Electronic Supplementary Material (ESI) for RSC Advances. This journal is © The Royal Society of Chemistry 2016

- 1 Supplementary material-
- 2 Microfiltration process for surface water treatment: Irreversible
- 3 fouling identification and chemical cleaning

List of supplementary material

Title of Figures

Fig. S1-S9

4

5

6

8

9

10

11 12

- Fig. S1. Schematic diagram of the MF set-up
- Fig. S2. Removal of COD_{Mn} (a) and UV254 (b) by hybrid membrane process
- Fig. S3. TMP variations with operating time extension
- Fig. S4. MW distribution of raw, pretreated and filtrated waters
- Fig. S5. MW distribution of extracted foulants
- Fig. S6. MW component percentage of SHA and NEU fractions in extracted foulants
- Fig. S7. PS (a) and PN (b) contents of each fraction in cleaning solutions
- Fig. S8. Fractions of different waters fractionated by adsorbent resins
- Fig. S9. Components of different waters determined by LC-OCD with peak-fitting

Raw water tank

Pretreatment

Sedimentation

MF unit

Fig. S1. Schematic diagram of the MF set-up

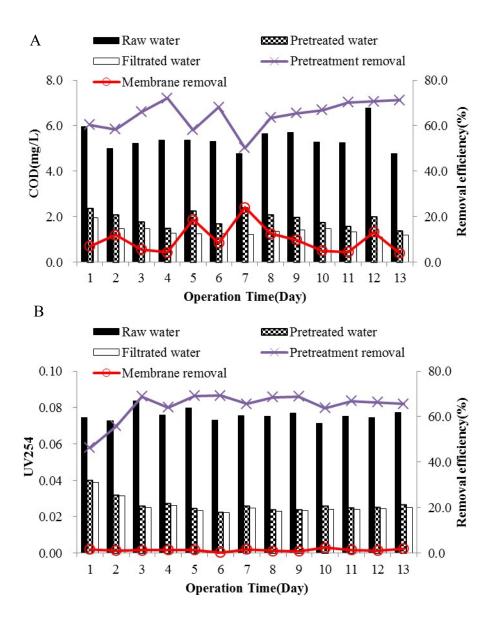


Fig. S2. Removal of COD_{Mn} (a) and UV254 (b) by hybrid membrane process

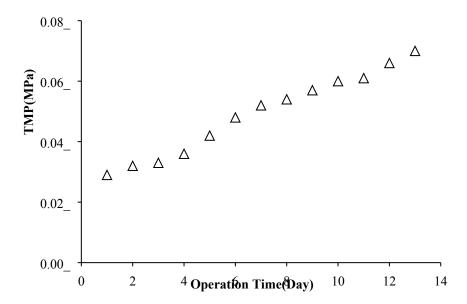


Fig. S3. TMP changes with operating time extension

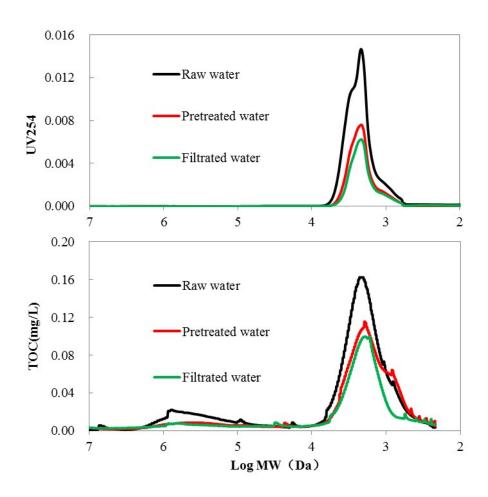


Fig. S4. MW distribution of raw, pretreated and filtrated waters

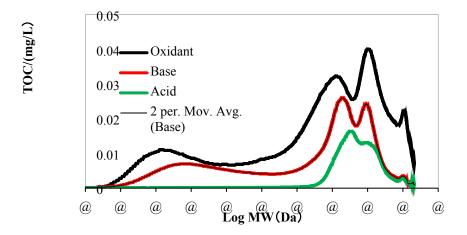


Fig. S5. MW distribution of extracted foulants

 LMWN LMWAH HS BP

100%

80%

60%

0%

Roger Hr. Roger Hr

Fig. S6. MW component percentage of SHA and NEU fractions in extracted foulants

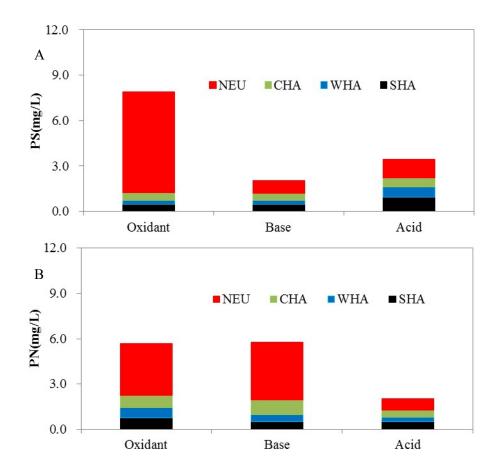


Fig. S7. PS (a) and PN (b) contents of each fraction in cleaning solutions

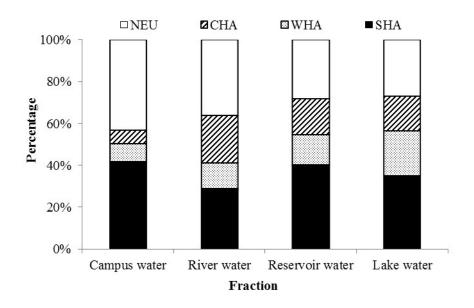


Fig. S8. Fractions of different waters fractionated by adsorbent resins

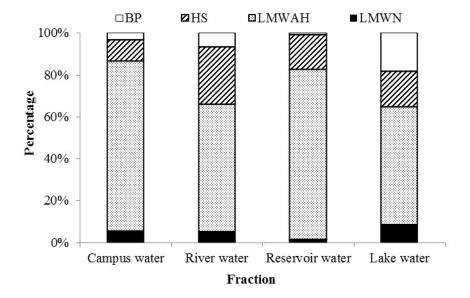


Fig. S9. Components of different waters determined by LC-OCD with peak-

4 fitting