

## Pilot project for hygienisation and reuse of domestic wastewater by a SBR and constructed wetland combination system in Mexico City (2009 – 2012)

Employer:  
Asociación de Ayuda Social de  
la Comunidad Alemana i. A. P.  
(AASCA)/Mexico

PPP (Public-Private-Partnership) project,  
co-financed by Deutsche Investitions- und  
Entwicklungsgesellschaft mbH (DEG)

Design, construction and performance  
analyses of a pilot plant for domestic  
wastewater treatment and for natural  
hygienisation by a planted soil filter system.  
Underground storage, final UV-disinfection  
and reuse for parc irrigation after  
three-stage treatment at a retirement home.

Design capacity: 17 m<sup>3</sup>/d domestic wastewater

Planning: April 2009 – June 2010  
Construction: July 2010 – November 2010  
Start-up of operation: November 2010

First treatment step:  
SBR (sequencing batch reactor) of  
ATB Company, Porta-Westfalica,  
Germany  
and Aquatec Mexico

Second treatment step (by Blumberg Engineers,  
Germany):

- Constructed wetland with vertical subsurface flow for hygienisation (78 m<sup>2</sup>)
- Underground storage tanks below constructed wetland (16 m<sup>3</sup>) for water reuse of parc irrigation
- Final UV-disinfection
- Recirculation technique to suppress reinfection of storage water by pathogenic germs

