

Application of water evaluation and planning (WEAP) model for reuse of urban wastewater in Western Iraq

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Abstract

:DWHU VFDFUFLW\ LQ WKH 0LGGOH (DVW FRQWLQXHV WR LQFUHDVH GXH WR SRRU ZDWHU PDQDJHPHQW DQG FOLPDWH FRQGLWLRQV

:KHUH FOLPDWLF FRQGLWLRQV LQWHUQDWRQDO FRQIOLFVV LQVWDELOLW\ DQG D KLJK UDWL RI SRSXODWRQ JURZWK FRQWULEXWH WR D GHFUHDVH

LQ WKH UDWL RI ZDWHU IORZ LQ ,UDT ZKLFK LV H[SHFWHG WR LQFUHDVH LQ WKH FRPLQJ SHULRG 7KH ZHVW HUQ UHJLRQ RI ,UDT LV DULG DQG

VXIIHUV IURP D VFDFUFLW\ RI UDLQ LQ DGGLWLRQ WR WKH GHFUHDVH LQ WKH ZDWHU IORZ RI WKH (XSKUDWHV 5LYHU LQ \$QEDU SURYLQFH ,Q WKLV VWXG\ \$:(\$ PRGHO ZDV DSSOLHG WR (YDOXDWRQ DQG 3ODQQLOJ ZDWHU

:((\$ IRU ZDWHU UHVRXUFHV PDQDJHPHQW

DFFRUGLQJ WR WKH GHYHORSPHQW SODQ IRU WKH \HDU 7ZR VFHQDULRV IRU WKH GRPHVWLF VHFWRU EDVHG RQ WKH EDVH \HDU ZHUH XVHG

WKH UHIHUHQFH VFHQDULR DQG WKH VFHQDULR RI XVLQJ ZDVWHZDWHU WUHDWPHQW SODQWV

WR FDOFXODWH ZDWHU GHPDQG 7KH UHVXOWV LQGLFDWH WKDW ZDWHU GHPDQG IRU UHVLGHQWV 8UEDQ DQG 5XUDO

LQ WKH UHIHUHQFH VFHQDULR RI ZDV 0&0 7KH ZDWHU

GHPDQG IRU XUEDQ UHVLGHQWV RQ\ LQ WKH VFHQDULR RI XVLQJ WUHDWPHQW SODQWV IRU WKH \HDU ZDV 0&0 RI ZKLFK 0&0 ZHUH

DFWXDOO\ XVHG DQG 0&0 UHWXUQHJ WR

WKH VHZDJH QHWZRUN FRXOG EH UHXVHG LQ WKH
GRPHVWLF
LQGXXVWULDO RU DJULFXOWXUDO VHFWRU 7KHVH ZLOO
KHOS DGGUHV V WKH ZDWHU VKRUWDJH SUREOHP LQ ,UDT
7KH :(\$3 PRGHO ZLOO DVVLVW
SODQQHUV LQ GHYHORSLQJ DQG H[SORLWLQJ SODQV IRU
WKH PDQDJPHQW RI ZDWHU UHVRXUFHV LQ WKH UHJLRQ