



INDEPENDENT EXTERNAL PEER REVIEW PANEL NAMES AND QUALIFICATIONS

for the
**Mobile Harbor, Alabama, Draft Integrated General
Reevaluation Report (GRR) and Supplemental Environmental
Impact Statement (SEIS)**

The U.S. Army Corps of Engineers submits the following information per requirements in the Water Resources Reform and Development Act of 2014, Section 1044(c)(4)(B).

Entity Conducting the Review	
Outside Eligible Organization:	Battelle 505 King Avenue Columbus, OH 43201
Dates of Review	
Review Initiation:	27 July 2018
Anticipated Type I IEPR Final Report Submittal:	5 October 2018
Reviewer Names and Qualifications	
Donald Ator	Civil Works Planning/Economics
<p>Mr. Ator is an independent consultant and serves as Research Associate, Professor, and Undergraduate Advisor in the Department of Agriculture Economics and Agribusiness at Louisiana State University. He earned his M.S. in economics and agriculture economics in 1978 and his M.B.A. with a concentration in finance and accounting in 1984, both from Louisiana State University. Mr. Ator's current research is in financial resiliency planning for local governments in Louisiana, Texas, Alabama, Mississippi, Florida, Georgia, Kentucky, and Nebraska.</p> <p>He has 40 years of experience working for 26 USACE districts, first as a full-time employee with USACE Vicksburg District for one year, then in the private sector with a not-for-profit research institute, and later at three architect-engineer firms. He has demonstrated experience related to deep draft navigation (DDN) for USACE as evidenced by participation in the following relevant studies: Savannah Harbor Expansion Project Economic Analysis, Phase III Benefits Calculation Methodology and Model, Multiport Analysis and Regional Port Analysis, GA, USACE, Savannah District; Deep Draft Channel Improvement Economic Analysis, La Quinta Ship Channel, Corpus Christ, TX, USACE, Galveston District; and Houma Navigation Canal Deepening, Integrated Feasibility Study and EIS, Houma, LA, USACE, New Orleans District.</p>	

He has worked extensively with USACE conducting Civil Works planning/economics studies in accordance with ER 1105-2-100 and other pertinent guidance, laws, and regulations applicable to the USACE Six-Step Planning Process and EC 1165-2-209 (now EC 1165-2-217) review requirements. Representative studies include Sensitivity Analysis of Benefit and Cost Evaluation Criteria to Risk and Uncertainty Associated with Study Parameters, Passaic River Basin, New Jersey (USACE New York District) and the Licking River Watershed and Dillon Lake Ecosystem Restoration Project Feasibility Study, Ohio (USACE Huntington District). He has participated in two IEPRs of Federal water resources planning documents justifying construction of Civil Works projects: Grays Harbor, Washington, Navigation Improvement Project (USACE Seattle District) and Sutter Basin Pilot Feasibility Study (USACE Sacramento District).

Mr. Ator's demonstrated proficiency in the USACE procedures and standards for DDN economic analyses and in formulating and evaluating alternative plans is evidenced by his extensive experience as a Civil Works planner/economist on the following projects: Port of Panama City, Limited Reevaluation Report, Navigation Feasibility Report, Economic Appendix, FL, USACE, Mobile District; and Projection of Study Area Involvement in Present and Future Petroleum Industry Activities on the Outer Continental Shelf (OCS), Channel Deepening Study, Port of Iberia, LA, USACE, New Orleans District.

Mr. Ator has experience working directly for or with the USACE in applying Principles and Guidelines to Civil Works project evaluations through such projects as: Preparation of Project Management Plan (PMP) for Louisiana Coastal Ecosystem Restoration Study, Mississippi River Gulf Outlet, LA, USACE, New Orleans District; Economic Analysis of Alternate Regulation Plans for the Arkansas River, OK and AR, USACE, Tulsa District; and Shore Protection Alternative Analysis, Section 222 National Shoreline Erosion Control Demonstration Project, Jefferson County, TX, USACE, Galveston District.

Mr. Ator is actively involved in related professional engineering and scientific societies, including the Society of American Military Engineers and the American Society of Civil Engineers.

Paul Bovitz

Environmental

Mr. Bovitz is an environmental scientist and project manager with Ecological Consulting, LLC in Hillsborough, New Jersey. He has more than 30 years of experience in environmental assessments, including several Department of Defense sites, and U.S. Environmental Protection Agency (EPA) National Priority List sites nationwide. He has 29 years of technical experience in ecological assessment and natural resources management in public, private, and academic sectors, engaging in both theoretical and applied aspects of ecological research and encompassing a variety of geographic regions and aquatic environments. He earned an M.S. in ecology from Rutgers University in 1992. He has managed and participated as principal investigator in a variety of projects and programs with varied environmental impacts including environmental assessments under NEPA, water quality and storm water studies, wetlands delineation, assessment, mitigation and permitting, and essential fish habitat investigation.

Mr. Bovitz has expertise in water resource environmental evaluation and NEPA compliance for DDN channel improvement and offshore dredged material management projects (i.e., to include open water, ocean disposal, and beneficial use) as demonstrated by his work experience on a variety of projects throughout the United States. He has served as an IEPR panel member for several flood control and ecological restoration projects on behalf of USACE, including those with coastal components and dredging issues such as the Delaware River beneficial reuse project and the Jamaica Bay and East Rockaway Inlet coastal flooding control project. His experience in ecotoxicology and management of contaminated sediments is extensive: he has worked on ecological risk assessments nationwide on behalf of USACE, EPA, and private entities such as ExxonMobil.

Mr. Bovitz is an expert in coastal and estuarine habitats and associated natural resources and in the environmental impacts of harbor deepening. He is familiar with dredged material disposal and Offshore Dredge Material Disposal Sites. Mr. Bovitz was a primary author of the New Jersey Intracoastal Waterway Feasibility Study, which evaluated dredging alternatives and disposal options involving beneficial reuse for habitat restoration along the New Jersey coast. He was also a significant contributor to the DMMPs for San Francisco Bay and for the Baltimore Harbor and the Virginia Channels section of Chesapeake Bay. In addition to having worked extensively with dredged material management issues in the New York/New Jersey Harbor area on behalf of the Port Authority of New York and New Jersey and other clients, he was worked locally in the Mobile area on the Mobile Causeway ecological restoration project on behalf of the State of Alabama.

Mr. Bovitz has expertise in compliance requirements of environmental laws, policies, and regulations, including the Fish and Wildlife Coordination Act and the Endangered Species Act. He is a Licensed Site Remediation Professional (LSRP) in New Jersey and has extensive experience as a USACE and EPA contractor in investigation and remediation of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) sites. He is also a certified Professional Wetland Scientist (PWS), a Certified Energy Manager (CEM), and is a LEED® Accredited Professional (LEED AP). He is a member of the New Jersey Governor's Science Advisory Board, Ecological Sciences Committee, and served on the New Jersey Department of Environmental Protection, Comparative Ecological Risk Analysis Panel.

Mr. Bovitz is an active member of the Society of American Military Engineers and a New Jersey chapter of the Society of Environmental Toxicology and Chemistry, and attends Association of Environmental and Engineering Geologist meetings. In 2014, he chaired a session on urban ecological restoration for the Conference on Ecological and Ecosystem Restoration meeting in New Orleans.

Christopher Hall, Ph.D., P.E.

Hydraulic/Coastal Engineer

Dr. Hall is a water resources and environmental engineer with Dynamic Solutions, LLC. He has more than 15 years of combined education and professional experience, with 12 years of work and research experience plus a PhD in Civil Engineering of experience specializing in hydrodynamic and hydraulic modeling, two- and three-dimensional surface water modeling, sediment transport and fluid mud modeling, and resource conservation. He earned his Ph.D. in civil and environmental engineering from Mississippi State University

and is a registered professional engineer in Tennessee. He has a strong background in coastal engineering, river hydrology, and hydraulics. Dr. Hall's education and experience in biological engineering, environmental engineering, and civil engineering have provided him with an understanding of the biological processes that occur in the environment and unique insight into the biological effects and hydrodynamics within coastal and riverine environments.

Dr. Hall's coastal expertise includes experience in DDN channel design. He has worked on modeling studies in San Francisco Bay and Jacksonville Harbor to study the hydrodynamics in and around the navigation channel, as well as the water quality within the channels and effects from potential channel deepening.

Through his work in hydrodynamic modeling, Dr. Hall is knowledgeable in coastal processes to evaluate the impacts of deepening and/or widening the navigation channel on hydrodynamics, water quality, sediment transport, ship wake induced erosion, and channel design. He has done extensive hydrodynamic modeling in and around the coastal areas of Atchafalaya Bay, Cole's Bayou/Vermillion Bay, and Breton Sound in Louisiana and the coastal estuaries in Florida and California. Dr. Hall has extensive background in the coastal and hydraulic evaluation of nearshore restoration actions in these areas. The Cole's Bayou Coastal Marsh Restoration modeling work was completed in support of restoring more than 350 acres of coastal marsh and supplying sediment and nutrients to the marsh under various restoration scenarios; the Breton Sound work was conducted to evaluate the impacts of various Mississippi River Diversion scenarios on salinity in the system. His riverine experience includes scour analysis and supercritical flow from his work with USACE Jacksonville District on the S65-E structure on the Kissimmee River, sediment transport modeling experience on the Fox and Kalamazoo Rivers, and two-dimensional (2-D) hydrodynamic modeling of 70 miles of the Sacramento River. He has modeling experience with the Adaptive Hydraulics Modeling System (ADH), Environmental Fluid Dynamics Code (EFDC), HEC-RAS, and HEC-Reservoir System Simulation (ResSim).

Dr. Hall has experience in the design and use of dredged material placement areas (open water, ocean disposal, and beneficial use). His modeling work for the Cole's Bayou system involved the beneficial use of dredged material for marsh creation, levee building, and terrace construction. As the coastal engineer for the Malibu Creek IEPR, he reviewed and evaluated the use of captured river sediments as beach nourishment.

He assisted in the development and calibration of a 2-D ADH model for more than 70 miles of the Sacramento River, from Freeport to Wilkins Slough. Hydrographs from several time periods were used to calibrate the model, ensuring its fidelity to a range of low to moderate flow conditions. The hydrodynamics from the ADH model will drive the Eulerian-Lagrangian-agent model (ELAM), which uses bioenergetics data and movement algorithms to provide travel time estimates of anadromous fish in the system. This unique synthesis of hydraulic and ecological models allows for the integration of environmental function into bank stabilization designs. He also assisted in the development and testing of a 3-D EFDC hydrodynamic model of the larger San Francisco Bay-Delta domain, which was

used for sea-level rise analyses and assessments for salinity intrusion and inundation of shoreline areas.

Dr. Hall's firm reviewed the Environmental Impact Statement and provided modeling support to evaluate the appropriateness and validity of the approach and models used by USACE in developing the water control plan for the Alabama-Coosa-Tallapoosa River Basin. During this analysis, he assisted with the HEC-ResSim model evaluation and the water quality analysis. Additionally, Dr. Hall led the modification of the HEC-ResSim model to evaluate effects from model changes on the water quality results downstream.

Charles 'Chuck' Vita, Ph.D., P.E., G.E.

Geotechnical Engineering

Dr. Vita, an independent consultant, has 45 years of professional civil and geotechnical engineering experience with an extensive background in large river processes in complex systems and in geotechnical theory and practice. He earned his B.S. in civil engineering from the University of California, Berkeley, in 1972, his M.S. in civil (geotechnical) engineering from the University of California, Berkeley, in 1973, and his Ph.D. in civil engineering (geosystems) from the University of Washington in 1985. He is a registered professional civil engineer (P.E.) in California, Washington, and Alaska and a registered geotechnical engineer (G.E.) in California.

Dr. Vita's geotechnical engineering practice includes geomorphology factors and issues based on his Ph.D. research and project experience with the Coeur d'Alene River Basin Project, the California Levee Evaluation Program, and geotechnical evaluation for a site on the North Fork of the Stillaguamish River associated with channel instability and river avulsions due to geotechnical instability. His work at the Bremerton Naval Complex (BNC), Pearl Harbor Naval Base, the Duwamish River in Seattle, and the Port of Anchorage demonstrate his extensive experience in performing geotechnical evaluation and geo-civil design for DDN projects, including the classification, dredging, and disposal of material. He also has conducted IEPRs for major USACE flood control and storm damage risk reduction projects and river ecosystem restoration projects. He understands the behavior of aquifers and soils based on his extensive geotechnical and geo-environmental experience.

Dr. Vita is experienced in geotechnical risk analysis and is familiar with USACE risk registers and cost and schedule risk analysis. He has addressed safety assurance review (SAR) aspects on several USACE projects, including the Greater New Orleans Hurricane and Storm Damage Risk Reduction System (HSDRRS) Design Elevation Report, the New Orleans to Venice (NOV) Project, and the Morganza to the Gulf of Mexico Project. Dr. Vita is particularly skilled in the analysis and evaluation of uncertainty and risk and in the reliability of complex infrastructure systems. As part of California's Urban Levee Geotechnical Evaluation Program, he developed a probabilistic formulation of underseepage analysis for risk and uncertainty considerations. He also initiated development of a geotechnical analysis of levee-system slope stability as part of risk and uncertainty consideration of length effects in levee system reliability. In addition, Dr. Vita investigated the use of statistical analysis to characterize the probability of undiscovered geologic and geotechnical details affecting levee stability and reviewed and commented on USACE's draft Engineer Technical Letter (ETL) 1110 2-570, Certification of Levee Systems

for the National Flood Insurance Program, with a focus on geotechnical risk and uncertainty considerations.

Dr. Vita is active in the American Society of Civil Engineers. He has published many professional papers in journals and conference proceedings and has made many technical presentations to professional and lay audiences.