



## **5<sup>th</sup> Ecological BfG Colloquium**

### **Ecosystem Services – Challenges and opportunities in managing flowing waters**

5/6 May 2015, Koblenz, Germany

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## **PIANC-Seminar**

### **Ecosystem Services: Identification, Assessment and Benefits for Navigation Infrastructure Projects**

7 May 2015, Koblenz, Germany



Foto: BfG

Organized by:

**Bundesanstalt für Gewässerkunde (BfG)**

German Federal Institute of Hydrology

[www.bafg.de](http://www.bafg.de)

**PIANC – The World Association for**

Waterborne Transport Infrastructure

[www.pianc.org](http://www.pianc.org)

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**Bundesministerium  
für Verkehr und  
digitale Infrastruktur**

Working languages: German and English (with simultaneous translation)

## Joint Event

### 5<sup>th</sup> Ecological BfG Colloquium

#### Ecosystem Services – Challenges and opportunities in managing flowing waters

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### PIANC-Seminar

#### Ecosystem Services: Identification, Assessment and Benefits for Navigation Infrastructure Projects

Goods and values of nature are generally not considered in cost accounting, e.g. in cost-benefit analyses of infrastructure projects. In fact, this may lead to a considerable bias of overall societal costs.

Solutions are introduced by the new concept of Ecosystem Services (ES) which was launched by the Millennium Ecosystem Assessment and distributed by the international TEEB Study (The Economics of Ecosystems and Biodiversity). In the meantime the approach of ES has become an integral part of European directives.

What significance do ES have in the context of managing watercourses and precisely for the tasks of the German Waterways and Shipping Administration? And how can the ES concept be applied to these tasks in a beneficial and practical way, so that Federal Waterways are maintained for both navigation and ecology?

The 5<sup>th</sup> Ecological Colloquium of the Federal Institute of Hydrology (BfG) is dedicated to these questions. A general introduction to definitions, phrasing and understanding of ES will be supplemented by presentations of tangible national projects on flowing waters and floodplains. The European and international perception of ES and their application will be demonstrated by international navigational projects.

In conjunction with the BfG Colloquium, the *PIANC-Seminar on „Ecosystem Services: Identification, Assessment and Benefits for Navigation Infrastructure Projects“* on 7 May 2015 provides substantial insight into the international perspective of Ecosystem Services. The PIANC seminar is open to all participants of the BfG Colloquium.

Both Colloquium and Seminar address all interested experts, State Authorities, planning agencies and organizations, ports, engineering business and all those involved in the navigation sector.

Simultaneous interpretation (German and English) will be provided during both events.

## 5<sup>th</sup> Ecological BfG Colloquium: Ecosystem Services – Challenges and opportunities in managing flowing waters

### Programme

#### Tuesday 5 May 2015

12:00 Registration

#### 13:00 Welcome address and introduction

*Michael Behrendt*, German Federal Institute of Hydrology (BfG), PIANC Germany

#### Introducing Ecosystem Services

Moderation: *Dr. Michael Schleuter*, BfG

#### 13:15 Natural Capital – the debate on economic valuation of nature (Keynote)

(presentation in German)

*Roland Zieschank*, FU Berlin, Environmental Policy Research Centre, Germany

- 13:45 TEEB DE Natural Capital: Ecosystem Services in rural areas**  
(presentation in German)  
*Prof. Dr. Christina von Haaren*, Leibniz University Hannover, Institute of Environmental Planning, Germany
- 14:15 Ecosystem Services and the EU Water Framework Directive** (presentation in German)  
*Dr. Stephan von Keitz*, Hessian Ministry of the Environment, Climate Protection, Agriculture and Consumer Protection, Germany
- 14:45 Developing German Federal Waterways in the context of the social debate on Ecosystem Services** (presentation in German)  
*Dr. Birgit Esser*, German Federal Ministry of Transport and Digital Infrastructure, Germany
- 15:15 Coffee break**

### **Ecosystem Services and flowing waters**

Moderation: *Uwe Schröder*, BfG

- 15:45 The challenge of assessing and valuing Ecosystem Services of German Federal Waterways - the ecological perspective** (presentation in German)  
*Mathias Scholz*, Helmholtz Centre for Environmental Research, Germany
- 16:15 The challenge of assessing and valuing Ecosystem Services of German Federal Waterways - the economic perspective** (presentation in German)  
*Dr. Alexandra Dehnhardt*, TU Berlin, Institute of Landscape Architecture and Environmental Planning, Germany
- 16:45 Ecosystem Services in the Dutch/German region of the River Vecht. Testing the PES instrument in practice.** (presentation in German)  
*Dr. Ilke Borowski-Maaser*, Interessen Im Fluss (Consulting), Germany
- 17:15 Adjourn**
- 19:30 option for common dinner (self-paid)**

## **Wednesday 6 May 2015**

### **Projects in Germany on the national and Federal State levels**

Moderation: *Hubert Liebenstein*, BfG

- 9:00 Exploiting Ecosystem Services for water management issues demonstrated by the project of reconstructing the River Emscher** (presentation in German)  
*Dr. Mario Sommerhäuser*, Emschergenossenschaft/Lippeverband (public water boards), Germany
- 9:30 A new approach of valuing measures to maintain German Federal Waterways – a case study** (presentation in German)  
*Stefanie Appel*, Waterways and Shipping Board Freiburg, Germany
- 10:00 Coffee break**

## German Federal Institute of Hydrology (BfG) – Projects on Ecosystem Services

Moderation: *Dr. Elmar Fuchs*, BfG

- 10:30 Putting a value on differing river-bank structures on the tidal River Elbe**  
(presentation in German)  
*Dr. Carolin Schmidt-Wygasch*, BfG, Germany
- 11:00 Putting a value on technical-biological bank-protection measures by the example of the pilot stretch Stolzenau, River Weser** (presentation in German)  
*Dr. Lars Symmank*, BfG, Germany
- 11:30 Potential costs of neglecting measures against river-bed erosion on the River Lower Rhine – an approach of accounting riverine vegetation** (presentation in German)  
*Dr. Peter Horchler*, BfG, Germany
- 12:00 Nitrogen retention of large rivers – an Ecosystem Service?** (presentation in German)  
*Stefanie Ritz*, BfG, Germany
- 12:30 Lunch break**

## National and international perspectives

Moderation: *Dr. Fritz Kohmann*, BfG

- 13:30 The potential of the Ecosystem Service Approach for estuarine management**  
(presentation in English)  
*Dr. Kirsten Wolfstein*, Hamburg Port Authority, Germany
- 14:00 The economic evaluation of selected Ecosystem Services on the Rivers Danube and Mur** (presentation in German)  
*Prof. Dr. Michael Getzner*, Vienna University of Technology, Public Finance and Infrastructure Policy, Austria
- 14:30 The practical value of Ecosystem Services for the concept for water managers; experiences from case studies** (presentation in English)  
*Suzanne van der Meulen*, Deltares, The Netherlands
- 15:00 Coffee break**
- 15:30 Ecosystem Services and the integration of natural systems in the development of resilient water infrastructure** (presentation in English)  
*Dr. Todd Bridges*, U.S. Army Engineer Research and Development Center, USA
- 16:00 Closing discussion and summary** (in German / English)  
*Dr. Fritz Kohmann, Dr. Elmar Fuchs, Uwe Schröder*, BfG, Germany
- 16:30 Closing remarks** (in German)  
*Dr. Fritz Kohmann*, BfG, Germany
- 17:00 Closing of the Colloquium**
- 19:30 option for common dinner (self-paid)**

# PIANC-Seminar: Ecosystem Services: Identification, Assessment and Benefits for Navigation Infrastructure Projects

## Programme

**Thursday 7 May 2015**

**9:00 Welcome and Opening**

*Michael Behrendt*, German Federal Institute of Hydrology (BfG), PIANC Germany

*Louis Van Schel*, Secretary General, PIANC, Brussels

**Modelling and mapping Ecosystem Services (ES)**

Moderation: *Filip Vandeputte*, DEME, Belgium.

**9:10 Integrating Ecosystems Services in marine and inland waterways infrastructure: to fear or to embrace?**

*Prof. Dr. Patrick Meire*, University of Antwerpen, Belgium

**9:40 The integration of natural systems in the development of resilient water infrastructure**

*Dr. Todd Bridges*, U.S. Army Engineer Research and Development Center, USA

**10:00 Perspectives in Germany – summary of the ES colloquium of the Federal Institute of Hydrology**

*Dr. Elmar Fuchs*, Federal Institute of Hydrology, Germany

**10:15 Coffee break**

**Monetary and non-monetary values of Ecosystem Services**

Moderation: *Paris Sansoglou*, EUDA, Belgium

**10:45 The Economics of Ecosystems and Biodiversity (TEEB) – challenges and responses**  
*Dr. Heidi Wittmer*, Helmholtz Centre for Environmental Research, Germany

**11:15 Social cost benefit analysis. Ecosystems Services can make a difference**  
*Elizabeth Ruijgrok*, Author of the Dutch guideline for ecosystem valuation, The Netherlands

**11:30 Update on IADC's Ecosystems Services project; towards more unbiased maritime infrastructure project assessments**  
*Rene Kolman*, International Association of Dredging Companies, The Netherlands

**Governance and planning: How to integrate biodiversity and Ecosystem Services?**

Moderation: *Dr. Todd Bridges*, USACE, USA

**11:45 EU's vision and approach on nature-based solutions and working with nature's capital**  
*Karin Zaunberger*, European Commission, DG Environment, Unit Biodiversity

**12:05 The WBCSD vision and initiatives on business involvement in ecosystem restoration**  
*Johan Lammerant*, Member of the WBCSD 'Technical Group on the Natural Capital Protocol' and 'Investing in Natural Infrastructure', Belgium

**12:20 Steps towards the application of ES in dredging and marine construction**

*Frederik Roose, Flemish Government - Mobility and Public Works, Belgium*

**12:35** *Lunch break*

**Developing PIANC's way forward to integrating Ecosystems Services  
in future marine and inland waterway infrastructure business**

**Parallel Workshops and interactive plenary discussion**

**14:00 Workshop 1: Modelling and mapping ES**

Moderator: *Filip Vandeputte, DEMA*

**Workshop 2: Economic aspects of ES**

Moderator: *Paris Sansoglou, EUDA*

**Workshop 3: Governance and planning to integrate ES**

Moderator: *Dr. Todd Bridges, USACE*

**15:30** *Coffee break*

**16:00 Plenary discussion: Summary of workshop results and conclusions for PIANC's  
way forward to integrating Ecosystems Services**

*Prof. Dr. Patrick Meire, University of Antwerpen, Belgium*

*Harald Köthe, BMVI and chairman PIANC EnviCom*

**16:45 Final remarks and Closing**

*Louis van Schel, Secretary General, PIANC*

**17:00** *Apéro*

**Friday 8 May 2015**

**Optional: Excursion to the Flood Spillway Rees at the Lower Rhine**

## Organizational matters

### Venue

The Colloquium and the PIANC-Seminar will be held in the main building of the **German Federal Institute of Hydrology (BfG), Koblenz, Am Mainzer Tor 1**. The main entrance is in **Julius-Wegeler-Straße** near the “Rhein-Mosel-Halle”. The BfG is in 10-minute walking distance from the main station “Koblenz Hauptbahnhof”. Please note that there are no parking facilities nearby.

### Registration

We ask you to make sure that your **registration** is received by **15 April 2015**. Please use the Registration Form (attached hereto) that you may return by fax, mail or E-mail. We will confirm the receipt of your registration by E-mail.

### Registration fee

For the 5<sup>th</sup> Ecological BfG Colloquium we charge a registration fee of **€40** and ask you to pay it in cash on arrival. Participation in the **PIANC-Seminar is free**.

### Accommodation

Participants are requested to make their own travel arrangements. Please **make your reservation at an early stage**, Koblenz is a holiday area. A list of recommended hotels can be found on the reverse side of the registration form. Another possibility for searching accommodation is the “Koblenz-Touristik”:

<http://www.koblenz-touristik.de/en/accommodation.html>

### Dinner

We propose to spend the evenings on 5 and 6 of May together for informal meeting and exchange in a Koblenz restaurant (self-paid). Please indicate your interest in such a meeting on your registration form, so that we can make a reservation.

### Excursion

In case of interest, we offer on Friday 8 May 2015 a field trip to the project "Flood Spillway Rees" on the River Lower Rhine (return to Koblenz at the earliest 6 pm). Detailed information will follow if it is certain that the excursion will take place.

The Project "Flood Spillway Rees" is being realized by the Waterways- and Shipping Office Duisburg-Rhine. It stands for a successful example of an integrated project planning and realization process. The main target is to withdraw hydraulic energy from the main river channel in order to reduce the amount of the existing river-bed erosion. At the same time, the peak discharge is attenuated, reducing the flood risk for the City of Rees. From the very beginning, concerns of nature conservation, agriculture and riparian residents are embedded in both project planning and realization.

For this reason the project "Flood Spillway Rees" was awarded the PIANC “Working with Nature Award” as the third winner (out of 16 international projects) during the 33rd PIANC World Congress in San Francisco in June 2014.

More information: [www.wsa-duisburg-rhein.wsv.de/Bauprojekte/Flutmulde\\_Rees](http://www.wsa-duisburg-rhein.wsv.de/Bauprojekte/Flutmulde_Rees)

### Contact

If you have further questions, please contact:

#### Programme and scientific matters:

##### for the BfG Colloquium:

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