NCR days 2020
13th & 14th of February
Honig complex, Nijmegen

Day 1: Thursday

9.00-9.30	**Registration and coffee**		
9.30-9.45	Opening and announcements		
9.45-10.10	Welcome by Katja Portegies (Director Safety & Water, Rijkswaterstaat WVL)		
10.10-11.00	Key-note Frans Klijn (Specialist Adaptive Delta planning, Deltares and Professor at the Faculty of Technology, Policy and Management, TU Delft)		
11.00-11.30	Break + Posters		
11.30-11.45	Session 1: Governance & Threats for Proper Management	**Future river management plan: Towards a fully integrated and functional river system** Saskia van Vuren (Rijkswaterstaat)	
11.45-12.00		**Building with Nature in river areas: from ideas to practice** Maria Barciela-Rial (HAN)	
12.00-12.15		**Quick Scan Sustainable river bed management** Hermjan Barneveld (HKV Lijn in Water)	
12.15-12.30		**Establishing Stakeholder Readiness for Innovation Adoption** Heleen Vreugdehil (Deltares)	
12.30-12.45	Poster Pitch (2)		
12.45-13.45	Lunch and Poster Market		
13.45-14.00	Session 2: Sediment management and measures	**Sediment Nourishments for Degradational Engineered Rivers** Matthew Czapiga (TU Delft)	
14.00-14.15		**Measures to counteract bed degradation in the Loire river- estuary** Anna Kosters (Deltares/TU Delft)	
14.15-14.30		**Experimental study on bed-material transport over entrance sills at longitudinal training walls** Annemarie van Os (TU Delft)	
14.30-15.00	Poster Pitch (8)		
15.00-15.30	Break and Poster Market		
15.30-16.15	Key-note Chris Spray (Senior Research Fellow and Emeritus Professor Geography & Environmental Science, Dundee University, UK)		
16.15-16.30	Session 3: Clean water and ecology	**Heat tolerance in two invasive amphipods is modulated by water oxygenation** Wilco Verberk (Radboud University)	
16.30-16.45		**Assessing the Potentially Occurring Fractions of Native and Alien Freshwater Mussels in Shore Channels along Longitudinal Training Dams in the river Waal** Natasha Flores (Radboud University)	
16.45-17.00		**Age of floodplain system affects sensitive rheophilic fish communities: a study of 30 years of floodplain management** Twan Stoffers (WUR)	
17.00-17.15		**Effects of longitudinal training dams on macroinvertebrate assemblages in the river Waal** Frank Collas (Radboud University)	
17.15-17.30	Poster pitch (4)		
17.30-19.00	Drinks and poster market	NCR Boards meeting (Torenkamer)	
18.00-18.30	Tour around Honig Complex (optional)		
18.30	Restaurant open		
19.00	Start dinner and pub-quiz		

Day 2: Friday

8.30-10.30	**Breakfast excursion Waalkade, see additional information**

10.30-11.00	Registration and coffee	
11.00-11.15	Opening and announcements	
11.15-12.00	Key-note Milou Wolters (Strategic Advisor for Navigation and Waterways, Rijkswaterstaat WVL)	
12.00-12.15	Session 4: inland shipping	**A framework for the impact assessment of low discharges on the performance of inland waterway transport** Frederik Vinke (TU Delft)
12.15-12.30		**Towards a climate resilient inland waterway network** Jurjen de Jong (Deltares)
12.30-13.30	**Lunch and Poster Market**	

13.30-13.45	Session 5A: Water safety and flood risk Torenkamer	**A perspective on the future of asset management for flood protection FAIR** Bart Vonk (Rijkswaterstaat)
13.45-14.00		**Geological framework for explaining sedimentological variability underneath river dikes in the Rhine-Meuse delta: control to piping susceptibility** Timotheus Winkels (UU)
14.00-14.15		**A coupled hydro-stability model for a sensitivity analysis on dike stability** Teun van Woerkom (UU)
14.15-14.30	Poster pitch (4)	
14.30-15.00	Break and Poster Market	
15.00-15.15	Session 6A: Hydrodynamics and Water availability Torenkamer	**Quantifying drought impacts using machine learning in operational water management** Niko Wanders (UU)
15.15-15.30		**Wetland restoration impact on streamflow in the Rhine River basin** Jos de Bijl (Bureau Stroming BV)
15.30-15.45		**Synthetic discharge time series for river models** Bas Gradussen (Witteveen + Bos)
15.45-16.00		**Peak attenuation on the river Meuse** Jurjen de Jong (Deltares)

13.30-13.45	Session 5B: Sediment management and data analysis Bouillon	**Obtaining suspended sediment concentration in the water column from existing boat observations** Eveline van der Deijl (Deltares)
13.45-14.00		**River morphodynamic metrics derived from satellite images** Joep Rawee (UT)
14.00-14.15		**Bed level change in the Upper Rhine Delta between 1926-2018** Claudia Ylla Arbós (TU Delft)
14.15-14.30	Poster pitch (7)	
14.30-15.00	Break and Poster Market	
15.00-15.15	Session 6B: Sediment management and river morphology Bouillon	**Relating scour hole development to subsurface heterogeneity of the Rhine- Meuse delta.** Bas Knaake (UU)
15.15-15.30		**Erosion processes and retreat prediction of re-naturalized banks in regulated navigable rivers.** Duro Gonzalo (TU Delft)
15.30-15.45		**Expanding wetlands: a comprehensive look to the morphological evolution of the Mara Wetland, Tanzania** Fransesco Bregoli (Radboud University)
15.45-16.00		**The growth process of river dunes** Suleyman Naqshband (WUR)

16.00-16.30	Wrap-up, closing and awards
16.30-17.30	Drinks

Posters list

Governance

#	Title and Author
Pitch session 1	*13 Feb 12.30 – 12.45*
1	**Open science for collaborative exploration of fluvial futures -** Oliver Schmitz (UU)
2	**Never a dull moment: governance of dike reinforcement and river widening in the project Meandering Meuse -** Petra van den Brand (Project Meandering Meuse)

Sediment management and morphology

#	Title and Author
Pitch session 2	*13 Feb 14.30 – 15.00*
3	**A sediment budget for the Rhine-Meuse estuary:importance of dredging and the North Sea sediment flux -** Jana Cox (UU)
4	**Biogeomorphic evolution of lower Mississippi River islands: 1965-2015 -** Paul Hudson (Leiden University)
5	**Research on the effects of vegetation on suspended sediment transport -** Jiaqi Liu (IHE Delft)
6	**Effects of navigation on sediment distribution at river bifurcations -** Henk Eerden (Rijkswaterstaat)
7	**Quantifying alluvial cover, sediment transport, and associated bed elevation change over fixed layers-** Sianna White (TU Delft)
8	**Superimposed bedforms in the Rhine-Meuse delta -** Judith Poelman (WUR)
9	**The initial morphological impact of the longitudinal dams -** Pepijn van Denderen (UT)
10	**Determining morphological stability of tidally influenced bifurcations-** Anya Iwantoro (UU)
Pitch session 5B	*14 Feb 14.15 – 14.30*
11	**Accessing changes in the Zambezi River after dam construction and the impacts on the delta** - Lara Camiro (IHE Delft)
12	**The effect of a constant hydraulic roughness on the migration of mid-channel bars -** Anouk Bomers (UT)
13	**Modelling the effect of reservoir flushing on aquatic habitats -** Manisha Panthi (IHE Delft)
14	**Hydrodynamic and sediment transport assessment using 2D numerical modelling of an Amazonian river confluence in Peru -** Julio Isaac Montenegro Gambini (KU Leuven)
15	**Towards a model for river dune dynamics under high and low discharges** - Like Lokin (UT)
16	**Modelling the morphological effects of longitudinal dams in the Midden-Waal -** Amgad Omer (Deltares)
17	**How much does the geometry of river channels depend on initial and boundary conditions? -** Sandesh Paudel (IHE Delft)
18	**RiverLab – the numerical experimental facility for river research -** Aukje Spruit (Deltares)

Clean Water & Ecology

#	Title and Author
Pitch session 3	*13 Feb 17.15 – 17.30*
19	**Habitat suitability of the rivers Rhine and Meuse for the regionally extinct thick shelled river mussel -** Frank Collas (Radboud University)
20	**ePiE: a spatially distributed model to assess exposure to pharmaceuticals in European fresh waters -** Francesco Bregoli (Radboud University)

Hydraulics

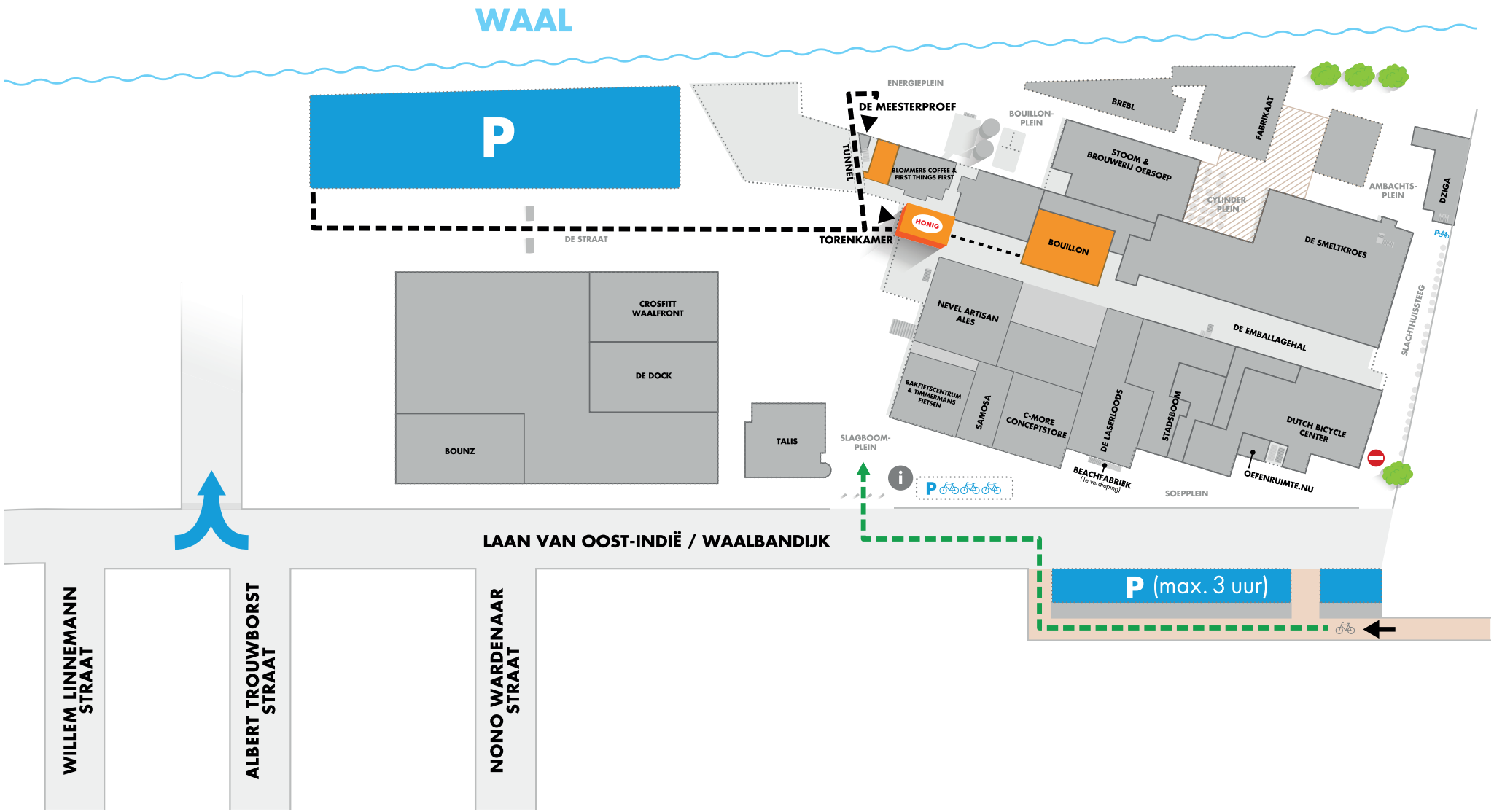
#	Title and Author
Pitch session 3	*13 Feb 17.15 – 17.30*
21	**Flow bifurcation at a longitudinal training dam: a field study -** Timo de Ruijsscher (WUR)
22	**Assessment of secondary flow using physical and numerical modeling approaches in an Amazonian meander bend -** Magaly Cusipuma Ayuque (national University of San Marcos)
23	**Preliminary setting of an analytical model for the estimation of bedload through submerged vegetation -** José Antonio Bonilla Porras (University of Trento)

Water safety

#	Title and Author
Pitch session 5A	*14 Feb 14.15 – 14.30*
24	**Balancing the scales in the piping process** - Willem Jan Dirkx (UU)
25	**Uncertain amount of impact of a river intervention in a bifurcating river system** - Matthijs Gensen (UT)
26	**Using expert opinion to quantify the uncertainty in the discharge distribution at the Pannerdense Kop -** Sander Steenblik (UT)
27	**A systematic error in the water balance of the Dutch river Rhine** - Jetze-Jan Twijnstra (UT/HKV)

HONIG
EVENTS

MAP HONIGCOMPLEX



Breakfast excursion

This year at the NCR days it is possible to attend a boat excursion on the River Waal. On Friday 14 February we will visit three projects of Rijkswaterstaat. Colleagues of Rijkswaterstaat will provide information about the projects, while we enjoy our breakfast on board. The boat departs at 8.30 a.m. from the Waalkade, near restaurant Dock17 (Waalkade 17, location A at figure 1). This is a 20 minutes' walk to the Honig Complex (1,5 km).

Bypass Lent – Retze Talma (location B)
The bypass of Lent is one of the best known projects of the 'Room for the River' program. After several years of study and construction the project has been completed in 2015. Its combination with spatial planning makes it an example for governance participation. The bypass has functioned during several highwater events since 2015. Does it function as expected? What have we learned about bypasses since then?

Fixed layer – Rico Tönis (location C)
In the 1980's Rijkswaterstaat constructed the fixed layer in the river Waal to stop the erosion process. During the drought of 2018 it became clear the fixed layer is also an obstacle for water borne shipping. The fixed layer is not flat anymore and the scour holes near the fixed layer cause difficulties for shipping too. Therefore the minister has decided to equalize the fixed layer and fill the scour holes. In the same project there is budget to test measures to implement sediment management. How is it done? How can we test these measures of sediment management?

Lock Weurt - Renovation programma ('Vervanging en Renovatie') (Location D)
Rijkswaterstaat build a lot of infrastructure during the '50s en '60s. The designed life cycle is about 100 years based on the knowledge back then. With the progress we've seen since then, the actual life cycle is probably shorter. Therefore Rijkswaterstaat will renovate this infrastructure during the upcoming decades. One of the objects is the lock of Weurt. What are the difficulties? And what is the plan for renovation?

Figure 1 Map for Breakfast excursion