

()

9 2019 6 11
(JFE)

GF/F

DMF

(2%)

DMF

a

(NO₃-N)

(NO₂-N)

(PO₄-P)

(SiO₂-Si)

(Phantom4 pro, DJI)

2019 9 13 10 1 13

45

60%

50%

1/1000 F 8

a

200

Metashape professional

SfM

GPS

1

ArcGIS

QGIS

2019 7 2020 2
 (CVM) (WTP)

7 8 8 (28.3)
 (0.05 $\mu\text{mol L}^{-1}$)
 8 86–150 $\mu\text{mol L}^{-1}$
 (0.1 $\mu\text{mol L}^{-1}$) 11.65 $\mu\text{mol L}^{-1}$
 8 9 10
 (6–7)

Aulacoseira granulata *Melosira varians* *Aphanizomenon*
flos-aquae *Dolichospermum planctonicum* *Microcystis aeruginosa* *Microcystis wesenbergii*

16 10 2019
 8 8

5 m 9 12

107 20% 45%
 WTP 500 WTP 29
 7 500

($p < 0.004$)