

July 26, 2004

**US Army Corps of Engineers (USACE) and Dutch Rijkswaterstaat (RWS) Cluster
Team Leaders Responsible for Implementing the Memorandum of Agreement
Between USACE and RWS**

A) OVERALL PROJECT MANAGEMENT

1. USACE Coordinator:

Dr. Paul G. Bourget, DSc, Engineering Management.
USACE Institute for Water Resources; Alexandria, Virginia
<paul.g.bourget@usace.army.mil> Tel. (703) 428-6292

Background:

Dr. Bourget is currently assigned to the Institute for Water Resources (IWR) where he is responsible for strategic planning in the areas of integrated water resource management, floodplain management, and international relationships. He earned his Bachelor's and Master's degrees in the field of applied geography, and his Doctor of Science degree in systems engineering with a specialty in crisis and emergency management. He began his federal career at the Defense Mapping Agency where he was responsible for the experimental processing of digital topographic data. Following that he was assigned to the Topographic Engineering Center where he was responsible for performing environmental research and system development for the military community. He assumed a management position in which he oversaw the development of automated methodologies in support of several military elements. He managed the expansion of a laboratory to integrate GIS and image processing techniques into the software development process. Dr. Bourget subsequently accepted a detail to the Air Force where all-source imagery was evaluated in support of several environmental initiatives. He further sponsored several research projects in the area of Measurements and Signatures Intelligence. He served as editor of an on-line newsletter that detailed environmental initiatives throughout the US intelligence community. In 1997 he accepted an assignment to the Office of the Secretary of Defense where he became actively involved in an all-hazards study that was spearheaded by the Office of the Vice President. In this capacity he coordinated emergency management activities within the U.S. Defense Department, and attempted to strengthen inter-agency relationships. Upon completion of his doctorate in 2001, Dr. Bourget was detailed to the Directorate of Research and Development, Headquarters, U.S. Army Corps of Engineers where he was responsible for coordinating research activities related to crisis and emergency management, international support for others, water resource management and critical infrastructure protection. He also serves as an adjunct professor at the George Washington University.

2. RWS Coordinator

Mr. Dick de Bruin, MSc, civil engineer.
RWS-Headquarters, department International Affairs, The Hague.
<d.dbruin@hkw.rws.minvenw.nl>, tel. **31703518705

Background:

Mr. De Bruin can build upon a 35 years working experience on integrated water management, more specifically focused on inland water transport, flood (plain) and dike management, river basin management and environmental rehabilitation programs. In this respect he has been involved regularly in training- and education programs and in contacts with the media. He always has been working in the public sector, but has had short assignments for mainly consultancy services in the private sector rather frequent all over the world. He has organized various (inter)national workshops on subjects related to integrated water management. He has worked on a secondment as a permanent staff officer for 2,5 years at the World Bank in Washington DC (1998 – 2001). He has been involved as a consultant in numerous projects, more in particular in Asia and South America; in this respect he has composed an overall master plan for the development of the Ganges river in India, focused on inland navigation. He has been lecturer at Unesco-IHE-Delft for 25 years, and has published articles and contributed to congresses over the years, more in particular for PIANC, ICID, World Water Forum and environmental organizations. Today, for the ICID he is secretary for the Working Group on History of Irrigation, Drainage and Floods and is chairman of the Working Group on Comprehensive Approaches to Flood Management. For his work he has been awarded and has received official recognition on several occasions.

B) CLUSTER TEAMS

The six cluster groups and associated USACE/RWS coordinators are as follows:

CLUSTER 1: FLOOD CONTROL AND FLOOD MANAGEMENT.

1. US Lead Coordinator:

*Ms. Joan Pope, Ph.D, Environmental Sciences (pending).
USACE Coastal and Hydraulics Laboratory; Vicksburg, Mississippi
<joan.pope@us.army.mil> Tel. (601) 634-3034*

Background:

Ms Pope is responsible for directing a variety of river, watershed, and coastal research and applied engineering work. This includes geology, dredging engineering, flood protection, flood plain and watershed system management, monitoring and evaluating of engineering performance, physical processes of wetlands and other ecological systems, erosion protection strategies and functional design criteria, and developing planning and engineering design guidance. She directs all research and development programs and activities of the Corps related to flood and coastal damage reduction. These include conducting regional or system scale assessments and developing combinations of management and engineering strategies to address multiple use requirements. She is a researcher and consultant on coastal engineering, coastal processes, shore protection, and regional sediment management strategies. Manager and editor of the Coastal Engineering Manual, oversees the Urban Flood Demonstration Program, the National Erosion Control Development and Demonstration Program, and TOWNS (R&D program concerned with flood management and channel restoration changes

of developed areas). Ms Pope is currently working on an interagency team drafting the science plan for the Louisiana Coastal Area Study and member of an international advisory group responsible for development recommendations for managing the water resources of the Great Lakes System. She served as acting Deputy Director of Research and Development for the US Army Corps of Engineers in 2003, and is a frequent instructor in courses including those sponsored by the American Society of Civil Engineers.

2. RWS Lead Coordinator:

Mr. K. Pilarczyk, MSc, civil engineer.

RWS-Directorate DWW in Delft.

(DWW in Dutch stands for Directorate for Civil Engineering, more specifically focused on Banks, Erosion Control and Flood Control Systems).

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Background:

As an expert in bank erosion control, flood control measures, dike design and –construction, execution of works, and fundamental and practical research related to the application of equipment and material, Mr. Pilarczyk has an outstanding record. His expertise is widely appreciated, he has participated on numerous advisory services as a consultant, trainer, lecturer, workshop organizer, etc. all over the world. Starting his career at Delft Hydraulics, he has joined the public sector (RWS) in the early seventies. First as staff member at the former directorate Deltaworks, later on at DWW as staff officer on special services. Practical engineering concepts, based on a solid theoretical basis, have always been his approach when working as an consultant or a lecturer/trainer. He has written many articles and presented numerous papers for conferences/seminars/workshops on coastal protection and erosion control, focusing on aspects such as reliable and pragmatic design, effective execution, safety and design criteria, supervision, maintenance and repair. He has edited some books/volumes and publications on revetments, dike construction, coastal protection, geo-systems; these volumes are considered on a global scale as standard works. He is an active member of ICOLD and PIANC since years. He has received professional (inter-) national awards and recognition.

Note:

At the end of 2004, Mr. Pilarczyk will be succeeded by Mr. Gijs Hoffmans for Cluster1.

Mr. G.J.C.M. Hoffmans (46), MSc civil engineering '86, and PhD '92.

RWS-Directorate DWW (as above)

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Background:

Mr Hoffmans present position is Manager of the Hydraulic Engineering Institute. He is active in the Technical Advice Committee for Water Defenses, section Technique (TAW in Dutch). (The TAW consists of representatives of three public sector levels (state, province, water board); its approach on flood defense structures/systems and flood plains is multi functional. Integrated flood plain management reflects characteristics on flooding, flood risk and flood hazard. In addition, the specifics on social economics (more in particular in flood prone areas)

and environmental and resource management policies are involved. The four working groups of TAW (Coast, Rivers, Technique and Safety) discuss the structural and non-structural measures that contribute to sustainable flood safety standards of the water defense system). In 1992, he completed his PhD thesis, 'Two dimensional mathematical modeling of local scour holes'. The study concerns a description and some applications of a two-dimensional model, on which the morphological process can be simulated in local scour holes. He is the author of the book 'Scour Manual', 1997. This manual concerns the scour processes and phenomena, taking place near hydraulic structures. This study was done as an international joint co-operation between scientific institutions in UK, Germany and the Netherlands. Mr. Hoffmans joined the DWW directorate in 1993. He managed a prototype experiment by examining the real strength of a dike (Bergambacht, Lek Rhine branch). At present he is secretary of the National Society for Soil Mechanics and Geo-technical Engineering, secretary of the TAW-Technique working group, and coordinator of a European project COMCOAST. He is the author of about 30 publications on scour prediction, stability of bed protection and granular filters, turbulence near hydraulic structures and stability of dikes.

CLUSTER 2: INTEGRATED WATER RESOURCES MANAGEMENT.

1. US Lead Coordinator:

Ms. Lynn Martin, MSc, Environmental Planning.
USACE Institute for Water Resources; Alexandria, Virginia
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Background:

Ms. Martin is an Environmental Planner, and Senior Policy Analyst at the US Army Corps of Engineers, Institute for Water Resources (IWR) with over 25 years of experience with the Corps. Her most recent work has focused on the analysis, interpretation, and adaptation of the concepts of sustainable development, integrated water resources management, and ecosystem management for application in the Civil Works program. Lynn is a member of the Regional Sediment Management (RSM) Demonstration Program Management Team, focusing on policy and institutional issues, working to advance RSM applications beyond demonstration efforts to broader application, and serves as the RSM liaison to the National Shoreline Management Study. She has worked with HQUSACE and OASA(CW) on the Corps' evolving ecosystem restoration policies for over a decade. Beginning her career with the Corps at the Coastal Engineering Research Center, working in coastal ecology, she also worked in water quality management related to reservoir system management, and in environmental compliance.

2. RWS Lead Coordinator:

Mr. Wouter Iedema, MSc, Ecology.
RWS-Directorate RIZA in Lelystad.
(RIZA in Dutch stands for Directorate for Fresh Water Management on Quantity and Quality).
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Background:

Presently, Mr. Iedema is team leader Strategy and Policy of Wetlands. This is a crucial function, given the fact that RWS is a national organization, managing all types of water systems in the entire country and the RIZA-Directorate develops country wide norms and standards in terms of water quality and habitat and gives advise on implementation of integrated planning. During his career, he has been involved in a proper tuning of water management and spatial planning in the IJsselmeer region (reclaimed areas/polders and adjacent old land), also based on his earlier experience on integrated water management during the time of having been the Head Ecology of the RWS-Directorate Zeeland in the South West of the country, where due to the many large artificial dams complicated water systems exist (salt – brackish – fresh, stagnant water and currents, stable level and tidal fluctuations, dynamic morphology). As a professional, he has been leader of a program focusing on a proper combination of water management and nature and of water management and spatial planning; he has contributed to the national agenda for the rural areas with respect to water management; he has implemented a communication strategy on wetland management; he has evaluated the effects of wetland restoration by RWS. In his earlier days as a professional, he has contributed to the development of the man-made wetlands Oostvaardersplassen, and has participated in the evaluation and analysis of impact of intervention by men on various estuaries and lakes in the Zeeland province. He has participated in advisory services abroad, more in particular in Argentina and in the Ukrainian part of the Danube Delta.

CLUSTER 3: COASTAL DEVELOPMENT.

1. US Lead Coordinator:

Mr. Charles (Charlie) Chesnutt, MS, Coastal and Ocean Engineering.
USACE Institute for Water Resources; Alexandria, Virginia
<charles.b.chesnutt@usace.army.mil> Tel. (703) 428-9085

Background:

Mr. Chesnutt is a native of the state of Texas and attended Texas A&M University, receiving a Bachelor of Science degree in civil engineering in January 1970 and a master's degree in coastal and ocean engineering in May 1971. During a sabbatical from the Corps in January through August 1979, he taught Hydraulic Engineering & Fluid Mechanics at Clemson University in South Carolina. From 1971 to 1982 Mr. Chesnutt worked at the Corps of Engineers' Coastal Engineering Research Center, modeling sediment movement on beaches and evaluating the stability of low-crested breakwaters. In the Planning Division of the Corps' Headquarters from 1982 to 2000, he worked on coastal engineering, flood plain and coastal zone management, and water resource planning issues. The next four years Mr. Chesnutt worked in the Engineering and Construction Division of the Corps' Headquarters on a broad range of coastal engineering and hazards problems. Mr. Chesnutt is currently a civil engineer at the US Army Engineer Institute for Water Resources in Alexandria, VA. In his role as the Coastal Engineer for the Corps' Headquarters, Mr. Chesnutt is involved in national coastal engineering issues, serves as advisor to the Coastal Engineering Research Board (CERB) and manages several national coastal-related programs at Headquarters including Hurricane Evacuation Studies conducted jointly with the Federal Emergency Management

Agency and the National Weather Service. He also managed the Corps' Planning Assistance to States Program from 1987 to 1994.

2. RWS Lead Coordinator:

Dr. Hans Balffoort, PhD, Environmentalist.

RWS-Directorate RIKZ in Den Haag.

(RIKZ in Dutch stands for Directorate for Coastal Zone Management).

<h.w.balffoort@rikz.rws.minvenw.nl> tel. **31703114311

Background:

At present, his RWS-portfolio focuses on the coordination of projects for the development and implementation of a national policy on Integrated Coastal Zone Management in the Netherlands and on improving the coherence between national and international CZM projects. His international portfolio focuses on cooperation with foreign partners, such as World Bank (DC), Coastal Resource Center (RI), North Sea countries. Dr. Balffoort can build upon more than 25 years working experience in the environmental field, of which more than 15 years as manager of international projects. The main projects concern ICZM and management of (trans boundary) water systems and cover subjects such as flood safety, institutional reform, land- and water use, nature development. As an experienced organizer of multi-party co-operation, both on institutional and technical issues, he is an accomplished facilitator of the consensus building process on policy development and implementation for river basins, coastal zones and seas. His working experience includes the preparation of projects, the setup of institutional networks and subcontracting of local counterparts, the developments of work plans, the organization and chairing of workshops and seminars, and the provision of liaison services between national authorities. He has an employment record in both the public- and private sector: universities, research institute, Delft Hydraulics, Ministry for Transport, Public Works and Water Management. He has developed and has been involved in many contacts, both domestic and abroad; he has developed lectures and courses for many occasions and has published some 25 articles so far.

CLUSTER 4: ISSUES RELATED TO DREDGING.

1. US Lead Coordinator:

Mr. J.E. Clausner, MSc Ocean Engineering '82.

USACE Coastal and Hydraulics Laboratory; Vicksburg, Mississippi

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Background:

Mr. Clausner's present position is the Associate Technical Director for Navigation at the U.S. Army Engineer Research and Development Center's Coastal and Hydraulics Laboratory (CHL). In that role he serves as the program manager for the Navigation Systems Research program, which supports the USA's 25,000 miles of navigable channels. Mr. Clausner is also the CHL assistant program manager for the Dredging Operations and Environmental Research (DOER) Program, a \$6M/year program that balances dredging needs with environmental

concerns. Prior to taking the Associate Technical Director's position in 2003, Mr. Clausner was the dredging team leader in the CHL Coastal Engineering Branch. Mr. Clausner's dredging background started in the mid 1980s, when he began research on sand bypassing, ultimately writing an Engineer Manual on Sand Bypassing System Selection. Mr. Clausner also directed an effort to design an improved eductor for sand bypassing as part of the Dredging Research Program. In the early 90's, Mr. Clausner led a team that evaluated Water Injection Dredging for use by the Corps of Engineers. From 1995 through 1997, Mr. Clausner designed contaminated dredged material mounds and sand caps for the Corps New York District. From 1997 through 2001, Mr. Clausner was the DOER focus area manager for nearshore placement of dredged material. From 2002 through 2003, Mr. Clausner was the DOER focus area manager for Innovative Dredging Technology. Mr. Clausner has authored over 30 publications related to dredging and regularly presents papers at conferences and workshops.

2. RWS Lead Coordinator:

Mr. Maarten Reinking (41), MSc, geological and mining engineer
RWS-Directorate North Sea in Rijswijk
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Background:

After his MSc study, Mr. Reinking has joined a big contractor firm in the Dutch private sector for a period of eight years. During that period he has been involved in (environmental) research programs, cost calculation aspects, execution of various projects under his guidance as project engineer and finally as desk manager in the (globally active) off shore branch with customers from the oil- and gas industry. After a one year interim period as vice director of a contractor firm, specialized on preparing (heavy load) industrial sites, he joined the advisory world as a manager of a private sector consultant firm. In this respect he has been involved in the infrastructure developments/adaptations at Schiphol Airport (Amsterdam) and some new rail connections (light rail concepts and freight train hinterland connection of Rotterdam Port). Since 2002, Mr Reinking has joined the public sector, as the head of the section Dredging Works within the RWS-directorate North Sea. This section is first of all responsible for the accessibility and navigability of the approach channels of both Rotterdam- and Amsterdam port areas. In addition, the section develops the dredging capacity for maintenance dredging and beach nourishment programs in the Netherlands, for major works as far as the Ministry of Public Works, Transport and Water Management (RWS) is responsible for. The annual turn over in relation to this program is about US\$ 30 million. Together with other RWS-directorates, programs are prepared and executed on sanitation of polluted bottoms. The idea is that the section, headed by Mr. Reinking, will develop shortly to a specialized Dredging Expertise Centre for the entire RWS-organization. He contributes regularly to conferences/seminars/ workshops with papers and publications.

CLUSTER 5: CONSTRUCTION ENGINEERING.

1. US Lead Coordinator:

Dr. Jeffrey A. Melby, PhD, Coastal Engineering

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Background:

Dr. Melby is the leader of the Coastal Structures Group within CHL. During the 17 years that Dr. Melby has been employed at the CHL, he has produced over 60 publications as Principal Investigator on 8 research work units and many site-specific projects. Dr. Melby is well known as co-inventor of CORE-LOC[®] and Samoa Stone[™] concrete armor units. His published work is distributed a number of topics including concrete armor unit design, concrete armor unit strength and shape research, coastal rubble mound structure damage initiation and development, coastal structure life-cycle and risk analysis, and rapidly-installed breakwaters. He serves on the editorial board of the ASCE Waterways Division and the Japan Coastal Engineering journal. He also serves on the ASCE Coastal Structures Committee, ASCE Coastal Structure Monitoring committee, PIANC Working Group 47 on Optimal Design of Coastal Structures, and PIANC Working Group 39 on Coastal Structure Monitoring. In addition, Dr. Melby organized and is the Proceedings Editor for the Coastal Structures 2003 conference, a large international ASCE-sponsored event.

2. RWS Lead Coordinator:

Mr. Jelle de Vries, MSc, civil engineer.
RWS-Directorate Construction Engineering in Utrecht.
<j.t.dvries@bwd.rws.minvenw.nl> tel. **31302857647

Background:

Since the last 12 years, Mr. De Vries is head of a specialist group within his RWS-directorate of many experts in constructional engineering, focusing on wet infrastructure facilities and structures. He has participated in developing new techniques for the application and execution of non-conventional materials (synthetics). During this period, he has been project leader on various programs, such as the design and implementation of key walls (including the development of safety criteria), design- and research programs on specific ground mechanical problems, the design of shipping locks, renovation and reconstruction (including execution) of quays and jetties for large ferry services, application of synthetic building materials, etc. He has given advisory services on bottom sanitation schemes, on environmental friendly and sustainable designs in civil engineering, and is involved in the set up of new national design codes. He has written guidelines on the maintenance of wet infrastructure facilities (asset management) and on the application of asphalt in wet civil engineering.

CLUSTER 6: SHIPPING AND TRANSPORT.

1. US Lead Coordinator:

Dr. Sandra Knight, PhD, PE, Civil Engineering.
USACE Coastal and Hydraulics Laboratory; Vicksburg, Mississippi
<jeffrey.a.melby@usace.army.mil> Tel. (601) 634-2645

Background:

Dr. Sandra Knight is Technical Director for navigation for the US Army Engineer Research and Development Center (ERDC). She is responsible for the technical oversight, management, and execution of \$20 mil of navigation-related R&D and reimbursable work. The research supports the planning, design, operation, management, and maintenance of US navigation channels, locks, ports, and waterway systems. Technologies developed from the R&D promote safe and efficient marine transport, cost effective systems, and environmentally sustainable projects. She received a BSCE from Memphis State University, a MS from Mississippi State University and completed her PhD in civil engineering in 1996 from University of Memphis. In her 24 years of service to the USACE, she has progressed to her current position serving as principle investigator, technical team lead, program manager, and Navigation Branch Chief. As a hydraulic engineer, she has conducted numerous hydrologic and hydraulic engineering studies related to flood control, water supply, sedimentation, bank stabilization, environmental effects and navigation. She served as a critical member of an interdisciplinary, interagency team developing the Environmental Impact Statement for the Upper Mississippi River-Illinois Waterways System Navigation Feasibility Study. Dr. Knight has authored or co-authored over 35 technical papers and reports on hydraulic engineering. She is a member of the American Society of Civil Engineers, Society of American Military Engineers, the Society of Women Engineers, International Navigation Association, and Sigma Xi. She is the Vice-Chair of the Research and Technology subcommittee of the Interagency Committee on Marine Transportation Systems; a member of the Waterways Committee for Coasts, Oceans, Ports, and Rivers Institute, ASCE; the International Chairman of the Permanent Committee on Inland Navigation for the International Navigation Association (PIANC), and represents ERDC as a board member on the National Safe Waterways and Seaport Alliance.

2. RWS Lead Coordinator:

Mr Jolco Brolsma, MSc, civil engineer.

RWS-Directorate AVV in Rotterdam.

(AVV in Dutch stands for Advisory Services on Traffic and Transport).

j.u.brolsma@avv.rws.minvenw.nl tel. **31102825600/....5836

Background:

Mr. Brolsma is a specialist in inland water transport, waterways and traffic engineering. Till, 1985 he has been project manager within the Rotterdam Port Authority, where he was involved in the development of a new vessel traffic system for the port, the development of the deep draft approach channel and developments on push barging and bank protection. After a three year intervening period where he was involved in the research of specific shipping related subjects (such as high speed vessels, and the application of synthetic materials) he joined the RWS directorate AVV, as head of the research and development group on IWT and traffic engineering. Since then he has been a member or chairman of some of the many committees for specific projects related to waterway development for shipping, on subjects such as developing a policy plan for waterway operation, improving signs and signals for navigation, developing information systems. He has also participated in some specific projects such as the Maas river renovation, the development of the main Rhine branch Waal as by far the principal transport route between Rotterdam and Germany, in a specific (international) canal feasibility study, in the development of modern marine terminals, etc.

He has participated in consultancy services abroad and is/has been guest lecturer on particular occasions in the Netherlands and abroad. He is a honorary member of PIANC, and has (had) several key functions in the Netherlands PIANC delegation for years. He is still active in PIANC Recreational Navigation Commission and in the PIANC Finance Committee.