

*Nijhuis Saur Industries
 REAL ESTATE Water ReUse Solutions voor
 Grijs water/Regenwater,
 gemengd huishoudelijk water,
 Zwart water*



Over Nijhuis Saur Industries


OUR SAUR GROUP VISION AND MISSION:

#mission water

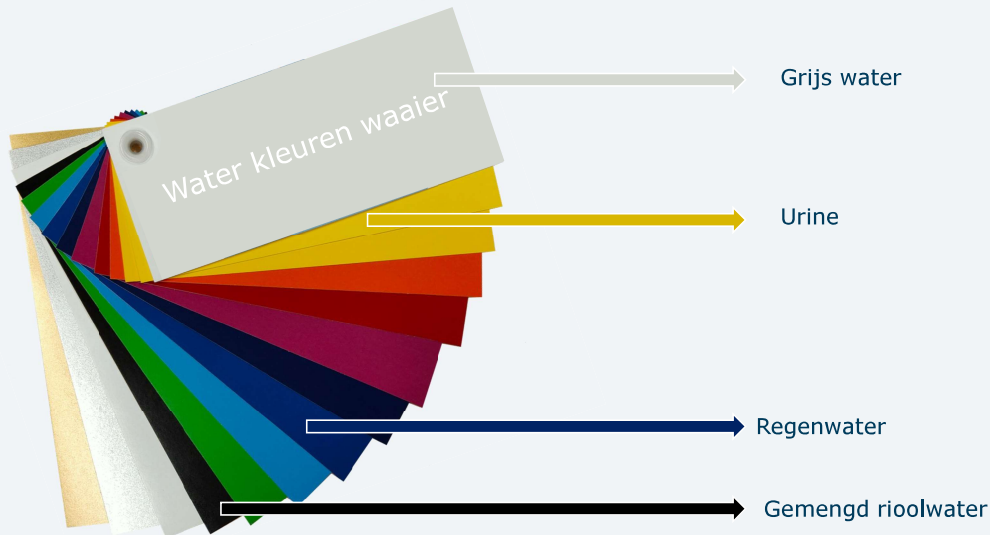
 **nijhuis** | Nijhuis Saur Industries

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-  flootech
-  byosis
-  sodai
-  aqua-chem
-  mobile water solutions
-  natural systems utilities

Sustainable and Resilient Water Use, Energy and Resource Recovery **Solutions and Services**

 >1800 Colleagues part of Nijhuis Saur Industries	 >140 Countries Active	 >200 Industrial O&M plants, including real-time monitoring
SINCE 1904 >120 years of knowledge	 >650 Million Order Entry	 >2000 assets Mobile water solutions + 3 regeneration centers
 >56.000 m² Manufacturing Surface in US, UK, Italy, Netherlands	 >350 New projects a year	 >6000 References

Welke kleuren water behandelen we?



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Grijs water/Regenwater

Nijhuis Grey Water Treatment 2.0



Grijs water/Regenwater

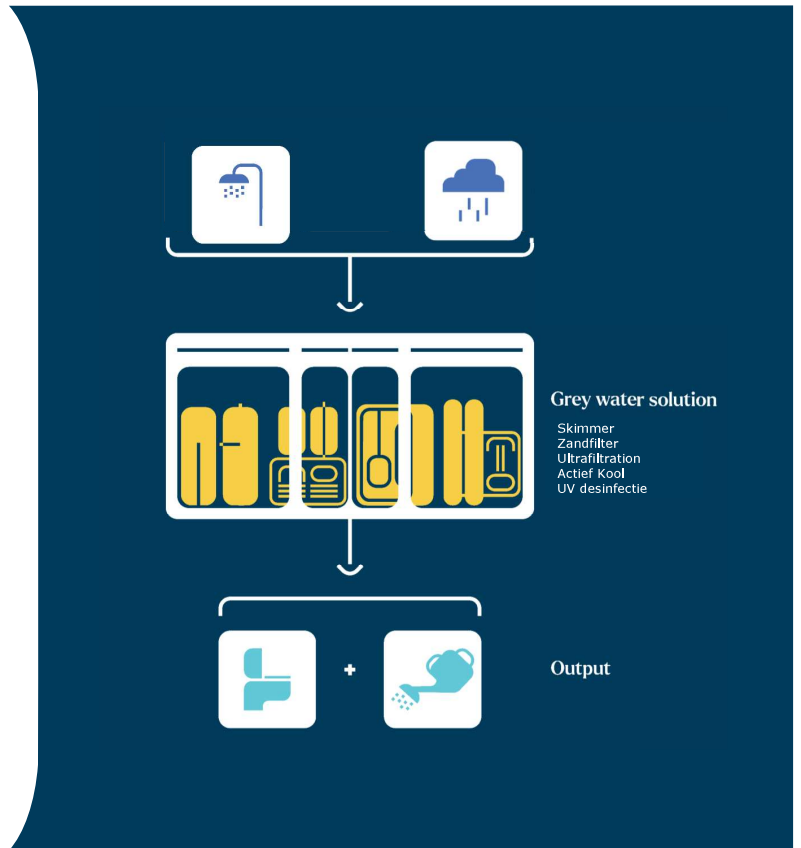


Input en output

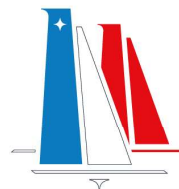
Nijhuis Grey Water Treatment 2.0

Productie : 50m3 per dag

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Grijs water/Regenwater



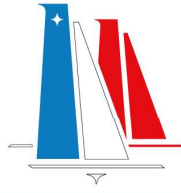
**ORIENT EXPRESS
RACING TEAM**
OFFICIAL FRENCH CHALLENGER



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Grijs water/Regenwater, demo Barcelona



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Grijs water/Regenwater

Nijhuis Grey Water Treatment 2.0



Traditioneel



Douchewater hergebruik

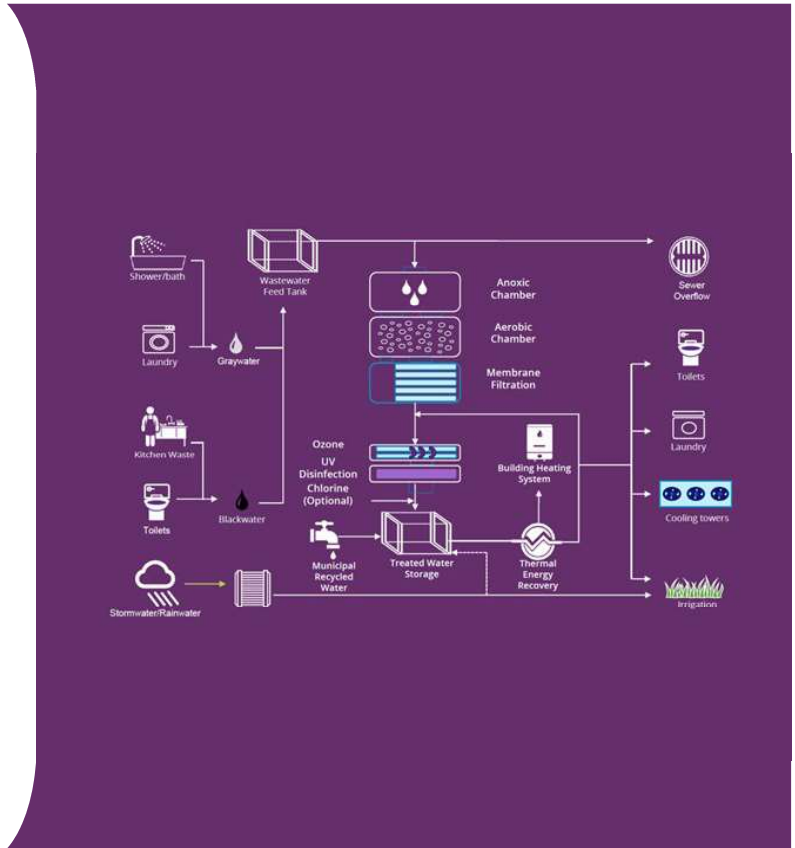


Gemengd huishoudelijk afvalwater

 natural systems utilities




Input and output



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Gemengd huishoudelijk afvalwater



Microsoft Campus
Silicon Valley, CA

WASTEWATER
treatment & reuse

RAINWATER
Treatment & storage


NET-ZERO water use


- 100% of wastewater reused onsite
- 55% water use reduction
- 4 MGY potable use savings
- 15 acres 643,000 sq. feet 2,000 employees

1552 m3

Domino
410,000+ GPD water reuse facility
District Scale
99% Sewer Discharge Reduction

Brooklyn, NY





Google Campus
Silicon Valley, CA

85k gpd reuse demand
65k gpd wastewater available
Stormwater and sewer mining available for excess demand

Gemengd huishoudelijk afvalwater

Results: Battery Park City, NYC

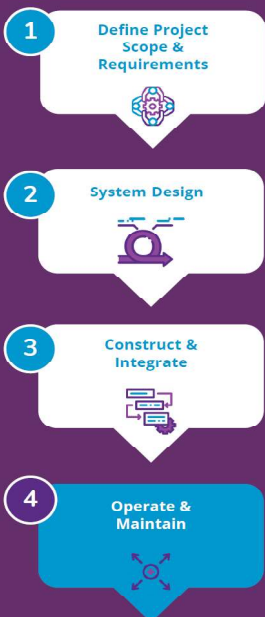
757m³

- Six (6) in-building water reuse systems serving eight (8) buildings in BPC.
- >2,000 residents who are capable of reusing ~200,000 gpd of renewable water sources
- >15 years of operating data. ZERO permit exceedances and ZERO user complaints/public health concerns
- Achieving >55% Water Use Reduction. Reduced strain on municipal/centralized infrastructure
- Achieving >65% Sewer Discharge Reduction. Reduced environmental impacts due to combined sewer overflows
- Net-Zero and net-positive energy systems now possible with thermal energy recovery
- Improved resiliency in wastewater treatment and water supply



OPERATE & MAINTAIN WATER QUALITY

Gemengd huishoudelijk afvalwater



NYC Required Parameter	DOB Limit	Membrane Specs
BOD (mg/L)	<10	<2
TSS (mg/L)	<10	<2
Fecal Colliform (CFU/100mL)	<100	<10
Turbidity (NTU)	<2	<0.2
E. Coli Colony Count (#/100mL)	<2.2	N/A
pH	6.5 - 8.0	N/A

SYSTEM REQUIREMENTS

ACTUAL PERFORMANCE

OVER 15 YEARS OF ONSITE IN-BUILDING URBAN REUSE SYSTEM PERFORMANCE DATA CONSISTENTLY EXCEEDING PERMIT REQUIREMENTS WITH ZERO VIOLATIONS!

System Location	BOD, mg/l	TSS, mg/l	Turbidity NTU	Fecal Coliform #/100 ml	E. Coli #/ 100 ml
The Solaire (2003)	< 6	< 1	0.05 – 0.25	< 1	—
Millennium Tower Residences	< 6	< 1	0.15 – 0.45	< 1	—
The Visionaire	< 6	< 1	0.15 – 0.45	< 1	< 1

Stonehenge UK



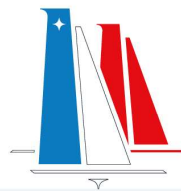
MBR voor Gemengd huishoudelijk afvalwater



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Zwart Water, demo



**ORIENT EXPRESS
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OFFICIAL FRENCH CHALLENGER



OERT, MBR zwart water

Toilet+handen
wassen

	IN mg/l	OUT mg/l	Removal
TSS	1516	<10	>99%
COD	1845	71	96%
BOD	708	<15	>98%
Total N	347	16	95%
Total P	35	28	22%

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**Demo's in NL,
start monitoring september 2024**

BlueCity Rotterdam, Heuvelstraat Silvolde, Zone College Doetinchem

Conclusies

- Grijswater naar toiletspoelwater klaar voor marktintroductie
- Gemengd rioolwater naar toiletspoelwater is bewezen technologie, veel ervaring in VS
- Diverse (demo)projecten beginnen binnenkort, doorontwikkeling/NL ervaring