi.org/10.21079/11681/25794	

Report Number	<u>Date</u>	Title	AD Number
ERDC/CHL TR-17-1	Jan 2017	Upper and Lower Hamburg Bend 2011 Flood Evaluation on the Missouri River near Hamburg, Iowa, by N. Clifton, D. Abraham, and D. Pridal http://hdl.handle.net/11681/21064	AD1036147

ERDC/CHL TR-17-2	Jan 2017	Tidal Analysis and Arrival Process Mining Using Automatic Identification System (AIS) Data, by B.M. Scully <u>http://dx.doi.org/10.21079/11681/21465</u>	AD1036152
ERDC/CHL TR-17-3	Jan 2017	GenCade Lateral Boundary Conditions, by D.B. King, Jr. <u>http://dx.doi.org/10.21079/11681/21469</u>	AD1036115
ERDC/CHL TR-17-4	May 2017	Analysis of the Effect of Environmental Conditions in Conducting Amphibious Assaults Using a Ship Simulator/Vessel- Response Model Proof-of-Concept Study, by M.A. Cialone, D.J. Mark, S.K. Martin, D.W. Webb, M.C. Allison, R.D. Taylor, T.A. McKenna, and J.R. Hill http://dx.doi.org/10.21079/11681/22554	AD1036159
ERDC/CHL TR-17-5	Apr 2017	Collection, Processing, and Accuracy of Mobile Terrestrial Lidar Survey Data in the Coastal Environment, by N.J. Spore and K.L. Brodie http://dx.doi.org/10.21079/11681/22189	AD1036161
ERDC/CHL TR-17-6	May 2017	Unit Hydrograph Peaking Analysis for Goose Creek Watershed in Virginia: A Case Study, by N.R. Pradhan and D. Loney <u>http://dx.doi.org/10.21079/11681/22540</u>	AD1036162
ERDC/CHL TR-17-7	May 2017	Charleston Harbor, SC, Regional Sediment Management Study; Beneficial Use of Dredged Material Through Nearshore Placement, by L.R. Kashlan, S.A. Brown, and L.S. Lillycrop http://dx.doi.org/10.21079/11681/22546	AD1036164
ERDC/CHL TR-17-8	May 2017	Sediment and Hydraulic Measurements with Computed Bed Load on the Missouri River, Sioux City to Hermann, 2014, by D. Abraham, M. Ramos-Villanueva, T. Pratt, N. Ganesh, D. May, W. Butler, T. McAlpin, K. Jones, J. Shelley, and D. Pridal http://dx.doi.org/10.21079/11681/22585	AD1036169
ERDC/CHL TR-17-9	May 2017	Bonneville First Powerhouse ERDC Turbine Operating Range Investigation, by R.A. Davidson <u>http://dx.doi.org/10.21079/11681/22652</u>	AD1035674
ERDC/CHL TR-17-10	Jun 2017	Design of Deflectors for Little Goose Spillway, Snake River, Oregon: A Physical Model Study, by S.C. Wilhelms and L.I. Yates http://dx.doi.org/10.21079/11681/22724	AD1036082

ERDC/CHL TR-17-11	Jun 2017	An Optimized Combined Wave and Current Bottom Boundary Layer Model for Arbitrary Bed Roughness, by R. Styles, S.M. Glenn, and M.E. Brown http://dx.doi.org/10.21079/11681/22734	AD1036382
ERDC/CHL TR-17-12	Jul 2017	Sediment Dynamics in a Vegetated Tidally Influenced Interdistributary Island: Wax Lake, Louisiana, by R. Styles, D. Bryant, J. Gailani, J. Smith, B.M. Boyd, and G. Snedden http://dx.doi.org/10.21079/11681/22781	AD1037322
ERDC/CHL TR-17-13	Aug 2017	Sediment Budget Analysis: Masonboro Inlet, North Carolina, by K.B. Conner and L.S. Lillycrop http://dx.doi.org/10.21079/11681/22841	AD1038027
ERDC/CHL TR-17-14	Aug 2017	Evaluation of the Use of a Bedleveler to Improve Navigability of Atchafalaya River Bar Channel Fluid Mud, by M. Tubman, T. Welp, M. Sullivan, and C. Colombo <u>http://dx.doi.org/10.21079/11681/22887</u>	AD1038613
ERDC/CHL TR-17-15	Sep 2017	Develop Accurate Methods for Characterizing and Quantifying Cohesive Sediment Erosion under Combined Current- Wave Conditions: Project ER 1497, by J.Z. Gailani, J.D. Roberts, S.P. Kearney http://dx.doi.org/10.21079/11681/23954	AD1039573
ERDC/CHL TR-17-16	Sep 2017	PTM Modeling of Dredged Suspended Sediment at Proposed Polaris Point and Ship Repair Facility CVN Berthing Sites - Apra Harbor, Guam, by J.Z. Gailani, SC. Kim, D.B. King Jr., and T.C. Lackey http://dx.doi.org/10.21079/11681/24330	AD1039713
ERDC/CHL TR-17-17	Nov 2017	General Model Study of Scour at Proposed Pier Extensions - Santa Ana River at BNSF Bridge, Corona, California, by J.A. Sharp, T.O. McAlpin, G.L. Bell, H.E. Park, and R.E. Heath http://dx.doi.org/10.21079/11681/25796	AD1042835
ERDC/CHL TR-17-18	Oct 2017	Numerical Modeling of Wave Overtopping of Buffalo Harbor Confined Disposal Facility (CDF4), by Z. Demirbilek, L. Lin, O.G. Nwogu, M.C. Mohr, S. Chader, and G.K. Hintz <u>http://dx.doi.org/10.21079/11681/25505</u>	AD1041581
ERDC/CHL TR-17-19	Dec 2017	Nearshore Survey System Evaluation, by M.F. Forte, W.A. Birkemeier, and J.R. Mitchell <a href="http://dx.doi.org/10.21079/11681/26031">http://dx.doi.org/10.21079/11681/26031</a>	AD1045534

# 3 Cold Regions Research Engineering Laboratory (CRREL)

### **Special reports**

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CRREL SR-17-1	May 2017	Landing-Zone and Drop-Zone Criteria, by W.L. Wieder and S.A. Shoop http://dx.doi.org/10.21079/11681/22406	AD1036303
ERDC/CRREL SR-17-2	Jun 2017	Vegetation Impact on Soil Strength: A State of the Knowledge Review, by W.L. Wieder and S.A. Shoop http://dx.doi.org/10.21079/11681/22632	AD1036307
ERDC/CRREL SR-17-3	Jul 2017	Passive Gamma-Ray Emission for Underwater Sediment-Disturbance Detection, by J.L. Clausen <u>http://dx.doi.org/10.21079/11681/22769</u>	AD1037262
<sup>1</sup> ERDC/CRREL SR-17-4	Aug 2017	Global Natural Background Image Database User Manual, by N.E. Parker and S.L. Jarvis	AD1040977
ERDC/CRREL SR-17-5	Dec 2017	Choosing a Global Positioning System Device for Use in U.S. Army Corps of Engineers Regulatory Districts, by J.J. Goulet, L.E. Lefebvre, and Y.J. Chung http://dx.doi.org/10.21079/11681/25912	AD1049194

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CRREL TR-17-1	Jan 2017	Flow-Control Systems Proof of Concept for Snowmelt Runoff at McMurdo Station, Antarctica, by R.T. Affleck, B. Tischbein, and J. Arbogast <u>http://hdl.handle.net/11681/21063</u>	AD1036394
ERDC/CRREL TR-17-2	Jan 2017	Geophysical Survey of McMurdo Ice Shelf to Determine Infrastructure Stability and for Future Planning, by S. Campbell, Z. Courville, S. Sinclair, and J. Wilner http://hdl.handle.net/11681/21084	AD1036407

<sup>&</sup>lt;sup>1</sup> Limited distribution; see Preface.

ERDC/CRREL TR-17-3	Jan 2017	2010/11 McMurdo Station Snow-Road Strength and Maintenance, by T.A. Melendy and S.A. Shoop http://hdl.handle.net/11681/21206	AD1027786
ERDC/CRREL TR-17-4	Feb 2017	Subsurface Assessment at McMurdo Station, Antarctica, by R.T. Affleck, S. Campbell, S.N. Sinclair, and B. Tischbein <u>http://hdl.handle.net/11681/21207</u>	AD1036414
<sup>1</sup> ERDC/CRREL TR-17-5	Feb 2017	Development of the Global Natural Background Image Database for Camouflage Field Evaluation, by N.E. Parker, S.L. Jarvis, M.L. Maxson, W. Breitkreutz, C.L. Scott, M. Ekegren, R. Detsch, R.A. Melloh, and S. McIntosh	AD1036420
ERDC/CRREL TR-17-6	Apr 2017	Linear- and Repetitive-Feature Detection Within Remotely Sensed Imagery, by B.A. West http://dx.doi.org/10.21079/11681/22151	AD1036421
ERDC/CRREL TR-17-7	Apr 2017	A Creep Model for High-Density Snow, by R.B. Haehnel http://dx.doi.org/10.21079/11681/22199	AD1036422
ERDC/CRREL TR-17-8	May 2017	Subjective Mapping of Dust-Emission Sources by Using MODIS Imagery: Reproducibility Assessment, by S.N. Sinclair and S.L. Jones http://dx.doi.org/10.21079/11681/22586	AD1036423
ERDC/CRREL TR-17-9	Jul 2017	Testing Methods for Challenging the National Wetland Plant List: Using Tsuga canadensis (L.) Carr. (Eastern Hemlock) as a Case Study, by R.W. Lichvar and J.J. Goulet <u>http://dx.doi.org/10.21079/11681/22748</u>	AD1040979
ERDC/CRREL TR-17-10	Jul 2017	Changes in the Albedo of the Pegasus and Phoenix Runways, 2000-2017, by E.J. Deeb, B.F. Morriss, S.F. Daly, and R.B. Haehnel http://dx.doi.org/10.21079/11681/22763	AD1037267
ERDC/CRREL TR-17-11	Aug 2017	Examining Wetland Frequency Discrepancies Produced by Data Collected at Wetland Boundaries and across the Landscape: Using Tsuga canadensis (L.) Carr. (Eastern Hemlock) as a Case Study, by R.W. Lichvar and J.J. Goulet http://dx.doi.org/10.21079/11681/22861	AD1040981

<sup>1</sup> Limited distribution; see Preface.

ERDC/CRREL TR-17-12	Aug 2017	Munition Penetration-Depth Prediction: SERDP SEED Project MR-2629, by A.J. Song, B.A. West, O.S. Taylor, D.T. O'Connor, M.D. Parno, T.S. Hodgdon, D.M. Cole, and J.L. Clausen http://dx.doi.org/10.21079/11681/22905	AD1039187
ERDC/CRREL TR-17-13	Aug 2017	Baseline Assessment of Petroleum Contamination and Soil Properties at Contaminated Sites in Utqiagvik, Alaska, by R.A. Barbato, S.L. Jarvis, K.L. Foley, and R.M. Jones http://dx.doi.org/10.21079/11681/22906	AD1040983
ERDC/CRREL TR-17-14	Sep 2017	Using Frozen Barriers for Containment of Contaminants, by A.M. Wagner and E. Yarmak http://dx.doi.org/10.21079/11681/23958	AD1039597
ERDC/CRREL TR-17-15	Sep 2017	Feasibility of Using Alternate Fuels in the U.S. Antarctic Program: Initial Assessment, by R.B. Haehnel, T. Melendy, and G.L. Blaisdell http://dx.doi.org/10.21079/11681/24335	AD1046327
ERDC/CRREL TR-17-16	Oct 2017	The Potential Risks and Future Impact of a Large Leverett Glacier Crevasse along the South Pole Traverse (SPoT), by J.M. Fegyveresi http://dx.doi.org/10.21079/11681/24835	AD1046331
ERDC/CRREL TR-17-17	Nov 2017	Use of Heat and Fire-Risk Indices to Project Local Climate Impacts on Selected Army Installations: Climate Models, Scenarios, Climate Data, and Indices, by J.W. Weatherly and M.A. Rosenbaum http://dx.doi.org/10.21079/11681/26650	

# 4 Construction Engineering Research Laboratory (CERL)

### **Contract reports**

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CERL CR-17-1	Jul 2017	Fort Leonard Wood German POW Stonework: Maintenance and Repair, by S.M. Jackson and J. Church http://dx.doi.org/10.21079/11681/22790	AD1048860
<sup>1</sup> ERDC/CERL CR-17-2	Oct 2017	SMART Energy Efficient Deployable Shelters (SEEDS): Test and Evaluation Report, by A.H. Shaaban, S. Escobar, and A.M. Yacout	AD1048861
ERDC/CERL CR-17-3	Oct 2017	Historic Structure Assessment for Building 839, Carlisle Barracks: Carlisle, Pennsylvania, by T. Vitanza, M. Slater, and C. Slinton-Selin <u>http://dx.doi.org/10.21079/11681/25419</u>	
ERDC/CERL CR-17-4	Dec 2017	Hydrophobic Concrete Admixture Product Testing and Validation: Contractor's Supplemental Report for CPC Project F09- AR05A, by L.R. Wachowski, P.G. Tourney, M.A. Miltenberger, and N.S. Berke <u>http://dx.doi.org/10.21079/11681/26076</u>	AD1049188
ERDC/CERL CR-17-5	Dec 2017	Modeling the Effect of a Hydrophobic Concrete Admixture on Chloride Ingress: Contractor's Supplemental Report for CPC Project F09- AR05A, by E. Samson and T. Zhang <u>http://dx.doi.org/10.21079/11681/26087</u>	AD1049191

#### **Miscellaneous papers**

Report Number	<u>Date</u>	Title	AD Number
ERDC/CERL MP-17-1	Jul 2017	Endangered Cultural Heritage: Global Mapping of Protected and Heritage Sites, by K.O. Fay and G.W. Calfas http://dx.doi.org/10.21079/11681/22789	AD1040986
ERDC/CERL MP-17-2	Jul 2017	The Human Domain and the Future of Army Warfare: Present as Prelude to 2050, by C.D. Wood http://dx.doi.org/10.21079/11681/22770	AD1041345

<sup>&</sup>lt;sup>1</sup> Limited distribution; see Preface.

ERDC/CERL MP-17-3	Sep 2017	A Framework for Developing Scalable Geodesign Products, by E.G. Bastian, J.M. Wilhoit, M.D. Hiett, N.W. Garfinkle, G.W. Calfas, T.M. Foltz, and N.R. Myers http://dx.doi.org/10.21079/11681/23619	AD1048858
ERDC/CERL MP-17-4	Dec 2017	Military Climate Resilience Planning and Contemporary Urban Systems Thinking, by J.P. Allen and B.M. Deal http://dx.doi.org/10.21079/11681/26506	AD1049312
ERDC/CERL MP-17-5	Dec 2017	Improving U.S. Army Civil Affairs Assessment: A Consideration of Social Power, by L.A. Whalley, J.M. Vendrzyk, and G.W. Calfas http://dx.doi.org/10.21079/11681/26588	AD1049313

## **Special reports**

Report Number	<u>Date</u>	Title	AD Number
ERDC/CERL SR-17-1	Feb 2017	Strategic Siting of Contingency Bases: Assessing Options for Potable Water, by L.A. Whalley, D.A. Krooks, and G.W. Calfas http://dx.doi.org/10.21079/11681/21472	AD1028123
ERDC/CERL SR-17-2	Feb 2017	Specific, Measureable, Attainable, Relevant, and Timely (SMART) Document: Utilized in Assessing Socioeconomic Impacts of Cascading Infrastructure Disruptions, by T.M. Hurt, E.R. Hartman, C.L. Baxter, and N.R. Myers http://dx.doi.org/10.21079/11681/21491	AD1038191
<sup>1</sup> ERDC/CERL SR-17-3	Jul 2017	Deep Retrofit Recommendations for Building 450, Soldier Memorial Chapel, at Fort Leonard Wood, MO: Steps Towards Net Zero Energy Water and Waste, by H.R. FitzHenry, D. Chu, J.O. Flores-Davila, A.L. Stumpf, D.L. Herron, and S.J. Bevelheimer	AD1038099
<sup>1</sup> ERDC/CERL SR-17-4	Jul 2017	Deep Retrofit Recommendations for Building 470, Dillard Hall, at Fort Leonard Wood, MO: Steps Towards Net Zero Energy Water and Waste, by H.R. FitzHenry, D. Chu, J.O. Flores- Davila, A.L. Stumpf, D.L. Herron, and S.J. Bevelheimer	AD1038100

<sup>&</sup>lt;sup>1</sup> Limited distribution; see Preface.

<sup>1</sup> ERDC/CERL SR-17-5	Jul 2017	Deep Retrofit Recommendations for Building 500, Harper Dental Clinic, at Fort Leonard Wood, MO: Steps Towards Net Zero Energy Water and Waste, by H.R. FitzHenry, D. Chu, J.O. Flores-Davila, A.L. Stumpf, D.L. Herron, and S.J. Bevelheimer	AD1038102
<sup>1</sup> ERDC/CERL SR-17-6	Jul 2017	Deep Retrofit Recommendations for Building 741, 1st Engineer Brigade HQ, at Fort Leonard Wood, MO: Steps Towards Net Zero Energy Water and Waste, by H.R. FitzHenry, D. Chu, J.O. Flores-Davila, A.L. Stumpf, D.L. Herron, and S.J. Bevelheimer	AD1038171
<sup>1</sup> ERDC/CERL SR-17-7	Jul 2017	Deep Retrofit Recommendations for Building 826, Swift Gym, at Fort Leonard Wood, MO: Steps Towards Net Zero Energy Water and Waste, by H.R. FitzHenry, D. Chu, J.O. Flores- Davila, A.L. Stumpf, D.L. Herron, and S.J. Bevelheimer	AD1038174
<sup>1</sup> ERDC/CERL SR-17-8	Jul 2017	Deep Retrofit Recommendations for Building 885, Richard G. Wilson Consolidated Troop Medical Clinic, at Fort Leonard Wood, MO: Steps Towards Net Zero Energy Water and Waste, by H.R. FitzHenry, D. Chu, J.O. Flores- Davila, A.L. Stumpf, D.L. Herron, and S.J. Bevelheimer	AD1038178
<sup>1</sup> ERDC/CERL SR-17-9	Jul 2017	Deep Retrofit Recommendations for Building 1000, Dorland-Reynolds Hall (MP), at Fort Leonard Wood, MO: Steps Towards Net Zero Energy Water and Waste, by H.R. FitzHenry, D. Chu, J.O. Flores-Davila, A.L. Stumpf, D.L. Herron, and S.J. Bevelheimer	AD1038180
<sup>1</sup> ERDC/CERL SR-17-10	Jul 2017	Deep Retrofit Recommendations for Building 2100, Grant Hall, at Fort Leonard Wood, MO: Steps Towards Net Zero Energy Water and Waste, by H.R. FitzHenry, D. Chu, J.O. Flores- Davila, A.L. Stumpf, D.L. Herron, and S.J. Bevelheimer	AD1038182
<sup>1</sup> ERDC/CERL SR-17-11	Jul 2017	Deep Retrofit Recommendations for Building 5265, Duvall Maintenance Complex, at Fort Leonard Wood, MO: Steps Towards Net Zero Energy Water and Waste, by H.R. FitzHenry, D. Chu, J.O. Flores-Davila, A.L. Stumpf, D.L. Herron, and S.J. Bevelheimer	AD1037183

<sup>&</sup>lt;sup>1</sup> Limited distribution; see Preface.

<sup>1</sup> ERDC/CERL SR-17-12	Jul 2017	Deep Retrofit Recommendations for Building 5400, Brown Hall, at Fort Leonard Wood, MO: Steps Towards Net Zero Energy Water and Waste, by H.R. FitzHenry, D. Chu, J.O. Flores- Davila, A.L. Stumpf, D.L. Herron, and S.J. Bevelheimer	AD1038185
<sup>1</sup> ERDC/CERL SR-17-13	Aug 2017	Legal and Administrative Requirements for Energy-Use Benchmarking and Metering of Military Facilities: References and Abstracts for Army Facility Managers, by N.M. Josefik, J.L. Webster, S.D. Hirschi, M.D. Hiett, and S.S. Bhole	AD1039829
ERDC/CERL SR-17-14	Aug 2017	Data Collection and Management with ENSITE HUB: ENSITE HUB Version 1.0, by J.M. Wilhoit, N.R. Myers, and G.W. Calfas http://dx.doi.org/10.21079/11681/23050	AD1048857
ERDC/CERL SR-17-15	Nov 2017	Development of Analytical Plug-Ins for ENSITE: Version 1.0, by M.D. Hiett, N.R. Myers, G.W. Calfas, E.G. Bastian, K.O. Fay, N.W. Garfinkle, E.R. Hartman, R.W. Keeling, E.L. Kreiger, K.A. Morozova, J.M. Wilhoit, and D.M. Williams http://dx.doi.org/10.21079/11681/25441	AD1049199
ERDC/CERL SR-17-16	Nov 2017	Refugees Flexing Social Power as Agents of Stability: Creating Modes of Economic Livelihoods in Kenya's Camps, by L.L. Larkin and S.A. Clark http://dx.doi.org/10.21079/11681/25761	AD1049211
ERDC/CERL SR-17-17	Dec 2017	Military Critiques of the Current Assessment Process for the Human Domain – An Annotated Bibliography, by J.M. Vendrzyk, L.A. Whalley, and G.W. Calfas http://dx.doi.org/10.21079/11681/26485	AD1049314

### **Technical notes**

Report Number	<u>Date</u>	<u>Title</u>	<u>AD Number</u>
ERDC/CERL TN-17-1	Sep 2017	Engineer Site Identification for the Tactical Environment (ENSITE): Program Overview, by G.W. Calfas and N.R. Myers http://dx.doi.org/10.21079/11681/24333	AD1028123

<sup>&</sup>lt;sup>1</sup> Limited distribution; see Preface.

Report Number	<u>Date</u>	Title	AD Number
ERDC/CERL TR-17-1	Jan 2017	Vietnam and the Home Front: Ground Combat Training, 1962-1975, by E.R. Hartman, M.W. Tooker, A.D. Smith, and S.I. Enscore http://dx.doi.org/10.21079/11681/23590	AD1028123
ERDC/CERL TR-17-2		No report	
ERDC/CERL TR-17-3	Jan 2017	Determination of NRHP Eligibility for Buildings 28414, 32100, 33800, 36300, and 36302 at Fort Gordon, Georgia: Includes a Criteria Consideration G Evaluation of the 1988 Barracks Complex, by A.D. Smith and S.E. Adams http://dx.doi.org/10.21079/11681/21482	AD1029791
ERDC/CERL TR-17-4	Feb 2017	Performance of HESCO Bastion Units Under Combined Normal and Cyclic Lateral Loading, by G.K. Al-Chaar, M.L. Banko, B. Eick, and T.A. Carlson http://dx.doi.org/10.21079/11681/21447	AD1038186
<sup>1</sup> ERDC/CERL TR-17-5	Feb 2017	Deep Retrofit Concepts for Specker Barracks, Fort Leonard Wood, MO, by D. Chu, J.L. Webster, J.A. Yu, A.L. Stumpf, and S.J. Bevelheimer	AD1049212
ERDC/CERL TR-17-6	Feb 2017	Deployment Infrastructure, by N.R. Myers, M.E. Swearingen, and J.P. Miller http://dx.doi.org/10.21079/11681/26421	
ERDC/CERL TR-17-7	Mar 2017	Feasibility Study of Food Waste Co-Digestion at U.S. Army Installations, by S.D. Cosper, D.S. Gilbert, I.E. MacAllister, M.Z. Rahman, J. Ricketts, S.R. Rock, A.B. Urban, A.W. Lan, and G. Rodriguez http://dx.doi.org/10.21079/11681/21634	AD1038188
ERDC/CERL TR-17-8		No report	
<sup>1</sup> ERDC/CERL TR-17-9	Apr 2017 Rev. Jul 2017	Development and Testing of Geopolymers for Soil Stabilization on Military Installations, by G.K. Al-Chaar, P. Stynoski, K. Sankar, M. Banko, W.M. Kriven, and I. Al-Qadi	AD1037446

<sup>&</sup>lt;sup>1</sup> Limited distribution; see Preface.

ERDC/CERL TR-17-10	May 2017	Investigation of Hydrophobic Concrete Additive for Seawall Replacement at Pililaau Army Recreation Center, Hawaii: Final Report on Project F09-AR05A, by M.K. McInerney, S.C. Sweeney, O.S. Marshall Jr., and L. Clark <u>http://dx.doi.org/10.21079/11681/22550</u>	AD1037445
ERDC/CERL TR-17-11	May 2017	Exposure Testing of Hycrete Concrete Additive in a Wastewater Treatment Environment: Final Report on Project FO9-AR05B, by S.C. Sweeney http://dx.doi.org/10.21079/11681/22583	AD1037454
ERDC/CERL TR-17-12	May 2017	Estimating Resistance and Resilience of Military Lands Using Vegetation Indices, by R.R. Busby, D.L. Gebhart, S.J. Oxley, W.D. Tarantino, and W.A. Wall http://dx.doi.org/10.21079/11681/23953	AD1049213
ERDC/CERL TR-17-13	May 2017	Demonstration and Validation of Stainless Steel Materials for Critical Above-Grade Piping in Highly Corrosive Locations: Final Report on Project F07-AR15, by S.C. Sweeney, L.D. Stephenson, R.H. Eichlin, and R.A. Weber <u>http://dx.doi.org/10.21079/11681/22548</u>	AD1037443
ERDC/CERL TR-17-14	May 2017	Inventory and Evaluation for Fort Riley Elementary School (#104) and Custer Hill Elementary School (#6344), Fort Riley, Kansas, by S.I. Enscore, E.R. Hartman, and J.L. Webster http://dx.doi.org/10.21079/11681/22623	AD1049219
ERDC/CERL TR-17-15	Jun 2017	Utility Monitoring and Control System (UMCS) and Utility Metering Plan and Specifications for Fort Leonard Wood, MO, by D.M. Schwenk, D.M. Underwood, J. Bush, B. Clark, T. Patel, A. Stumpf, and S. Bevelheimer http://dx.doi.org/10.21079/11681/22742	AD1049220
ERDC/CERL TR-17-16	Jun 2017	Architectural and Landscape Survey of Camp Guernsey, Wyoming, by A.D. Smith, M.W. Tooker, and S.E. Adams <u>http://dx.doi.org/10.21079/11681/22648</u>	AD1049226
ERDC/CERL TR-17-17	Jun 2017	Investigation of Mechanical Breakdowns Leading to Lock Closures, by S.D. Foltz <u>http://dx.doi.org/10.21079/11681/22873</u>	AD1049227
ERDC/CERL TR-17-18	Jun 2017	Full-Scale Testing of Thermoplastic Composite I-Beams for Bridges, by G.K. Al-Chaar, S.C. Sweeney, R.G. Lampo, and M.L. Banko http://dx.doi.org/10.21079/11681/22641	AD1049228

ERDC/CERL TR-17-19	Jun 2017	Demonstration of Antimicrobial Corrosion- Resisting Interior Coating Systems for Military Facilities in Warm, Humid Locations: Final Report on Project F10-AR04, by R.C. Wilson and L. Clark http://dx.doi.org/10.21079/11681/22647	AD1049229
ERDC/CERL TR-17-20		No report	
ERDC/CERL TR-17-21	Jul 2017	Multiscale Assessment of Listed and At-Risk Species' Climate Change Vulnerabilities, by M.G. Hohmann and W.A. Wall http://dx.doi.org/10.21079/11681/23814	AD1049230
ERDC/CERL TR-17-22	Jul 2017	Climate Change Vulnerability of Army Installations Attributable to Listed and At-Risk Species, by M.G. Hohmann, D.K. Delaney, and W.A. Wall <u>http://dx.doi.org/10.21079/11681/23957</u>	AD1049232
ERDC/CERL TR-17-23	Jul 2017	Implementation of Polyurea Applications for Wastewater System Corrosion-Mitigation Projects: Final Report on Project F15-AR04, by C.A. Wilson, J.S. Mathis, J. Kramer, and R.E. Kizer http://dx.doi.org/10.21079/11681/22761	AD1049234
ERDC/CERL TR-17-24	Aug 2017	Facility Energy Performance Benchmarking in a Data-Scarce Environment, by S.S. Bohle, J.L. Webster, M.D. Hiett, and N.M. Josefik http://dx.doi.org/10.21079/11681/24344	AD1049236
ERDC/CERL TR-17-25	Jul 2017	An Evaluation of Methods for Assessing Vulnerability of Army Installations to Impacts of Climate Change on Listed and At-Risk Species, by M.G. Hohmann, D.K. Delaney, and M.E. Swearingen http://dx.doi.org/10.21079/11681/22772	AD1049238
ERDC/CERL TR-17-26		No report	
ERDC/CERL TR-17-27	Jul 2017	Geopolymer Nanoceramic Mortar Liner System for Corrosion Protection and Rehabilitation of Stormwater Piping: Final Report on Project F14-AR05, by C.A. Wilson, J.S. Mathis, L. Clark, and A. Delgado-Connor <u>http://dx.doi.org/10.21079/11681/22787</u>	AD1049243
ERDC/CERL TR-17-28 Vol.1	Aug 2017	Fort Riley Building Inventory and Evaluation, 1964-1974: Volume 1 of 2, by S.I. Enscore, E.R. Hartman, and J.L. Webster <u>http://dx.doi.org/10.21079/11681/22913</u>	AD1049246

<sup>1</sup> ERDC/CERL TR-17-28 Vol.2	Aug 2017	Fort Riley Building Inventory and Evaluation, 1964-1974: Volume 2 of 2 (Forms), by S.I. Enscore, E.R. Hartman, and J.L. Webster	
<sup>1</sup> ERDC/CERL TR-17-29	Sep 2017	Analysis of Transportation Models for Response and Recovery Planning: Report on Transportation Modeling for the Defense Threat Reduction Agency, J9-Nuclear Science and Engineering Research Center (NSERC), by J.P. Allen, Z. Wang, and C.R. Ehlschlaeger	AD1039825
ERDC/CERL TR-17-30	Sep 2017	Demonstration of Thermally Sprayed Metal and Polymer Coatings for Steel Structures at Fort Bragg, NC: Final Report on Project F07- AR10, by L.D. Stephenson, A.D. Beitelman, R.G. Lampo, A. Kumar, D. Neale, L. Clark, K. Palutke, M. Surratt, and D. Butler http://dx.doi.org/10.21079/11681/24293	AD1043862
ERDC/CERL TR-17-31	Sep 2017	Development of a Predictive Corrosion Model Using Locality-Specific Corrosion Indices, by S. Morefield <u>http://dx.doi.org/10.21079/11681/24328</u>	AD1043865
ERDC/CERL TR-17-32	Sep 2017	Fort Leonard Wood Miscellaneous Buildings, NRHP Section 110 Inventory and Evaluation, by A.D. Smith and S.E. Adams <u>http://dx.doi.org/10.21079/11681/24641</u>	
ERDC/CERL TR-17-33		No report	
ERDC/CERL TR-17-34	Sep 2017	Quantifying Impacts of Urban Growth Potential on Army Training Capabilities, by J. McMillan-Wilhoit, S.A. Tweddale, M.E. Swearingen, and J.D. Westervelt <u>http://dx.doi.org/10.21079/11681/24748</u>	AD1049250
ERDC/CERL TR-17-35	Sep 2017	In-Situ Subsurface Coating of Corroded Steel Sheet Pile Structures: Final Report on Project F08-AR06, by A.D. Beitelman, R.G. Lampo, L. Clark, D. Butler, E. Van Draege, and D. Rozène http://dx.doi.org/10.21079/11681/24343	AD1049256
ERDC/CERL TR-17-36 Vol. 1	Sep 2017	Architectural Survey of Seven Wyoming Army National Guard Armories, 1961-1974: Volume 1 of 2, by A.D. Smith, M.W. Tooker, and S.E. Adams http://dx.doi.org/10.21079/11681/24833	AD1049259

<sup>1</sup> Limited distribution; see Preface.

ERDC/CERL TR-17-36 Vol. 2	Sep 2017	Architectural Survey of Seven Wyoming Army National Guard Armories, 1961-1974: Volume 2 of 2 (Building Forms), by A.D. Smith, M.W. Tooker, and S.E. Adams http://dx.doi.org/10.21079/11681/24834	
ERDC/CERL TR-17-37	Nov 2017	Material Selection for Bumpers and Fenders for Lock Gates and Guidewalls, by R.G. Lampo and S.D. Foltz	
ERDC/CERL TR-17-38	Oct 2017	Rotary Kiln Gasification of Solid Waste for Base Camps, by S.D. Cosper http://dx.doi.org/10.21079/11681/26600	AD1044597
ERDC/CERL TR-17-39	Oct 2017	Demonstration and Validation of Advanced Rebar Materials in Salt-Exposure Applications: Final Report on Project F09-AR13, by S.C. Sweeney, O.S. Marshall, J. Taylor, L. Clark, and R. Miles <u>http://dx.doi.org/10.21079/11681/25601</u>	AD1049285
ERDC/CERL TR-17-40 Vol. 1	Nov 2017	Social and Political Event Data to Support Army Requirements: Volume 1, by T.K. Perkins, C.D. Wood, R.F. Dos Santos Jr., W.D. Meyer, N.W. Garfinkle, X. Wang, S.I. Enscore, L.A. Selig, and G.W. Calfas http://dx.doi.org/10.21079/11681/25702	AD1049286
ERDC/CERL TR-17-41	Nov 2017	Historic Landscape Inventory for Marietta National Cemetery, by S.I. Enscore, A.D. Smith, E.R. Hartman, and M.W. Tooker http://dx.doi.org/10.21079/11681/25664	AD1049288
ERDC/CERL TR-17-42	Nov 2017	Method for Localizing and Differentiating Bacteria within Biofilms Grown on Indium Tin Oxide: Spatial Distribution of Exoelectrogenic Bacteria within Intact ITO Biofilms via FISH, by C.M. Arnett and J.D.T. Lange http://dx.doi.org/10.21079/11681/25701	AD1049290
ERDC/CERL TR-17-43	Nov 2017	3-D Scanning of Headstones at the U.S. Naval Plot, Mount Moriah Cemetery, Philadelphia, PA, by C.L. Baxter, A.M. Hamblin, and S.I. Enscore http://dx.doi.org/10.21079/11681/25807	AD1049292
ERDC/CERL TR-17-44	Dec 2017	Method of Construction for Geopolymer Soil Stabilized Platforms, by G.K. Al-Chaar, P.B. Stynoski, M.M. Landi, and M.L. Banko http://dx.doi.org/10.21079/11681/26029	AD1049293

ERDC/CERL TR-17-45 Dec 2017 Demonstration of Thermoplastic Composite I- AD1049294 Beam Design Bridge at Camp Mackall, NC: Final Report on Projects FY08-16 and FY09-31, by R.G. Lampo, T.J. Nosker, G. Nagle, S.B. Nemeth, K. Palutke, and L. Clark http://dx.doi.org/10.21079/11681/26030

# **5 Environmental Laboratory (EL)**

### **Contract reports**

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/EL CR-17-1	Sep 2017	Elders Point East Marsh Island Restoration Monitoring Data Analysis, by D.S. Davis, P.M. Weppler, P. Rafferty, D.G. Clarke, and D. Yozzo http://dx.doi.org/10.21079/11681/23952	AD1039569

### **Special reports**

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/EL SR-17-1	Feb 2017	Quantifying Nanoparticle Release from Nanotechnology: Scientific Operating Procedure Series; SOP-C-3, by D.P. Martin, A.R. Poda, and A.J. Bednar <u>http://dx.doi.org/10.21079/11681/21450</u>	AD1028134
ERDC/EL SR-17-2	Jun 2017	Invasive Species Management on Military Lands: Clustered Regularly Interspaced Short Palindromic Repeat/CRISPR- associated Protein 9 (CRISPR/Cas9)-based Gene Drives, by P. Gong http://dx.doi.org/10.21079/11681/22721	AD1035990
ERDC/EL SR-17-3	Jun 2017	Levee Setbacks: An Innovative, Cost- Effective, and Sustainable Solution for Improved Flood Risk Management, by D.L. Smith, S.P. Miner, C.H. Theiling, R. Behm, and J.M. Nestler http://dx.doi.org/10.21079/11681/22736	AD1036398
ERDC/EL SR-17-4	Oct 2017	Utilizing Wetlands for Phosphorus Reduction in Great Lakes Watersheds: A Review of Available Literature Examining Soil Properties and Phosphorus Removal Efficiency, by S.J. Currie, C.M. VanZomeren, and J.F. Berkowitz http://dx.doi.org/10.21079/11681/24838	AD1040511

### **Technical notes**

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/EL TN-17-1	Oct 2017	The Influence of Dissolved Organic Carbon on Acute Lethality in Zebrafish (Danio rerio) Exposed to Silver Nanoparticles and Silver Nitrate, by A.D. Hawkins, C. Thornton, W. Guyton, J.K. Stanley, A.J. Kennedy, J.A. Steevens, and K.L. Willett http://dx.doi.org/10.21079/11681/24828	

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/EL TR-17-1	Jan 2017	Operational Draft Regional Guidebook for the Functional Assessment of High-Gradient Headwater Streams and Low-Gradient Perennial Streams in Appalachia, by E.A. Summers, C.V. Noble, J.F. Berkowitz, and F.J. Spilker <u>http://dx.doi.org/10.21079/11681/21462</u>	AD1039574
ERDC/EL TR-17-2	Jan 2017	The Biology of Bioavailability: The Role of Functional Ecology in Exposure Processes; SERDP ER-1750, by T.S. Bridges, A.J. Kennedy, G.R. Lotufo, J.G. Coleman, C.E. Ruiz, J.H. Lindsay, J.A. Steevens, A. Wooley, G. Matisoff, P. McCall, E. Kaltenberg, R.M. Burgess, and L.A. Fernandez http://hdl.handle.net/11681/21083	AD1036487
ERDC/EL TR-17-3	Mar 2017	Surveys for Biological Control Agents of Hydrilla verticillata in the People's Republic of China in 2013, by N.E. Harms, M. Purcell, J. Zhang, M.J. Grodowitz, and J. Ding http://dx.doi.org/10.21079/11681/21621	AD1036495
ERDC/EL TR-17-4	Apr 2017	Temperature Modeling of Lost Creek Lake Using CE-QUAL-W2: A Report on the Development, Calibration, Verification, and Application of the Model, by T.L. Threadgill, D.F. Turner, L.A. Nicholas, B.W. Bunch, D.H. Tillman, and D.L. Smith http://dx.doi.org/10.21079/11681/21684	AD1032332
ERDC/EL TR-17-5	Apr 2017	Field Demonstration and Validation of TREECS <sup>™</sup> and CTS for the Risk Assessment of Contaminants on Department of Defense (DoD) Ranges: ESTCP Project Number ER-201435, by M.S. Dortch, B.E. Johnson, and E.J. Weber http://dx.doi.org/10.21079/11681/22175	AD1034449

ERDC/EL TR-17-6	May 2017	Temperature Modeling of Applegate Lake Using CE-QUAL-W2: A Report on the Development, Calibration, Verification, and Application of the Model, by T.L. Threadgill, D.F. Turner, L.A. Nicholas, B.W. Bunch, D.H. Tillman, and D.L. Smith	AD1037444
		http://dx.doi.org/10.21079/11681/22547	
ERDC/EL TR-17-7	May 2017	Evaluation of Uncertainty in Constituent Input Parameters for Modeling the Fate of IMX-101 Components, by M.S. Dortch and B.E. Johnson http://dx.doi.org/10.21079/11681/22568	AD1037451
ERDC/EL TR-17-8	Jun 2017	User Guidance for Application of TREECS <sup>™</sup> and CTS for Environmental Risk Assessment of Contaminants on Department of Defense (DoD) Ranges, by M.S. Dortch, E.J. Weber, and B.E. Johnson	AD1036545
		http://dx.doi.org/10.21079/11681/22650	
ERDC/EL TR-17-9	Jul 2017	Integrated Assessment of Vegetation and Soil Conditions Following Herbicide Application, by N.R. Beane, C.M. VanZomeren, C.L. Price, J.M. Seiter-Moser, J.L. Conkle, B.N. Stevens, and J.F. Berkowitz <u>http://dx.doi.org/10.21079/11681/22765</u>	AD1037255
ERDC/EL TR-17-10	Jul 2017	Two-Dimensional Movement Patterns of Juvenile Winter-Run and Late-Fall-Run Chinook Salmon at the Fremont Weir, Sacramento River, CA, by A.E. Steel, B. Lemasson, D.L. Smith, and J.A. Israel http://dx.doi.org/10.21079/11681/22766	AD1036939
ERDC/EL TR-17-11	Jul 2017	Review and Evaluation of Reservoir Management Strategies for Harmful Algal Blooms, by B.D. Herman, J.O. Eberly, C.M. Jung, and V.F. Medina http://dx.doi.org/10.21079/11681/22773	AD1037253
ERDC/EL TR-17-12	Jul 2017	Documenting Presence and Movements of Piscivorous Birds Along the Illinois River and Within the Chicago Area Waterway System, by M.P. Guilfoyle, B.S. Dorr, K. Hanson-Dorr, R.A. Fischer, and A.M. Friona http://dx.doi.org/10.21079/11681/22783	AD1037322
ERDC/EL TR-17-13	Jul 2017	Evaluation of Wetland Hydrology in Formerly Irrigated Areas, by J.F. Berkowitz, J.P. Pietroski, and S.J. Currie http://dx.doi.org/10.21079/11681/22785	AD1037447

ERDC/EL TR-17-14	Aug 2017	Operational Draft Regional Guidebook for the Rapid Assessment of Wetlands in the North Slope Region of Alaska, by J.F. Berkowitz, N.R. Beane, K.D. Philley, and M. Ferguson http://dx.doi.org/10.21079/11681/23955	AD1039574
ERDC/EL TR-17-15	Aug 2017	Floristic Quality Index of Restored Wetlands in Coastal Louisiana, by G.M. Suir and C.E. Sasser <a href="http://dx.doi.org/10.21079/11681/22930">http://dx.doi.org/10.21079/11681/22930</a>	AD1039133
ERDC/EL TR-17-16	Aug 2017	Lake Aquilla - Habitat Survey Hill County, Texas, by K. Philley and M.P. Guilfoyle <u>http://dx.doi.org/10.21079/11681/22929</u>	AD1039129
ERDC/EL TR-17-17	Oct 2017	Review and Synthesis of Evidence Regarding Environmental Risks Posed by Munitions Constituents (MC) in Aquatic Systems, by G.R. Lotufo, M.A. Chappell, C.L. Price, M.L. Ballentine, A.A. Fuentes, T.S. Bridges, R.D. George, E.J. Glisch, and G. Carton <u>http://dx.doi.org/10.21079/11681/25402</u>	AD1040973
ERDC/EL TR-17-18	Sep 2017	Hydrologic Engineering Center-River Analysis System (HEC-RAS) Water Temperature Models Developed for the Missouri River Recovery Management Plan and Environmental Impact Statement, by Z. Zhang and B.E. Johnson <u>http://dx.doi.org/10.21079/11681/23707</u>	AD1039452
ERDC/EL TR-17-19	Nov 2017	Methylmercury Screening Models for Surface Water Habitat Restoration: A Case Study in Duluth-Superior Harbor, by P.T. Gidley, J.P. Kreitinger, M. Zakikhani, and B.C. Suedel http://dx.doi.org/10.21079/11681/25606	AD1042058

# 6 Geotechnical and Structures Laboratory (GSL)

### **Special reports**

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/GSL SR-17-1	Apr 2017	Interim Report on the Investigation of the Fresh Properties of Synthetic Fiber-Reinforced Concrete for the Richardson Landing Casting Field, by W.R. Long, K.E. Walker, and B.H. Green http://dx.doi.org/10.21079/11681/21663	AD1036499
ERDC/GSL SR-17-2	Apr 2017	The Legacy of the 1948 Underseepage and Crevasse Maps, Lower Mississippi River Levees, by J.B. Dunbar, M.K. Corcoran, N.D. Vroman, and J.R. Kelley http://dx.doi.org/10.21079/11681/21669	AD1032266
<sup>1</sup> ERDC/GSL SR-17-3	May 2017	Site Visit to Tokyo, Japan; Camp Zama, Japan; Marine Air Corps Station Iwakuni, Japan; Camp Humphreys, South Korea; Concrete Batch Plants, Aggregate Quarries, and On-Base Construction Sites, by W.R. Long, B.W. Foust, B.H. Green, and C.M. Moore	AD1035459
ERDC/GSL SR-17-4	Jun 2017	SWCC Prediction: Seep/W Add-In Functions, by L. Walshire and B. Robbins http://dx.doi.org/10.21079/11681/22731	AD1036337
ERDC/GSL SR-17-4 rev.	Nov 2017	SWCC Prediction: Seep/W Add-In Functions, by L. Walshire and B. Robbins http://dx.doi.org/10.21079/11681/25652	AD1049301

### **Technical notes**

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/GSL TN-17-1	May 2017	A Spreadsheet for Estimating Soil Water Characteristic Curves (SWCC), by G. Ellithy http://dx.doi.org/10.21079/11681/22582	AD1037459

<sup>&</sup>lt;sup>1</sup> Limited distribution; see Preface.

Report Number	<u>Date</u>	Title	AD Number
<sup>1</sup> ERDC/GSL TR-16-26 Rep. 3	Apr 2017	Performance of Modular Guard Tower System 2-Heavy (MGTS 2-H) Against VBIED and PBIED Threats. Report 3: Version 2-Heavy Experimental Evaluation, by J.S. Judson, J.B. Jordan, J.M. Hoemann, C.B. Blount, and C.R. Ackerman	AD1049295
ERDC/GSL TR-16-27 Rep. 2	Feb 2017	Blast Load Simulator Experiments for Computational Model Validation: Report 2, by F.D. Dallriva, C.F. Johnson, J.L. O'Daniel, A.T. Barnes, and C.C. Dorr http://dx.doi.org/10.21079/11681/21461	AD1038138
ERDC/GSL TR-16-27 Rep. 3	Jul 2017	Blast Load Simulator Experiments for Computational Model Validation: Report 3, by C.F. Johnson, A.T. Barnes, and J.L. O'Daniel http://dx.doi.org/10.21079/11681/22749	AD1036720
<sup>1</sup> ERDC/GSL TR-17-1	Jan 2017	Sustainable Austere Construction Techniques, by C.D. Price, B.A. Jones, J.L. Davis, and A.M. Sullivan	AD1049296
ERDC/GSL TR-17-2	Apr 2017	Modernization of Deployable Airfield Debris Removal Equipment, by R.C. Strange, J.S. Tingle, D.E. Yule, and C.A. Rutland http://dx.doi.org/10.21079/11681/21665	AD1031853
<sup>1</sup> ERDC/GSL TR-17-3	Apr 2017	MPS Spiral 2.0, Indirect-Fire Threat Validation - 107-mm and 122-mm Rocket Warheads: Fort Polk, Louisiana, February 2011, by O.G. Flores, R.N. Boone, D.K. Sham, O. Esquilin-Mangual, M.E. Glynn, and C.D. Price	AD1049298
ERDC/GSL TR-17-4	Apr 2017	Evaluation of the WavTrac Expeditionary Mobility Matting System, by W.C. Floyd http://dx.doi.org/10.21079/11681/22122	AD1034857
<sup>1</sup> ERDC/GSL TR-17-5	Apr 2017	Birds Point-New Madrid Floodway Explosive Delivery System: Mix-Pump Unit First Article Testing, by G.H. Vankirk, M.J. Roth, S.L. Garlington, C. Grey, D.C. Guynes, A.J. Jackson, R.E. Magee, Jr., D.V. Senior, and L.A. Walker	AD1049299
<sup>1</sup> ERDC/GSL TR-17-6	Apr 2017	Range-19-SC Soil: Laboratory Characterization and Material Property Prediction Methodology, by S.A. Akers, S.S. Graham, K.J. Ratliff, and M.D. Adley	AD1035123

<sup>&</sup>lt;sup>1</sup> Limited distribution; see Preface.

<sup>1</sup> ERDC/GSL TR-17-7	Apr 2017	Calibration of the High-Rate-Brittle (HRB) Model for Penetration into Generic Ultra-High- Performance Concrete (GUHPC), by A.O. Frank, G.H. Vankirk, M.J. Roth, A.J. Burroughs, M.I. Hammons, and P.M. Kieffer	AD1041009
ERDC/GSL TR-17-8	May 2017	Laboratory Jet Erosion Tests on the Lower American River Soil Samples, Sacramento, CA - Phase 2, by J.L. Wibowo and B.A. Robbins <u>http://dx.doi.org/10.21079/11681/22567</u>	AD1037452
ERDC/GSL TR-17-9	Jun 2017	Full-Scale Accelerated Testing of Multi-axial Geogrid Stabilized Flexible Pavements, by W.J. Robinson, J.S. Tingle, and G.J. Norwood http://dx.doi.org/10.21079/11681/22653	AD1035676
ERDC/GSL TR-17-10	Jun 2017	Rutting Performance of Cold-Applied Asphalt Repair Materials for Airfield Pavements, by B.C. Cox, J.F. Rushing, and W. Floyd http://dx.doi.org/10.21079/11681/22661	AD1035685
<sup>1</sup> ERDC/GSL TR-17-11	Jun 2017	Expedient Helipads for Contigency Base Camps, by N.R. Hoffman, J.F. Rushing, and T.E. McCaffrey	AD1036037
ERDC/GSL TR-17-12	Jun 2017	Geologic Controls of Sand Boil Formation at Buck Chute, Mississippi, by S.M. Martin, J.B. Dunbar, M.K. Corcoran, and D.W. Schmitz http://dx.doi.org/10.21079/11681/22722	AD1036061
ERDC/GSL TR-17-13	Jun 2017	Geotechnical Evaluation of the Brownsville Levee Cracking and Partial Slope Failure, by L.A. Walshire, J.B. Dunbar, I.J. Stephens, M.K. Corcoran, C. Roig-Silva, and J.R. Kelley http://dx.doi.org/10.21079/11681/22726	AD1036309
<sup>1</sup> ERDC/GSL TR-17-14	Jun 2017	Durability Testing of Line of Communication Bridge Decking with the Heavy Vehicle Simulator, by W.J. Robinson and G.J. Norwood	AD1037109
ERDC/GSL TR-17-15	Jun 2017	Effects of Thermally Induced Microcracking on the Quasi-Static and Dynamic Response of Salem Limestone, by Z.K. Crosby http://dx.doi.org/10.21079/11681/22729	AD1036330
<sup>1</sup> ERDC/GSL TR-17-16	Jul 2017	Microstructure-Sensitive Modeling and Optimization of Airfield Matting, by J.B. Jordon, T.W. Rushing, and L. Garcia	AD1036562
<sup>1</sup> ERDC/GSL TR-17-17	Jul 2017	Component Durability Testing of Girders for the Line of Communication Bridge, by R.D. Whitlow, C.K. Crane, R.A. Andreatta, A.B. Groeneveld, and Z.B. McClelland	AD1038096

<sup>1</sup> Limited distribution; see Preface.

<sup>1</sup> ERDC/GSL TR-17-18	Jul 2017	Nuclear Airblast and Thermal Environments Testing and Modeling; FY15: Blast Load Simulator Environment, by J.L. O'Daniel, F.D. Dallriva, A.T. Barnes, and G.C. Bessette	AD1036984
ERDC/GSL TR-17-19	Jul 2017	Performance Assessment of Discontinuous Fibers in Fiber-Reinforced Concrete: Current State-of-the-Art, by C.A. Burchfield http://dx.doi.org/10.21079/11681/22771	AD1037089
<sup>1</sup> ERDC/GSL TR-17-20	Jul 2017	Undocumented Garrison Dams: A Seepage and Stability Study. U.S. Army Serious Condition Dams, by S.R. Stanton, K.J. DiRocco, K.J. Paul, and M.C.L. Quinn	AD1037791
ERDC/GSL TR-17-21	Jul 2017	Remote Sensing and Monitoring of Earthen Flood-Control Structures, by J.B. Dunbar, G. Galan-Comas, L.A. Walshire, R.E. Wahl, D.E. Yule, M.K. Corcoran, A.L. Bufkin, and J.L. Llopis http://dx.doi.org/10.21079/11681/22804	AD1037860
<sup>1</sup> ERDC/GSL TR-17-22	Aug 2017	CALDERA Software Algorithms: Development and Implementation of the Crater Prediction and Forensic Analysis Methodology, by M.D. Adley and J.E. Windham	AD1037901
ERDC/GSL TR-17-23	Aug 2017	Effect of Fiber Orientation on Dynamic Compressive Properties of an Ultra-High Performance Concrete, by A.B. Groeneveld, T.M. Ahlborn, C.K. Crane, and W.R. Long http://dx.doi.org/10.21079/11681/22806	AD1037917
<sup>1</sup> ERDC/GSL TR-17-24	Aug 2017	MPS Guard Tower Ballistic Panels; Twenty-inch Spacing: Fragmentation Simulation Facility Testing, by R.E. Magee, M.S. Holmer, P.M. Kieffer, S.L. Garlington, and M.E. Glynn	AD1038029
<sup>1</sup> ERDC/GSL TR-17-25		CLASSIFIED	
ERDC/GSL TR-17-26	Nov 2017	Inclement Weather Crater Repair Tool Kit, by H.P. Bell and J.S. Tingle http://dx.doi.org/10.21079/11681/25667	AD1042379
ERDC/GSL TR-17-27	Dec 2017	Evaluation of Expedient Surfaces for Remote Piloted Aircraft, by L. Garcia, T.W. Rushing, and C.A. Rutland http://dx.doi.org/10.21079/11681/25920	AD1043964

<sup>&</sup>lt;sup>1</sup> Limited distribution; see Preface.

<sup>1</sup> ERDC/GSL TR-17-28	Dec 2017	Hardened Installation Protection for Peristent Operations (HIPPO) II; Advanced Computational Mechanics: Prediction Calculations and Experiments, by J.A. Sherburn, A.O. Frank, A.J. Burroughs, M.D. Adley, R.S. Browning IV, M.I. Hammons, R.E. Moxley, and M.J. Roth	AD1044773
ERDC/GSL TR-17-29	Dec 2017	Rapid Airfield Damage Recovery: Deployable Saw Technology Evaluation, by H.P. Bell and J. Rowland http://dx.doi.org/10.21079/11681/26585	AD1044385

30

<sup>&</sup>lt;sup>1</sup> Limited distribution; see Preface.

# 7 Information Technology Laboratory (ITL)

## **Special reports**

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/ITL SR-17-1	Jan 2017	Publications of the U.S. Army Engineer Research and Development Center: October 1999 - December 2015, by J.A. Dolan http://dx.doi.org/10.21079/11681/21022	AD1025149
ERDC/ITL SR-17-1 App. A	May 2017	Publications of the U.S. Army Engineer Research and Development Center; Appendix A: January 2016-December 2016, by J.A. Dolan http://dx.doi.org/10.21079/11681/22581	AD1037453

## **Technical reports**

Report Number	<u>Date</u>	Title	AD Number
ERDC/ITL TR-17-1	Jan 2017	An Investigation of Corrosion Mitigation Strategies for Aging Post-Tensioned Cables, by E.L. Miller, B.C. White, R.W. Haskins, R.M. Ebeling, and J.A. Evans http://dx.doi.org/10.21079/11681/21478	AD1036493
ERDC/ITL TR-17-2	Jan 2017	A Systematic Approach for Determining Vertical Pile Depth of Embedment in Cohesionless Soils to Withstand Lateral Barge Train Impact Loads, by B.C. White and R.M. Ebeling http://hdl.handle.net/11681/21141	AD1036489
ERDC/ITL TR-17-3	Dec 2017	Corroded Anchor Structure Stability/ Reliability (CAS_Stab-R) Software for Hydraulic Structures, by T.W. Warren, B.C. White, and R.M. Ebeling http://dx.doi.org/10.21079/11681/26273	AD1045526

# 8 Aquatic Nuisance Species Research Program (ANSRP)

## **Technical notes**

Report Number	<u>Date</u>	Title	AD Number
ERDC/TN ANSRP-17-1	Dec 2017	Simulation of a Non-Physical Barrier in the Brandon Road Lock and Dam Approach Channel, by A. Bell, D.L. Smith, and M. Farthing http://dx.doi.org/10.21079/11681/25972	

# 9 Aquatic Plant Control Research Program (APCRP)

### Bulletin

Report Number	<u>Date</u>	Title
Vol. A-17-1	Apr 2017	A Framework for Assessing Economic Benefits of Invasive Aqautic Plant Management in Louisiana, by L.Wainger, A. McMurray, N. Harms, and A. Cofrancesco

## **Technical notes**

### **Biological control**

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/TN APCRP-BC-39	Sep 2017	Surveys for Biological Control Agents of Hydrilla verticillata and Myriophyllum spicatum in the Republic of Korea and the People's Republic of China in 2014, by M. Purcell, N.E. Harms, M.J. Grodowitz, J. Zhang, MH. Kim, KJ. Cho, Y.J. Oh, SH. Hong, and J. Ding http://dx.doi.org/10.21079/11681/24334	
ERDC/TN APCRP-BC-40	Jun 2017	Rearing and Release of Megamelus scutellaris Berg (Hemiptera: Delphacidae) for Biological Control of Waterhyacinth in 2015, by J. Freedman and N. Harms http://dx.doi.org/10.21079/11681/22762	AD1036909
ERDC/TN APCRP-BC-41	Jul 2017	The Influence of Fluctuating Temperature on Megamelus scutellaris Berg (Hemiptera: Delphacidae), by M.J. Grodowitz, N.E. Harms, and J.E. Freedman http://dx.doi.org/10.21079/11681/22743	AD1036537

# **10 Dredging Operations and Environmental Research Program (DOER)**

### **Technical notes**

### **Dredged material management**

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/TN DOER-D19	May 2017	Present Practice of Using Nautical Depth to Manage Navigation Channels in the Presence of Fluid Mud, by T.L. Welp and M.W. Tubman http://dx.doi.org/10.21079/11681/22539	

### **Environmental resource protection**

Report Number	<u>Date</u>	Title	AD Number
ERDC/TN DOER-E40	Jan 2017	The Role of Interagency Cooperation in the Conservation of Threatened and Endangered Species, by P. Hartfield, J.G. Brown, and R.A. Fischer <u>http://hdl.handle.net/11681/21065</u>	AD1026058
ERDC/TN DOER-E41	Mar 2017	A Method for Simulating Sedimentation of Fish Eggs to Generate Biological Effects Data for Assessing Dredging Impacts, by J.L. Wilkins and B.C. Suedel http://dx.doi.org/10.21079/11681/21635	AD1031650
ERDC/TN DOER-E42	Mar 2017	Using the Fish Larvae and Egg Exposure System (FLEES) to Generate Effects Data for Informing Environmental Windows, by J.L. Wilkens and B.C. Suedel http://dx.doi.org/10.21079/11681/21640	

Risk

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/TN DOER-R25	Feb 2017	Application of Toxicity Identification and Evaluation Procedures for Dredged Material Management, by J.P. Kreitinger, J.D. Farrar, and G.R. Lotufo http://dx.doi.org/10.21079/11681/21208	

### Dredging technologies

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/TN DOER-T13	Apr 2017	Sediment Management Methods to Reduce Dredging: Part 2, Sediment Collector Technology, by R. Thomas, J. McArthur, D. Braatz, and T. Welp <u>http://dx.doi.org/10.21079/11681/22150</u>	
ERDC/TN DOER-T14	Aug 2017	Water Injection Dredging, by T.L. Welp, M.W. Tubman, D.A. Wilson, and C.E. Pollock http://dx.doi.org/10.21079/11681/22822	

## **11 Ecosystem Management and Restoration Research Program (EMRRP)**

### **Technical notes**

## Species information (SI)

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/TN EMRRP-SI-37	Dec 2017	Rapid Assessment of Invasive Riparian Trees for Planning and Implementing USACE Ecosystem Restoration Projects, by M.P. Guilfoyle and R.A. Fischer http://dx.doi.org/10.21079/11681/25941	

#### Stream restoration (SR)

Report Number	<u>Date</u>	<u>Title</u>	<u>AD Number</u>
ERDC/TN EMRRP-SR-81	Aug 2017	A Reference Condition Index for Urban Streams, by B.A. Pruitt and S.K. McKay http://dx.doi.org/10.21079/11681/22821	
ERDC/TN EMRRP-SR-82	Dec 2017	Barrier Prioritization in the Tributaries of the Hudson-Raritan Estuary, by S.K. McKay, M. Reif, J. Conyngham, and D. Kohtio http://dx.doi.org/10.21079/11681/25911	
ERDC/TN EMRRP-SR-83	Sep 2017	Engaging Stakeholders in Natural Resource Decision-Making, by B.A. Crawford, R.A. Katz, and S.K. McKay http://dx.doi.org/10.21079/11681/23956	

# **12** Engineering with Nature Program (EWN)

## **Technical notes**

Report Number	<u>Date</u>	Title	AD Number
ERDC/TN EWN-17-1	Mar 2017	Strategic Placement of Mixed Sediment in the Form of a Nearshore Berm Along Fort Myers Beach, Florida, by K.E. Brutsché and C.E. Pollock http://dx.doi.org/10.21079/11681/21616	AD1036497
ERDC/TN EWN-17-2	May 2017	Introduction to Using Native Plant Community on Dredge Material Placement Areas, by P. Bailey, T. Estes, S. Bourne, T. Sekoni, and D. Price <u>http://dx.doi.org/10.21079/11681/22544</u>	AD1037440
ERDC/TN EWN-17-3	Oct 2017	Creating Nesting Habitat for the Common Tern (Sterna hirundo) on the Repaired Ashtabula Breakwater: Lessons Learned 2014 – 2016, by M.P. Guilfoyle, R.J. Ruby, B.C. Suedel, T.J. Fredette, P. Bijhouwer, A. Hannes, K. Adair, C.J. Banks, and A.M. Friona http://dx.doi.org/10.21079/11681/24825	

# **13 Regional Sediment Management** Demonstration Program (RSM)

## **Technical Notes**

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/TN RSM-17-1	Jun 2017	Identification of Alternatives to Reduce Shoaling in the Lower Matagorda Ship Channel, Texas, by E. Wood, T. Campbell, M. Duke, L. Olson, L. Dunkin, and L. Lin <u>http://dx.doi.org/10.21079/11681/22408</u>	AD1037458
ERDC/TN RSM-17-2	Sep 2017	Pinellas, Manatee, and Sarasota Counties, Florida; Regional Sediment Budget by K.R. Legault and A.E. Frey http://dx.doi.org/10.21079/11681/22907	
ERDC/TN RSM-17-3	Sep 2017	Reservoir Sediment Management Workshop for Milford Lake in the Kansas River Basin by J.E. Shelley and P.M. Boyd http://dx.doi.org/10.21079/11681/22927	
ERDC/TN RSM-17-4	Dec 2017	Regional Sediment Dynamics in Mobile Bay, Alabama; A Sediment Budget Perspective, by M.R. Byrnes, J.L. Berlinghoff, and S.F. Griffee <u>http://dx.doi.org/10.21079/11681/25970</u>	

# 14 Wetlands Regulatory Assistance Program (WRAP)

## **Technical notes**

Report Number	<u>Date</u>	Title	AD Number
ERDC/TN WRAP-17-1	Jul 2017	User Guide for Automated Wetland Determination Data Sheets, by N.T. Schulz and J.F. Berkowitz http://dx.doi.org/10.21079/11681/22768	AD1037020

Date

## **15 Miscellaneous Publications**

Publication

Feb 2017Proceedings from the U.S. Army Corps of Engineers (USACE) and the<br/>National Oceanic and Atmospheric Administration (NOAA) Natural and<br/>Nature-Based Features Workshop in Galveston District, by T.S. Bridges,<br/>J.K. King, E.J. Russo, R.C. Thomas, C.K. Maglio, S.M. Thur, M.R. Harmon,<br/>J.L. Payne, and E.B. Vaudreuil<br/>http://dx.doi.org/10.21079/11681/24403

REPORT DOCUMENTATION PAGE				Form Approved			
		AGE OMB No. 0704-0188 ncluding the time for reviewing instructions, searching existing data sources, gathering and maintain					
the data needed, and completin	g and reviewing this collection o	information. Send comments regard	ing this burden estimate or	any other aspect of thi	is collection of information, including suggestions for 5 Jefferson Davis Highway, Suite 1204, Arlington, VA		
22202-4302. Respondents shou	Id be aware that notwithstanding		shall be subject to any pena		with a collection of information if it does not display a		
1. REPORT DATE (DD- June 2018	<i>MM-YYYY</i> ) 2. R	EPORT TYPE	N200.	3. DAT	ES COVERED (From - To)		
4. TITLE AND SUBTITL	E			5a. CO	NTRACT NUMBER		
Publications of the Appendix B: Janua	Research and Developm	ent Center; 5b. GRANT NUMBER		RANT NUMBER			
				5c. PR	OGRAM ELEMENT NUMBER		
6. AUTHOR(S)				5d. PR	OJECT NUMBER		
James A. Dolan				5e. TA	SK NUMBER		
					5f. WORK UNIT NUMBER		
7. PERFORMING ORG	ND ADDRESS(ES)			8. PERFORMING ORGANIZATION REPORT NUMBER			
Information Technolo U.S. Army Engineer 3909 Halls Ferry Roa Vicksburg, MS 3918	oment Center		ER	ERDC/ITL SR-17-1			
-							
		ME(S) AND ADDRESS(ES)		10. SP	ONSOR/MONITOR'S ACRONYM(S)		
U.S. Army Corps Eng 3909 Halls Ferry Roa	gineer Research and D	evelopment Center		ER	DC		
Vicksburg, MS 391			-	11. SPONSOR/MONITOR'S REPORT NUMBER(S)			
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.							
13. SUPPLEMENTARY	NOTES						
<b>14. ABSTRACT</b> Publications issued January through December 2017 by the U.S. Army Engineer Research and Development Center (ERDC) are listed. The publications are grouped according to the technical laboratories or technical program for which they were prepared. Procedures for obtaining ERDC reports are included in the Preface.							
15. SUBJECT TERMS		Environmental engineering-bibliography					
Civil engineering-bib		Geotechnical engineering-bibliography					
Civil engineering C		Government publications – United States					
Civil engineering – D	n-bibliography	Hydraulic engineering-bibliography					
Coastal engineering-l Engineer Research ar	er (U.S.) - Bibliography	Information technology-bibliography Military engineering-bibliography					
o contraction of the second of							
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON		
a. REPORT	b. ABSTRACT	c. THIS PAGE			19b. TELEPHONE NUMBER (include		
Unlimited	Unlimited	Unlimited	Unlimited	46	area code)		