HydroGroup

Check list for design of a water treatment plant

hydro elektrik

Project name: _____

Project leader:
(Consulter:)

Name	Country
Street	Post code/town/city
Phone	Fax
Email	www

Client/owner:
(Municipality/company:)

Name of company/municipality	Country
Street	Post code/town/city
Phone	Fax
Email	www

Specification of the problems/water quality:

_____

_____

Raw water: _____
(Ground water, Surface water, ...)

Data/water quality:

Chemical/physical analysis:	❑ yes, see appendix
❑ pH value (on-site)	_____
❑ Turbidity	_____ FNU/FTU
❑ Odor	_____
❑ Redox potential	_____ mV
❑ Water temperature	_____ °C
❑ Oxygen content	_____ mg/l
❑ DOC	_____ mg/l
❑ TOC	_____ mg/l
❑ Total iron	_____ mg/l
❑ Dissolved iron(II)	_____ mg/l
❑ Manganese	_____ mg/l
❑ Total arsenic	_____ mg/l
❑ Arsenic(III)	_____ mg/l
❑ Nitrite	_____ mg/l
❑ Nitrate	_____ mg/l
❑ _____	_____ mg/l

Biological analysis:	❑ yes, see appendix
❑ Total hardness	_____ °dH I mmol/l
❑ Carbonate hardness	_____ °dH I mmol/l
❑ Acidity	_____ mmol/
❑ Alkalinity	_____ mmol/l
❑ Free CO_2	_____ mg/l
❑ Conductivity	_____ µS
❑ Oxygen consuming capacity	_____ mg/l O_2
❑ SAC value at 254 nm	_____ m^{-1}
❑ Colour (SAC at 436 nm)	_____ m^{-1}
❑ Ammonium	_____ mg/l
❑ Aluminum	_____ mg/l
❑ Hydrogen sulfide	_____ mg/l
❑ Methane	_____ mg/l
❑ Bromide	_____ mg/l
❑ Cryptosporidium concentration	_____ /100 ml
❑ Fecal bacteria concentration	_____ /100 ml

Remarks: _____

Supply system:

Water consumption per year _____ m³/a
Average consumption per day _____ m³/d
Peak consumption per day _____ m³/d
Operation time of treatment plant per day _____ h/d
Average consumption per inhabitant _____ l/d
Number of inhabitants _____
Water pressure (static) _____ mWS (bar, kPa)
Pipe materials in the existing supply system _____

_____

If possible, please enclose a map of the supply system.

Water storage:

Existing storage tank near the treatment plant? ❑ yes ❑ no
Capacity storage tank _____ m³
Material of construction _____

_____

If possible, please enclose a construction drawing of the existing storage system.

Water transport:

Installed pumping capacity _____ m³/h at pressure _____ mWS (kPa)
Pumping time _____ h
Well-sinking _____ m
Deep _____ m
Length lift tube _____ m
Nominal width lift tube _____ mm
Materials of the well system _____

_____

If possible, please enclose a construction drawing of the existing well system.

Requests for the installation of the treatment plant:

❑ Near well ❑ Near storage tank ❑ _____
Treatment capacity (minimum) _____ m³/h
Operation time treatment plant _____ h
Canalization existing? ❑ yes ❑ no
Sedimentation basin required? ❑ yes ❑ no
Backwash water recycling? ❑ yes ❑ no

Electrical data:

Line voltage (existing) _____ V Frequency _____ Hz
Max. voltage fluctuation +/- _____ % NO. of Phases _____

Special rules, additional requests: _____

_____

_____

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