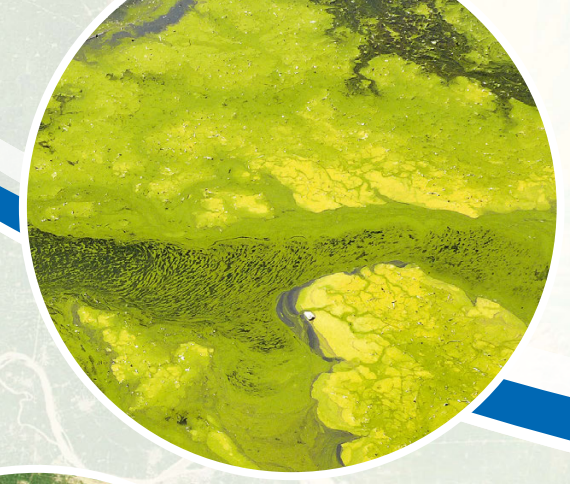


Where we start from

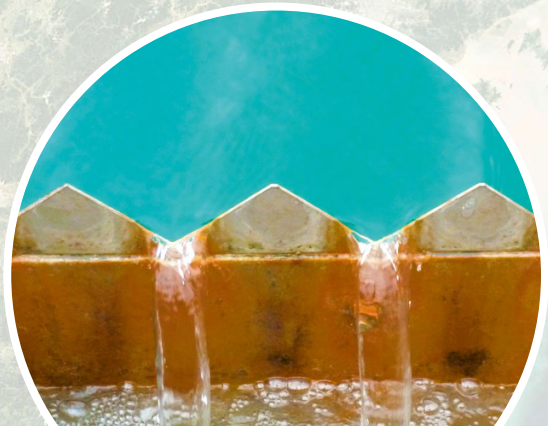
The Tai lake – a drastic example of water pollution with organic compounds, nutrients (nitrogen, phosphate → eutrophication) and heavy metals.

Insufficient raw water quality – massive problems with drinking water supply in recent years.

What we aim for

Assuring a good quality water supply by considering the whole water cycle.

Development and adoption of German water technologies and management concepts to Chinese specifications.



Picture Credit: Jeff Schmaltz, MODIS Rapid Response Team, NASA/GSFC

Coordination and Contact

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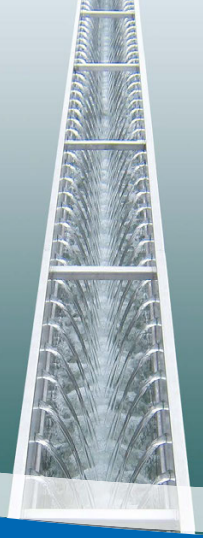
Phone: +49 (0) 721 9678-137

More information

can be found on **www.water-sign.de**



Layout: www.htm-karlsruhe.de

German Partners

3S Antriebe GmbH (3A) | www.3s-antriebe.de | Valve automation

3S Consult GmbH | www.3sconsult.de
Asset management simulations and rehabilitation planning

bbe Moldaenke GmbH | www.bbe-moldaenke.de | Algae sensors

F.A.S.T. GmbH | www.fastgmbh.de | Leakage detection, Flushing

Forschungszentrum Jülich GmbH | www.fz-juelich.de
Taste and odour compounds, Suspended particles in lake water

Goethe University, Frankfurt am Main
www.bio.uni-frankfurt.de/40689503/institut-oed | Ecotoxicology

Hydroisotop GmbH | www.hydroisotop.de | Isotope analytics

inge GmbH | www.inge.ag | Ultrafiltration

IWW | **Rheinisch-Westfälisches Institut für Wasserforschung gGmbH**
www.iww-online.de | Organic and inorganic analytics, Drinking water supply

KIT | **Karlsruher Institut für Technologie** | www.agw.kit.edu
Multi-sensor monitoring, Inorganic pollution, Early warning

Postnova Analytics GmbH | www.postnova.com
Field-Flow Fractionation (FFF)

RWTH Aachen University | www.bio5.rwth-aachen.de | Ecotoxicology

Surflay Nanotec GmbH | www.surflay.com | Layer-by-Layer coatings

TZW | **DVGW - Technologiezentrum Wasser** | www.tzw.de
Biodegradation, Water quality, Flushing

SIGN

SINO GERMAN NETWORK

Assuring water quality
from the source to the tap

The joint project

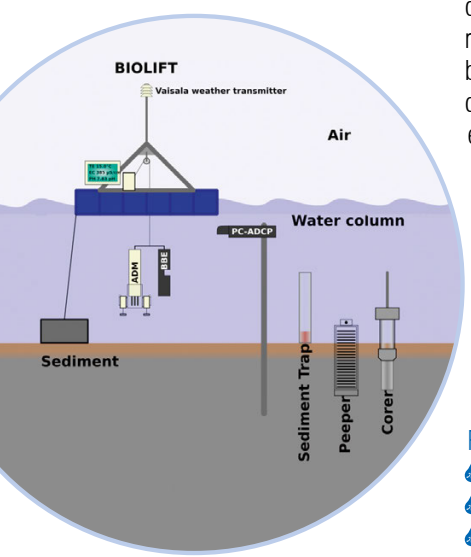
SIno-German water supply Network
2nd phase (SIGN II)

Eine Initiative des Bundesministeriums für Bildung und Forschung
CLIENT II
Internationale Partnerschaften für nachhaltige Innovationen

SPONSORED BY THE
Federal Ministry of Education and Research

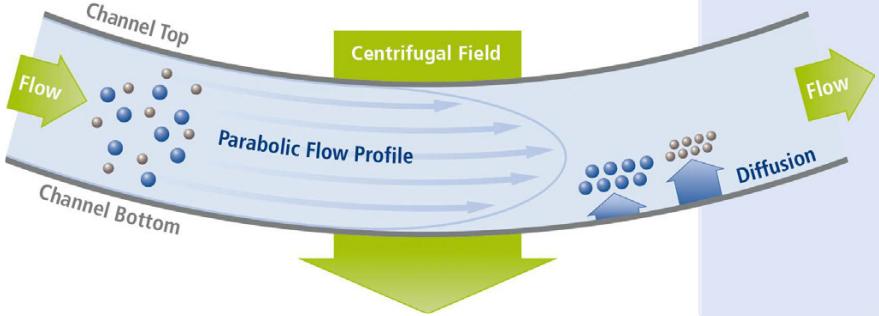


Lake Processes



Aim: Securing the quality of the raw water resource by considering beneficial as well as detrimental ecosystem effects, especially the dynamic pollutant exchange between water, sediment and algae.

Products:
- Specific PCR-methods
- Isotope fractionation
- Algae detectors
- Exotoxicity testing
- In-situ profiling buoy
- Field flow fractionation



Drinking Water Treatment

Aim: Investigation of innovative processes for effective elimination of algae cells, organic pollutants and taste and odour substances.

Products:
- Ultrafiltration membranes
- Layer-by-Layer coatings
- Biodegradation approaches
- Organic and inorganic analytics

Water Distribution

Aim: Higher water quality and quantity in the drinking water network by advanced flushing, valve testing and leakage detection methods.

Products:
- Adapted flushing and valve maintenance strategies
- Automated leak detection
- Asset management simulations and rehabilitation planning

Main Chinese Partners

(list is not comprehensive)

CRAES | www.craes.cn | Lake processes and monitoring

Tongji University | www.tongji.edu.cn
Drinking water treatment and distribution